

OWNER'S MANUAL

PROFESSIONAL SOUND SYSTEM

AMPLIFIER APPLE SERIES

A4173A

2x550W



Manufacturer: WIND FORCE ELECTRONIC MANUFACTURING CO.,LTD

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TECHNICAL DATA & INTRODUCTION

MODEL	A4173A
Output power STEREO 8 OHMS	550W+550W
TA 1KHz THD ≤ 1% 4 OHMS	800W+800W
BRIDGE 8 OHMS	1600W
Frequency response	20Hz-20KHz +/-0.5dB
Input sensitivity	0.77V
Maximum input level	18dB/6.2V
Input impedance active balanced	20KOHMS/Balanced, 10KOHMS/un-Balanced
Signal/noise ratio a-weighted RMS	≥95dB
Crosstalk at rated output power 8 ohm 1kHz	>70dB
Damping factor f=1kHz 8 ohms	>240
Slew rate internal	15V/μS
Protection	SHORT CIRCUIT, CURRENT LIMITED DC FAULT AC LINE FUSE, THERMAL CUT OFF, POWER UP/DOWN TRANSIENTS
Indicators	POWER(GREEN)PROT(RED)CLIP(YELLOW) SIG (GREEN)
Cooling	VARIABLE SPEED FAN
Front panel controls	LEVEL ACH, BCH POWER SWITCH
Rear panel controls	STEREO/BRIDGE/PARALLEL MODE SWITCH
Connector	XLR BALANCED INPUT, PROFESSIONAL SPEAKON OUTPUT,
Power consumption half power 8 ohms	<800W
Power supply	AC240V/50Hz
Dimensions(W×D×H)mm Interior/Exterior	483x320x88/(575x425x150)mm
N.W/G.W	11.4kg/12.8kg

TECHNICAL PARAMETERS CHANGERS ARE NOT INFORMED.



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The information furnished in this manual does not include all of the details of design, production, or variations of the equipment. Not does it cover every possible situation that may arise during installation, operation or maintenance. If you need special assistance beyond the scope of this manual, please contact our Technical Support Group.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE COVER OR BACK. NO USER SERVICEABLE PARTS INSIDE REFERS SERVICING TO QUALIFIED SERVICE PERSONNEL.

MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field, which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit. If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

WATCH FOR THESE SYMBOLS:



The lightning bolt triangle is used to alert the user to risk of electric shock



The exclamation point triangle is used to alert the user to important operating or maintenance instructions.



WARNING

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE!

INTRODUCTION

BIEMA APPLE series amplifier represents a major step forward in **Biema** power amplifier technology and design. In 1987 Mr. **Biema** collaborated with professors at Electro acoustics Research Center of Princeton University and established **Biema** Acoustics R&D Center. Under his passion at music, Mr. **Biema** has contributed most of his time and technology at the development of **Biema** audio equipments. **Biema** professional amplifiers are coming with excellent sound effect but with very reasonable price. It offers quality guarantee and technological support for the apparatus you are using.

Quiet Operation

High quality of the power transformers reduces external magnetic field radiation, which can induce audible hum into associated equipment and cabling. In addition, the up-to-dated technology components are incorporated throughout the design to ensure extremely low noise generation **Biema** all fore Series power amplifiers.

DC Voltage protection

If an amplifier channel detects DC voltage at output terminals, the output relay will immediately open to prevent loudspeaker damage. The protection LED will light.

Reliable Power Supply

The **Biema** APPLE Series amplifiers have automatic power supply protection. The power supply have experienced DC automatic regulation, which grants **Biema** APPLE Series amplifiers excessive reliability. **Biema** APPLE amplifiers can be wired for 115/230v 50Hz-60Hz AC power supply.

GENERAL

Biema's new APPLE series amplifiers are high performance and high efficiency's top quality amplifiers. To get good effecting of cooling and highest work efficiency, variable speed fan and T type heat-sink have adopted for constant cooling. Besides, APPLE series amplifiers have their comprehensive protect function.

1. Power ON/OFF transient, prevents the surge assault.
2. Thermal cut off protection, the amplifier will cut off the link with speakers when the temperature is more than 100°C.



