

Triple Output 200VA DC Power Supply

PW-7033



INSTRUCTION MANUAL

TABLE OF CONTENTS

NOTICE BEFORE OPERATION	3
1. Unpack the instrument.....	3
2. Environments.....	3
3. Check the Line Voltage.....	3
4. Hints for operation.....	3
MAINTENANCE	5
GENERAL MAINTENANCE.....	5
FUSE REPLACEMENT.....	5
SPECIFICATIONS	6
FRONT PANEL DESCRIPTION	7
REAR PANEL DESCRIPTION	10
OPERATION INSTRUCTION	11
1. Independent Mode.....	11
2. Serial Tracking Mode.....	11
3. Parallel tracking Mode.....	12
4. Serial mode.....	12
5. Parallel Mode.....	13
6. Fixed 5V/3A output.....	13

NOTICE BEFORE OPERATION

1. Unpack the instrument:

After receipt of the instrument, immediately unpack and inspect it for any damage which might have been sustained when in transportation or shortage of accessories. If any sign of damage and shortage of accessories are found, immediately notify the dealer.

2. Environments:

Normally, operational temperature of the instrument is 10°C to 40°C 90%R.H.

(50°F to 104°F). Operation of the instrument outside of this temperature range may cause damage to the circuits.

3. Check the Line Voltage:

The instrument can operate on any one of the line voltages when in the below table by inserting the line voltage selector plug in the corresponding position on the rear panel.

Before connection the power plug to an AC line outlet, be sure to check that voltage selector plug is set in the correct position corresponding to the line voltage.

Selector	Line Voltage	Fuse
115V	100~125V 50/60Hz	6A
230V	220~240V 50/60Hz	3A

4. Hints for operation:

- (1) Never place heavy objects on the instrument.
- (2) Never place a hot soldering iron on or near the instrument.
- (3) Never insert wires, pins or other metal object into ventilation fan.
- (4) Never move or pull the instrument with power cord or output lead, especially never move instrument when power cord or output lead is connected.
- (5) If the instrument is used in a manner not specified by the manufacturer, the protection provide by the equipment may be impaired.

 **WARNING!**

The following precautions must be observed to help prevent electric shock.

1. When the instrument is use to make testing. There is always a certain amount of danger from electrical shock. The person using the instrument in such condition should be a qualified electronics technician or otherwise trained and qualified to work in such circumstance.
2. Do not operate the instrument with the cover removed unless you are a qualified service technician.
3. The ground wire of the 3-wire AC power plug places the chassis and housing of the instrument at earth ground. Use only a 3-wire outlet, and do not attempt to defeat the ground wire connection or float the instrument to do so may pose a great safety hazard.
4. Do not obstruct the ventilation holes in the rear panel. As this will increase the internal temperature.
5. Never apply external voltage to the output terminal of the instrument.
6. The instrument is designed for **INDOOR USE ONLY**.
7. This instrument has been evaluated to **INSTALLTION CATEGORY II, POLLUTION DEGREE 2**.

MAINTENANCE

● **GENERAL MAINTENANCE:**

1. Preventive maintenance:

Clean and recalibrate the instrument on a regular basis to keep the instrument looking nice and working well.

2. Cleaning:

Remove any dirt, dust and grime whenever they become noticeable on the outside cover with a soft cloth moistened with a mild cleaning solution.

3. Servicing:

If the instrument ever becomes inoperative or damaged, refer servicing to a qualified repair facility.

