

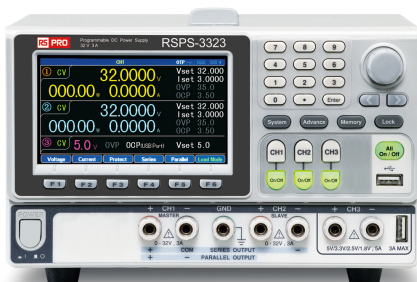


Quick Start Guide

RSPS-3323

Stock number : 2521598

EN



Limited Warranty

This product is warranted to the original purchaser against defects in material and workmanship for 3 years from the date of purchase. During this warranty period, RS PRO will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction. This warranty does not cover fuses, disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling. Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. RS PRO shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expense or economic loss. Some states or countries laws vary, so the above limitations or exclusions may not apply to you. For full terms and conditions, refer to the RS PRO website.

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The information in this quick start guide was correct at the time of printing. However we continue to improve our products and therefore reserve the right to change the specifications, equipment, and maintenance procedures at any time without notice.

SAFETY INSTRUCTIONS

Safety Symbols

These safety symbols may appear in the user manual or on the instrument.



Warning

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



Caution

Caution: Identifies conditions or practices that could result in damage to the instrument or to other properties.



DANGER High Voltage



Attention Refer to the Manual



Do not dispose electronic equipment as unsorted municipal waste. Please use a separate collection facility or contact the supplier from which this instrument was purchased.

Power Cord for the United Kingdom

When using the instrument in the United Kingdom, make sure the power cord meets the following safety instructions.

NOTE: This lead/appliance must only be wired by competent persons.



WARNING: THIS APPLIANCE MUST BE EARTHED IMPORTANT:

The wires in this lead are coloured in accordance with the following code:


Green/ Yellow: Earth

Blue: Neutral

Brown: Live (Phase)



As the colours of the wires in main leads may not correspond with the coloured marking identified in your plug/appliance, proceed as follows:

The wire which is coloured Green & Yellow must be connected to the Earth terminal marked with either the letter E, the earth symbol  or coloured Green/Green & Yellow.

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Blue or Black.

The wire which is coloured Brown must be connected to the terminal marked with the letter L or P or coloured Brown or Red.

If in doubt, consult the instructions provided with the equipment or contact the supplier. This cable/appliance should be protected by a suitably rated and approved HBC mains fuse: refer to the rating information on the equipment and/or user instructions for details. As a guide, a cable of 0.75mm² should be protected by a 3A or 5A fuse. Larger conductors would normally require 13A types, depending on the connection method used.

Any exposed wiring from a cable, plug or connection that is engaged in a live socket is extremely hazardous. If a cable or plug is deemed hazardous, turn off the mains power and remove the cable, any fuses and fuse assemblies. All hazardous wiring must be immediately destroyed and replaced in accordance to the above standard.

GETTING STARTED

Main Features

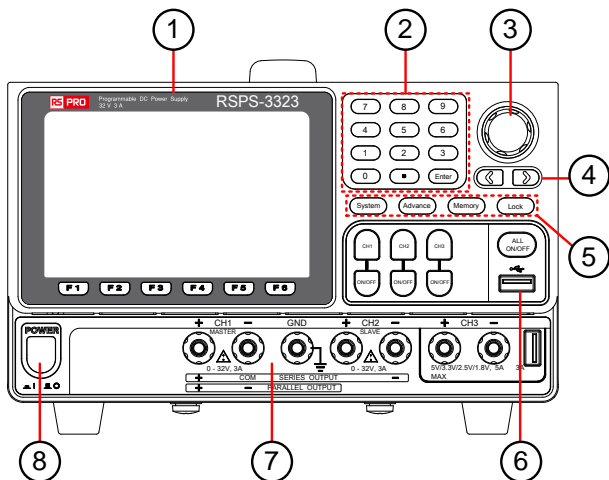
Features	<ul style="list-style-type: none">• Multiple Outputs: 32V/3A x 2 (CH1/CH2) 1.8V/2.5V/3.3V/5V/5A x 1 (CH3)• USB Port Output: 3A• Constant voltage and constant current operation (CV/CC).• Low noise, thermostatically controlled fan.• Compact, lightweight, standard rack mount conformity 3U, half Rack.• 4.3 inch TFT display.
Operation	<ul style="list-style-type: none">• Digital panel control.• Output on/off control (ON/ OFF), and each channel can be controlled separately.• Digital voltage and current settings. (Key & Encode)• 10 groups of save/recall settings and 2 groups of power-on settings. 10 groups of save/recall Sequence. 10 groups of save/recall Delay. 10 groups of save/recall Record.• CH1/CH2 workable in Load Mode• 7 types display modes available with 5 contents and 2 waveforms respectively• Input/ Output terminal (Control I/O)• Alarm buzzer (Beeper).• Key lock function (LOCK).



