General Warranty

OWON warrants that the product will be free from defects in materials and workmanship for a period of 2 years (1 year for accessories) from the date of purchase of the product by the original purchaser from the OWON Company. 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, OWON 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 OWON for warranty work may be new or reconditioned like new. All replaced parts, modules and products become the property of OWON.

To obtain service under this warranty, the customer must notify OWON of the defect before the expiration of the warranty period. Customer shall be responsible for packaging and shipping the defective product to OWON's 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. OWON shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than OWON 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 non-OWON 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 OWON's Sales and Service Offices for services or a complete copy of the warranty statement.

For better after-sales service, please visit www.owon.com.cn and register the purchased product online.

Excepting the after-sales services provided in this summary or the applicable warranty statements, OWON 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. OWON 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





Protective Earth Terminal



╧

Public Ground

3. Quick Start

3.1 Front/Rear Panel and User Interface

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.
3	Up and down direction key	Select sub menu
4	Enter key	Enter menu or confirm the parameter entered
5	Knob	Select menu or change the value, pressing it has the same effect as pressing the enter key
6	Left and right direction key	Set sub menu or move the cursor
7	CH3 control area	Volt CH3 key: Set the output voltage of CH3 Curr CH3 key: Set the output current of CH3 ON/OFF CH3 key: Enable/disable the output of CH3

8	CH2 control area	Blue Volt/CV key: Set the output voltage of CH2
		Blue Curr/CC key: Set the output current of CH2
		Blue ON/OFF key: Enable/disable the output of CH2
9	CH2 output terminals	Channel 2 output connectors
10	MODE key	Switch between All Channel mode (CH1 & CH2 & CH3) and Dual Channel Mode (CH1 & CH2).
1	CH1 output terminals	Channel 1 output connectors
12	CH3 output terminals	Channel 3 output connectors
(13)	Power button	Turn on/off the instrument
(14)	CH1 control area	Orange Volt/CV key: Set the output voltage of CH1
		Orange Curr/CC key: Set the output current of CH1
		Orange ON/OFF key: Enable/disable the output of CH1
(15)	Function keys	Utility key: Menu of output mode, utility, info, port settings.
		Record key: Save settings, auto record, and view recording.
		Program key: Programmable output.
		KeyLock key: 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.

Instructions for panel key indicator

ON/OFF key: The indicator will be lit after you turn on the channel.

Volt/CV key: The indicator will be lit when the channel is in Constant Voltage output mode.

Curr/CC key: The indicator will be lit when the channel is in Constant Current output mode.

3.1.2 Rear Panel



Figure 3-2 Rear panel overview

1	Local Area Network (LAN) Connector	The power supply can be connected to the network for remote control via this connector.
2	USB Device Connector	Connect as a "slave device" with an external USB device, such as connect the instrument to a PC.
3	COM Connector	Connect the power supply with external equipment as serial port.
4	Power socket	AC input connector
5	Fuse	Line fuse
6	Fan	Fan inlet

3.1.3 User Interface

When the output mode is in independent output, or channel tracking mode, there are two display modes: All channel mode (CH1 & CH2 & CH3), Dual channel mode (CH1 &

CH2). Press the Mode panel key to switch between the modes.

• All Channel Mode

	3.Q	uick Start	
CV : Constant Voltage outp CC : Constant Current outp	^{Dut} Channel 1 Dut	Channel 2	
Mode icon → O+2	1 CV 0.000 (2 CV 0.000 ···	—— Actual power output
	0.000	0.000/	— Actual voltage output
Status icons	A BB .B	0.000 A	—— Actual current output
Set	∨000.51 ∧000.5	×∨000.51 ×∧000.5	 Set values of voltage Set values of current
Limit	31.000V 6.100A	31.000v 6.100A	Set values of O.V.P/O.C.P

Figure 3-3 User interface in All channel mode

Dual Channel Mode



Figure 3-4 User interface in Dual channel mode

Mode Icons

lcons	Instruction
	All mode, display CH1, CH2 and CH3
1+2	Dual channel mode, display CH1 & CH2
- + 1	The output mode is parallel tracking
- + 1 ○ ± ● 2 ○ ± ●	The output mode is series tracking

Status Icons

Icons	Instruction
	Connected to the network via LAN connector
ψ	Connected as a slave device with PC
	A USB device is connected
$\not \! \mathbb{Z}$	Recording the current output
£	The panel keys are locked
ı ()	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 until the complete device and its accessories have been electrically and mechanically checked.