● **FUSE REPLACEMENT:**

If the fuse blows, the LED will not light and the instrument will not operate. Replace only with the correct value fuse. The fuse is located on the rear panel adjacent to the power cord receptacle. Remove the fuse holder assembly as follows:

1. Unplug the power cord from rear of the instrument.

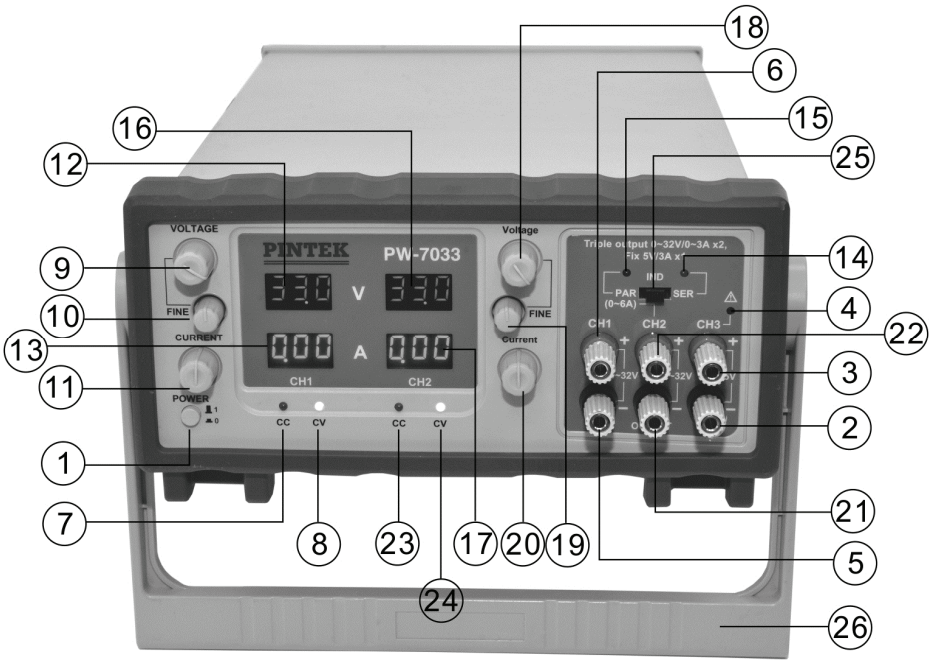
2. Insert a small screwdriver in fuse holder slot (located between fuse holder and receptacle). The fuse holder away from receptacle.

3. When reinstalling fuse holder, be sure that the fuse is installed so that the correct line voltage is selected.

SPECIFICATIONS

ITEM	PW-7033
Power Transformer	E.I. Type Transformer
Max. Continual Output Power	207 VA
Max. Raised Temperature	< 45 °C
Independent Output	0~32V / 0~3A x 2, 5V Fixed / 0~3A
Constant Voltage Characteristic	
Regulation	Line < 0.01% + 3mV, Load < 0.01% + 5mv
Ripple & Noise	< 0.4 mVrms
Temperature Coefficient	< 300 PPM/°C
Constant Current Characteristic	
Regulation	Line < 0.2% + 2mA, Load < 0.2% + 3mA
Ripple & Noise	< 2.5 mArms
5V Fixed Output	
Regulation	Line Regulation < 5mV, Load Regulation < 10mV
Ripple & Noise	< 1.5mVrms
Voltage Accuracy	5V ± 0.25V
Max. Output Current	3A
Tracking Operation	
Parallel Regulation	Line < 0.01% + 3mV, Load < 0.01 + 5mV
Series+and-Supply Regulation	Line < 0.01% + 3mV, Load < 0.01 + 5mV Slave tracking error < 0.5%+2 digital of the master
Series Single Supply Regulation	Line < 0.01% + 5mA, Load Regulation < 300mV
Display	
Voltage	3 Digits 0.36" Green LED
Current	3 Digits 0.36" Red LED
Accuracy	0.1% + 2 digits
General	
Power Source	ACV 115/230 ± 10%, 50/60Hz
Dimensions(W x H x D)	255 x 120 x 380 mm
Weight	7.9kg

FRONT PANEL DESCRIPTION



① Power switch:

Push the switch button to turn "ON" the power and the LED(12,13,16,17) will light up ; to push the button again, the power will turn "OFF" .

② CH3/5V output terminal:

Negative output terminal of the fixed 5V/3A output (black).

