



Z-PS SERIES

Owner's Manual

Before operating the unit, please read this manual thoroughly and retain it for future reference.

MISSION STATEMENT

Committed to Excellence

ZAPCO is dedicated to the pursuit of audio fidelity. Our prime objectives are to design and manufacture audio products of unsurpassed quality, to provide unparalleled support and service for these products and to conduct business in a manner that will enhance the quality of life for all involved.

Experience (Knowledge from doing)

There is absolutely no substitute for experience; that is a simple fact of life. Another simple fact is that ZAPCO has, for over forty years, been the leader in defining quality standards for the car audio industry.

These years of experience have led to a thorough understanding of the challenges that are unique to the world of car audio. ZAPCO's relentless quest for sonic purity consistently yields imaginative designs that utilize the most innovative technologies. The resulting products set the criteria by which all others in the industry are judged.

Table of Contents

Features of the Zapco AC~DC Power Supplies	4
Important Safety Instructions	5
Charting the P100A Power Supplies	6
Connecting the P100A Power Supplies	7
Notes on the Operation of the P100A Power Supplies	7
Using Power Supplies with Batteries	8
Using Multiple Power Supplies	9
Technical Specifications	10

Features of the Zapco AC~DC Power Supplies

Z-PS110B P100A (110~130 Volt) Z-PS220I P100A (220~240 Volt)

Now you can power your Zapco Amplifier from a standard AC outlet with the new Z-PS220I P100A and Z-PS110B P100A. Car Audio champions have been winning with Zapco amps for over 40 years. This year we give audio enthusiasts a new product that is both an accessory to the system and a tool for competitions. A low noise, high efficiency AC to DC power converter made to Zapco's standards to drive Zapco amplifiers (or other DC powered devices) from a standard 110V (Z-PS110B) or 220V (Z-PS220I) AC outlet. Each one provides 100 amps of DC current variable from 9V to 16 V, and multiple supplies can be "strapped" to give you up to 400 amps of current.

Whether it is in a workshop, office, home, or at a competition venue. Whether you want to keep your battery strong in audio competitions, save your battery during long tuning sessions, set up a test bench to evaluate audio systems, or compare the performance of your car amplifier to that of your home amplifier.

These supplies will give you all the current you need, and housed in the Zapco competition chassis, they will look sharp doing it.

Features include:

- Adjustable regulated output voltage from 9V~16V
- Remote panel-mount Volt Meter to monitor the output
- Up to 100 amps of current
- Units are "strappable" to combine up the 4 units, and provide up to 400 Amps of current. Each unit includes the connection cable for strapping multiple supplies
- Temperature controlled cooling fans
- Thermal shut-off protection
- Over-current protection
- Pulse charging to inhibit battery sulfating (overcharging)

Fuse all connected devices as recommended by the manufacturer.

Important Safety Instructions

This manual contains important safety and operating instructions. To reduce the risk of fire, electric shock, and injury to person or equipment; carefully read the following before you use the power supply. Also, please read all cautionary markings on any product that you will connect to the power supply.

Warnings:

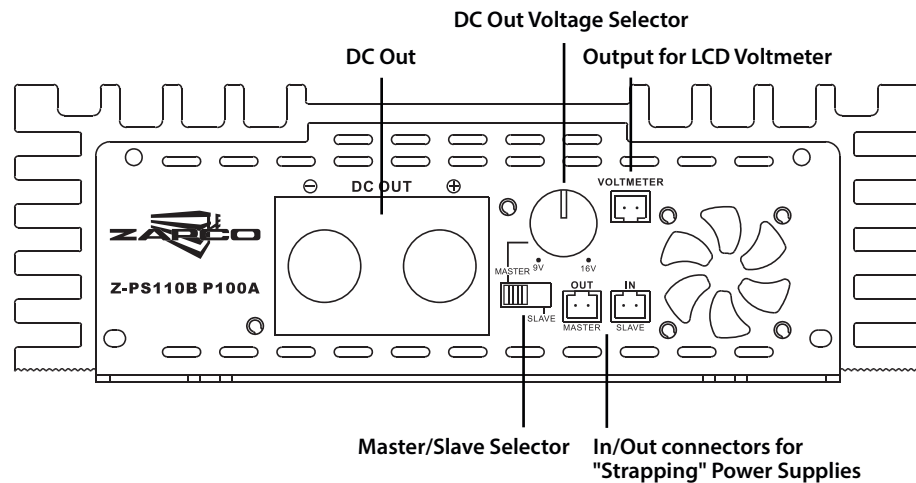
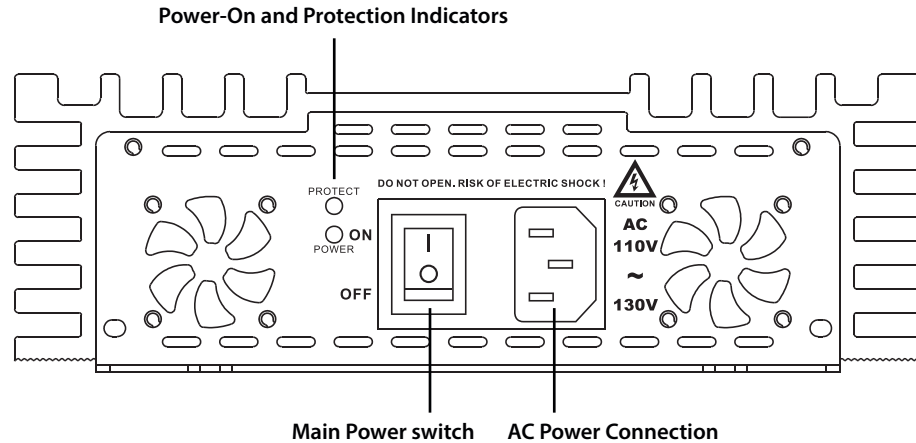
- This power supply is not recommended for outdoor use
- Do not expose power supply to excessive moisture
- Fuse all connected devices as recommended by the manufacturer
- This power supply is not intended for use as a battery charger. Connecting to a deeply discharged battery can cause the supply to go into current limit mode and can damage the power supply
- This supply can be used alone or in conjunction with a battery or multiple batteries. If used with a battery, the output will be automatically adjusted depending on battery condition to avoid battery damage
- Batteries should not remain connected to the charger for extended periods of time
- The power supply should be operated from a standard 110V or 220V 50Hz~60Hz AC Outlet (as indicated in model number). A minimum of 20 Amps will be required
- If required at a later date, the input supply voltage can be changed as per instructions in this manual
- Avoid use of extension cords
- The power plug is polarized for safety, do not modify the power plug.
- Do not cover or block the power supply's cooling fans



