Quick Start

SPD3303X/3303X-E
Programmable DC Power Supply

QS0503X-E01B

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General Safety Summary

Please review the following safety precautions carefully to avoid personal injury or damage to this product or any product connected to it. To prevent potential danger, please use the instrument as specified.

Use proper power cord
Only the power cord designed for the instrument and authorized by local country could be used.

Power supply
AC Input Voltages: 100V/110V/220V/230V ±10%, 50/60Hz.

Use proper fuse
The fuse types: 100V/110V: T6.3A/250V; 220V/230V: T3.15A/250V;
Make sure to use the correct type of fuse before turning on the instrument.
Do not connect the power cord before replacing the fuse.
Find out the reason why the fuse burned out before replacing the fuse.

Ground the instrument
The instrument is grounded through the protective terra conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to the earth. Make sure that the instrument is properly grounded before any inputs or outputs.

Observe all terminal ratings
To avoid fire or electric shock, please observe all ratings and symbols on the instrument. Read this guide carefully to know more details about the ratings before connection.

Keep proper ventilation
Inadequate ventilation may cause an increase of temperature,, which will lead to further damage. Please keep proper ventilation and check the fan and air-vents regularly when using the instrument.

Operate condition
Location: indoor, no strong light, almost no Interfering pollution;
Comparative humidity: <80%
Altitude: <2000m
Temperature: 0℃ to 40℃

Do not operate in an explosive atmosphere

To avoid personal injury or damage to instrument, please do not operate in an explosive atmosphere.

Keep surface of the product clean and dry

To avoid dust or moisture in the air influence the performance of the instrument , please keep surface of the product clean and dry.

Safety Terms and Symbols

Terms may appear on the product:

DANGER: Indicates direct injury or hazard that may happen.

WARNING: Indicates potential injury or hazard that may happen.

CAUTION: Indicates potential damage to the instrument or other property that may happen.

Symbols may appear on the product:



Hazardous Voltage



Protective Earth Ground



Warning



Earth Ground



Power Switch

SPD3303X/3303X-E Brief Introduction

SPD3303X/3303X-E Programmable DC Power Supply is convenient, flexible and multi-function. It has three independent outputs, two sets of adjustable voltage value and a fixed set of selectable voltage value of 2.5V, 3.3V, and 5V, and it also provides output short circuit and overload protection at the same time.



Main features of SPD3303X/3303X-E

- 4.3” TFT color LCD display with content of 16M;
- Three independent outputs, two of which are adjustable, and the total power up to 195W;
- Four kinds of input voltage values includes 100V, 110V, 220V and 230V to satisfy different requirements;
- Function of storage and call setting parameters;
- Function of timing output ;
- Function of waveform display, Real-time display of voltage or current waveforms with digital display of voltage, current and power values
- Start up screen protective procedure every fixed interval(30 minutes)
- Perfect PC software to realize the real-time control through USBTMC and LAN..

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Chapter 1 Start Guide

In this chapter, we mainly introduce the panel and display Interface of SPD3303X/3303X-E, as well as the new machine inspection and attentions at first use. Reading this chapter will give you a quick understanding on operation.

Brief introduction:

- General Inspection
- The front panel
- The rear panel
- User interface
- The rear panel
- Output check

General Inspection

Please check the instrument according to the following steps.

1. Inspect the shipping container.

Keep the damaged shipping container or cushioning material until the contents of the shipment have been completely checked and the instrument has passed both electrical and mechanical tests.

The consigner or carrier will be responsible for damages to the instrument resulting from shipment. **SIGLENT** would not provide free maintenance or replacement.

2. Inspect the instrument.

If there are instruments found damaged, defective or failure in electrical and mechanical tests, please contact **SIGLENT**.

3. Check the accessories.

Please check the accessories according to the packing list. If the accessories are incomplete or damaged, please contact **SIGLENT**.

Safety Considerations

To ensure that the instrument can work normally, please conduct necessary inspection before using the SPD3303X/3303X-E

Input Power Requirement

The SPD3303X/3303X-E allows a 50Hz/60Hz frequency, and four levels of AC power: 100V/120V/220V/230V. You can select wanted power voltage with the "DIP Switch" at the rear panel according to the actual demand.



Warning

To switch to the wanted power voltage, please disconnect the power cord first.

Electrical Check

Please use the power cord provided as accessory and connects the instrument to AC power. Check the power as the following steps.

1. Connect the power supply



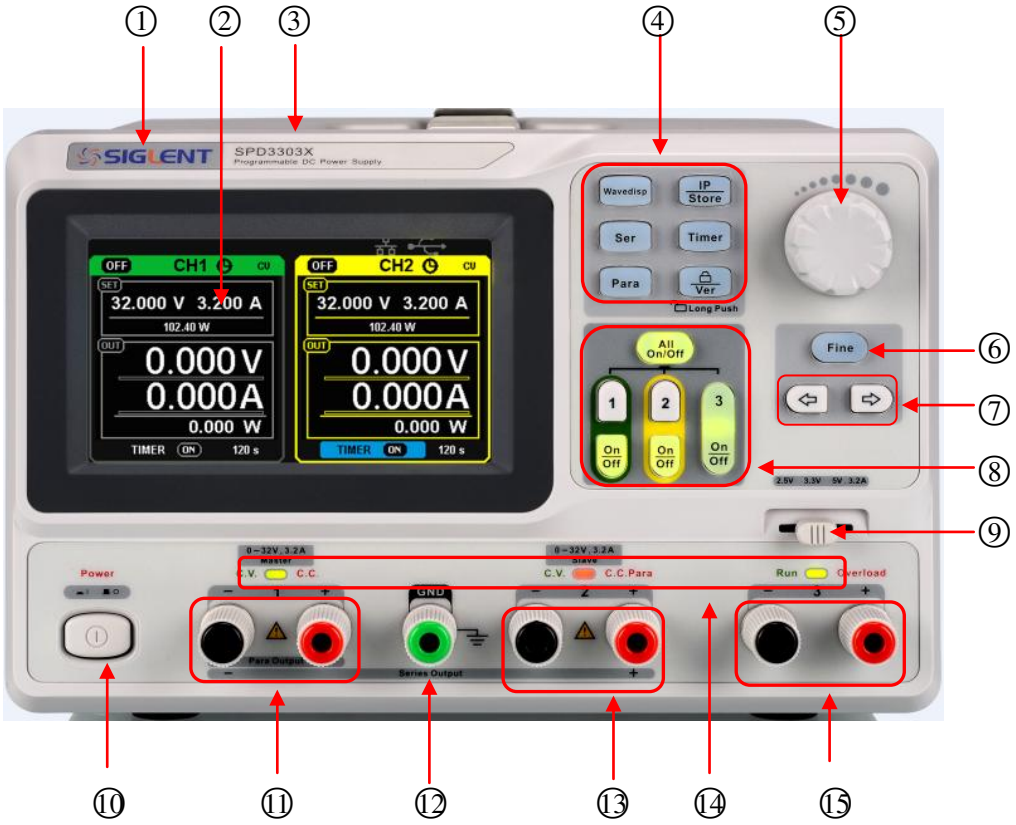
Warning

To avoid electric shock, please make sure that the instrument is grounded correctly.

