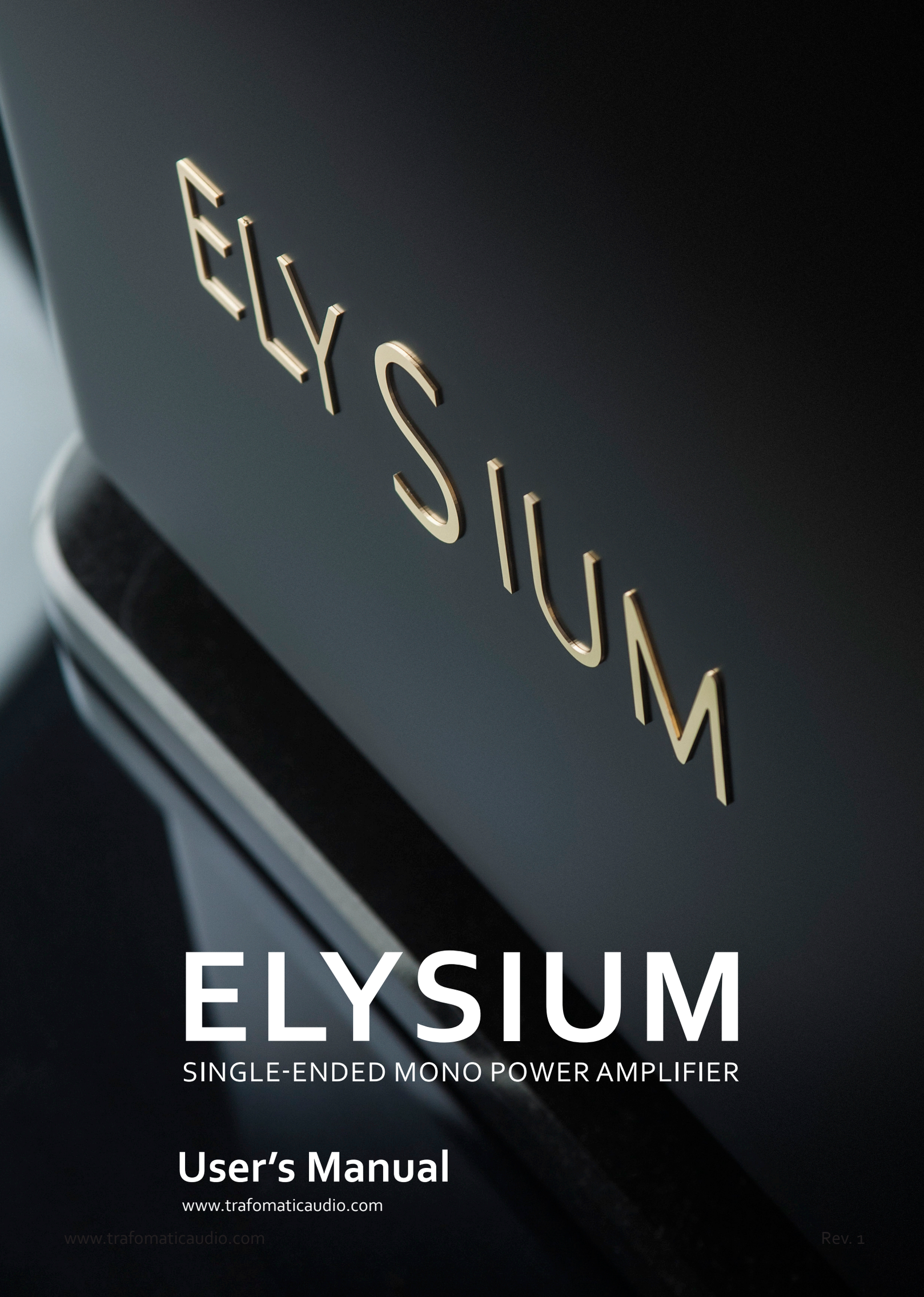

ELYSIUM

SINGLE-ENDED MONO POWER AMPLIFIER

User's Manual

www.trafomaticaudio.com

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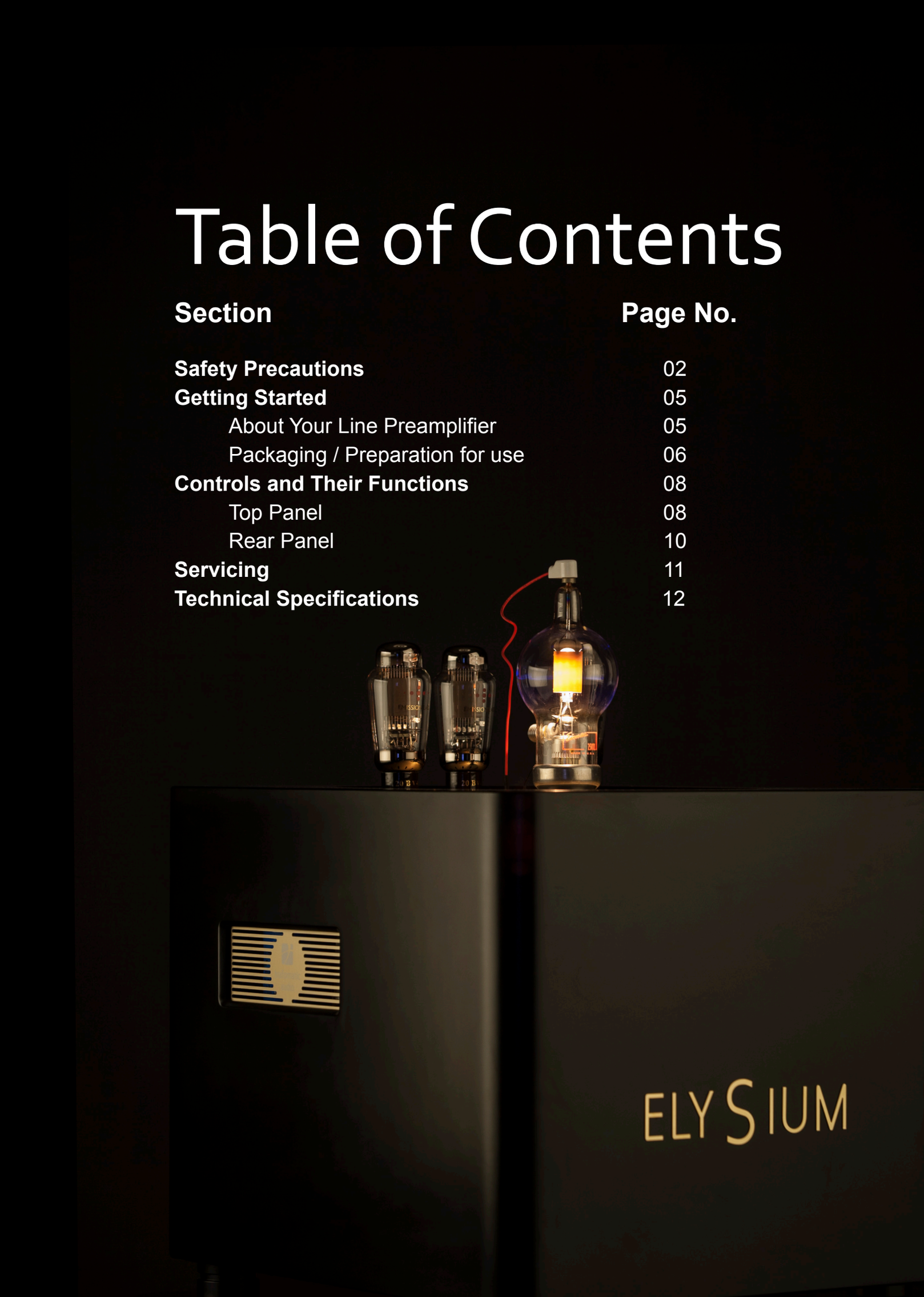


SAFETY PRECAUTIONS

IMPORTANT SAFEGUARDS PLEASE READ CAREFULLY ALL THE FOLLOWING IMPORTANT SAFEGUARDS THAT ARE APPLICABLE TO YOUR EQUIPMENT

NEVER REMOVE PROTECTIVE TUBE COVER. PROTECTIVE GLASS MUST BE INSTALLED AT ALL TIMES. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SAFETY

Read the User's Manual and refer to it frequently during use of this product. All the safety and operating instructions should be read before the product is operated.

Retain the User's Manual. The safety and operating instructions should be retained for future reference.

Follow Instructions. All operating and instructions for use should be closely followed.

Power Sources. This product should be operated using only the type of power source indicated on the marking label. If you are not sure of the type of power supply in your home, consult your product dealer or local power company.
Grounding. This product is equipped with a three prong IEC connector. Always use power cord with adequate wire cross section and an electrical outlet that is grounded. If you do not know whether the outlet is grounded, consult your electrician or local power company.
Power Cord Protection. Power supply cords should be routed so that they are not likely to be walked on or pinched. Pay particular attention to cords at plugs, convenience receptacles and where they exit from the product. Always use power cords with adequate current ratings and safety certifications (UL, CE, TÜV, CSA, etc.)