If your unit should require service, contact your dealer. Do not attempt to service the unit.

Charting the P100A Power Supplies

The controls and functions of the Z-PS110B and Z-PS220I are identical in all ways except AC input voltage.



Connecting the P100A Power Supplies

Caution: Make all connections before you connect the power supply to AC power

1. Assure that the device requiring power is turned off
2. Assure that the power supply switch is turned off
3. Assure that the Master/Slave switch is set to Master (see instructions below for trapping multiple supplies)
4. Set the output voltage selector to the required voltage (13.5 volts for most car electronics)
5. Connect the volt meter if you will be using it
6. Connect the Positive, and then the Negative power cables from the device to the power supply. USE Extreme Caution and assure that the positive and negative power connections are correct, as reversing polarity may well damage both the power supply and the device being powered. The connected device should be fused as per the manufacturer's recommendation
7. After double checking items 1~5, connect the A/C cord to a correct standard 110B or 220I power receptacle, depending on the power supply model
8. Flip the power switch to the ON position and the blue LED will light to indicate the powered up condition

Notes on the Operation of the P100A Power Supplies

Master/Slave Switch: When using a single P100A supply, the Master/Slave switch must be set to Master or the Supply will go into protect and the red LED will light.

Included Volt Meter: Your package include a panel mount volt meter. You can plug the meter's cable into the Volt Meter port in the supply's control end plate.

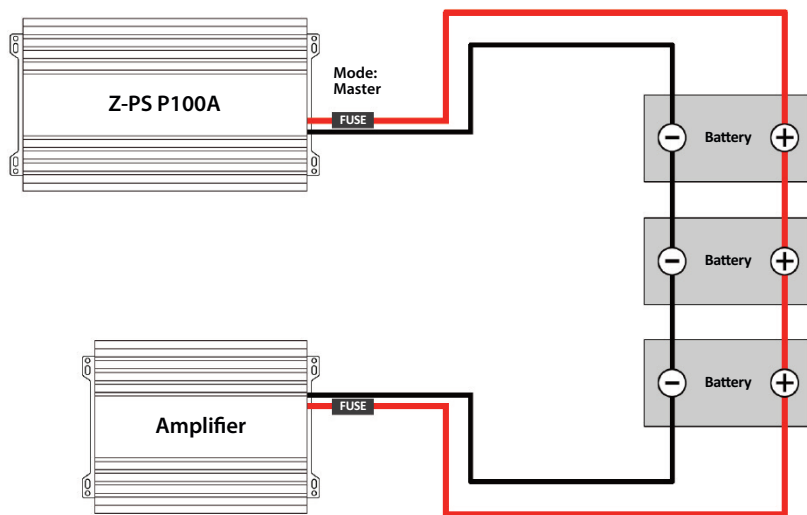
Temperature Controlled Fans: The fans will stay off until temperatures reach 50°C (120°F), when they begin to cool the unit. If the temperature should ever exceed 75°C (167°F) the unit will go into thermal protection until the unit cools to operating temperature.

Over Current: If the device connected requires more than 16Volts, or more than 100 Amps of current to operate, the power supply will sense this and go into protect and the red protect LED will light.

