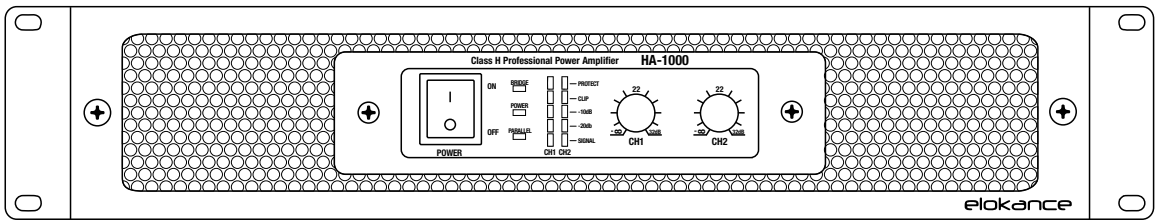
USER'S MANUAL

AMPLIFIERS HA-SERIES

HA 1000 . 1600 . 2400 . 3600

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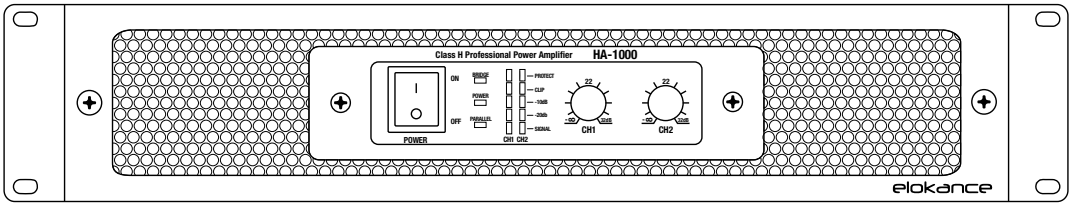


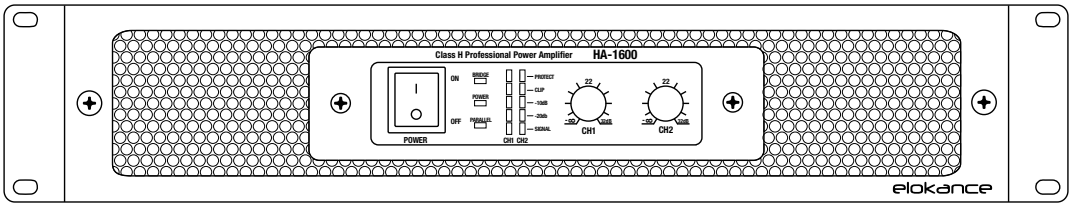
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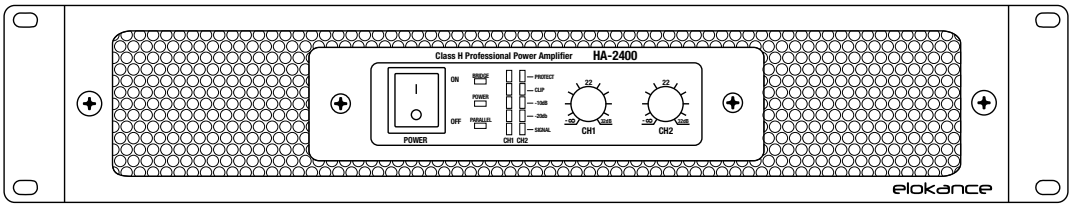
1. Welcome to elokance

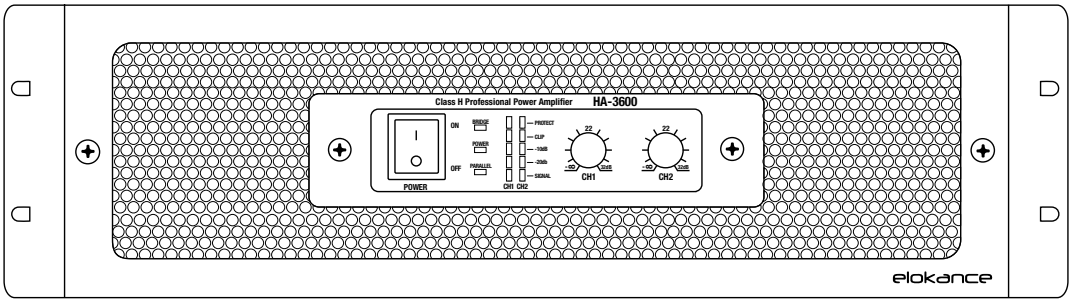
The new HA install amplifier series from elokance is a complete line of high performance installation amplifiers based on H class technology which operates the output stage to its maximum efficiency all the time. This HA series provides robust and extraordinarily high fidelity power to drive high power passive loudspeakers. The HA series are designed, engineered and manufactured with the highest quality standards. High-pass / Low-pass built-in crossovers, stereo / bridge / parallel modes and an advanced protection circuitry place this amplifier series to the highest level in pro-audio equipment market.