	<ul style="list-style-type: none">• Multiple remote control interfaces (RS-232, USB and LAN)
Protection	<ul style="list-style-type: none">• Overvoltage and overcurrent protection (OVP/ OCP)• Over temperature protection (OTP).• Polarity Reverse Protection• Overload Protection (OPP in Load mode)
Interface	<ul style="list-style-type: none">• Remote Control RS-232 (standard)• USB remote control (standard)• Control I/O (standard)• LAN remote control (optional)• GPIB and LAN remote control (optional)

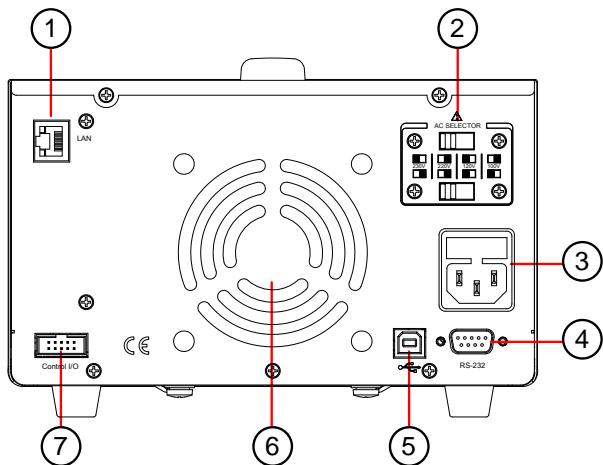
Appearance

Front Panel Overview



Description	
1. LCD	2. Numeric Pad
3. Scroll wheel	4. Arrow keys
5. Function keys	6. USB host port
7. Front output terminals	8. Power button

Rear Panel Overview



Description	
1. LAN port	2. Alternate input switch
3. AC input socket and line fuse	4. RS-232 port
5. USB port	6. Heat sink fan
7. Control I/O port	

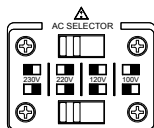
START UP

Power up

Checking
the AC
Voltage

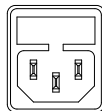
Before the power is turned on, confirm that the input power supply meets the following conditions:

100V/120V/220V/230V $\pm 10\%$, 50/60Hz



Connecting
the AC
power cord

The fuse is a slow-blow fuse.
3.15A (220V/230V), 6.30A (100V/120V),
confirm that the fuse is of the correct type
and rating before connecting the power
cord.



Turning the
power on

Press the power button.

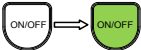
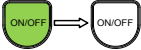
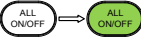


Turning the
power off

To turn the power off, press the power
button again.

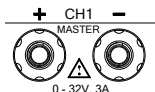


Turning the Output On/Off

Panel Operation	Press the Output key of each channel individually to turn the output on. The Output key will light-up when the output is on.	
	When the output is turned on, pressing the Output key again will turn the output off.	
	Press ALL ON/OFF key when it needs to output or turn off all channels simultaneously.	
Automatic Output Shut Down	<p>Any of the following actions will cause the output to be automatically shut down:</p> <ul style="list-style-type: none"> • Toggle between power output and load mode • Independent/Tracking Series/Tracking Parallel operation • Recall the saved setting • OVP/ OCP/OPP/OTP protection is tripped. • When Sequence/Delay/Monitor/Control IO fits the set conditions. 	

Load Connection

Front panel wiring Use the GTL-104A cables for the front panel source connections.



USB Type A only (Greater than 4A)



Caution

For safety considerations, please keep in mind that the wiring must be equivalent to the wiring on the front terminals.

Wire Gauge Load wires must have enough current capacity to minimize cable loss and load line impedance. Voltage drop across a wire should not exceed 0.5V. The following list is the wire current rating at 450A/cm².

