



**PRUDENT WAY™**

**Solid. Power. Solution.**



**User's Manual Prudent Way Professional  
Series Power Supply PWI-PR550V2, PWI-PR450V2,  
PWI-PR350V2**

**Prudent Way Professional Series Power Supply User's Manual**  
**ATX 12V version 2.3**  
**Models: PWI-PR550V2 (2.3v), PWI-PR450 V2 (2.3v), PWI-PR350 V2 (2.3v),**

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Thank you for choosing Prudent Way Professional Series Power Supply. Please take the time to read the following instructions before installing the power supply. Please note that failure to follow the proper procedures may cause severe harm to your body and PC components.

We sincerely hope that you find this quality power supply provides you with many years of good service.

## **1. Introduction**

The Prudent Way Professional Series power supply provides solid power solution for any professional use. It's highly efficient with the latest smart fan technology to save energy and reduce noise for the computer system. The stylish 12/14cm black fans are designed to provide extra air flow to the PC. The smart cable management feature reduces clutter in the PC and further reduces the heat generated. Professional Series power supply adapts RoHS compliant materials so it's more environmentally friendly. The excellent quality of Professional Series power supply is backed up by a 3 year warranty to display the enduring value, all at a friendly price.

## **2. Safety & Warning**

Please read the following information carefully before using the power supply.

- ✘ DO NOT take apart, add to, or remove any components from the power supply. There are HAZARDOUS VOLTAGES inside the power supply. Warranty will be voided by doing so.
- ✘ DO NOT expose the power supply or computer to water or moist, dusty or extreme temperature environments.
- ✘ DO NOT use wet hands to plug or unplug the power cord.
- ✓ DO grab the plug instead of cord when you remove the power cord from the wall outlet.
- ✓ DO switch off and unplug any power sources before attempting any cleaning to avoid electrical shock. Use a dry cloth only.

## **3. Installation**

- Step 1. Read the Safety and Warning information above.
- Step 2. Disconnect the power cord from the old power supply.
- Step 3. Open your computer case by following your computer case manual.
- Step 4. Disconnect all of the power connectors from the motherboard and peripheral devices such as hard drive, optical drives, floppy drives, case fans, etc.
- Step 5. Make sure the AC voltage switch is set to the right voltage. Failure to do so may damage power supply. United States voltage is 115V.
- Step 6. Remove the existing power supply from your computer case and replace it with your new Professional Series power supply.
- Step 7. Assemble the power supply and screw it in your PC's correct power supply position.
- Step 8. Connect the 24-pin main power connector (Table 1). If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin power connector.
- Step 9. Connect all other connectors to drives and peripheral correctly (Table 1).
- Step 10. Make sure all connectors are connected correctly.
- Step 11. Screw and close the side panel of your PC case.
- Step 12. Plug in the power cord to the power supply. Switch the on/off (I/O) button to "I". The system is now ready to go.

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**Connectors**

Connector	Image	Number of Pins	Qty	Function
Main Power Connector		20+4	1	Provide CPU, motherboard, memory, PCI, AGP, USB hub with power.
ATX 12V 8 Pin Power Connector		8	PWI-PR550: 1 PWI-PR450: 0 PWI-PR350: 0	For processor
ATX 12V 4 Pin Power Connector		4	PWI-PR550: 1 PWI-PR450: 1 PWI-PR350: 1	For processor
Peripheral Power Connector		4	PWI-PR550: 2 PWI-PR450: 2 PWI-PR350: 2	For, hard drive, IDE type optical drive and other peripherals
PCI Express Connector		6	PWI-PR550: 2 PWI-PR450: 1 PWI-PR350: 1	For PCI Express Card
PCI Express Connector		6+2	PWI-PR550: 1 PWI-PR450: 0 PWI-PR350: 0	For PCI Express Card
SATA Connector		5	PWI-PR550: 8 PWI-PR450: 6 PWI-PR350: 4	For serial ATA type HDD and other peripherals
Floppy Drive Connector		4	1	For floppy drive

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**4. Product Specification**

