



P.A. AMPLIFIERS

APS AMP SERIES

APS-120E	120W
APS-240E	240W
APS-360E	360W
APS-480E	480W
APS-600E	600W
APS-800E	800W
APS-1000E	1000W
APS-1200E	1200W



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CABINET AMPLIFIERS

User's Manual

6. TECHNICAL SPECIFICATIONS

	APS-120E	APS-240E	APS-360E	APS-480E	APS-600E	APS-800E	APS-1000E	APS-1200E
Power supplier	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V	110-120V/ 220-240V
Input connector	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS	BalancedXLR 1/4"TRS
Input impedance	20K Ω	20K Ω	20K Ω	20K Ω	20K Ω	20K Ω	20K Ω	20K Ω
Input sensitivity	0dB	0dB	0dB	0dB	0dB	0dB	0dB	0dB
Using method	Single unit	Single unit	Single unit	Single unit	Single unit	Single unit	Single unit	Single unit
Output voltage/ impedance	0.4 Ω 0.8 Ω 0-70V(40.8 Ω) 0-100V(83.3 Ω)	0.4 Ω 0.8 Ω 0-70V(20.4 Ω) 0-100V(41.6 Ω)	0.4 Ω 0.8 Ω 0-70V(13.6 Ω) 0-100V(27.8 Ω)	0.4 Ω 0.8 Ω 0-70V(10.2 Ω) 0-100V(20.8 Ω)	0.4 Ω 0.8 Ω 0-70V(8.2 Ω) 0-100V(16.7 Ω)	0.4 Ω 0.8 Ω 0-70V(6.1 Ω) 0-100V(12.5 Ω)	0.4 Ω 0.8 Ω 0-70V(4.9 Ω) 0-100V(10 Ω)	0.4 Ω 0.8 Ω 0-70V(4.08 Ω) 0-100V(8.3 Ω)
Output power (RMS)	120W	240W	360W	480W	600W	800W	1000W	1200W
Distortion	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%	<0.5%
Frequency response	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB	50Hz-22KHz -3dB
SNR	>90dB(@1KHz)	>90dB(@1KHz)	>90dB(@1KHz)	>90dB(@1KHz)	>90dB(@1KHz)	>100dB(@1KHz)	>100dB(@1KHz)	>105dB(@1KHz)
Dimensions (L×W×H)	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm	483×400×88.8mm

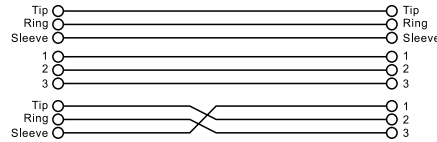
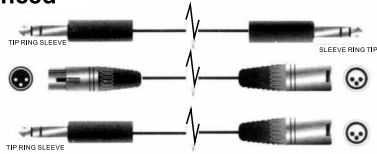
IMPORTANT!

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

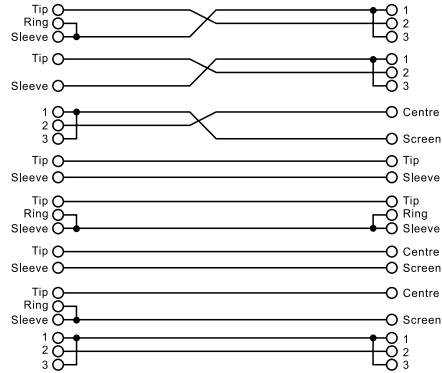
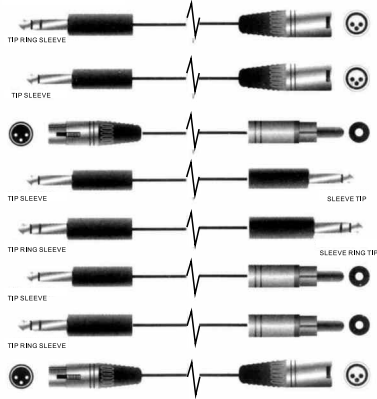
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5. WIRING DIAGRAM

• Balanced



• Unbalanced



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.



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.

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.

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 manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including am-

plifiers) 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.