2. Turn on the power switch

Press the button POWER to enter boot interface, and system return to the default settings after a while.

The front panel



NO.	Description	NO.	Description
①	Logo	⑨	CH3 DIP Switch
②	Display Area	⑩	Power Switch
③	Model	⑪	CH1 Output Terminal
④	System parameter configuration button	⑫	Ground Terminal
⑤	Multi-function knob	⑬	CH2 Output Terminal
⑥	Fine Adjust button	⑭	CV/CC indicator light
⑦	Right/Left Direction button	⑮	CH3 Output Terminal
⑧	Channel Control button		

Buttons for setting parameters

Wavedisp Press the button to turn on/off the waveform display interface;

Ser Press the button to set series mode of CH1/CH2, and the logo "" displays at the same time;

Para Press the button to set parallel mode of CH1/CH2, and the logo "" displays at the same time;

IP Store Press the button to enter the LAN setting and storage function interface

Timer Press the button to enter timer setting interface

Ver Press the button longer to turn on/off the keylock function and shorter to turn to system information interface

Buttons for controlling the channel

All On/Off Press the button to turn on/off all the channels;

1 Press the button to select CH1 as the current channel;

2 Press the button to select CH2 as the current channel;

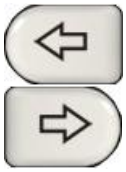
On Off Press the button to turn on/off the output of current channel;

3 On Off Press the button to turn on/off the CH3 output

Other buttons



Select the digit position by moving the cursor around



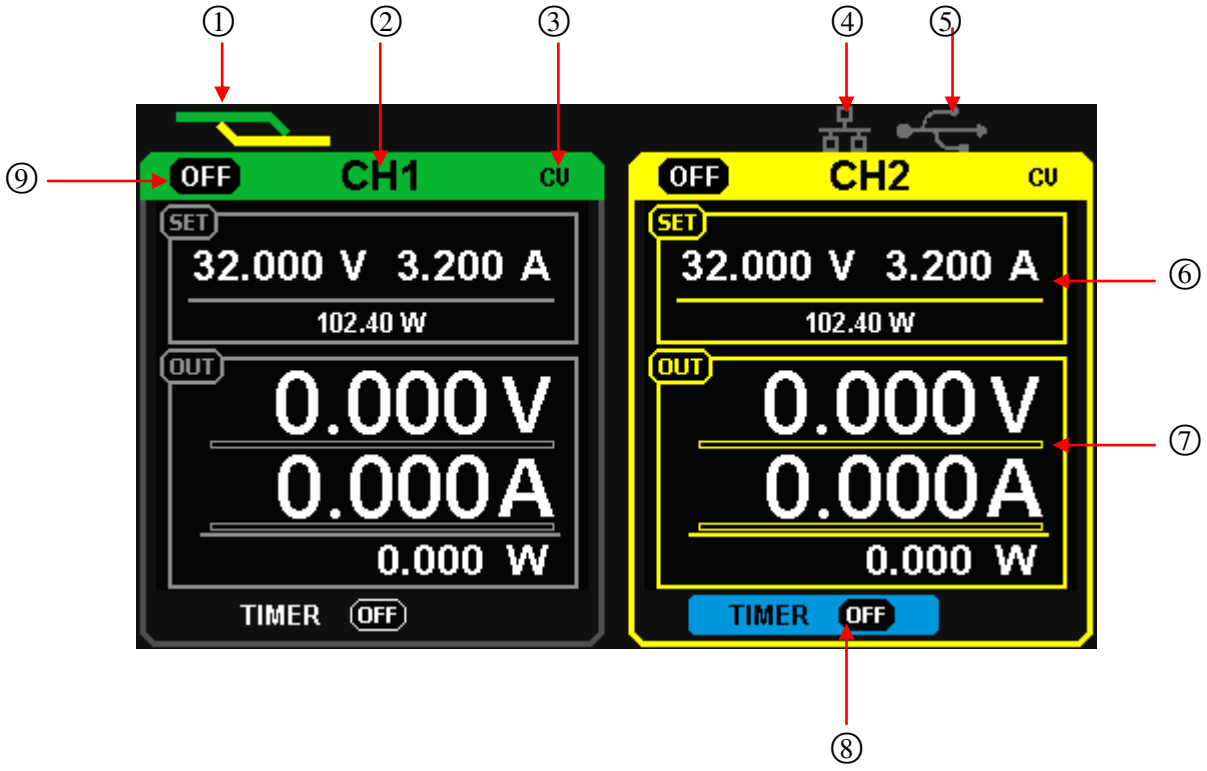
Right/Left Direction button. Press the button to move the cursor around

The output terminal on front panel



The output terminals of CH1, CH2 and CH3 include positive terminal and negative terminal, and a common ground for CH1 and CH2 additional. Each channel has its own logo. The operation details are introduced in the follow-up ”control panel operation”.

User interface



① Parallel/Series logo: The logo will be displayed when the corresponding mode is on

② Channel logo

③ Operating mode logo: The corresponding logo will display when working in CV or CC mode;

④ LAN logo: It will display when there is a LAN connection

⑤ USB logo: It will display when there is a USB connection;