2. Presentation of HA range









3. Important safety precautions

Before using your HA amplifier, please read these safety and protection informations regarding your material.

Keep this instruction manual.

Heed all warnings.

Follow all instructions.

WARNING :
To prevent fire or electric shock, do not expose this equipment to rain or moisture. Do not use this apparatus near water.

Clean only with a dry cloth.

Do not block any ventilation openings. 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 amplifiers) that produce heat.

The appliance coupler is the AC mains disconnect and should remain readily operable after installation.

Do not defeat the safety purpose of the grounding-type plug. A grounding plug has two blades and a grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for the replacement of the obsolete outlet. This apparatus should be connected to a receptacle with a protective earthing (or ground) connection.

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

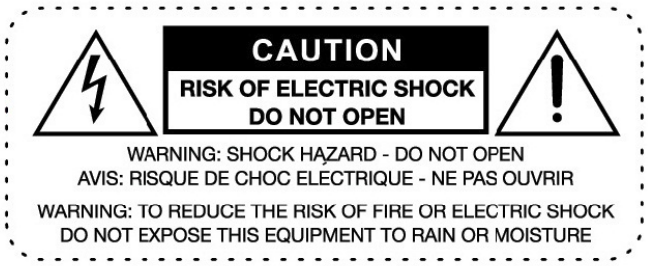
Use only attachments/accessories specified by elokance.

Use only with hardware, brackets, stands, and components sold with the apparatus or by elokance.

Unplug the unit during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. 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.

3.1. Explanation of Graphical Symbols



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product

4. Unpacking

Confirm that the amplifier has no visible shipping damage.
Confirm that amplifier has the correct AC cord and voltage rating for your region.
It is best to keep the carton in case the amplifier needs to be returned, at least until it has been tested.

5. Installation

Only use attachments/accessories specified by the manufacturer.
Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Do not allow water to enter this unit or allow the unit to become wet. Fire or electrical shock may result.

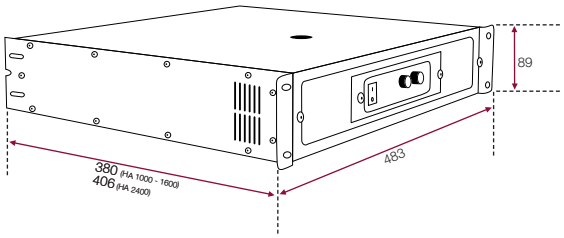
Do not place a container with liquid or small metal objects on top of this unit. Liquid or metal objects inside this unit are a fire and electrical shock hazard.

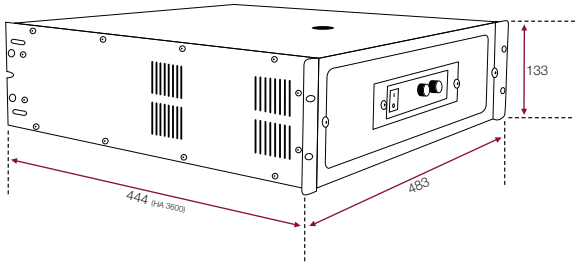
Do not place heavy objects, including this unit, on top of the power cord. A damaged power cord is a fire and electrical shock hazard. In particular, be careful not to place heavy objects on a power cord covered by a carpet.

Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock

Use of a mobile phone near this unit may induce noise. If noise occurs, move the phone further from the unit.