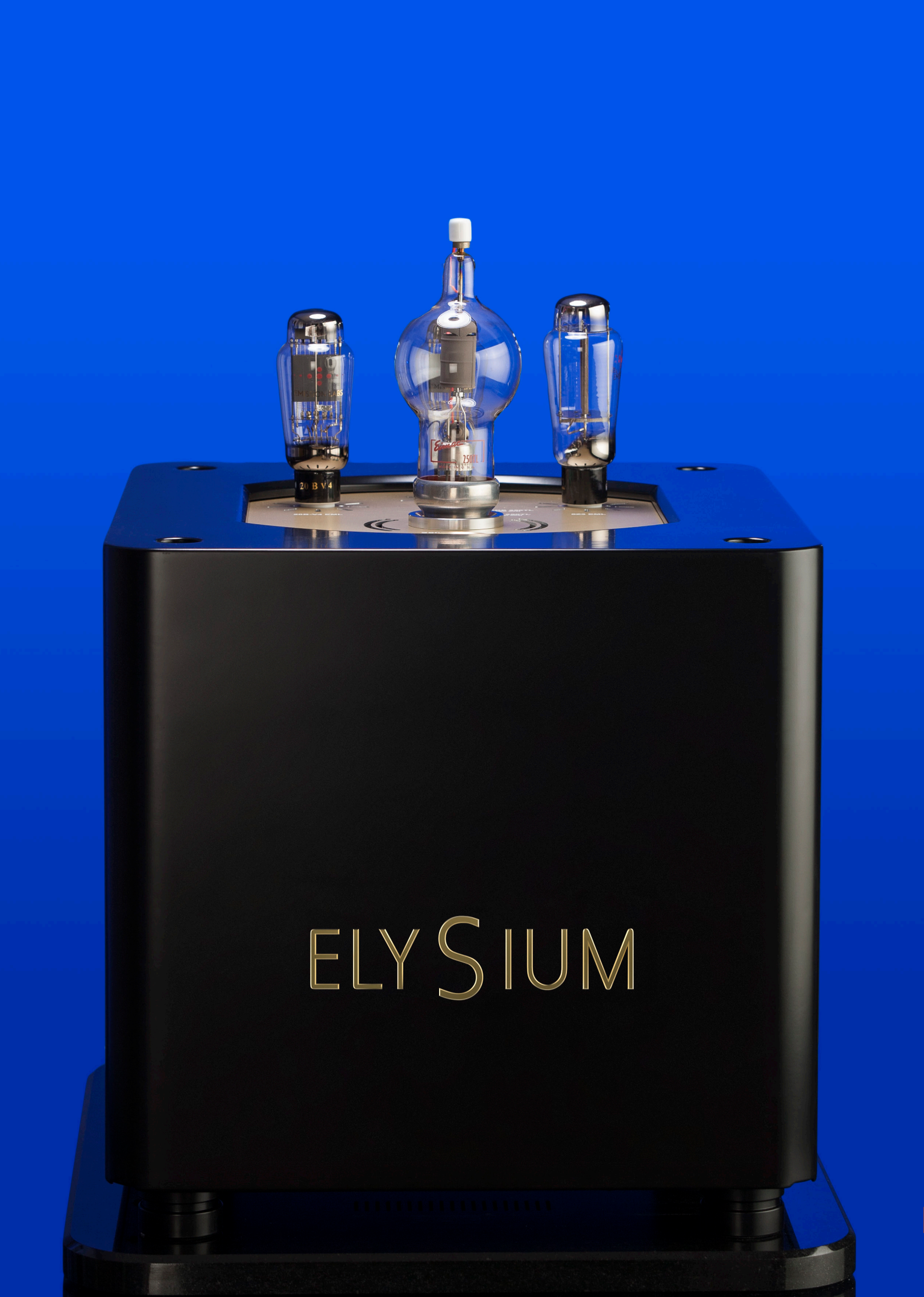
Fuses. For continued protection against fire hazard, replace fuses with the same type and rating of the fuses specified. When changing fuses, completely unplug the AC cord from the wall outlet. If in doubt what fuses to use, contact factory or authorized distributor.

Tubes. During operation, the vacuum tubes get very hot. Allow at least 60 minutes after removing power for tubes to cool down. Only after 60 minutes you can remove the protective tube cover, if tube replacement is required.

Cooling. To ensure proper ventilation, there should be nothing placed on top of the unit. Ventilation holes should be unobstructed with at least 12" (300mm) of empty space above and around the unit.

Turn-off when not using for prolonged periods of time. Due to a specific construction of the 250TL vacuum tube, the ELYSIUM amplifier can be left in the ON state for longer periods of time. However, due to the presence of high temperatures and high voltage, the amplifier should be turned off when not attended for longer periods of time. Also, it should not be left in the ON state overnight.