2. Check the Accessories

The supplied accessories are described in the "Appendix A: " of this Manual. Please ensure that all the listed accessories are present and undamaged, if any problems are found please contact your distributor or OWON's local office.

3. Check the Complete Instrument

If there is any physical damage, operational fault, or performance issue please contact your distributor or OWON's local office. If there is any transportation damage to the instrument please ensure you keep the original packaging. Ideally you should always keep the original packaging if the instrument must be returned for repair.

3.3 Power-On Check

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



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

(2) Push the **power button** on the front panel, the keys will light and the screen will show the boot 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. For the procedures below, it is suggested that you read "*Turn On/Off the Channel Output*" on page 9 and "*Set the Output Voltage/Current*" on page 9.

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. Front Panel Operation

4.1 Turn On/Off the Channel Output

Press the orange ON/OFF key to turn on/off the Channel 1 output.

Press the **blue ON/OFF** key to turn on/off the Channel 2 output.

Press the **ON/OFF CH3** key to turn on/off the Channel 3 output.

4.2 Set the Output Voltage/Current

4.2.1 Set the Output Voltage

• Set the output voltage of CH1

Press the **orange** Volt/CV key, the first digit of the CH1 set voltage is flashing, indicating the value is editable. There are two methods to change the value.

Modify: Turn the **knob** to change the value. Press the \leq / \geq key to move the cursor. Press the **knob** or the \checkmark key to confirm.

Input: Use the **numeric keys** to input, the input box of **Channel 1** output voltage will pop up. Enter a desired value. Press the key to confirm.

• Set the output voltage of CH2

Press the **blue Volt/CV** key to enter edit mode. You can set the value in the same way as CH1 above.

• Set the output voltage of CH3

Press the **Volt CH3** key to enter edit mode. You can set the value in the same way as CH1 above.

4.2.2 Set the Output Current

• Set the output current of CH1

Press the **orange Curr/CC** key, the first digit of the CH1 set current is flashing, indicating the value is editable. There are two methods to change the value.

Modify: Turn the **knob** to change the value. Press the \leq / \geq key to move the cursor. Press the **knob** or the **knob** key to confirm.

Input: Use the **numeric keys** to input, the input box of **Channel 1** output current will pop up. Enter a desired value. Press the key to confirm.

• Set the output current of CH2

Press the **blue Curr/CC** key to enter edit mode. You can set the value in the same way as CH1 above.

• Set the output current of CH3

Press the **Curr CH3** key to enter edit mode. You can set the value in the same way as CH1 above.

Note: If the input value is out of the rated range, the box prompts "ERROR"; you need to input another value within the rated range.

4.3 Over Voltage/Current Protection

When the Over Voltage Protection (O.V.P) or Over Current Protection (O.C.P) is enabled, once the output voltage/current reaches the set value of O.V.P/O.C.P, the instrument will cut off the output, a warning will show on the screen.

Note:

When the instrument disables the output due to protection, after you make some adjustments, the channel must be restarted to output normally.

This function can keep the power output from exceeding the load rating to protect the load.

4.3.1 Set O.V.P

• Set the O.V.P of CH1

Press the **orange Volt/CV** key, the first digit of the CH1 set voltage is flashing. Press the \mathbf{V} key, the first digit of the CH1 O.V.P is flashing, indicating the value is editable. There are two methods to change the value.

Modify: Turn the **knob** to change the value. Press the \leq / \geq key to move the cursor. Press the **knob** or the \downarrow key to confirm.

Input: Use the numeric keys to input, the input box of **Channel 1** limit voltage will pop up. Enter a desired value. Press the key to confirm.

• Set the O.V.P of CH2

Press the **blue** Volt/CV key, then press the \blacksquare key to enter edit mode. You can set the value in the same way as CH1 above.

• Set the O.V.P of CH3

Press the **Volt CH3** key, then press the **Volt CH3** key, then press the **Volt CH3** key, then press the **Volt CH3** key to enter edit mode. You can set the value in the same way as CH1 above.