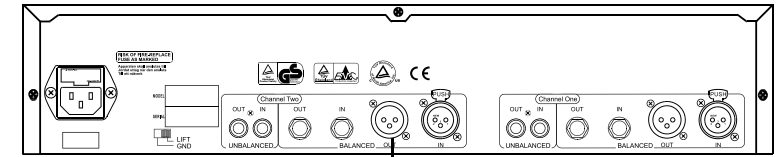
IMPORTANT PRECAUTIONS

1. Keep this User's Manual for correct operation in future.
2. Operate the unit according to the printing instructions on the unit chassis.
3. Make sure if power complies with the power requirements of the unit before operation.
4. Do not block the fan vent. Do not operate the amplifier on a soft surface.
5. Do not use the broken power cord for the unit.
6. Always keep the unit grounded safely.
7. Do not directly connect any output terminal with input terminal of the same unit.
8. Do not parallel the output terminals of two amplifiers.
9. Do not connect any power source or signal source with the output of the amplifier.
10. Do not operate the unit near the heating equipments. Always put the unit in the well-ventilated place.
11. All of the output terminals can not be grounded.

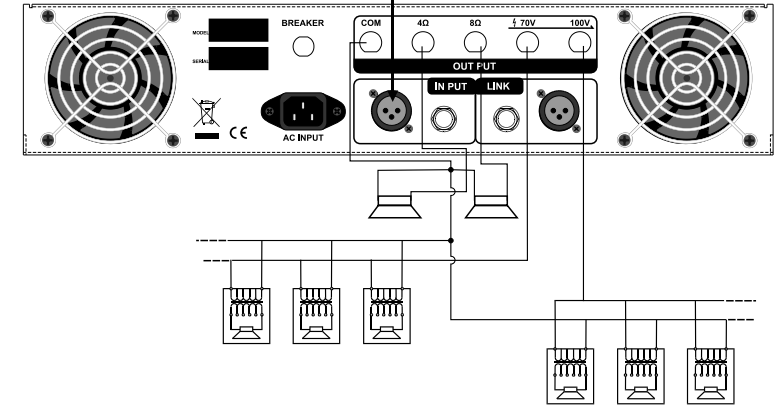
4. OUTPUT CONNECTION DIAGRAM

1).

PRE AMP

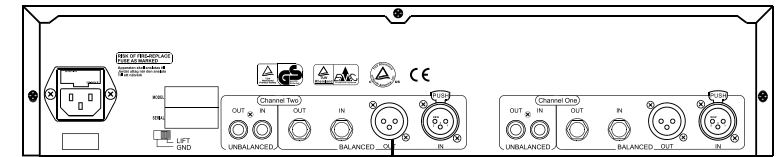


APS AMP

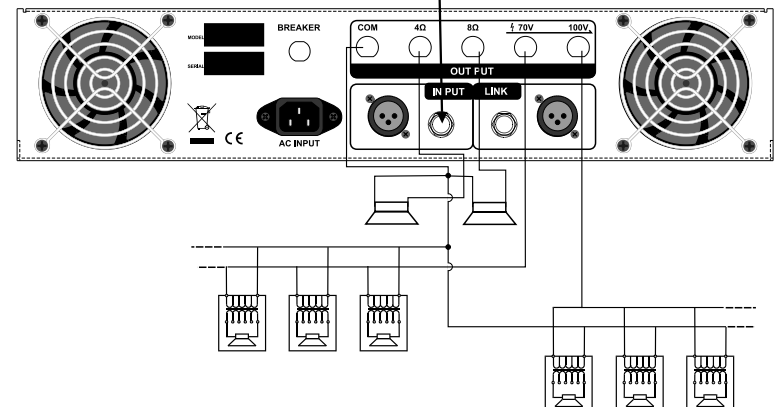


2).

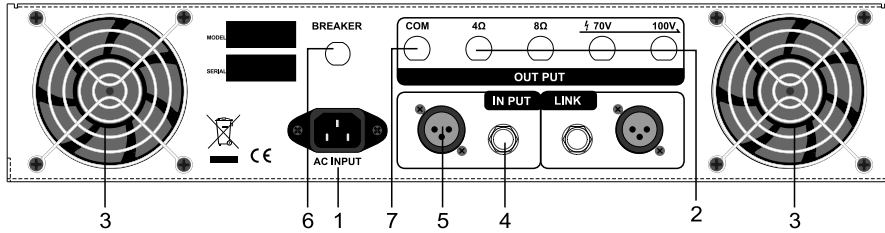
PRE AMP



APS AMP



3. REAR PANEL



1).Main cord connector

The connector is used to connect the supplied main cords. After assuring the setting is correct, connect one end of the power cord with the unit and insert the other end to power socket.