Emergency shutdown. On the real panel ELYSIUM features an emergency shutdown switch (the "mushroom" switch). This switch is intended to be used only in case of severe tube arcing or other issues that warrant fast turn-off. Unlike the regular power switch which initiates turn off sequence which can last couple of minutes, depressing the "mushroom" switch will cut the power immediately, preventing more serious damage to the amplifier. When the emergency switch is activated, standard power switch should be turned off as well. After the problem has been resolved (usually that means tube replacement), the switch is reactivated by turning it on clockwise for about quarter turn, at which point it will spring back. After that, regular on/off switch should be used to power on the unit.


20 B V4
ELYSIUM

ENVIRONMENT

Water and Moisture. Do not use this product near water - i.e. near a bathtub, ash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool or the like. Damp basements should be avoided.

Heat. The product should be situated away from heat sources such as radiators, heat registers, stoves or other appliances that produce heat. Also avoid putting the unit in the direct rays of the sun.

For indoor use only.

PLACEMENT

Accessibility. It is normal for an audio device to run warm if used for prolonged periods. Always place your device away from children and pets to prevent burns.

Ventilation. Proper ventilation is critical for safe and reliable operation of all vacuum tube based equipment. This product should not be placed in a built-in installation or rack unless proper ventilation is provided or the manufacturer's instructions have been followed. Never place anything on top of your unit that could obstruct airflow and cause vacuum tubes to overheat and damage the unit. Do not place your unit in a closed bookcase; overheating could occur. Ensure that there is at least 40" (1m) of open space above and around the unit.

Surface. Place the unit on a flat level surface. Care should be taken to prevent objects from falling and liquids from spilling into the unit. Do not subject the unit to excessive smoke, dust, vibration or shock.

MAINTENANCE

Cleaning. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

Tube replacement. Vacuum tubes have life in the 10 000 hour range. We recommend replacing the tubes after 36 months, if necessary, depending on your listening habits. That will ensure that the unit always performs at its best and tube failure will not overstress other parts of the unit.

Biasing the amplifier. Biasing of the ELYSIUM is not required.

SERVICE

Replacement Parts. When replacement parts are required, be sure that the service technician uses replacement parts specified by the manufacturer or parts with the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

Tube replacement. Should it become necessary to replace the vacuum tubes, remove the AC power plug from the wall and allow sixty minutes (60 min) for the tubes to cool down and high voltage capacitors to discharge. Follow instructions outlined below in the section "Handling vacuum tubes". The protective tube cover with glass panels should only be removed after the 60 minutes period.

Modifications. Modifications to the amplifier are strongly discouraged. The unit was designed by experienced engineers and tested for safe and reliable operation. Any modification may pose a safety risk and result in reduced lifetime of the product. Opening the amplifier will void warranty.

GETTING STARTED

ABOUT YOUR AMPLIFIER

Your **ELYSIUM Power Amplifier** was designed to provide a true high-end performance which is which is a result of carefully designed circuit and optimized component selection. The design utilizes the highest quality parts, including custom designed transformers and chokes which are the result of Trafomatic's 20+ years of experience in this field. The ELYSIUM sits firmly on top of the Trafomatic's product lineup, challenging competition in any price range.

The design is based on **Eimac 250TL direct-heated triode (DHT) operating in pure Class A.** The 250TL tube is paired with two highly linear EML 20b-V4 tubes, coupled via an unconventional custom interstage transformer. Rectifier tube is the highly-acclaimed EML 5Z3. This combination of tubes and matching transformers offers 70W of unrestrained output power with all sonic benefits of single-ended amplifier configurations.

Eimac 250TL tube has been designed for continuous operation under challenging conditions. That required a special filament construction in order to support life of 10 000 hours. A disadvantage of such construction is filament's sensitivity to frequent power cycling.

ELYSIUM employs automatic start-up/shut-down procedure with two-step filament warm up augmented by a two-step high voltage turn-on, thus eliminating risks and maximizing tube life. Automatic bias ensures optimized performance throughout life of the tubes without need for periodic adjustments.

Fit and finish of the ELYSIUM are complementing its impressive sound quality and make it a center of attention in any audio setup.

The ELYSIUM has one balanced (XLR) and one unbalanced (RCA) input. There are outputs for four (4) or eight (8) ohm speakers.

HANDLING AND REPLACING VACUUM TUBES

Many people have never had experience handling vacuum tubes. Process is very similar to handling incandescent light bulbs. As with the light bulbs, you should not touch a vacuum tube when it is operating since you can burn yourself. Similarly, if a tube is dropped on a hard surface it may break or change critical operating parameters.
When replacing the tubes, allow sufficient time, minimum 60 minutes, for tubes to cool down and internal capacitors to discharge. Only then you can remove protective cover with glass panels and carefully remove the tubes. Before you insert a tube you should make certain that the unit is disconnected from the AC outlet. Inspect the tube for cracks and physical damage.
Make sure that the pins are straight. If you need to straighten the pins, be very careful as it may cause the glass envelope to break, causing the tube to lose the vacuum and fail as soon as the unit is powered on. Carefully align the pins with the socket and gently insert the tube. Replace the protective cover before connecting ELYSIUM to the AC power.