Interference: The Zapco power supplies are high power switching supplies and as such may cause some interference to TV or radio reception. If you experience this you should turn the power supply off and move it further away from the receiving device. Correct Input Voltage: Your P100A supply is set for to the proper input voltage for the country in which it was first sold. If you should move or need it changed for some other reason, you may contact your Zapco Dealer or Zapco directly about modifying your unit.

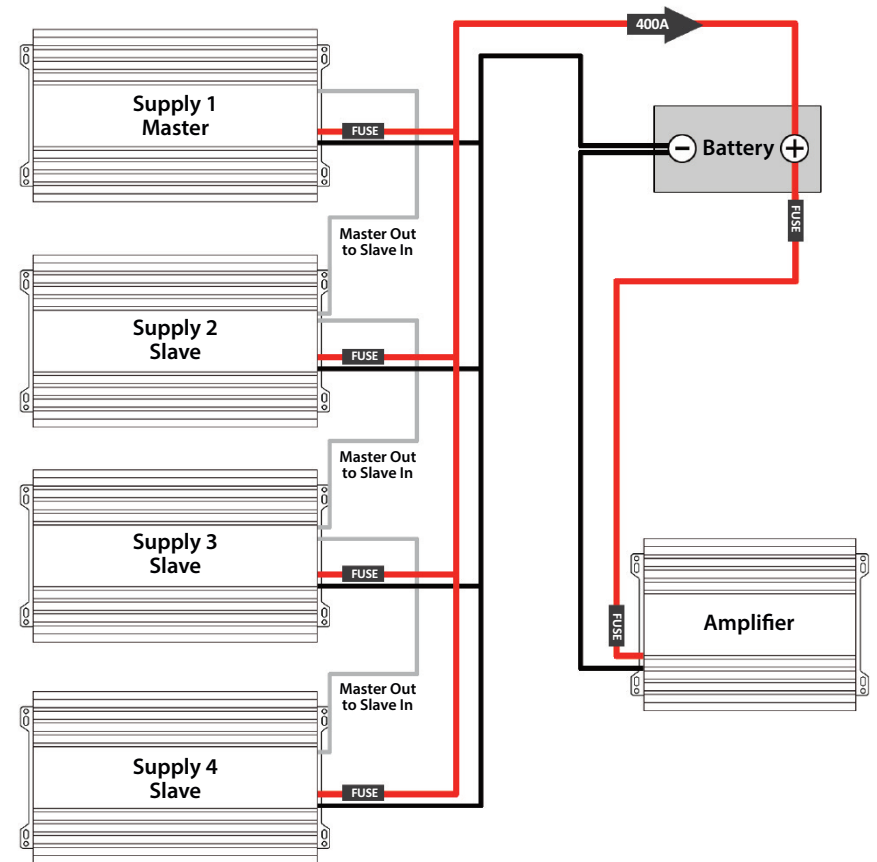
Using Power Supplies with Batteries

The Zapco power supplies can be used in combination with a battery or batteries, depending on the usage requirements. Batteries should be 12 volt automotive type. Higher voltage commercial batteries should not be used and will put the supply into protection. Multiple batteries must be connected in parallel. For safety, there should be a 100A fuse at the output of the power supply and a fuse of manufacturer's recommended amperage at the amplifier.



Using Multiple Power Supplies

Up to four P100A power supplies can be strapped to provide more DC current if required by the powered device. Each supply will add 100 Amps to the circuit for a maximum of 400 Amps. The first supply in such a circuit must be set to Master. All following supplies are set to Slave, then the Master supply's voltage control will set the voltage for all the supplies.



See above: Using the supplied connecting cables, the control OUT of #1 goes to the IN of #2. OUT of #2 goes to IN of #3, etc. Only Supply 1 is in Master mode, all others are in Slave mode.

Technical Specifications

	Z-PS220I P100A	Z-PS110B P100A
Type	Switching	Switching
Input Voltage	220V AC±10%	110V AC±10%
Input Frequency	50Hz~60Hz	50Hz~60Hz
Adjustable DC Output	9V~16V DC ±0.5V	9V~16V DC ±0.5V
Output Current (Max)	100A DC Continuous	100A DC Continuous
Line Regulation	< ±5%	< ±5%
Load Regulation	< ±5%	< ±5%
Fuse	10A/250V	20A/120V
Output Ripple	150 mV RMS	150 mV RMS
Protection Temperature	75°C	75°C
Overload Protection	UL > 105A	UL > 105A
Cable	UL 14 AWG	UL 14 AWG
Dimensions (mm)	190(W) x 62(H) x 313(L)	190(W) x 62(H) x 313(L)

Continuous exposure to excessive sound pressure levels may cause permanent hearing loss. ZAPCO strongly advises that you use common sense when setting volume levels. Everything written in this manual is for the proper use of the products. Some features or specifications could be modified during production to improve the product performance. The technical specifications and functionalities stated here are current as of the time of publication. General instructions and safety warnings are intended in any case to be always effective for this type of product. The latest manual with any updates is always available at www.zapco.com/download



Modesto, California USA
Since 1974

zapco.com