Wire Size(AWG)	Maximum Current (A)
20	2.5
18	4
16	6
14	10
12	16

SPECIFICATIONS

The specifications apply under the following conditions: The RSPS-3323 is powered on for at least 30 minutes, within +20°C-+30°C.

General Specifications

Power Mode

Output Rating	CH1/CH2 Independent	0 ~ 32.000V, 0 ~ 3.0000A
	CH1, CH2 Series	0 ~ 64.000V, 0 ~ 3.0000A
	CH1, CH2 Parallel	0 ~ 32.000V, 0 ~ 6.0000A
Voltage	Line regulation	$\leq 0.01\% + 3\text{mV}$
	Load regulation	$\leq 0.01\% + 3\text{mV}$ (rating current $\leq 3\text{A}$) $\leq 0.02\% + 5\text{mV}$ (rating current $> 3\text{A}$)
	Ripple & noise (5Hz-1MHz)	$\leq 0.35\text{mVrms}$ (CH1, CH2) $\leq 2\text{mVrms}$ (CH3)
	Transient recovery time	$\leq 50\mu\text{s}$ (50% load change, minimum load 0.5A)
	Temperature coefficient	$\leq 300\text{ppm}/^\circ\text{C}$
Current	Line Regulation	$\leq 0.2\% + 3\text{mA}$
	Load regulation	$\leq 0.2\% + 3\text{mA}$
	Ripple & noise	$\leq 2\text{mA}_{\text{rms}}$
Tracking Operation	Tracking error	$\leq 0.1\% + 10\text{mV}$ of Master (0-32V, No Load, with load add load regulation $\leq 100\text{mV}$)

	Parallel regulation	Line: $\leq 0.01\% + 3\text{mV}$ Load: $\leq 0.01\% + 3\text{mV}$ (rating current $\leq 3\text{A}$) $\leq 0.02\% + 5\text{mV}$ (rating current $> 3\text{A}$)
	Series regulation	Line: $\leq 0.01\% + 5\text{mV}$ Load: $\leq 100\text{mV}$
	Ripple & noise	$\leq 1\text{mVrms}$ (5Hz ~ 1MHz)
Resolution	Voltage	programming 1mV (CH1, CH2)
	Current	programming 0.1mA (CH1, CH2)
Accuracy	Ammeter	0.1mV
	Voltmeter	0.1mA
	Setting accuracy	Voltage: $\leq \pm (0.03\% \text{ of reading} + 10\text{mV})$ Current: $\leq \pm (0.3\% \text{ of reading} + 10\text{mA})$
	Read back accuracy	Voltage: $\leq \pm (0.03\% \text{ of reading} + 10\text{mV})$ Current: $\leq \pm (0.3\% \text{ of reading} + 10\text{mA})$
Storage Environment	Temperature:	$-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$
	Humidity:	$\leq 70\%$
Power input consumption	AC 100V/120V/220V/230V $\pm 10\%$, 50/60Hz 900VA, 680W	
Dimensions	213 (W) x 145 (H) x 362 (D) mm	
Weight	Approx. 10kg	

For other detailed specification about PSPS-3323, please refer to the RSPS-3323 user manual.

EC Declaration of Conformity

We declare that the CE marking mentioned product satisfies all the technical relations application to the product within the scope of council:

Directive: EMC; LVD; WEEE; RoHS

The product is in conformity with the following standards or other normative documents:

⊙ EMC

EN 61326-1	Electrical equipment for measurement, control and laboratory use — EMC requirements	
Conducted & Radiated Emission EN 55011/ EN 55032	Electrical Fast Transients EN 61000-4-4	
Current Harmonics EN 61000-3-2/ EN 61000-3-12	Surge Immunity EN 61000-4-5	
Voltage Fluctuations EN 61000-3-3/ EN 61000-3-11	Conducted Susceptibility EN 61000-4-6	
Electrostatic Discharge EN 61000-4-2	Power Frequency Magnetic Field EN 61000-4-8	
Radiated Immunity EN 61000-4-3	Voltage Dip/ Interruption EN 61000-4-11/ EN 61000-4-34	

⊙ Safety

EN 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements
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AUDITED

In compliance with
industry standards



INSPECTED

For guaranteed quality
and performance



TESTED

By leading engineers