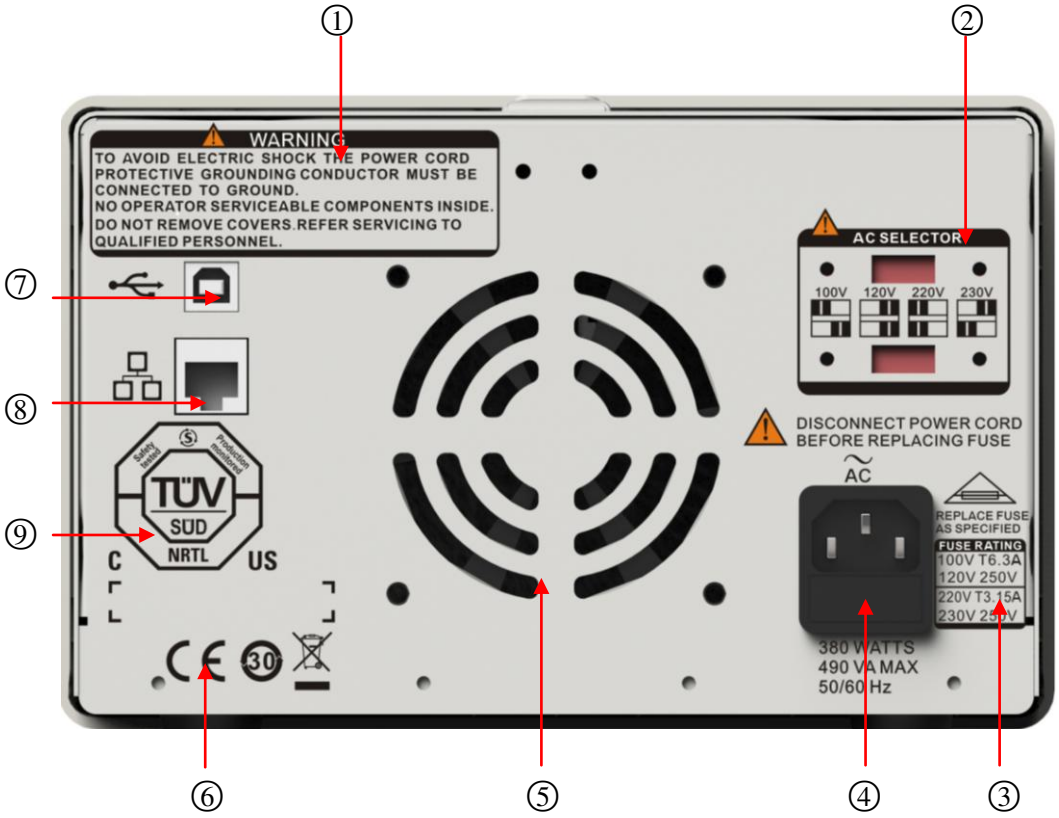
⑥ Set value;

⑦ Readback value;

⑧ Timer ID: Timer state identification;

⑨ Channel output on/off logo;

The rear panel



① warning message

② The DIP switch of the AC power and its identification.

③ The description of the AC input voltage

④ AC power socket

⑤ The fan air vents

⑥ CE certification mark

⑦ USB interface and identification

⑧ LAN interface and identification

⑨ TÜV certification mark

Output check

The output check includes voltage check in condition of all channels with no load and current check in condition of short circuit so as to make sure that the instrument correctly responds to operation of the front panel.

1. Voltage output check

(1) Within no load, turn on the power, and make sure the setting current values of all channels are not zero;

(2) Turn on CH1/CH2 and the instrument work in constant voltage mode. Check whether the voltage value could be changed from 0V to 32V.

2. Current output check

(1) Turn on the power, and make sure the setting current values of all channels are not zero;

(2) Use an insulated wire to connect the positive and negative terminal of CH1/CH2;

(3) Turn on CH1/CH2 and the instrument work in constant current mode. Check whether the current value could be changed from 0A to 3.2A.

Chapter 2 Control panel operation

In this chapter，the function and operation of SPD3303X/3303X-E control panel will be introduced in detail to give you an all-around understanding of it, which will eventually lead to easier work. Brief introduction:

- Output summary
- CH1/CH2 independent output
- CH3 independent output
- Series output
- Parallel output
- LAN setting
- Save and recall
- Timer
- Waveform display
- Version information
- Upgrade firmware
- Keylock

2.1 Output summary

SPD3303X/3303X-E have three independent outputs, two of which are adjustable in voltage value and the other one includes selectable 2.5V, 3.3V or 5.0V

Independent/Parallel/Series

SPD3303X/3303X-E have three output modes: independent、parallel and series, which can be selected through the track switch on the front panel. In the independent mode, the output current and voltage are controlled respectively. In the parallel mode, the current value is twice that of the single channel. In the series mode, the voltage value is twice that of the single channel.

Constant voltage/current

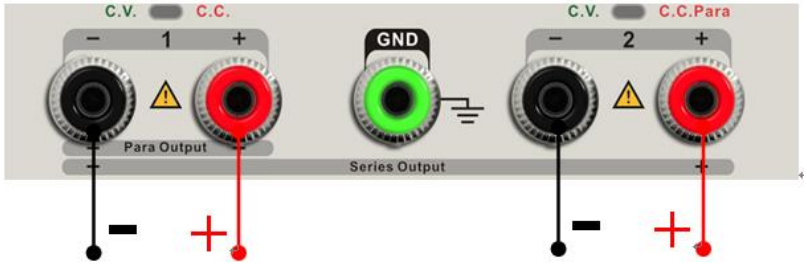
In the constant current mode (independent or tracking mode), the current value is rated and controlled through the front panel. The indicator light displays red and the voltage value is under rating. It will return to constant voltage mode when the current value is under dating.

In the constant voltage mode, the current value is less than the setting value, and the voltage value is controlled through the front panel. The indicator light displays yellow and the current value is maintained at the set value. It will return to constant current mode when the voltage value is under dating.

2.2 CH1/CH2 Independent Output

Instruction

CH1 and CH2 are working in the independent mode, at the same time，they are insulated from the ground.



Output rating 0~32V/0~3.2A

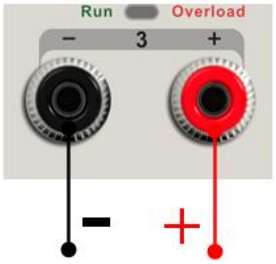
Operation steps

1. Make sure that parallel/series mode is off.
2. Connect load to the positive and negative terminals of CH1/CH2.
3. Set voltage and current value of CH1/CH2:
   a) Press “1”/”2” button to select the wanted channel
   b) Move the cursor through direction button to select the wanted parameter(voltage, current),
   c) Press “Fine” to select the digit position and then revolve the multi-function knob to change the corresponding parameter.
4. turn on the output ：
   Press “on/off” button to turn on the output, the corresponding indicator light gets lighted immediately and “CC” or “CV” is showed on the current interface.

2.3 CH3 Independent mode

Instruction

CH3 is independent from CH1 and CH2, and it works neither in parallel mode nor in series mode. Its voltage and current ratings are respectively 2.5V, 3.3V, 5V and 3.2A.



Output ratings	2.5V/3.3V/5V, 3.2A

Operation steps:

1. Connect the load to the positive and negative terminals of CH3 on the front panel.
2. Select the wanted voltage value by moving CH3 “DIP switch”.
3. Turn on the output:
   Press “on/off” button to turn on the output, the corresponding indicator light gets lighted immediately.

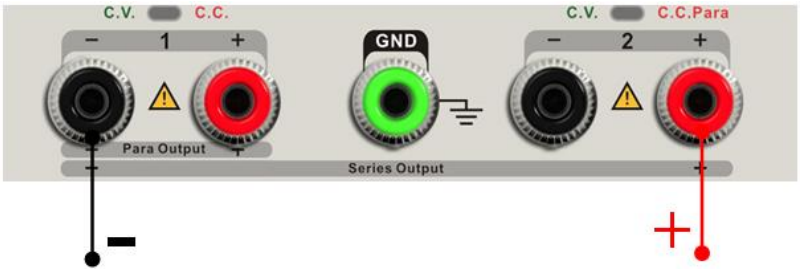
When the current value is higher than 3.2A, the overload indicator light turns red and the working mode turns to CC from CV

Note: “overload” does not mean abnormal operation.