6. Specifications





	HA 1000	HA 1600	HA 2400	HA 3600
Type	2 CH Amplifier H-class	2 CH Amplifier H-class	2 CH Amplifier H-class	2 CH Amplifier H-class
Power RMS @8 Ohms	2 x 350 W	2 x 500 W	2 x 800 W	2 x 1200 W
Power RMS @4 Ohms	2 x 500 W	2 x 800 W	2 x 1200 W	2 x 1800 W
Power RMS @2 Ohms	2 x 700 W	2 x 1000 W	2 x 1500 W	2 x 2200 W
Power RMS Bridge @8 Ohms	1000 W	1600 W	2400 W	3600 W
Power RMS Bridge @4 Ohms	1400 W	2000 W	3000 W	4400 W
Frequency Range	20Hz - 20kHz	20Hz - 20kHz	20Hz - 20kHz	20Hz - 20kHz
Damping Factor (1kHz @8 Ohms)	> 200	> 300	> 350	> 500
Input CMRR (1kHz)	> 60dB	> 60dB	> 60dB	> 60dB
S/N Ration	> 102dB	> 105dB	> 108dB	> 112dB
Dimensions	89 x 483 x 380	89 x 483 x 380	89 x 483 x 406	133 x 483 x 444
Net Weight	23kg	26kg	28kg	36kg
Hi-Pass X-over built in	100Hz	100Hz	100Hz	100Hz
Low-Pass X-over built in	100Hz	100Hz	100Hz	100Hz

7. Features

Power levels matched to the most popular speakers used by entertainers.
Optimized for maximum real-world headroom into 2 Ω, 4Ω and 8Ω speaker systems.

The unit offers three operating modes :
- STEREO (where Channels A and B operate independently)
- PARALLEL (where the unit outputs a mono source through twin amplifier systems)
- BRIDGE (where the unit operates as a single high-power amp).

Inputs : combo XLR, 1/4" TRS input connectors for compatibility with any source.

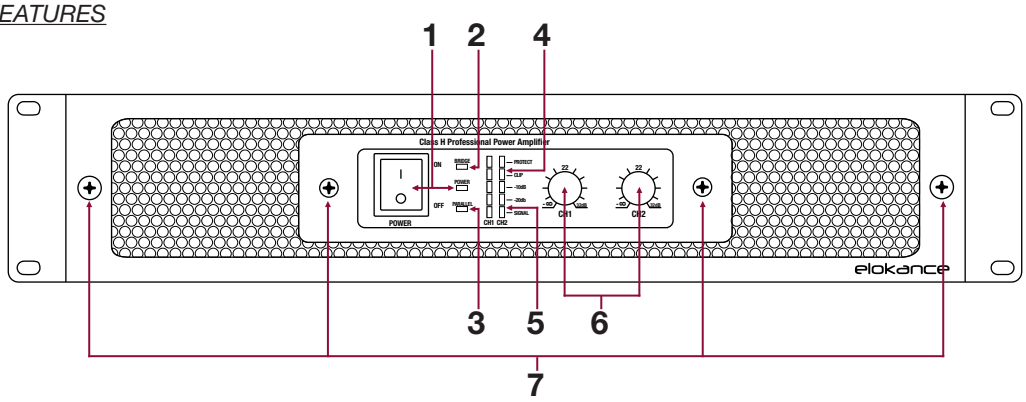
Outputs : SpeakON® 2-pole and 4-pole plugs (connects 2 poles only).

Binding posts support all other speaker wiring systems.

Front panel LEDs monitor Power, Signal and Clipping.

Subwoofer / Satellite crossover built-in. High-pass / Low-pass built-in crossovers, stereo / bridge / parallel modes.

FRONT PANEL FEATURES



1. Power switch and indicator
Press to toggle the power on or off. The POWER indicator lights up green when the power is ON.

2. Bridge mode indicator
The LED will turn on when the amplifier is in Bridge mode.

3. Parallel mode indicator
The LED will turn on when the amplifier is in Parallel mode.

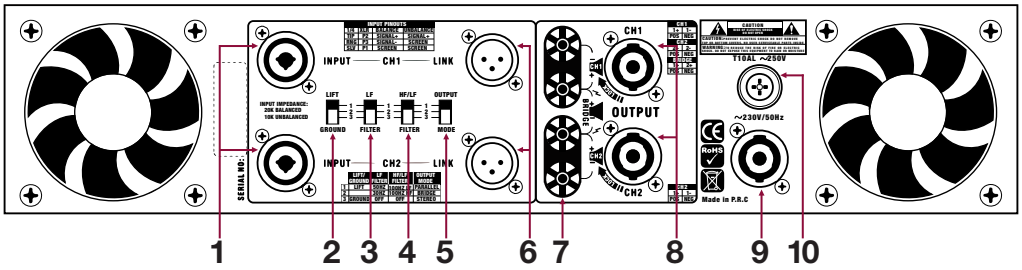
4. Clip indicator
Lights up red when the output signal distortion on the corresponding channel rises above 1% - indicating that "clipping" has occurred because the signal level is too high.