Features	PWI-PR550V2			PWI-PR450V2		PWI-PR350V2
Type	ATX12V V. 2.3 (dual 12V)					
Switches	ATX Logic On/Off Additional Power Rocker Switch (115/230V selector switch)					
Maximum Power	550 W			450W		350W
Transient Response	+5V,+12V and 3.3V outputs return to within 5% in less than 1ms for 25% load change					
Power Good Signal	100 - 500 ms					
Over Voltage Protection Recycle AC to reset	+12V1/+12V2=13.4V-15.6V, +5V=5.7V-7.0V,+3.3V=3.7V-4.3V					
Special Connectors	1 Main Connector (20+4 pin)					
	1 12V (P4)					
	2 Peripheral			2 Peripheral		2 Peripheral
	8 SATA			6 SATA		4 SATA
	1 Floppy			1 Floppy		1 Floppy
	1 PCI-E (6+2) 12V + 2 PCI-E 12V			1 PCI-E 12V		1 PCI-E 12V
	1 12V (P8)			N/A		N/A
Dual +12V	Yes			N/A		N/A
SLi Support	Yes			N/A		N/A
Fans	14cm black fan w/ speed and temperature control			12cm black fan w/ speed and temperature control		
Cables	Black Sleeved Cables			Only 24Pin w/ Black Sleeve		
<b>DIMENSIONS</b>						
Unit Size	149(W) x163(D) x85 (H) mm			149(W) x149(D) x85 (H) mm		
Net Weight	1.91KG			1.34Kg		1.27kg
<b>OUTPUT (550W)</b>						
Output Voltage	+3.3V	+5V	+12V1	+12V2	-12V	+5VSB
Max. Load	24A	17A	21A	20A	0.3A	2.5A
Min. Load	0.5A	0.3A	0.5A	0.5A	0A	0.1A
Regulation	+5%	+5%	+5%	+5%	+10%	+5%
Ripple & Noise (mV)	80mV	80mV	150mV	150mV	150mV	80mV
Available Power	130W		252W	240W	3.6W	12.5W
—	535W					
Total Power	550W continuous maximum at full load					
<b>OUTPUT (450W)</b>						
Output Voltage	+3.3V	+5V	+12V1	+12V2	-12V	+5VSB
Max. Load	24A	15A	17A	16A	0.3A	2.5A
Min. Load	0.5A	0.3A	0.5A	0.5A	0A	0.1A
Regulation	+5%	+5%	+5%	+5%	+10%	+5%
Ripple & Noise (mV)	50mV	80mV	120mV	120mV	120mV	50mV
Available Power	120W		204W	192W	3.6W	12.5W
—	435W					
Total Power	450W continuous maximum at full load					
<b>OUTPUT (350W)</b>						
Output Voltage	+3.3V	+5V	+12V1	+12V2	-12V	+5VSB
Max. Load	21A	15A	11A	14A	0.3A	2.1A
Min. Load	0.5A	0.3A	0.5A	0.5A	0A	0.1A
Regulation	+5%	+5%	+5%	+5%	+10%	+5%
Ripple & Noise (mV)	50mV	80mV	120mV	120mV	120mV	50mV
Available Power	103W		132W	168W	3.6W	10.5W
—	335W					
Total Power	350W continuous maximum at full load					
<b>INPUT</b>						
Input Voltage	115/230V					
Input Frequency Range	60/50 Hz					
Input Current	10A RMS MAX. FOR 115VAC		8A RMS MAX. FOR 115VAC		6A RMS MAX. FOR 115VAC	
Efficiency	> 75%					

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EMI/RFI	FCC Class B
<b>ENVIRONMENTAL</b>	
Operating Temp.	0 to 40°C
Operating Alt.	10,000ft
MTBF	> 100,000 Hours
Safety Approval	UL/CUL #E340111, FCC , CE, CB,
RoHS Compliant	Yes
PFC	n/a

## 5. Simple Trouble Shooting

### Condition: No Power

1. Check that the power cord is plugged into an electrical outlet and the power switch is at “I” position.
2. Make sure the power connectors are properly and securely attached to all the drives and peripheral devices.
3. If the power supply is installed into a PC case, make sure the connection of the front panel power switch to the motherboard is correct.
4. Turn the power off, wait for a few minutes and turn it back on.
5. If the power supply still has no power, remove all connectors to devices and test the power supply by using a tester. This test is to help rule out any hardware problems. If the fan spins, the power supply is likely to be in good working condition. Please check if the power supply is compatible with other hardware in your PC.
6. If the power supply still does not power up after following the above instructions, please send the unit back to your dealer or retailer for service.

For feedback about this product, please contact  
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