2.4 CH1/CH2 Series mode

Instruction

In the series mode, CH1 and CH2 are linked internally into one channel which is controlled by CH1, and the output voltage value is twice compared with that of single channel.



Output rating	0~64V/0~3.2A

Operation steps：

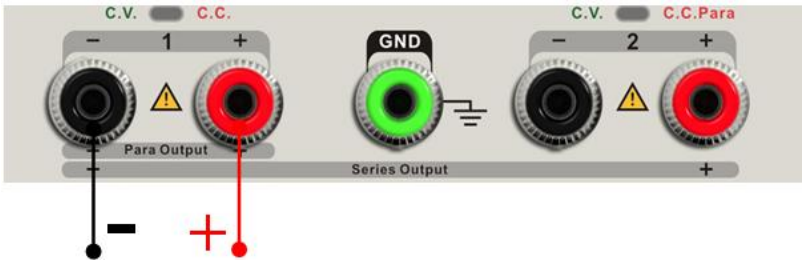
1. Press the “Ser” button to start the Series mode, the indicator light turns bright immediately and the logo “ ” displays at the top of screen.
2. Connect the load to the positive terminal of CH2 and the negative terminal of CH1;
3. Set voltage and current value:
   a) Press “1” button to select the channel 1
   b) Move the cursor through direction button to select the wanted parameter(voltage, current),
   c) Press “Fine” to select the digit position and then revolve the multi-function knob to change the corresponding parameter.
4. Press “on/off” button corresponding CH1 to turn on the output

Note: You can identify the current working state “CC” or ”CV” by referring to indicator light of CH1/CH2.(red means CV, yellow means CC)

2.5 CH1/CH2 Parallel mode

Instruction

In the parallel mode, CH1 and CH2 are linked internally into one channel which is controlled by CH1. Its output current value is twice as much as the single channel.



Output rating	0~32V/0~6.4A

Operation steps:

1. Press the “Para” button to start Parallel mode, the indicator light turns bright immediately and the logo “ ”display at the top of screen.
2. Connect the load to the positive and negative terminal of CH1；
3. Set voltage and current value:
   a) Press “1” button to select the channel 1
   b) Move the cursor through direction button to select the wanted parameter(voltage, current),
   c) Press “Fine” to select the digit position and then revolve the multi-function knob to change the corresponding parameter.
4. Press “on/off” button corresponding CH1 to turn on the output

Note: You can identify the current working state “CC” or “CV” by referring to indicator light of CH1/CH2.(red means CV, green means CC)；
In parallel mode, CH2 only works in CC mode.

2.6 LAN setting

Operation steps：

1. Connect the oscilloscope to your local area network using the network cable.
2. Press the “IP/Store” button to enter LAN setting interface.
3. Press the direction button to go to the DHCP line, then revolve the multi-function knob to turn ON/OFF the DHCP, then press the multi-function knob to make the setting effective
    - **ON:** the DHCP server in the current network will assign the network parameters (such as the IP address) for the instrument.
    - **OFF:** you can set the IP address, subnet mask, and gateway manually.
        - Revolve the multi-function knob to change the digit
        - Press “Fine” to select the digit position
        - Press the direction button to move the cursor around
        - Press the multi-function knob to store the setting.(The setting is effective only when the knob is pressed)
4. The left side of the interface will display the current network settings when setup is completed.
5. Press “IP/Store” again to exit current interface and return to main interface.

2.7 Save and Recall

Five group setups can be saved in memory. The contents of the setup file including:

- Independent/series/parallel mode
- Output voltage/current value
- Timer setup

Save setup

Operation steps:

1. Set the state that you wanted;
2. Short press “IP/Store” button and then long press “IP/Store” button to enter Store/Recall interface;
3. Press direction button to move the cursor to “FILE CHOICE”
4. Select file store position(FILE1~FILE5) by revolving the multi-function knob;
5. Press direction button to move the cursor to “OPER CHOICE”;
6. Move the cursor to “STORE” by revolving the multi-function knob, and then press it to save the current setup.

Recall setup

Operation steps:

1. Short press “IP/Store” button and then long press “IP/Store” button to enter Store/Recall interface;
2. Press direction button to move the cursor to “FILE CHOICE”
3. Select the wanted file by revolving the multi-function knob;
4. Press direction button to move the cursor to “OPER CHOICE”;
5. Move the cursor to “RECALL” by revolving the multi-function knob, and then press it to save the current setup.

Note: if you want to delete the file that has been saved, please go on with step 3 above, select “DELETE” and then press it.

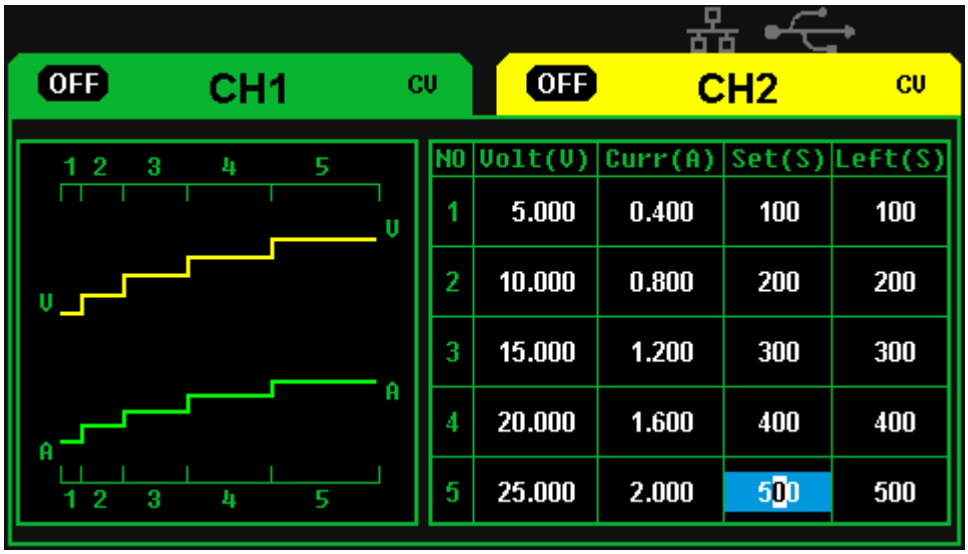
2.8 Timer

The timer works in the Independent mode, and can save five timing setups, each of which is independent from each other. You can set any voltage/current value within the range as you want. The timer supports consecutive output, and the longest time of each group is 10000s.