4.3.2 Set O.C.P

• Set the O.C.P of CH1

Press the **orange Curr/CC** key, the first digit of the CH1 set current is flashing. Press the **v** key, the first digit of the CH1 O.C.P is flashing, indicating the value is editable. There are two methods to change the value.

Modify: Turn the **knob** to change the value. Press the \leq / \geq key to move the cursor. Press the **knob** or the \checkmark key to confirm.

Input: Use the **numeric keys** to input, the input box of **Channel 1** limit current will pop up. Enter a desired value. Press the key to confirm.

• Set the O.C.P of CH2

Press the **blue Curr/CC** key, then press the **v** key to enter edit mode. You can set the value in the same way as CH1 above.

• Set the O.C.P of CH3

Press the **Curr CH3** key, then press the $\mathbf{\nabla}$ key to enter edit mode. You can set the value in the same way as CH1 above.

4.4 Programmable Output

The programmable output function can preset up to 100 groups of timing parameters. When you turn on the programmable output, the instrument will output the pre-specified voltage, current in pre-specified time.

4.4.1 Data View

Press the **Program** key. The **Data view** menu is selected.

(1) The Memory sub menu is selected. Press the

(2) Press the 👿 key to select Import submenu. Press the 🗾 key to import data.

(3) Press the 🔽 key to select **Export** submenu. Press the 💶 key to export data.

Note: When the memory is set as External, the programmable data file will be export to U disk, the directory is **ODP3XXX\Program** (ODP3XXX is the model)

(4) Press the 🔽 key to select Clear Data submenu. Press the 💶 key to clear data.

4.4.2 Output Set

Press the **Program** key, turn the knob to select [**Output Set**].

- (1) The Cycle Mode sub menu is selected. Press the \leq / \geq key to select Oder or
- (2) Press the key to select Start Point submenu. Use the numeric keys to input (1 to 100), press the key to confirm.

(3) Press the vertex keys to select **Stop Point** submenu. Use the **numeric keys** to input (1 to

100), press the 📕 key to confirm.

(4) Press the 💽 key to select Start submenu. Press the < / ≽ key to select the channel (CH1, CH2 or ALL), press the 🞑 key to enter the data processing interface and output the selected channel.

4.4.3 Data process

You can set the programmable parameters of CH1 and CH2, including voltage, current and output time. This function allows up to 100 parameter groups of each channel. Press the **Program** key, turn the knob to select [**Data process**].

Edit:

- (1) The Edit sub menu is selected. The operation instruction shows on the screen. Press the
- (2) In the data processing interface, Press the \leq / > key to move the cursor left and

right. Press the \blacktriangle / \checkmark key to move the cursor up and down. Turn the knob to move the cursor between CH1 and CH2. Use the After selecting the parameter, use the numeric keys to enter a desired value, press the \checkmark key to confirm.

D	ata '	view	Output Set	Da pro	ata icess			
			CH1				CH2	
	NO	Volt	Curr	Time	NO	Volt	Curr	Time
	1	0.200	1.000	1	1	2.000	1.000	1
	2	0.400	1.000	1	2	1.800	1.000	1
	3	0.600	1.000	1	3	1.600	1.000	1
	4	0.800	1.000	1	4	1.400	1.000	1
	5	1.000	1.000	1	5	1.200	1.000	1
	6	1.200	1.000	1	6	1.000	1.000	1
V	DLT/V	Read1:	Volt: —— 9	Qurr: — F	Read2:	Volt: —	Curr:	CURR/A
2.	.000	CH1:	Volt: (ourr: C	2H2:	Volt: ——	Curr:	1.000
1.	600	-						0.800
1.	200							0.600
0.	800							0.400
0.	400							0.200
	0		2	4	6	8	1	0 TIME/S



(3) Press - to back to sub menu selection.

Graph process is used to configure the graphical display in the Data processing interface.

- (1) Press the vertex key to select **Graph process** submenu. Press the key to enter the editing interface.
- (2) In the Graph processing interface, Press the < / > key to move the cursor left

and right. Press the \blacktriangle / \checkmark key to move the cursor up and down. Press the \checkmark key to check or uncheck the item. If the item is checked, the corresponding line will be

displayed in the chart in the data processing interface.

