

TENMA®



Bench DC Power Supply

Model: 72-8690A, 72-8695A, 72-8700A

IMPORTANT SAFETY INFORMATION

When using electrical appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons or property.

Read all instructions before using the appliance and retain for future reference.

- Check that the voltage indicated on the rating plate corresponds with that of the local network before connecting the appliance to the mains power supply.
- Do not operate this appliance with a damaged plug or cord, after a malfunction or after being dropped or damaged in any way.
- Check the product before use for any damage. Should you notice any damage on the cable or casing, do not use.
- This appliance contained no user-serviceable parts. All repairs should only be carried out by a qualified engineer. Improper repairs may place the user at risk of harm.
- This product must be grounded through the earth connection in the mains lead for safe operation and to reduce ripple and noise.
- Do not block or obstruct the cooling vent opening.
- Avoid severe impacts or rough handling that leads to damage.
- Do not discharge static electricity.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory, or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children should be supervised to ensure that they do not play with the appliance.
- Always disconnect from the mains when the product is not in use or before cleaning.
- Do not use the appliance for any purpose other than that for which it is designed.
- Do not operate or store in an environment of high humidity or where moisture may enter the product as this can reduce insulation and lead to electric shock.

PRODUCT OVERVIEW

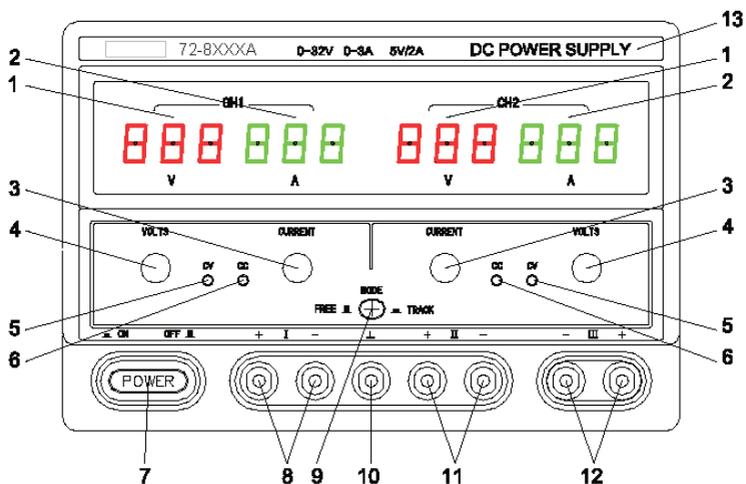
Main Features

- Low noise
- Series or parallel operation
- Current limitation
- Auto switching between voltage and current operation

WHAT'S INCLUDED

- Power Supply Unit
- Mains power lead
- User Manual

OPERATION



Front panel controls

1. Voltage display
2. Current display
3. Current adjustment in CC mode
4. Voltage adjustment in CV mode
5. Constant voltage indicator LED
6. Constant current indicator LED
7. Power switch
8. CH1 output connector
9. Mode selector switch
10. Ground connector
11. CH2 output connector
12. CH3 fixed 5V output connector
13. Model identification

Notes

- If the current is adjusted so that the load is higher than the set limit, the output will automatically convert to CC mode. If it is lower than the limit it is in CV mode. The mode is indicated by the LEDs on the front panel.
- CV mode is set when the connectors are open circuit. CC mode is set when they are short circuit.
- In independent mode (TRACK) Ch1 and Ch2 work separately.
- In series mode (FREE) the negative output of Ch1 is connected to the positive terminal of CH2 and linked to ground. The output is taken from CH1 positive and CH2 negative. Maximum output is 64V as a sum of the reading of CH1 plus CH2.
- CH3 is a fixed 5V with negative terminal connected to ground. The load resistance should not be less than 2 ohms.

SPECIFICATIONS

Model	CH1, CH2 voltage	Ch1, CH2 current
72-8690A	0-32V	0-3A
72-8695A	0-32V	0-3A
72-8700A	0-32V	0-5A

CH1 and CH2 load regulation:	CV: $\leq 1 \times 10^{-4} + 2\text{mV}$	CC: $\leq 20\text{mA}$
Ripple and noise:	CV: $\leq 1\text{mVrms}$	CC: $\leq 1\text{mArms}$
Adjustable resolution:	CV: 20mV (typical)	CC: 50mV (typical)
Interactive regulation:	CV $\leq 5 \times 10^{-5} + 1\text{mV}$	CC: $\leq 0.5\text{mA}$
Tracking error:	$\leq 5 \times 10^{-3} + 2\text{mV}$	
Display:	Synchronised 6 digits voltage and current	
CH3 (72-8695A only):	5V 0~2A, ripple and noise <3mVrms - load >2ohms	
Operating temperature:	0°C to 40°C (32°F - 104°F)	
Power requirements:	110V-240V~50Hz	
Fuses (time delay):	72-8690A & 72-8695A: 2A, 72-8700A: 3.1A	
Cooling:	Natural ventilation (72-8700A only fan assisted)	
Dimensions:	298 x 213 x 158mm	
Weight:	72-8690A & 72-8695A - 5.5kg, 72-8700A 6.5kg	

MAINTENANCE

Cleaning

- Use a damp cloth and a small amount of liquid detergent if necessary.
- Never submerge the power supply in liquid or allow any liquid to enter the case.
- Do not use any chemicals, abrasives or solvents that could damage the power supply casing.

Changing the fuse

- Replace the fuse only with one of exactly the same type and rating.
- Disconnect the mains power and unplug the mains lead before replacing the fuse.



INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.

When this product has reached the end of its life it must be treated as Waste Electrical & Electronic Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used. Contact your local authority for details of recycling schemes in your area.



Made in China. PR2 9PP

Man Rev 1.0