Setup timer

Operation steps:

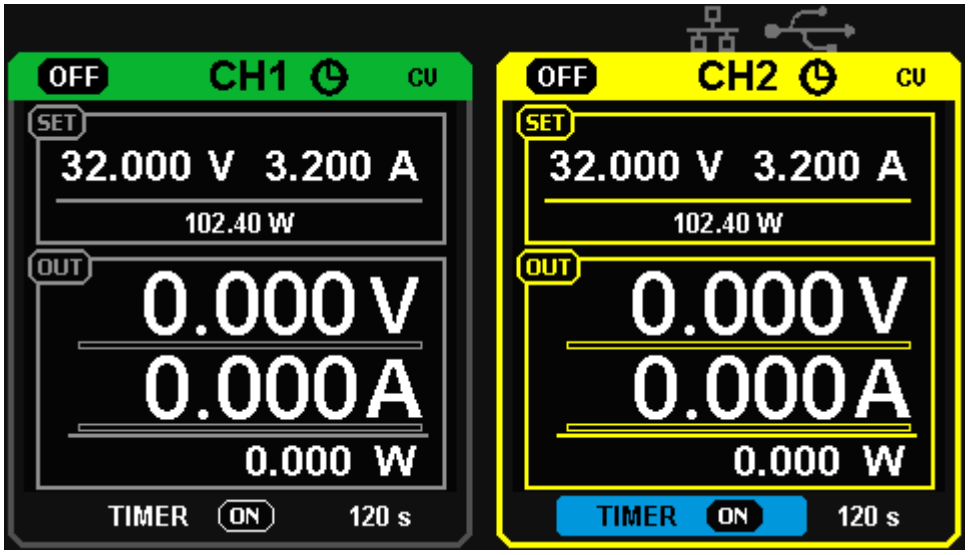
1. Press “TIMER” to enter the Timer Setup interface, and the indicator light turns bright immediately;
2. Press “1”/”2” button to select the wanted channel;
3. Move the cursor to select the wanted parameter(voltage/current/time) by pressing the direction button;
4. Set the corresponding value through “Fine” button and .multi-function knob
5. Press “Timer” again to exit current interface.



Turn on/off the Timer

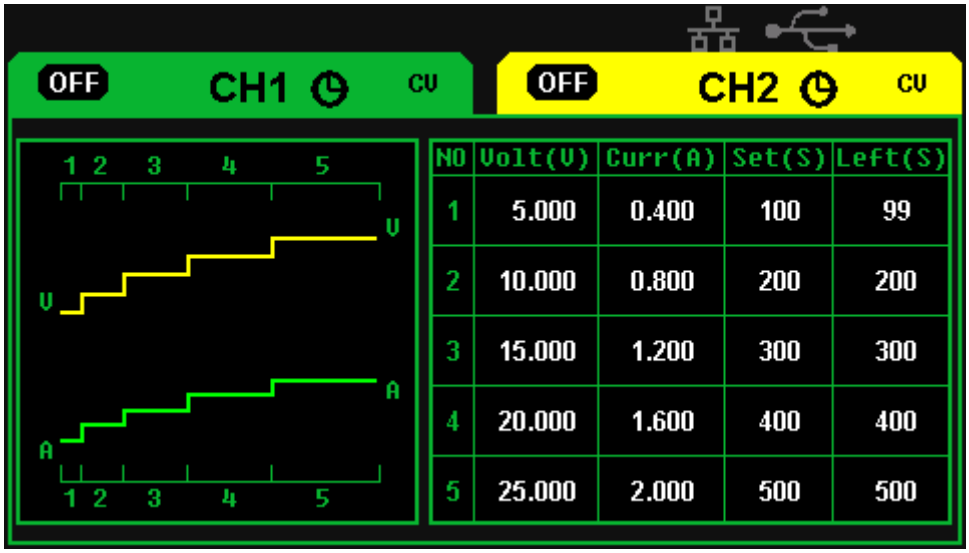
Method 1:

1. Press “1”/”2” button to select the wanted channel in the main interface;
2. Move cursor to “TIMER” menu by pressing the direction button
3. Revolve the multi-function knob to make the Timer state to “ON”;
4. Press the knob to start the Timer.
5. Revolve the multi-function knob to make the Timer state to “OFF”，Press the knob to turn off the Timer



Method 2:

1. Press “Timer” button to enter timer interface;
2. Press “1”/”2” button to select the wanted channel
3. Press the multi-function knob to start the Timer.
4. Press the knob again to turn off the Timer



NO	Volt(V)	Curr(A)	Set(S)	Left(S)
1	5.000	0.400	100	99
2	10.000	0.800	200	200
3	15.000	1.200	300	300
4	20.000	1.600	400	400
5	25.000	2.000	500	500

If press the “on/off” button to turn off the output when the timer is running, then the countdown will stop. And the countdown will continue when the channel output is turn on again.

The Timer will automatically turn off when the time reduces to 0.

Note: The timer function is invalid when the series mode or parallel mode is turn on.

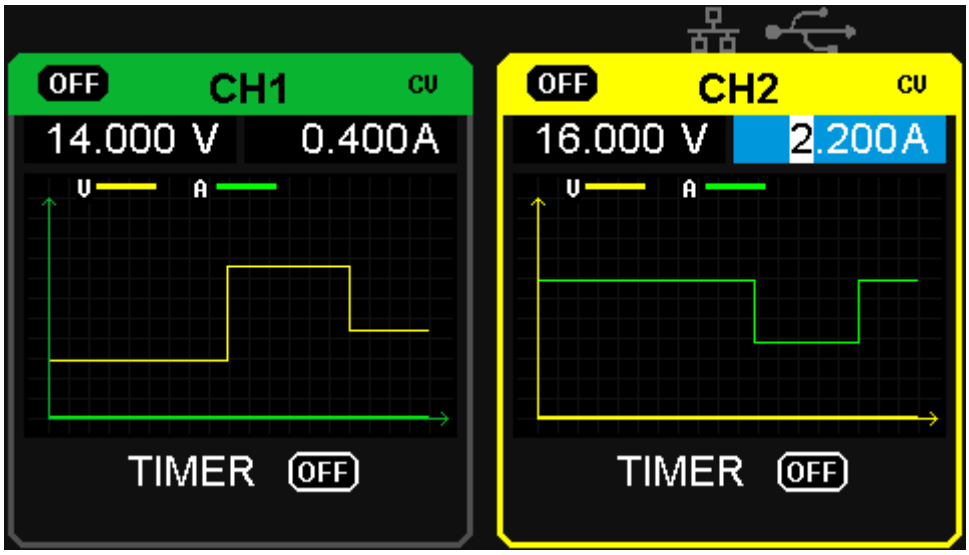
2.9 Waveform display

SPD3303X/3303X-E can display the changing of current voltage and current in real time in the form of curve drawing.