(3) Press - to back to sub menu selection.

4.4.4 Turn On/Off Programmable Output

In the data processing interface:

• Independent Mode

Press **orange ON/OFF** key to turn on/off the programmable output of **Channel 1**. Press **blue ON/OFF** key to turn on/off the programmable output of **Channel 2**.

Parallel/Series Mode

Press orange ON/OFF key to turn on/off the programmable output.

In the data processing interface:

Press the \blacksquare key to select Start submenu. Press the \leq / $>$ key to select the channel
(CH1, CH2 or ALL), press the 🔲 key to enter the data processing interface and output
the selected channel.

Note:

In the process of programmable output, closing the channel output will reset the timer; turning on the channel again will restart the programmable output and the timer.

4.5 Save Settings/Auto Record

4.5.1 Save Settings

You can store, recall and delete current setting parameters. The storage memory could be set as internal or external (USB flash device). Up to 100 groups of settings can be saved.

Press the **Record** key. The **Save Settings** menu is selected.

(1) The Memory sub menu is selected. Press the \leq / \geq key to select Internal or

External.

(2) Press the ▼ key to select Save submenu. Press the < / > key to select the channel (CH1, CH2 or CH3), press the ↓ key to save the setting of the selected channel.

Note: When the memory is set as External, the setting will be saved to U disk as a CSV file, the directory is **ODP3XXX\Record_Option** (ODP3XXX is the model).

(3) Press the ▼ key to select Delete submenu. Press the ↓ key, a red box will show in the table, indicating the selected item. Press the ↓ / ▼ key to select. Press the
 ✓ / > key to turn the page. Press the ↓ key to delete. Press ← to back to

Save Settings	A Re	uto cord	View Recor	d		
Memory	NO.	Channel	Volt	Curr	Pro.V	Pro.C
Internal	01	CH1	12.000	2.000	31.000	6.100
	02	CH1	12.000	2.000	31.000	6.100
Save	03					
CH1	04					
CIII	05					
6.1.1	06					
Delete	07					
	08					
	09					
Recall	10					
	11					
< > Swite	ch Ma	in Menu	🗘 Confirm	n/Enter		it/Del
▲ ▼ Swite	ch iter	n	← Digital	input		

sub menu selection.

(4) Press the ▼ key to select Recall submenu. Press the ↓ key, a red box will show in the table, indicating the selected item. Press the ↓ / ▼ key to select. Press the
/ > key to turn the page. Press the ↓ key to recall. Press ← to back to sub menu selection.

4.5.2 Auto Record

Press the **Record** key, turn the knob to select [Auto Record].

- (1) The Memory sub menu is selected. Press the
- (2) Press the ▼ key to select Interval submenu. Use the numeric keys to set the record interval, press the ↓ key to confirm.
- (3) Press the key to select Points submenu. Use the numeric keys to set the points, press the key to confirm.
- (4) Press the ▼ key to select Record Status submenu. Press the
 ✓ > key to select the channel (CH1, CH2 or CH3), press the
 key to start recording the output of the selected channel. Press the
 key again to stop recording. During recording, the icon
 will be lighted on the status bar.

Note: When the memory is set as External, the record file will be saved to U disk as a CSV file, the directory is **ODP3XXX\Record_Auto** (ODP3XXX is the model).

4.5.3 View Record

Press the **Record** key, turn the knob to select [**View Record**].

- (1) Press the ▼ key to select Memory submenu. Press the < / > key to select Internal or External.
- (2) When the Memory is set as Internal, press the key to select **Read** submenu. Press

the \leq / $>$ key to select the channel (CH1, CH2 or CH3), press the \blacksquare key to
read the recording file of the selected channel. After reading successfully, if the
display mode is set as Table, a red box will show in the table, indicating you can press
the < / > key to turn the page. Press 🗲 to back to sub menu selection.
When the Memory is set as External , press the a key to select Export submenu.
Press the \leq / \geq key to select the channel (CH1, CH2 or CH3), press the \blacksquare key
to export the recording file of the selected channel onto the U disk. The directory is
ODP3XXX\Record_Auto (ODP3XXX is the model).