Never force a tube into a socket.

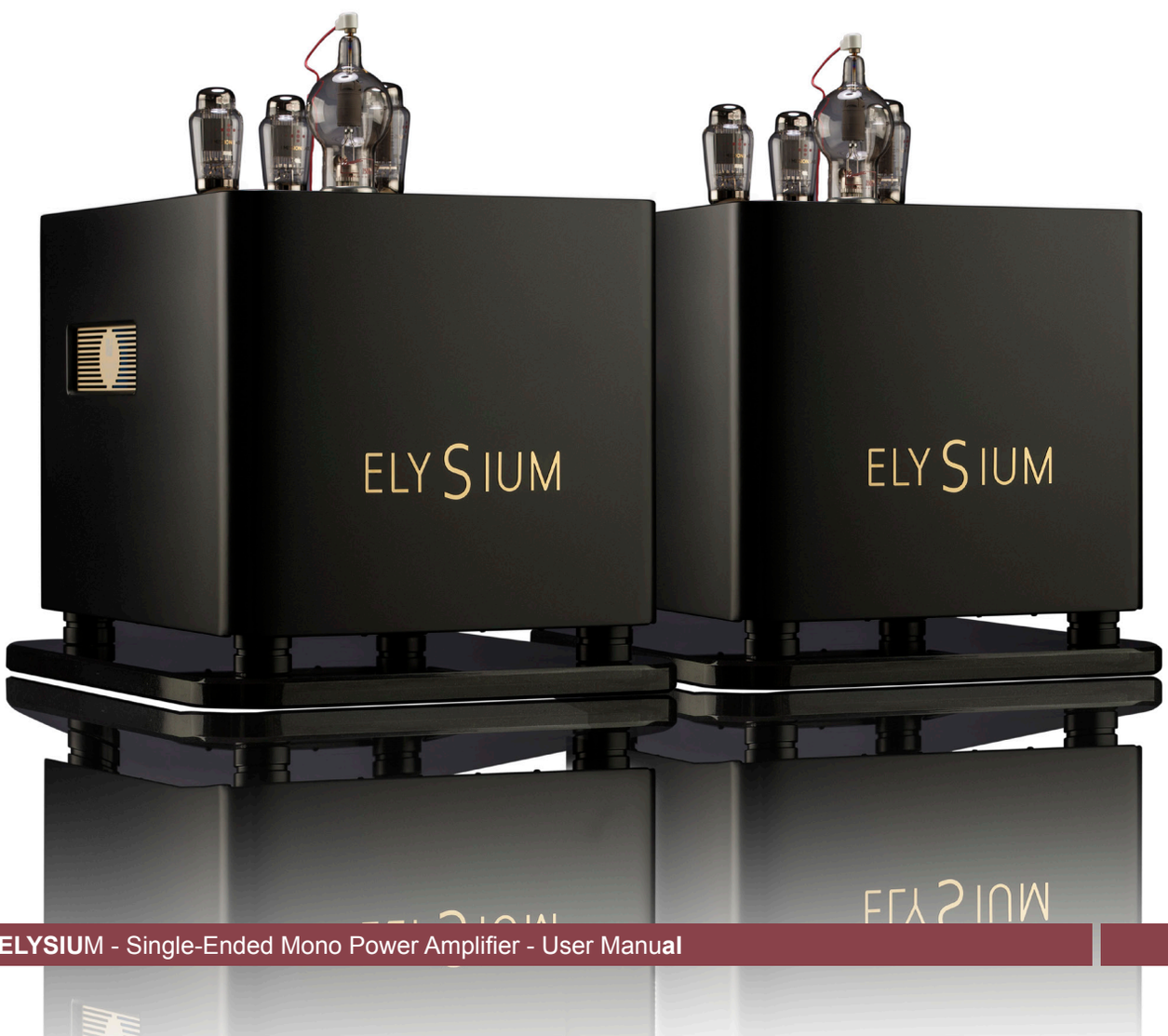
Only the same type of vacuum tubes can be used – no substitutions are allowed. Should you decide to buy replacement tubes from Trafomatic Audio, rest assured that they were fully tested before the shipment.