Operation steps:

1. Select CH1/CH2, and then set voltage/current parameter;
2. Press “Wavedisp” button to enter Waveform Display interface, and the indicator light turns bright immediately.
3. Press CH1/CH2 “on/off” button to turn on the output, the corresponding indicator light turns bright immediately and you can observe the real-time changing of current voltage/current.

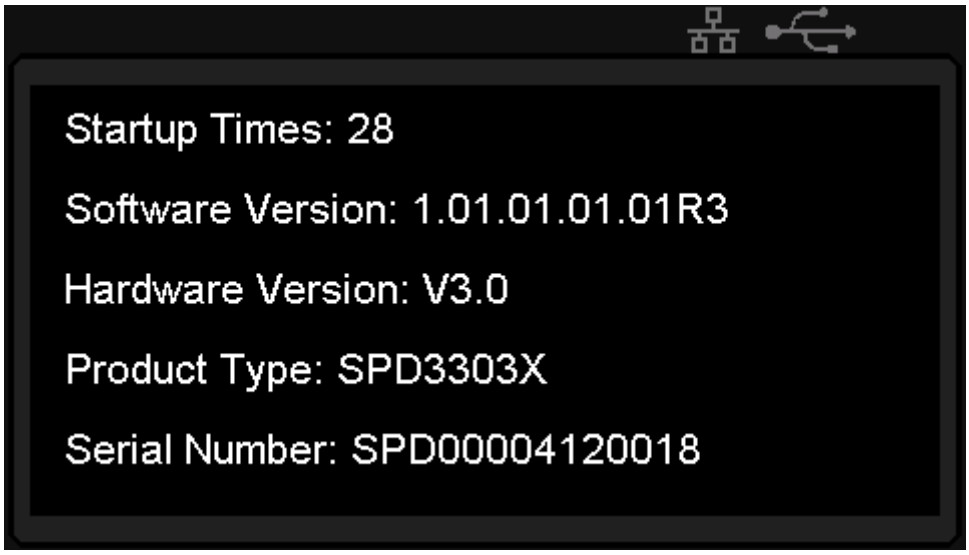
Waveform interface:



Note: Yellow line means voltage, green line means current, and axis of ordinate means voltage or current value (0~32V/0~3.2A).

2.10 Version information

Short press Ver button to enter Version Information interface, which is shown below:



Long press Ver button in any interface to open keylock function, which will make all the keys invalid, and the graphic logo of “lock” will display at the same time.

Long press Ver button again to close the keylock function and the graphic logo of “lock” will disappear at the same time.

2.11 Upgrade firmware

The software of the instrument is upgraded with a fixed name file via PC management software with USB or LAN. The upgrade method is below:

Upgrade in normal Interface

1. Open the EasyPower software after USB line or network cable having been connected perfectly, and make sure the instrument is connected with the software normally;
2. Click Version and then choose Upgrade in the drop-down menu to enter the firmware upgrade dialogue; See figure 1:

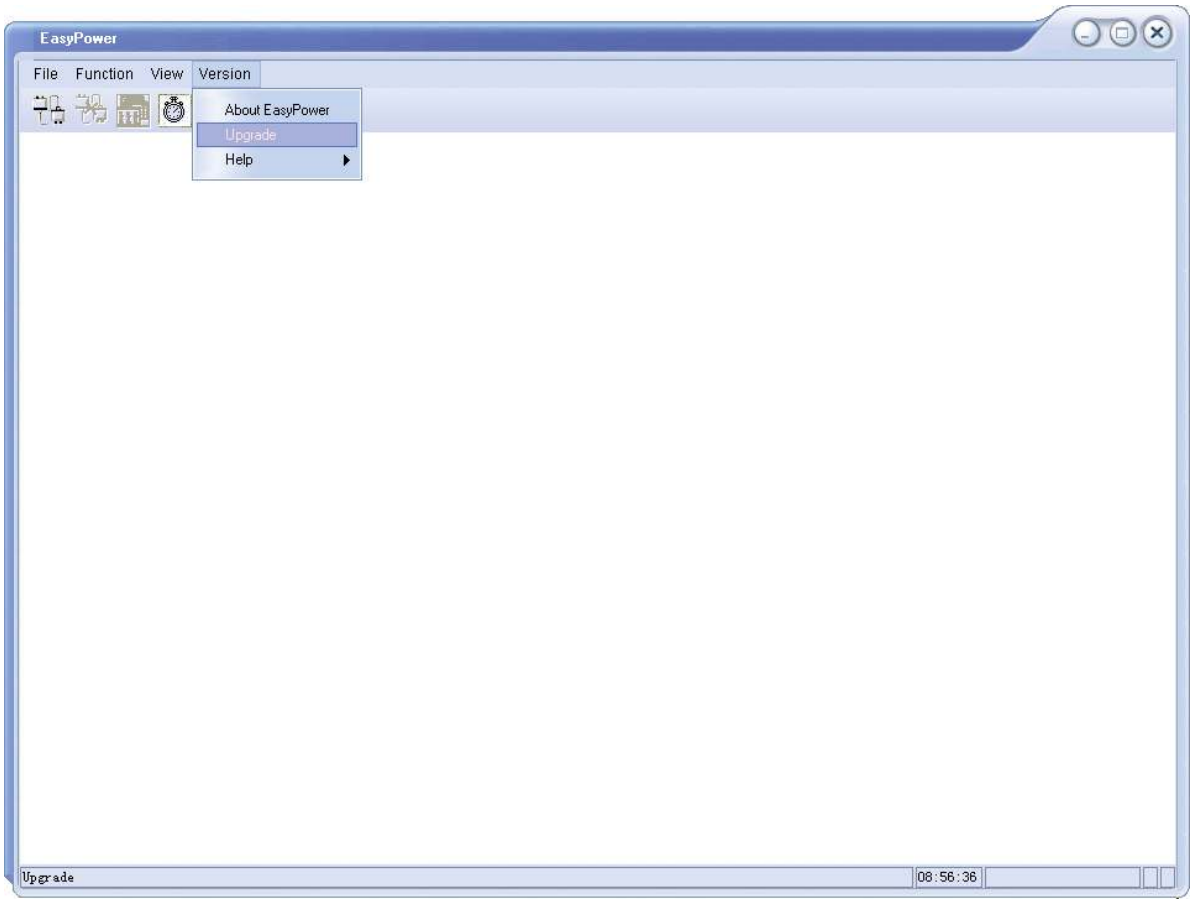


Figure 1

3. Figure 2 shows the firmware upgrade dialog. Choose “Normal Mode” and click file choosing icon ... , a dialog will popup as it shows in figure 3 and then select the file to be upgraded which must have a postfix .ADS;