5. Signal indicator
Lights up green when the corresponding channel's output level exceeds 2 Vrms (equivalent to 1/2 W into an 8 Ω load, or 1 W into a 4 Ω load).

6. Volume control knob
Each control knob adjusts the volume of the corresponding channel, from –∞ dB to 0 dB.

7. Front panel screws
Unscrew without any tool to clean the dust filter.

REAR PANEL FEATURES



1. Signal input connections
Connect with Balanced / Unbalanced ¼-INCH or male XLR.

2. Ground / Lift selector
1 is Lift, 3 is Ground.

3. LF filter
Position 1 = cut all frequencies below 50Hz
Position 2 = cut all frequencies below 30Hz
Position 3 = no filter (full range).

4. Crossover
Position 1 = cut all frequencies below 100 Hz
Position 2 = cut all frequencies above 100 Hz
Position 3 = no filter (full range).

5. Output modes
Position 1 = Parallel mode
Position 2 = Bridge mode
Position 3 = Stereo mode.

6. Link output
Direct output of input signal (THRU).

7. Binding post output
Bare wires or terminals may be inserted into the side holes. Red for + and Black for -. For the bridge mode, connect both RED pins to the speaker.

8. SpeakON output (Neutrik)
Insert and turn until the connector clicks. Use the thumb latch or locking ring to release the plug.

9. AC power connector (Neutrik)
Connect your Powercon cable.

10. Fuse
T10AL ~250V (HA 1000)
T12AL ~250V (HA 1600)
T15AL ~250V (HA 2400)
T25AL ~250V (HA 3600)

8. System setup examples

9. Troubleshooting

NO POWER, NO LIGHTS, NO FAN

Confirm that the AC cord is fully seated and connected to a live outlet. Check the AC source by trying another device such as a lamp. Check the FUSE on the back of the amplifier.

INTERFERENCE FROM CELL PHONES

Using a cell phone near the speaker system can induce noise. If this occurs, move the cell phone further away from the speaker system.

BOTH CHANNELS PRODUCES DEEP BASS ONLY

Check the position of the CROSSOVER switch on the rear panel. Set the HF/LF switch to position 3 (full range).

AMPLIFIER SOUNDS DISTORTED

If the red CLIP LED is flashing, the amplifier is being played beyond its normal rated power. The circuitry will reduce volume somewhat to prevent severe overdrive, but if the input signal is further increased, the limiter can be overridden, with increased distortion.

If the speakers or speaker cables are shorted or defective, the amplifier may distort at lower-than-normal levels, with increased flashing of the red CLIP LED. This should be checked by trying an alternate speaker and cable. If too many speakers are connected to each channel (impedance below 2 ohms), the amp will overload more easily and will probably run hot.

If the sound is distorted or garbled without flashing the red CLIP LED, the distortion is not occurring inside the amplifier. Either the speaker is bad or the input signal is distorted.

Confirm that the speaker is OK by trying a different unit.

Input overload can occur if the amplifier Gain controls are set too low, and the input source is overdriven to compensate Reduce the source volume until the distortion clears up, and increase amp Gain to reach the desired level. It is generally desirable to keep the amp gains at or near their full, clockwise, position.

Check all input connections. Do not plug two different sources into the same channel. Use a mixer to blend sources.

NO SOUND, NO GREEN OR RED LED

Confirm that the Gain controls are turned up.
Confirm that the input cables are correctly installed at both ends. If using 1/4-inch speaker cables, do not confuse with input cables.
Confirm that the source is active. If necessary, try another source, or connect another amplifier to the existing source.

NO SOUND, BUT THE GREEN LED IS RESPONDING

The green LED indicates the amp is producing a signal, so sound should be heard if the speaker is connected. Check the speaker connections at both ends, and try a different speaker.

NO SOUND, RED LED ON

The amp mutes briefly when turned on and off to prevent thumps. If the amp overheats severely, it will mute until it cools off. The fan will be running at full speed, and sound should resume in less than a minute. If the amp feels hot and the fan is not running, it needs to be serviced.

BACKGROUND HUM

Balanced XLR or TRS cables are better for long runs.

AMPLIFIER NEEDS SERVICING

The following conditions indicate possible unsafe conditions that require service before using.

If observed, unplug the AC cord from the wall and when safe, remove the amp for servicing.

If the amplifier emits smoke or burning smells.

If the case is severely dented or deformed.

If the amplifier is soaked with any fluid.

If internal parts sound loose.

If the AC breaker trips when power is applied.

If the amplifier is dropped, carefully inspect for damage or loose parts before attempting to use.



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