③ CH3/5V output terminal:

Positive output terminal of the fixed 5V/3A output (red).

④ CH3/Over load indicator:

5V/3A over load red LED indicator.

⑤ **CH1 output terminal:**

Negative output terminal of the CH1 0~32A/0-3A output (black).

⑥ **CH1 output terminal:**

Positive output terminal of the CH1 0~32A/0-3A output (red).

⑦ **CH1 C.C. mode LED:**

Red LED to indicate constant current.

⑧ **CH1 C.V. mode LED:**

Green LED to indicate constant voltage.

⑨ **CH1 voltage adjustment knob and PAR/SER mode.**

⑩ **CH1 voltage fine adjustment knob.**

⑪ **CH1 current adjustment knob and PAR/SER mode.**

⑫ **CH1 voltage indicator display in full 3-digits Green 0.36"LED.**

⑬ **CH1 current indicator display in full 3-digits Red 0.36" LED.**

⑭ **Series mode indicator:**

When switch is set the power supply in series mode, the Green LED will be light to indicate series mode.

⑮ **Parallel mode indicator:**

When pull switch is set the power supply in parallel Mode the Red LED will be light to indicate parallel mode.

⑯ **Slave voltage indicator display in full 3 digits Green 0.36"LED.**

⑰ **Slave current indicator display in full 3 digits Red 0.36"LED.**

⑱ **CH2 voltage adjustment knob:**

For adjusting CH2 output voltage when CH2 is at C.V. Mode.

⑲ **CH2 voltage fine adjustment knob.**

⑳ **CH2 current adjustment knob:**

For adjusting slave output current when slave is at C.C. Mode.

㉑ **CH2 output terminal:**

CH2 negative output terminal 0-32V/0-3A output (black).

⑳ **CH2 output terminal:**

CH2 positive output terminal 0-32V/0-3A output (Red).

㉑ **CH2 C.C. mode indicator:**

Red LED is indicated constant current at CH2 power.

㉒ **CH2 C.V. mode indicator:**

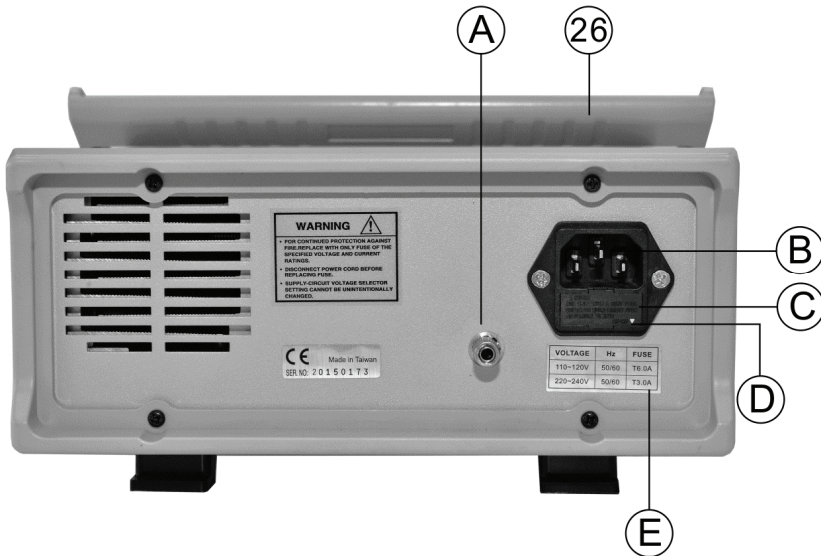
Green LED is indicated constant voltage at CH2 power.

㉓ **Output mode switch:**

Select to set the "IND", "SER", "PAR" position to turn "Independent" or "Serial Tracking" or "Parallel" output mode.

㉔ **Portable carry.**

REAR PANEL DESCRIPTION



Ⓐ **GND terminal.**

Ⓑ **Power input socket.**

Ⓒ **Fuse Holder and input voltage selector:**

The selected input voltage is set the voltage marked on the holder to the ▽ mark on the rear panel.

