QUICK START GUIDE

PSW Series

EN

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
	Protective Conductor Terminal
	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.

GETTING STARTED

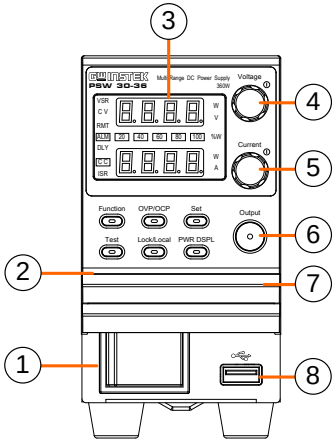
Main Features

Performance	• High performance/power • Power efficient switching type power supply • Low impact on load devices • Fast transient recovery time of 1ms • Fast output response time
Features	• OVP, OCP and OHP(OTP) protection • Adjustable voltage and current slew rates • User adjustable bleeder control to quickly dissipate the power after shutdown to safe levels. • Extensive remote monitoring and control options • Power on configuration settings. • Web server monitoring and control
Interface	• Ethernet port • Analog connector for analog voltage and current monitoring • USB host and device port

Appearance

Front Panel Overview

360W: PSW 30-36, 40-27, 80-13.5, 160-7.2, 250-4.5, 800-1.44

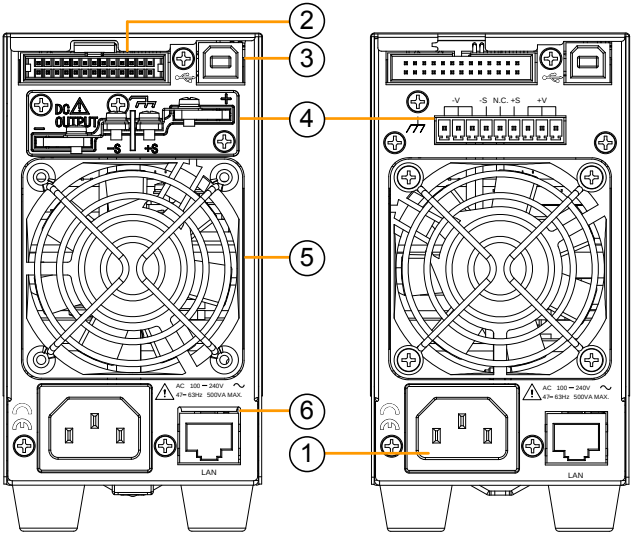


Description	
1. Power switch	2. Cover panel
3. Display	4. Voltage knob
5. Current knob	6. Output key
7. Function keys	8. USB A port

Rear Panel Overview

360W: PSW 30-36, 40-27,
80-13.5, 160-7.2

360W: PSW 250-4.5, 800-1.44



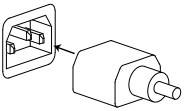
Descrition	
1. AC input	2. Analog control connector
3. USB port	4. Output terminal
5. Fan	6. LAN port

SET UP

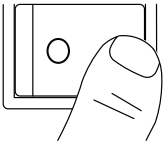
Power Up

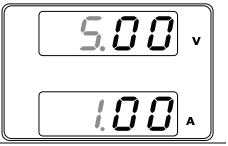
Steps

1. Connect the power cord to the rear panel socket.



2. Press the POWER key. If used for the first time, the default settings will appear on the display, otherwise The PSW 800-4.32 recover the state right before the power was last turned OFF.





CAUTION

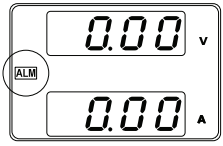
The power supply takes around 8 seconds to fully turn on and shutdown.

Do not turn the power on and off quickly. Please wait for the display to fully turn off.

Setting OVP/ OCP

The OVP level has a selectable range of 10% to 110% of the rated output voltage. The OCP level has a selectable range 10%~ 110% of the rated output current, alternatively the OCP level can also be turned off. The OVP and OCP level is set to 110% by default.

When one of the protection measures are on, ALM is shown on the panel display. By default, the power switch will turn off when any of the protection levels are tripped.



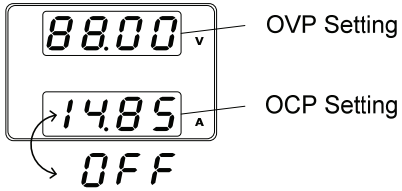
Before setting the OVP or OCP level:

- Ensure the load is not connected.
- Ensure the output is set to off.

Steps

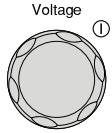
1. Press the OVP/OCP key. The OVP/OCP key lights up.