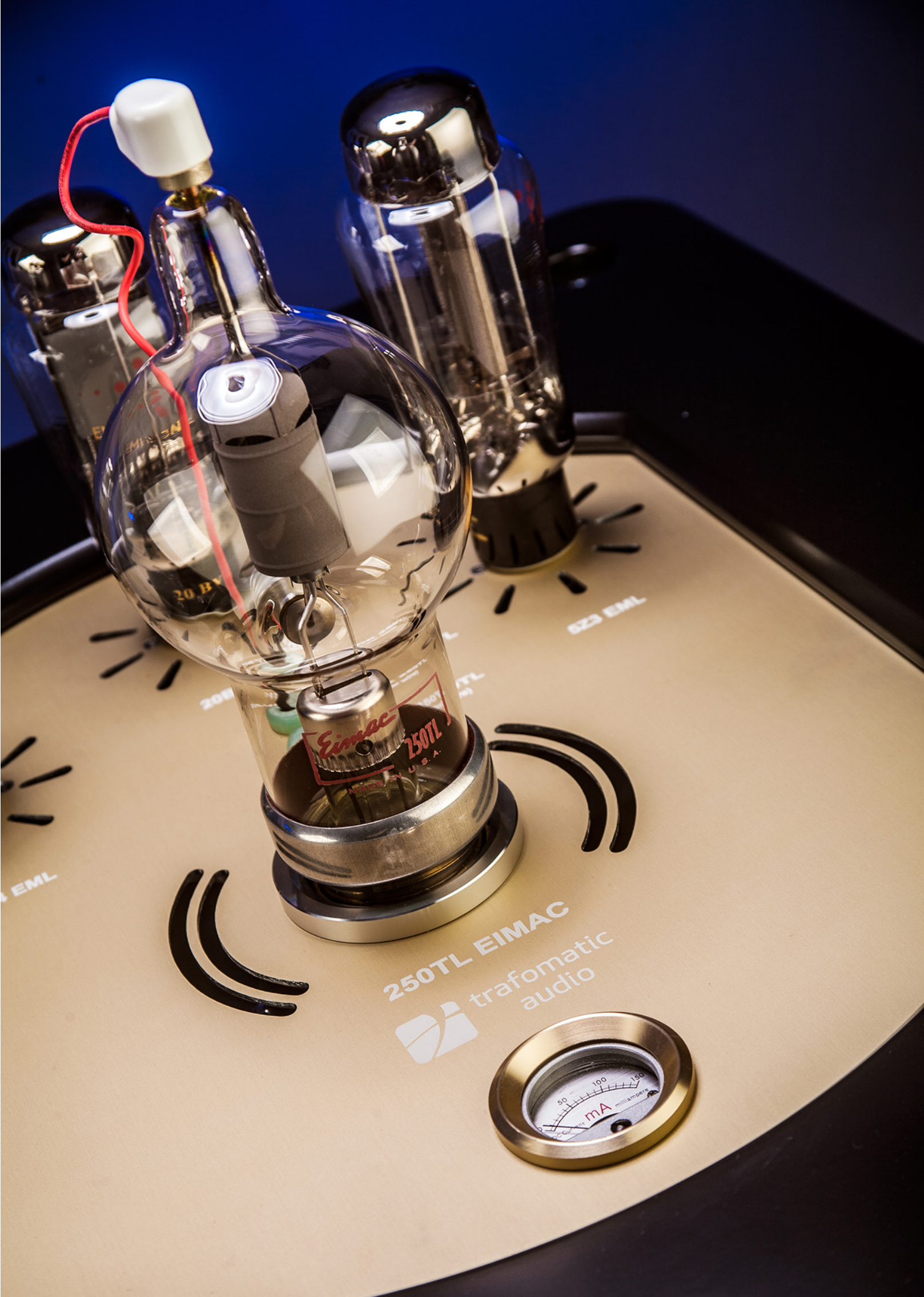
PACKAGING

Save the original packaging in a dry place. The packaging has been designed to protect your device from stresses incurred during shipping. Using packaging different from the original increases risks of shipping damages.

PREPARATION FOR USE

- Place your unit on a flat, stable surface.
- Power switch, located on the rear side of the unit should be in the OFF position.
- Emergency switch (red “mushroom” switch) should be disengaged - to verify turn the button clockwise and make sure that it is in the “spring-back” position.
- Plug in the power cord.
- Connect audio source to one of the amplifier’s inputs.
- Make sure that volume control on your audio source is set to minimum position.
- Turn on the ELYSIUM by using ON/OFF power switch located on the rear side of the unit.
- Slowly increase volume, to make sure there are no unusual noises coming out of the speakers.
- CONGRATULATIONS! You are all set and ready to enjoy high sound quality of the ELYSIUM Mono Power Amplifier.