Ⓓ **The input power voltage indicator:**

The ▽ mark show the input line voltage is set.

Ⓔ **The fuse table is for input voltage.**

OPERATION INSTRUCTION

The power supply 7033 can be operated alone or connected two or more units in serial to obtain a higher voltage rating (Max. 240V) or in parallel to obtain a higher current (Max. 24A).



WARNING!

Never connected GND (A) terminal to any place on this operation.

1. Independent Mode:

The CH1 and the CH2 output of 7033 can be used independently to generate voltage and current.

To operate 7033 under independent mode. Set the CH1 output voltage/current and CH2 output voltage/current as described in section A and B.

2. Serial Tracking Mode:

[NOTE] When 7033 is operated under this mode. The CH1 output is serial connected to the CH2 output automatically. The serial output is generated from the "+" of the CH1 output terminal (6) and the "-" of the CH2 output terminal (21). The output voltage will be TWICE of the set CH1 output voltage and the current will be the same as the CH1 setting current.

2-1. The CH1 voltage adjustment knob (9) the power supply 7033 will under serial operation mode and the green LED (14) will light up.

2-2. Turn the CH2 current adjustment knob (20) clockwise to maximum.

2-3. Set the CH1 output voltage and current as described on section A.

2-4. The output terminal will be "+" of the master and "-" of the slave terminals.

3. Parallel tracking Mode:

[NOTE] When 7033 is operated under "PARALLEL" mode. The CH1 output terminals are parallel connected to the CH2 output terminal automatically. The parallel output is generated from the CH1 output for both "+" and "-" terminals (or CH2 output terminal) the output voltage is the same as the CH1 set value and the output current is twice the set CH1 output current.

3-1. "PULL" the current adjustment knob of the CH1 output (⑪) to set the 7033 operate under parallel mode and the green LED (⑭) will light up.

[NOTE]

Output mode switch can be adjusted at the "IND", "SER", or "PAR" position.

3-2. Set the CH1 output voltage and current.

3-3. The output terminal can be the "+", "-" terminal the CH1 output, maximum to 6A.

4. Serial mode:

The power supply 7033 can be connected two or more units in series to obtain a higher voltage output (Max. 240V).

4-1. Set all the 7033 which would be connected in serial operation under serial tracking mode as described on section 2, serial tracking mode and adjusts to the same output.

4-2. Connect the "-" CH2 output terminal of the unit 1 to the "+" CH1 output terminal of the unit 2.

4-3. The output voltage the system will be the "+" CH1 output terminal of the unit 1 and the "-" CH2 output terminal of the unit 2.

4-4. If the connected units are more than 2. Connect the "+" CH1 output terminal of the 3rd unit to the "-" CH2 output terminal of the unit 2. etc. The output voltage of the system will be the "+" CH1 output terminal of the 1st unit to the "-" CH2 output terminal of the last unit.

 **WARNING!**

The maximum output voltage of the system is never exceeds 240V.

5. Parallel Mode:

The power supply 7033 can be connected two or more units in parallel to obtain a higher current output (Max. 24A only).

5-1. Set all the 7033 which will be connected in parallel operation under parallel tracking mode as described on section 3, parallel tracking mode and adjust all units to the same output voltage

5-2. Parallel connected the "+" CH1 output of all unit and "-" CH2 output of all units in the system.

5-3. The output voltage of the system is the same as the units been set. The output current of the system is the sum of each unit.

5-4 Output is only at CH2, Maximum to 6A.

 **WARNING!**

The Max. output current of the system never exceeds 24A.

6. Fixed 5V/3A output:

This is the standard 5V/3A-power output for use by TTL logic circuit. When the load exceed 3A, the red overload LED will light up. The output voltage will be lower and the power supply will be under C.C. mode.

TINSE07 Ver.00

Made In Taiwan