2. The OVP setting will be displayed on the top and the OCP setting (or OFF) will be displayed on the bottom.

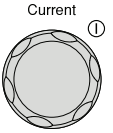
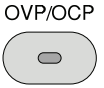
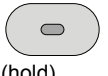


OVP Level

3. Use the voltage knob to set the OVP level.



Range 10%~110% of rated output voltage.

OCP Level	4. Use the current knob to set the OCP level. Range 10%~110% of rated output current, OFF.	
	5. Press OVP/OCP again to exit. The OVP/OCP indicator will turn off.	
Power switch trip	6. Set F-95 (Power switch trip) to 1 (to disable the power switch trip) or to 0 (to enable the power switch trip) and save. F-95 1 (Disable) or 0 (Enable)	
Clear OVP/OCP protection	7. The OVP or OCP protection can be cleared after it has been tripped by holding the OVP/OCP button for 2 seconds. (Only applicable when the power switch trip setting is disabled [F-95 = 1])	 (hold)

SPECIFICATIONS

The specifications apply when the PSW is powered on for at leaste 30 minutes.

Model	PSW	160-7.2	800-1.44
Output			
Rated Output Voltage		160V	800V
Rated Output Current		7.2A	1.44A
Rated Output Power		360 W	360W
Power Ratio		3.2	3.2
Constant Voltage Mode			
Line regulation[*1]		83mV	403mV
Load regulation[*2]		85mV	405mV
Ripple and noise[*3]			
p-p[*4]		60mV	150mV
r.m.s.[*5]		12mV	30mV
Temperature coefficient	ppm/ °C	100ppm/°C of rated output voltage, after a 30 minute warm-up.	
Remote sense compensation voltage (single wire)		0.6V	1V
Rise time[*6]			
Rated load		100 ms	150 ms
No load		100 ms	150 ms
Fall time[*7]			
Rated load		100 ms	300 ms
No load		1000 ms	2000 ms
Transient response time[*8]		2ms	2ms
Constant Current Mode			
Line regulation[*1]		12.2mA	6.44 mA
Load regulation[*9]		12.2mA	6.44mA

Ripple and noise[*5] r.m.s.		15 mA	5 mA
Temperature coefficient	ppm/°C	200ppm/°C of rated output current, after a 30 minute warm-up.	
Protection Function			
Over voltage protection (OVP)			
Setting range		16-176V	20-880V
Setting accuracy		± (2% of rated output voltage)	
Over current protection (OCP)			
Setting range		0.72-7.92A	0.144-1.584A
Setting accuracy		± (2% of rated output current)	
Over temperature protection (OHP)			
Operation		Turn the output off.	
Low AC input protecion (AC-FAIL)			
Operation		Turn the output off.	
Power limit (POWER LIMIT)			
Operation		Over power limit.	
Value (fixed)		Approx. 105% of rated output power.	
General Specifications			
Weight	(Main unit only)	kg	Approx. 3kg
Dimensions	(W×H×D)	mm*3	71×124× 350
Cooling	Forced air cooling by internal fan.		
EMC	Complies with the European EMC directive for Class A test and measurement products.		
Safety	Complies with the European Low Voltage Directive and carries the CE-marking.		
Withstand voltage	Between input and chassis: No abnormalities at 1500 Vac for 1 minute.		
	Between input and output: No abnormalities at 3000 Vac for 1 minute.		
	Between output and chassis: No abnormalities at 1500 Vac for 1 minute for PSW 800-1.44. No abnormalities at 500 Vac for 1 minute for PSW 600-7.2.		

Insulation resistance	Between input and chassis: DC 500Vdc.100MΩ or more
	Between input and output: DC 500Vdc.100MΩ or more
	Between output and chassis: DC 1000Vdc.100MΩ or more for PSW 800-1.44 DC 500Vdc.100MΩ or more for PSW 600-7.2

Notes:

*1 At 85 ~ 132Vac or 170 ~ 265Vac, constant load.

*2 From No-load to Full-load, constant input voltage. Measured at the sensing point in Remote Sense.

*3 Measure with JEITA RC-9131B (1:1) probe

*4 Measurement frequency bandwidth is 10Hz to 20MHz.

*5 Measurement frequency bandwidth is 5Hz to 1MHz.

*6 From 10% to 90% of rated output voltage, with rated resistive load.

*7 From 90% to 10% of rated output voltage, with rated resistive load.

*8 Time for output voltage to recover within 0.1% + 10mV of its rated output for a load change from 50 to 100% of its rated output current.

*9 For load voltage change, equal to the unit voltage rating, constant input voltage.

For other detailed specification about PSW 600-7.2/ 800-1.44, please refer to the PSW Series user manual.

Declaration of Conformity

We
GOOD WILL INSTRUMENT CO., LTD.
declare that the below 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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