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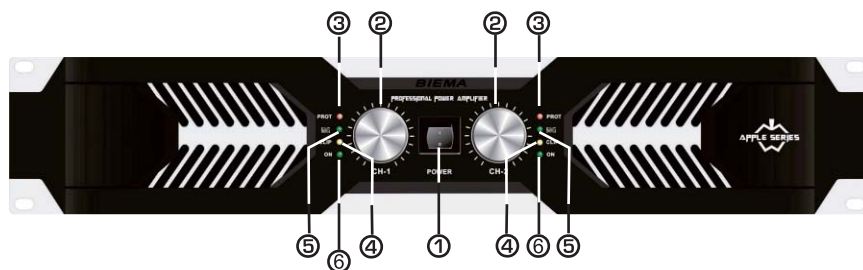
3. Short circuit current limited protection.
4. The muting circuit prevents switching noise by turning the amplifier on or off.
5. DC protection at speaker output, the amplifier will cut off the link with speakers when the amplifier is unusual.
6. Limiter protection, providing voltage of compression without distortion, the amplifier will not clip.

PRECAUTIONS

1. Don't stack anything upon the amplifier.
2. Always use a power source of adequate capacity.
3. DO NOT turn ON/OFF the power of continuously. Never allow the ventilation holes on the front of the amplifier to be obstructed in any way.
4. Input level adjust controls are provided on each channel.
5. Output can use binding posts, speakon posts.
6. When the amplifier works in stereo, bridge-mono or parallel-mono mode, the switch must be on the same.
7. Fan's variable speed may produce light noise, which is normal when continuous output large power and amplifier gives out heat.
8. To clean the amplifiers, wipe it with a dry cloth, if the case is very dirty, disconnect the AC cord from the power source and wipe it with a dry cloth. Never use solvents or chemical cloth. Never spray insecticides as they may cause discoloration or peeling.
9. If any trouble is found, disconnect the power and contract your distributor.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

FRONT PANEL :



1. MAINS POWER SWITCH

When press the switch, the soft start circuit run for avoiding surge strike. In about 3-4 seconds, there will be a clicking denote that soft start finished. And more 1-2 seconds later, there will be another "Clicking", the amplifier is connected with speaker and ready to work.

2. CH-1/CH-2 INPUT LEVEL CONTROL

Adjust it to get the volume desired.

3. CH-1/CH-2 PROTECTION INDICATING LED

These LEDs will light up when the amplifier is running un-stable or went in to thermal protection after the power elements temperature over 90 °C.



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4. CH-1/CH-2 CLIP INDICATING LED

Turns on just before the maximum, distortion free, output level of the amplifier. The clip LEDs may turn on shortly from time to time but they may certainly not turn on for longer periods. In this case you have to turn the output level down!

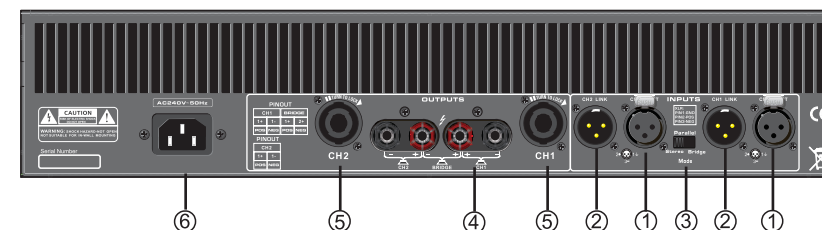
5. CH-1/CH-2 Signal Presence LED

Green LED, one per channel, flashes when input signal exceeds -80dBu.

6. CH-1/CH-2 POWER LED

Green LED, LED illuminates green when amplifier is on.

REAR PANEL :



1. CH-1/CH-2 input XLR

standard XLR jack, below is the connection method; Pin1: signal ground, Pin2: signal+, Pin3: signal-

2. CH-1/CH-2 Signal Link Output

Standard XLR (male) socket for input signal link, its Pins parallel connected with the female XLR socket so you can feed the same signal to another amplifier. Pin1: signal ground, Pin2: signal+, Pin3: signal-

3. Output Mode Set Switch.

Select the run mode as STEREO or BRIDGE or PARALLEL

4. CH1/CH-2 SPEAKON post output

Used by a standard SPEAKON connector.

5. CH1/CH-2 Binding post output

Used by a standard Binding post connector.

6. Mains Power Supply Cord