Figure 2

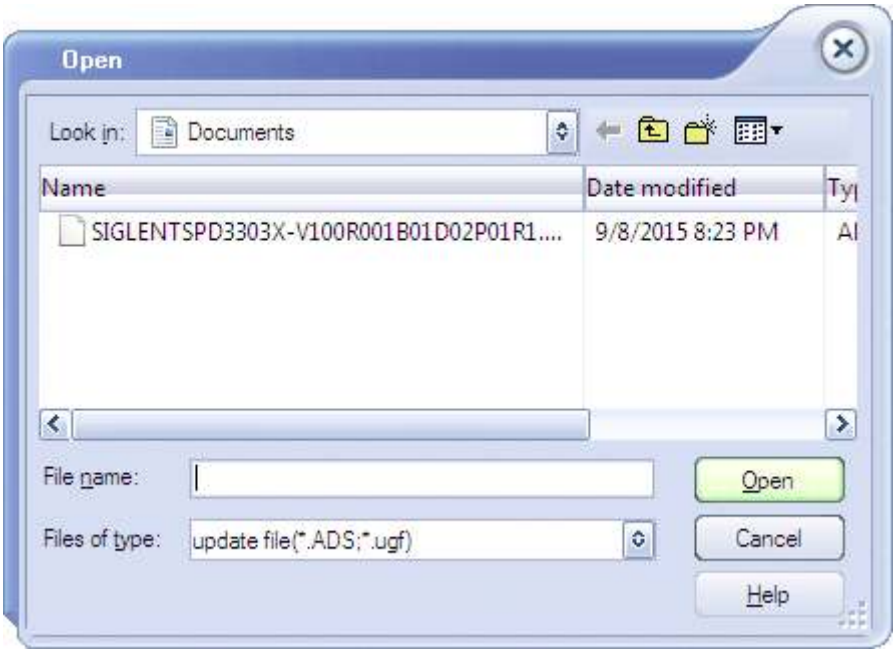


Figure 3

4. As it shows in figure 4, click “Upgrade”, a dialog will popup as it shows in figure 5 and then select the upgrade method—USB（USBTMC）or LAN（VXI11）. The upgrade is finished when the progress bar complete and the instrument will run the version after upgrade.



Figure 4

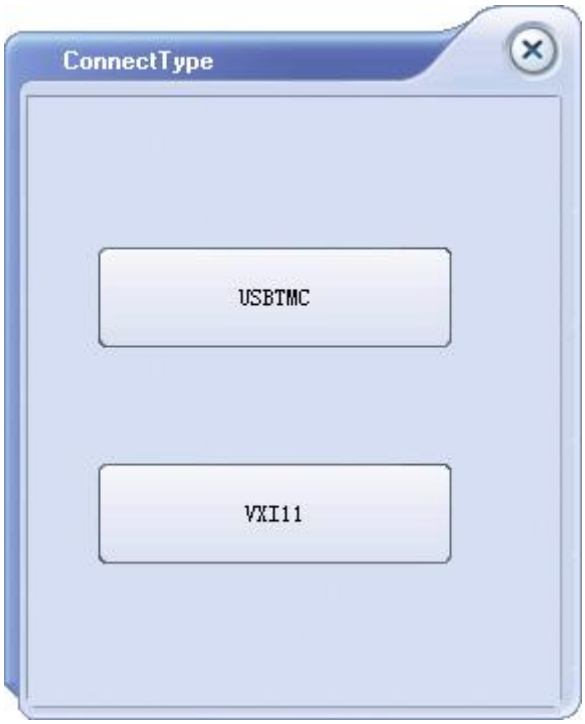


Figure 5

Upgrade Via Guide Procedure

Upgrade via guide procedure also can be used if the method above is failed.

Specific steps are below:

1. Press the knob before powering on the instrument, and the turn on the instrument and it will enter the guide procedure mode.
2. After enter the guide procedure mode, the upgrade method is almost the same as the first one. But when the dialog popup as it shows in Figure 2, choose “Fireware Mode”. Refer to method 1 on other operation step.

Chapter 3 Remote control

SPD3303X/3303X-E support communication with computer through USB and LAN interface on the rear panel.

SCPI (Standard Commands for Programmable Instruments) is an ASCII-based programming language, which can be used to control power supply remotely by computer installed with EasyPower software or NI (Measurement & Automation).

In this chapter, we mainly introduce and illustrate the SCPI SPD3303X/3303X-E support

3.1 Syntax Conventions

Most commands are a mixture of upper- case and lower-case letters. The upper-case letters indicate the command's abbreviated spelling, which yields shorter program lines. For better program readability, use the long form. For example:

[{CH1|CH2}:]VOLTage <voltage>

For the keyword VOLTage, you can type VOLT or VOLTage in any combination of upper- or lower-case letters. Therefore, VolTaGe, volt and Volt are all acceptable. Other forms, such as VOL and VOLTAG, will generate an error.

- Braces (**{ }**) enclose the parameter choices. The braces are not sent with the command string.
- A vertical bar (|) separates parameter choices. For example, {CH1|CH2} in the above command indicates that you can specify a channel. The bar is not sent with the command string.
- Angle brackets (**< >**) indicate that you must specify a value for the enclosed parameter. For example, the above syntax statement shows the <*voltage*> parameter in angle brackets. You must specify a value for the parameter (for example " CH1:VOLT 10"). The angle brackets are not sent with the command string.
- Optional parameters are enclosed in square brackets (**[ ]**). If you do not specify a value for an optional parameter, the instrument uses a default value. For example, {CH1|CH2} in the above command can be omitted (for example, "VOLT 10"). In this case, the command would word on the current channel. The brackets are not sent with the command string.

3.2 Command list

1. *IDN?
2. *SAV
3. *RCL
4. INSTrument Subsystem
5. MEASure Subsystem
6. CURRent Subsystem
7. VOLTage Subsystem
8. OUTPut Subsystem
9. TIMEr Subsystem
10. SYSTem Subsystem
11. IPaddr Subsystem
12. MASKaddr Subsystem
13. GATEaddr Subsystem
14. DHCP Subsystem

3.3 Command description

1. *IDN?

