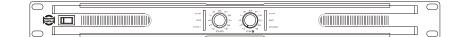


SWITCHING POWER PROFESSIONAL AMPLIFIER

User's Manual

A 500.2





SHOW® is a registered trademark of SEIKAKU TECHNICAL GROUP LIMITED

SEIKAKU TECHNICAL GROUP LIMITED NO.I LANE I7, SEC.2, HAN SHI WEST ROAD, TAICHUNG 4015I, TAIWAN tel: 886-4-22313737 - fax: 886-4-22346757

www.show-pa.com sekaku@sekaku.com NF05033-1.0

33-1.0

М	п	Ľ	W	
N	U	E	Λ	

01	SAFETY RELATED SYMBOLS ·····	2
02	WARNING	2
03	IMPORTANT SAFETYINSTRUCTION	3
04	INTRODUCTION ·····	4
05	FRONT PANEL	5
06	REAR PANEL	6
07	APPLICATIONS ·····	8
80	TECHNICAL SPECIFICATINS	10

IMPORTANT!

Please read this manual carefully before operating this unit for the first time.

All rights reserved to SEIKAKU. All features and content might be changed without prior notice. Any photocopy, translation, or reproduction of part of this catalogue without written permission is forbidden. **Copyright** © 2009 SEIKAKU GROUP

SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that Documentation for safety reasons.

- Protective grounding terminal.
- $\sim~$ Alternating current /voltage.
- Hazardous live terminal .
- ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.



Disposing of this product should not be placed in municipal waste and should be separate collection.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

• Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

• External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

• Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.

No user serviceable parts inside.

• Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

• Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

• Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

TECHNICAL SPECIFICATIONS

General Specifications					
Protections	Full short circuit, open circuit, thermal, ultrasonic, and RF protection stable into reactive or mismatched loads, turn ON/OFF, muting, tried crowbar.				
Controls	Front: AC switch, Inputlevel control for each channel Rear: stereo/parallel/bridged/mute/select operation Mode				
Indicators	SIGNAL: 2 green LEDCLIP: 2 red LEDPOWER: green LEDPROTECTION:I red LEDBRIDGED: red LEDPRIOR: green/red LED				
Connectors	Euroblock				
Power Supply	110V-120V or 220V-240V AC 50/60 Hz ±10%				
Dimensions(mm)	483(W)*360(D)*44(H)				
Weight	5.1kg(A500.2)				

	TEC	HNIC	AL SPECIFICATIONS	
Power Specifications(tolerance +/-5%)			A500.2	
CHA/B (One Channel drive)	e) 4 ohms(RI		600W	
Stereo Mode (Both Channels Drive)	2 ohms(EIAJ)		I 200W*2	
	4 ohms(RMS)		450W*2	
	8 ohms(RMS)		250W*2	
Bridge Mono Mode	8 ohms(RMS)		900W	
	4 ohms(EIAJ)		2400W	
Electrical Specification				
Input Sensitivity (Limit Off)		0.9-1.1V (0+/-1dBv)		
Input Impedance		20k ohms balanced or 10k Ohmsunbalanced		
Frequency Response (at 10dB Rated Output Power)		20Hz ~ 20KHz(0+/-IdB)		
Voltage Gain		30+0/-0.5dB		
THD+N (Ref.1K 1/8Rated Power,A-Weighted)		<0.05%		
S/N rate (Ref. Rated Power, A-Weighted)		>98dB		
Crosstalk (Below Rated Power)		>70dB		
Damping Factor(1K8 ohms)		> 180		
Power/Output Circuitry		Switching Power Class D		

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not use this apparatus near water. Install in accordance with the manufacture-r's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.
- Power Cord and Plug

Do not defeat the safety purpose of the polarized or grounding type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

• Cleaning

When the apparatus needs a cleaning, you can blow off dust from the apparatus with

a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

Servicing

Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.

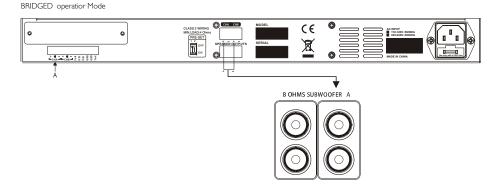
INTRODUCTION

The A500.2 switching power professional Amplifier is designed for professional use on stage. The high-quality components and the carefully designed circuits ensure excellent audio performance and an extremely linear frequency response. In fact, the switching technology offers, together with an increased efficiency and a better control of heat dissipation than conventional power supply systems, a drastic reduction of dimensions and weight, for easier transportation and installation. This Amplifier guarantees total reliability and a trouble-free use even in the most demanding conditions. We believe the A500.2 will provide a perfect performance, what you get is unprecedented performance at an incredibly attractive price.