2).Output terminals

These terminals will be available for 100V or 70V rated voltage output and 4Ω impedance loading.

3).The fan

It is used to accelerate air circulation in order to lower the inner temperature (the air comes in forward and goes out backward).The rotation speed will accelerate as the temperature rises.

4). XLR.1/4"TRS INPUT

This is a balanced stereo 6.3Φ connector and is used to connect input signals.

5). LINK Connecting terminal

It can be used to output or input signals.

6). BREAKER

When the unit is over loaded or over voltage, it will automatically disconnect to protect other power.

7).COM output terminal

This terminal is COM output terminal.

NOTE: it can not be grounded.

TABLE OF CONTENTS

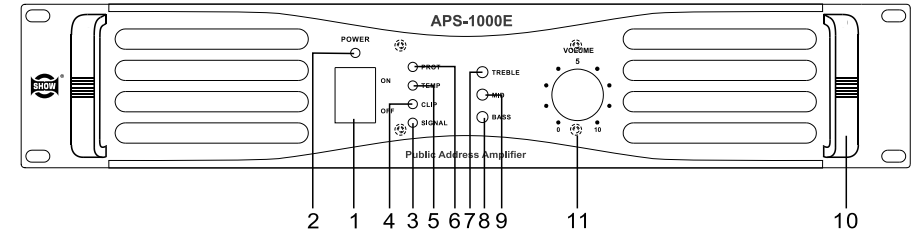
1. FEATURES LIST.....	1
2. FRONT PANEL.....	2
3. REAR PANEL.....	2
4. OUTPUT CONNECTION DIAGRAM.....	3
5. WIRING DIAGRAM.....	4
6. TECHNICAL SPECIFICATIONS.....	6

1. FEATURES LIST

The amplifiers of APS series are pure high power amplifiers and applied for PA system. They present with the following specific features:

- One balanced input
- One 6.3Φ stereo input
- One 6.3Φ bridged output
- One balanced bridged output
- One signal LED (the LED lights up as output signal > 0.2V)
- One peak LED (the LED lights up as clips in output signal)
- One protection LED (the LED lights up as too high inner temperature and other breakdowns, meanwhile, the output automatically cuts off)
- 4Ω and 8Ω low impedance output and 70/100V high voltage output
- **Speaker short circuit protecting function (clip LED light up as speaker output short-circuits and overloads. In this case, please cut off the power and do not restart the unit until the unit is checked ok.)**
- **Signal auto compressing function (output will not be distorted due to the pre-input or output intensity of different sound source). When the temperature is too high, the output signal will diminish automatically (the output decreases as the inner temperature is too high; the output signal cuts off automatically as the temperature continues rising and the PROT LED lights up).**
- **Advanced surge current control components are adopted and they eliminate voltage fluctuation of the electric fence caused by too big current when traditional high power amplifiers are powered on.**

2. FRONT PANEL



1). The POWER switch

The POWER switch is used to turn the power of the unit on and off. The power is on when the switch is in "ON" position; the power is off when the switch is in "OFF" position.

2). The POWER LED

The LED lights up when the power is on; the LED lights off when the power is off.

3). The SIG LED

The LED lights up when the output is above 200mV.

4). The CLIP LED

The LED lights up when the distortion exceeds 0.5%, and it means that the output signal is too strong, so you should reduce pre-output signal (if the LED lights up half or slightly, it means auto compression Function starts; if it's fully on, it means that the pre-signal is too strong and has exceeded the compression range).

5). The TEMP LED

When the unit is too hot, the temperature protection system functions and the LED lights up. During the protection, there is no signal output. The unit doesn't restart to work until the temperature goes down to the normal standard, the temperature protection system is out of function and the LED lights off.

6). PROT LED

When the unit operates abnormally (e.g. Output load short circuit protection or over load protection), the LED lights up.

7). Built-in Treble control

When Treble is not enough or too high, adjust the Treble properly. The adjusting range is ± 12 dB.

8. Built-in Middle control

When the broadcasting sound is not clear, adjust the Middle properly.

9. Built-in Bass control

When the Bass is not enough or too high, adjust the Bass properly. The adjusting range is ± 12 dB.

10. Handle

The handle is for the convenience of carrying the unit.

11. Volume control

This knob is used to adjust volume, in case signals are distorted.