Command format	*IDN?
Description	Query the manufacturer, product type, series No., software version and hardware version
Return Info	Manufacturer, product type, series No., software version, hardware version
Typical Return	Siglent Technologies, SPD3303X, SPD00001130025, 1.01.01.01.02,V3.0

2. *SAV

Command format	*SAV {1|2|3|4|5}
Description	Save current state in nonvolatile memory
Example	*SAV 1

3. *RCL

Command format	*RCL {1|2|3|4|5}
Description	Recall state that had been saved from nonvolatile memory.
Example	*RCL 1

4. INSTrument

Command format	INSTrument {CH1|CH2}
Description	Select the channel that will be operated.
Example	INSTrument CH1

Command format	INSTrument?
Description	Query the current operating channel
Example	INSTrument?
Typical Return	CH1

5. MEASure

Command format	MEASure: CURRent? [{CH1|CH2}]
Description	Query current value for specified channel, if there is no specified channel, query the current channel.
Example	MEASure: CURRent? CH1
Typical Return	3.000

Command format	MEASure: VOLTage? [{CH1|CH2}]
Description	Query voltage value for specified channel, if there is no specified channel, query the current channel.
Example	MEASure: VOLTage? CH1
Typical Return	30.000

Command format	MEASure: POWEr? [{CH1|CH2}]
Description	Query power value for specified channel, if there is no specified channel, query the current channel.
Example	MEASure: POWEr? CH1
Typical Return	90.000

6. CURRent

Command format	[{CH1|CH2}:]CURRent <current>
Description	Set current value of the selected channel
Example	CH1:CURRent 0.5

Command format	[{CH1|CH2}:]CURRent?
Description	Query the current value of the selected channel.
Example	CH1: CURRent?
Typical Return	0.500

7. VOLTage

Command format	[{CH1|CH2}:]VOLTage <voltage>
Description	Set voltage value of the selected channel
Example	CH1: VOLTage 25

Command format	[{CH1|CH2}:]VOLTage?
Description	Query the voltage value of the selected channel.
Example	CH1: VOLTage?
Typical Return	25.000

8. OUTPut

Command format	OUTPut {CH1|CH2|CH3},{ON|OFF}
Description	Turn on/off the specified channel output.
Example	OUTPut CH1,ON

Command format	OUTPut:TRACK {0|1|2}
Description	Select operation mode. Parameters {0|1|2} mean independent, series and parallel respectively.
Example	OUTPut: TRACK 0

Command format	OUTPut:WAVE {CH1|CH2},{ON|OFF}
Description	Turn on/off the Waveform Display function of specified channel.
Example	OUTPut:WAVE CH1,ON

9. TIMEr

Command format	TIMEr:SET {CH1|CH2},{1|2|3|4|5},<voltage>,<current>,<time>
Description	Set timing parameters of specified channel, including group{1|2|3|4|5}, voltage, current, time
Example	TIMEr:SET CH1,2,3,0.5,2

Command format	TIMEr:SET? {CH1|CH2},{1|2|3|4|5};
Description	Query the voltage/current/time parameters of specified group of specified channel.

Example	TIMEr:SET? CH1,2
Typical Return	3,0.5,2

Command format	TIMEr {CH1|CH2},{ON|OFF};
Description	Turn on/off Timer function of specified channel
Example	TIMEr CH1,ON

10. SYSTem

Command format	SYSTem: ERRor?
Description	Query the error code and the information of the equipment.
Typical Return	0 No Error

Command format	SYSTem: VERSion?
Description	Query the software version of the equipment.
Typical Return	1.01.01.01.02

Command format	SYSTem:STATus?
Description	Query the current working state of the equipment.
Typical Return	0x0224
Note	The return info is hexadecimal format, but the actual state is binary, so you must change the return info into a binary. The state correspondence relationship is as follow.

Bit No.	Corresponding state
0	0: CH1 CV mode; 1: CH1 CC mode
1	0: CH2 CV mode; 1: CH2 CC mode
2,3	01: Independent mode; 10: Parallel mode
4	0: CH1 OFF 1: CH1 ON
5	0: CH2 OFF 1: CH2 ON
6	0: TIMER1 OFF 1: TIMER1 ON
7	0: TIMER2 OFF 1: TIMER2 ON
8	0: CH1 digital display; 1: CH1 waveform diplay
9	0: CH2 digital display; 1: CH2 waveform diplay

11. IPaddr

Command format	IPaddr <IP address>
Description	Assign a static Internet Protocol (IP) address for the instrument
Example	IPaddr 10.11.13.214
Note	The command is invalid when the state of DHCP is on

Command format	IPaddr?
Description	Query the current IP address of the instrument
Typical Return	10.11.13.214

12. MASKaddr

Command format	MASKaddr <NetMasK>
Description	Assign a subnet mask for the instrument
Example	MASKadd 255.255.255.0
Note	The command is invalid when the state of DHCP is on

Command format	MASKaddr?
Description	Query the current subnet mask of the instrument
Typical Return	255.255.255.0

13. GATEaddr

Command format	GATEaddr <GateWay>
Description	Assign a gateway for the instrument
Example	GATEaddr 10.11.13.1
Note	The command is invalid when the state of DHCP is on

Command format	GATEaddr?
Description	Query the current gateway of the instrument
Typical Return	10.11.13.1

14. DHCP

Command format	DHCP {ON|OFF}
Description	Assign the network parameters (such as the IP address) for the instrument automatically.
Example	DHCP ON

Command format	DHCP?
Description	Query whether the automatic network parameters configuration function is turn on
Typical Return	DHCP:ON

Chapter 4 Troubleshooting

Question 1: What to do if a short circuit on output terminal occurs?

Answer1: There are over current protection and short circuit protection inside the power, so current will be controlled in safety range.

Question 2: Is it abnormal that the CH3 overload indicator is lit?

Answer 2: No, that only means the current value reaches 3.2A, which is the maximum value within its range, and now power supply can be used continuously with the suggestion that decrease the output load.

Question 3: Is it normal that in the series mode, voltage and current value of a channel is respective 0V and not 0A, while that of another channel are both not 0?

Answer 3: Yes, because when current output load is higher than the limited current value, the working mode turns to CC from CV.

Question 4: How to deal with the upgrade failed?

Answer 4: Upgrade via guide procedure can be used if the upgrade failed (see detail in “2.11 Upgrade firmware”).

Question 5: Why the practical value is not the same with the set value (over performance standard) and even changes slowly on startup?

Answer 5: It’s normal. On startup, components inside the instrument are in the process of getting stable and readings will be stable about 30 minutes later.

Question 6: What if the circuit air switch turns off automatically when power on?

Answer 6: First of all, make sure whether the rating of the air switch is proper or not (For instance: the rating of air switch B and C should be respectively over 16A and 10A). If the failure still exits beyond the reason, check if there is a short circuit, or return it to the factory to have it repaired by qualified personnel.

Chapter 5 Service and Support

Maintain summary

SIGLENT warrants that the products that it manufactures and sells will be free from defects in materials and workmanship for a period of three years from the date of shipment from an authorized **SIGLENT** distributor. If a product or CRT proves defective within the respective period, **SIGLENT** will provide repair or replacement as described in the complete warranty statement.

To arrange for service or obtain a copy of the complete warranty statement, please contact your nearest **SIGLENT** sales and service office. Except as provided in this summary or the applicable warranty Statement, **SIGLENT** makes no warranty of any kind, express or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose. In no Event shall **SIGLENT** be liable for indirect, special or Consequential damages

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