- (3) Press the \blacksquare key to select **Display** submenu. Press the \triangleleft / > key to select **Graph**
 - or **Table**.



Graph display mode

Save Settings	Auto Recorc	View Record	1	
Read			СН1	
CH1	NO.	Volt	Curr	Power
	61	8.708	1.998	17.395
Memory	62	8.708	1.998	17.395
Internal	63	10.605	1.998	21.184
Internal	64	10.605	1.998	21.185
Display	65	10.605	1.998	21.185
Table Clear	66	12.510	1.998	24.990
	67	12.512	1.998	24.993
	68	14.406	1.998	28.776
	69	14.406	1.998	28.776
	70	14.405	1.998	28.774
 Change param Toggle main menu Confirm/Enter Select modify item 				

Table display mode

(4) Press the ▼ key to select Clear submenu. Press the ↓ key to clear the recording file.

4.6 Output mode

Output mode can simplify the parameter inputting of CH1 and CH2. Output mode setting

is only for CH1 and CH2, without affecting CH3. There are four output modes:

• Independent Output

The parameter of each channel can be set independently.

Parallel track

When CH1 and CH2 are connected in parallel, you can select this mode to simplify the parameter inputting. You just need to set the parameters of the combined channel. The voltage rating is same as the single channel; the current rating is the sum of CH1 and CH2 current rating.

Press the **orange ON/OFF** key to turn on/off the combined channel.



The connection method of the parallel connection of CH1 and CH2 is as shown in the figure below.



Series track

When CH1 and CH2 are connected in series, you can select this mode to simplify the parameter inputting. You just need to set the parameters of the combined channel. The voltage rating is the sum of CH1 and CH2 voltage rating; the current rating is same as the single channel.

Press the **orange ON/OFF** key to turn on/off the combined channel.

4. Front Panel Operation



The connection method of the series connection of CH1 and CH2 is as shown in the figure below.



• Channel track

In independent output mode, set the output parameters of CH1 and CH2, and then enter the channel track mode, if the parameters of any one channel are changed, the other channel will change proportionally.

For example, in independent output mode, set the CH1 voltage to 2V, current to 1A; set the CH2 voltage to 4V, current to 2A. After entering channel track mode, if CH1 voltage is set to 6V, CH2 voltage will be adjusted to 12V proportionally. If CH1 current is set to 2A, CH2 current will be adjusted to 4A proportionally.

Note: If the setting value is out of the rated range, it will be set to the maximum.

To set the output mode:

- (1) Press the **Utility** key. The **Output mode** menu is selected.
- (2) Press the ▲ / ▼ key to select the output mode. Press the ↓ key to check and enter the selected mode.

4.7 Utility Settings

4.7.1 Language

Press the **Utility** key, turn the knob to select [**Utility**]. The **Language** sub menu is selected. Press the \leq / \geq key to choose the desired language. The supported languages include: Chinese, English and so on.

4.7.2 Brightness

Press the **Utility** key, turn the knob to select [**Utility**]. Press the \bigtriangledown key to select **Brightness** submenu. Press the \triangleleft / \triangleright key to adjust the screen brightness. The brightness can be set to 0%, 25%, 50%, 75%, 100%.

4.7.3 Beeper

Press the **Utility** key, turn the knob to select [**Utility**]. Press the **V** key to select **Beeper** submenu. Press the \checkmark / **>** key to turn on/off the beeper. When the beeper is on, the icon will be lighted on the status bar. When the system prompts the instrument will make a buzzing sound, e.g. cutting off the output due to O.V.P/O.C.P.

4.7.4 Clock

Press the **Utility** key, turn the knob to select [**Utility**]. Press the **V** key to select **Clock** submenu. Use the **numeric keys** to input, press the **V** key to confirm. Press the \leq / key to move the cursor.

4.8 System Info

4.8.1 View System Information

Press the **Utility** key, turn the knob to select [**Info**]. The **Info** sub menu is selected. You can view the version, serial number, and checksum.

4.8.2 Set as Default

Press the **Utility** key, turn the knob to select [Info]. Press the **V** key to select **Default** submenu. Press the **W** key to use the factory defaults, see table below.