Features:

*High current switching power allowing high power output with low noise and low distortion
*Substantial protection circuitry like thermal, short circuit, power on/off muting and Therefore protection
*Built-in limiter
*Euroblock input and output
*front mounted gain controls for easy access
*Signal, Clip protect, and Power LED indicators to monitor performance.
*Stereo/Parallel/Bridged/Mute/Select operation Mode
*Amplifier Disable/Prior/Failure Status

APPLICATIONS



APPLICATIONS

Inputs connections

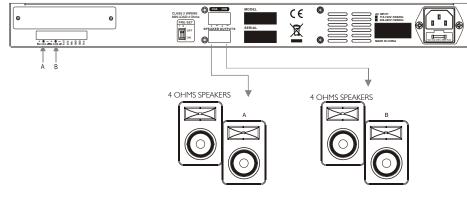
The inputs can be connected to the Euroblock socket using the female free part connectors supplied with the device.

For balanced inputs use Hot pin(+),Cold pin (-) and Ground pin (G) terminals. For unbalanced inputs use Hot pin (+) and Ground pin (G) only.

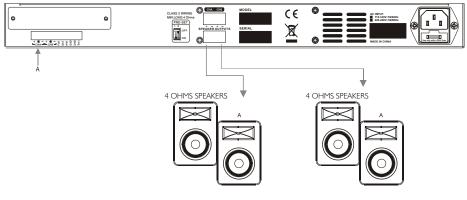
Speaker connections

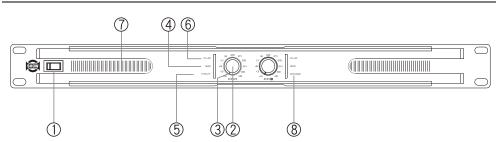
Check that the polarity is well respected for every speaker. Two Eroblocks connected point to point are available for easy paraller set up. The impedance output must not be higher than 2 Ohms per channel.

STEREO operatior Mode



PARALLEL operatior Mode





FRONT PANEL

(1) Power Switch

It switches ON/OFF the unit main power.

2 Level Control

These volume controls allow you to adjust the volume level.

③ Power/Prior LED

The Green LED light up when the amplifier power on. The Red LED light up when the amplifier input priority.

4 Signal LED

These green LEDs light up when the respective channel's output signal pass through.

5 Protection LED

In normal operation, the LED will not illume; If the LED turns red, it means the unit is in heat protection without sound output. The speaker system is actually disconnected from the amplifier outputs when this LED is red, the temperature must be reduced by good ventilation and the signal level decreased etc, if the problem is resolved. the protection **output** systems will deactivate automatically, and normal amplifier operation is resumed.

6 Clip LED

This red LED lights up when the input signal is too strong. it is time to reduce input level until clip LED turns off.

Air Intake Vents

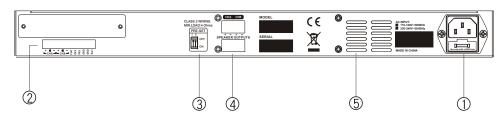
A500.2 employ a variable speed internal cooling fan to intake the air through front grill to keep it running cool even under extreme operating conditions. Please keep these vents clear and free from obstruction at all times to insure proper cooling.

____ 5 ___

8 Bridged LED

The Bridged LED light up when the amplifier is Bridged Mode.

REAR PANEL



(1) AC Input

Use it to connect your AI 50.2/A300.2/A500.2 to the supplied AC cord.

(2) Euroblock input

CHA +:CHA balanced signal input + or unbalanced signal input CHA G:CHA signal GND

CHA - :CHA balanced signal input- or unbalanced signal not connect

CHB +: CHB balanced signal input+ or unbalanced signal input

CHB G:CHB signal GND

 $\mathsf{CHB}\,$ - :CHB balanced signal input- or unbalanced signl not connect

Fail:Failure Status output:

Failure Status with +5V high level;

disabled/protection/inactive are all with output low level.

DIS: Amplifier disabled ,input control PIN

While Amplifier is operating disabled with +5V high level, linked to GND, the amplifier will be shutdown and with all protection LEDS lighting, at this moment failure status from +5V high level(normal state) turn into low level (amplifier disabled or not connected) \circ

Using this amplifier disabled function and than connect speaker output, and amplifier start again after finishing connection.

PRI: Input Priority Control PIN

When PRI connect to GND directly, TEST input has priority, at this moment VR RED LEDS lighting.

- GND: signal GND and control GND.
- TEST: Input Priority test/alarm signal

When PRI connect to GND directly, Test/alarm signal will reach the top priority level.

③ Mode select

Mode I: All channels stereo

All input and output channels are independent.

Mode 2: All channels parallel

All outputs are the same with any channel input.

Mode 3: A/B bridged

Input the signal to channel A, connect the

speaker "+" to the output A+, connect speaker "-" to the output B+.

REAR PANEL

Mode 4: Amplifier Mute

Preset		Operation Mode	
1	2		
OFF	OFF	STEREO	
ON	OFF	PARALLEL	
OFF	ON	BRIDGED	
ON	ON	MUTE	

(4) CHA/CHB Euroblock Output

Connect the amplifier to your speakers using these Euroblock.

5 Exhaust Vents

Air is drawn from front grilles,flowing through the unit and heat sink,and then exhausted via the rear vents. Do not block or impede the air flow through these vents and keep the vents areas free of foreign materials.