	Output	VOLT	CURR	
Output settings	CH1			
	CH2	12.00V	2.000A	
	CH3			
	Parallel	12.000V	6.000A	
	Series	36.000V	2.000A	

	Output	VOLT	CURR	
Limit	CH1			
	CH2	MAXOUT+1V	MAXOUT+0.1A	
settings	CH3			
	Parallel	MAXOUT+1V	2*(MAXOUT+0.1A)	
	Series	2*(MAXOUT+1V)	MAXOUT+0.1A	

Output mode		t mode	Independent mode		
Brig		ntness	50%		
Utility Port	Bee	eper	On		
		Serial	Baud	115200	
			Data Bits	8	
			Odd-Even	None	
	Dort		Stop Bits	1	
	POIL	LAN Set	IP	192.168.001.099	
			Subnet Mask	255.255.255.000	
			Gateway	192.168.001.001	
			Port	3000	

	Save	Memory	Internal	
	Settings	Save	CH1	
Auto Decord		Memory	Internal	
	Auto	Interval	1	
	Auto	Points	1000	
Record	Record Record	Record	CH1	
Vi		Status	CHI	
	Maria	Read	CH1	
	View	Memory	Internal	
	Record	Display	Graph	

	Data view	Memory	Internal
Program Data process	Output Set	Cycle Mode	Order
		Start Point	1
		Stop Point	100
	Data	Graph	SET&READ(CH1:VOLT,CURR;CH2:VOLT,CURR)
	process	process	

4.8.3 Update

Press the $\boxed{\text{Utility}}$ key, turn the knob to select [Info]. Press the $\boxed{\mathbf{V}}$ key to select Update submenu. Press the $\boxed{\mathbf{V}}$ key to update firmware.

4.9 Port Settings

4.9.1 Serial port

Press the **Utility** key, turn the knob to select [**Port Set**]. The **Serial** sub menu is selected.

- (1) Press the key to enter sub menu. The Baud is selected. Press the / key to select the desired baud rate from 1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200. The default is 115200. Make sure that the baud rate matches that of the computer.
- (2) Press the \bigtriangledown key to select **Data Bits**. Press the \triangleleft / \triangleright key to select 6, 7, or 8.
- (3) Press the ▼ key to select Odd-Even. Press the < / > key to select None, Odd, or Even.
- (4) Press the ▼ key to select Stop Bits. Press the
 ✓ > key to 1 or 2.
 Press ← to back to sub menu selection.

4.9.2 LAN Set

Press the **Utility** key, turn the knob to select [**Port Set**]. Press the **V** key to select **Lan Set** submenu.

- (1) Press the key to enter edit mode. Set the IP address, subnet mask, gateway, and port. Use the numeric keys to input, press the key to confirm. Press the key to move the cursor left and right. Press the / key to move the cursor up and down. Press to back to sub menu selection.
- (2) Restart the instrument for the parameter changes to take effect.

4.9.3 LCD Test

The instrument has a screen self test function, which can test the LCD screen.

Press the Utility key, turn the knob to select [**Port Set**]. Press the **V** key to select Lcd Test submenu.

- (1) Press the key to enter the screen test interface.
- (2) Press the key to switch the color between red, green, and blue. Observe if the screen has severe color shift, spot, scuffing, or other defect.
- (3) Press the 📕 key to exit the test.

4.9.4 Key Test

The instrument provides the key self testing, which can test the keys on the front panel. Press the **Utility** key, turn the knob to select [**Port Set**]. Press the **V** key to select **Key Test** submenu.

- (1) Press the key to enter the key test interface.
- (2) Each shape on the test interface represents a front panel key. Press any front panel key, the corresponding shape on the test interface will turn green.
- (3) Press the 📕 key to exit the test.

5. 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.
- If the problem still exists, please contact **OWON** for our service.

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.
- If the problem still exists, please contact **OWON** for our service.

3. Cannot identify the USB device correctly:

- 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.
- Restart the instrument and insert your USB flash device again.
- If the problem still exists, please contact **OWON** for our service.

6. Appendix

6.1 Appendix A: Packaging

(The accessories subject to final delivery.)

Standard Accessories:











Power Cord

CD Rom

User Manual

USB Cable

Fuse

Options:



Banana plug to crocodile clip test leads

6.2 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.