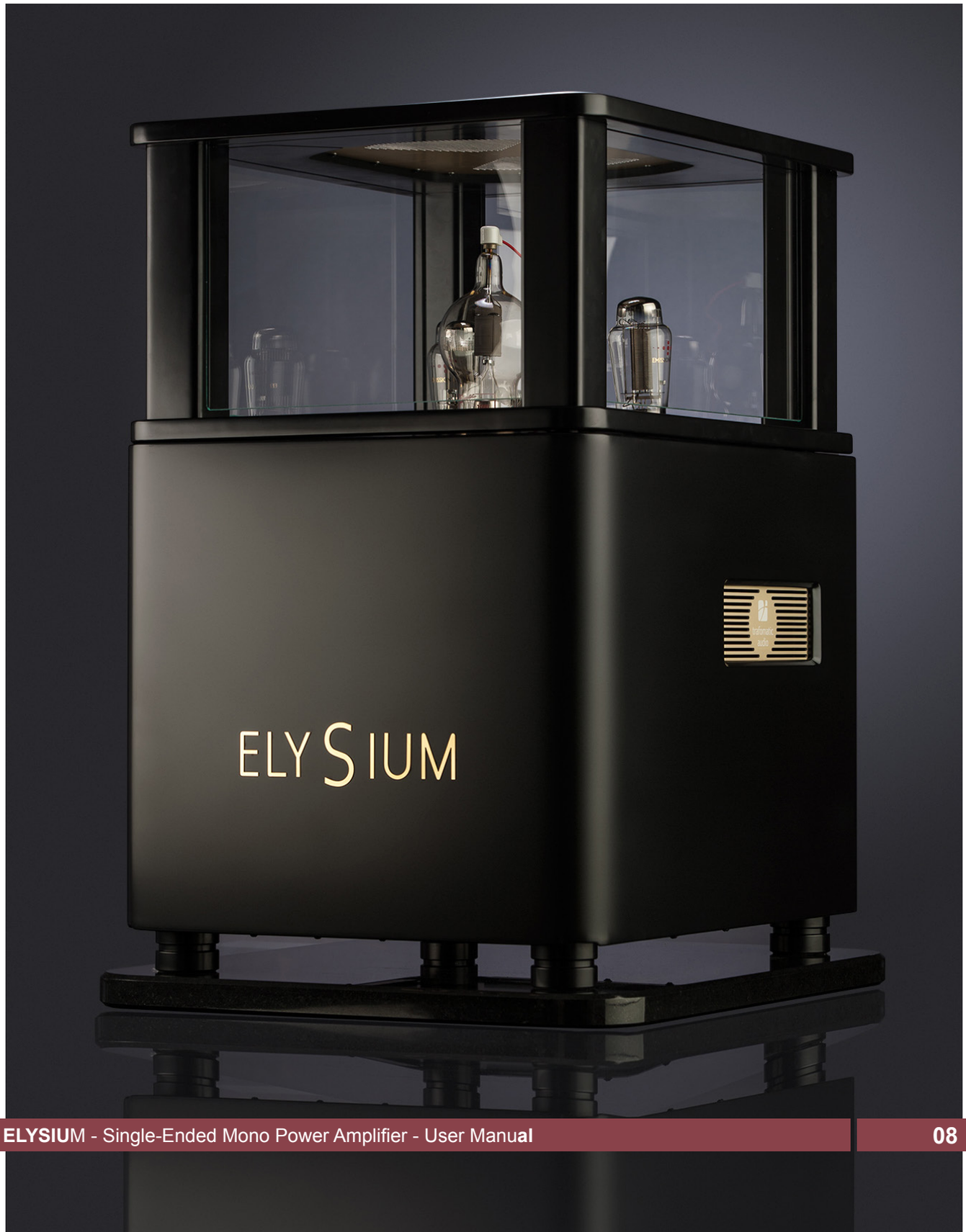



Eimac
250TL
MADE IN U.S.A.
250TL EIMAC
trafomatic
audio
mA
milliamperes
50
100
150

CONTROLS AND THEIR FUNCTIONS

TOP PANEL

The top panel of the ELYSIUM hosts the tubes and an instrument which measures bias current of the 250TL tube. After the amplifier warms up and reaches stable operating condition, the instrument should read between 110 and 150mA




XLR INPUT
RCA INPUT
SPEAKER
FUSES
20B-V4 HEATING
430VDC 20B-V4
5Z3 HEATING 2A
HV 1 4A
HV 2 4A
FUSE
EMERGENCY STOP
ON
OFF
AC INPUT

CONTROLS AND THEIR FUNCTIONS

REAR PANEL

The rear panel hosts:

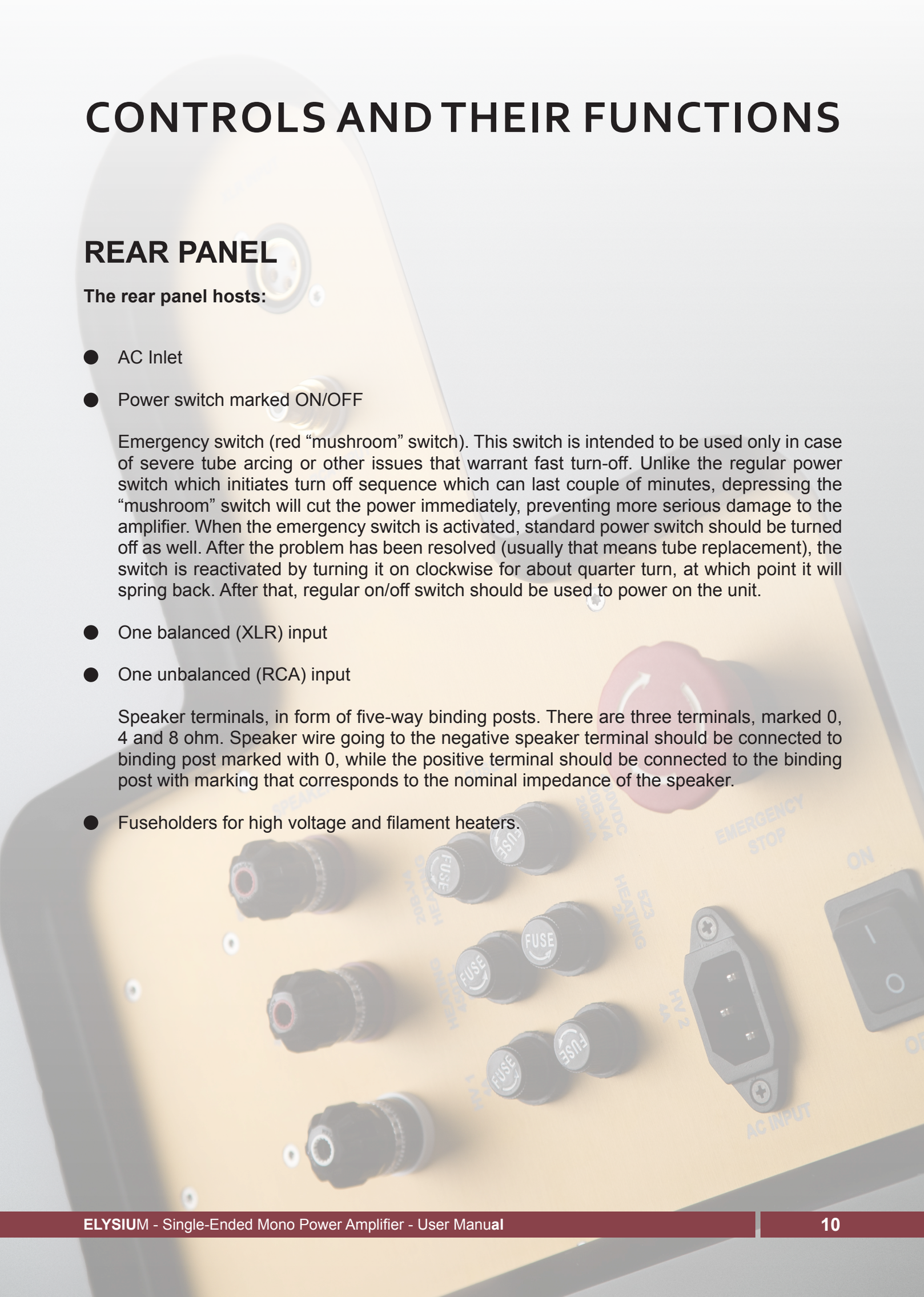
- AC Inlet
- Power switch marked ON/OFF

  Emergency switch (red “mushroom” switch). This switch is intended to be used only in case of severe tube arcing or other issues that warrant fast turn-off. Unlike the regular power switch which initiates turn off sequence which can last couple of minutes, depressing the “mushroom” switch will cut the power immediately, preventing more serious damage to the amplifier. When the emergency switch is activated, standard power switch should be turned off as well. After the problem has been resolved (usually that means tube replacement), the switch is reactivated by turning it on clockwise for about quarter turn, at which point it will spring back. After that, regular on/off switch should be used to power on the unit.

- One balanced (XLR) input
- One unbalanced (RCA) input

  Speaker terminals, in form of five-way binding posts. There are three terminals, marked 0, 4 and 8 ohm. Speaker wire going to the negative speaker terminal should be connected to binding post marked with 0, while the positive terminal should be connected to the binding post with marking that corresponds to the nominal impedance of the speaker.

- Fuseholders for high voltage and filament heaters.

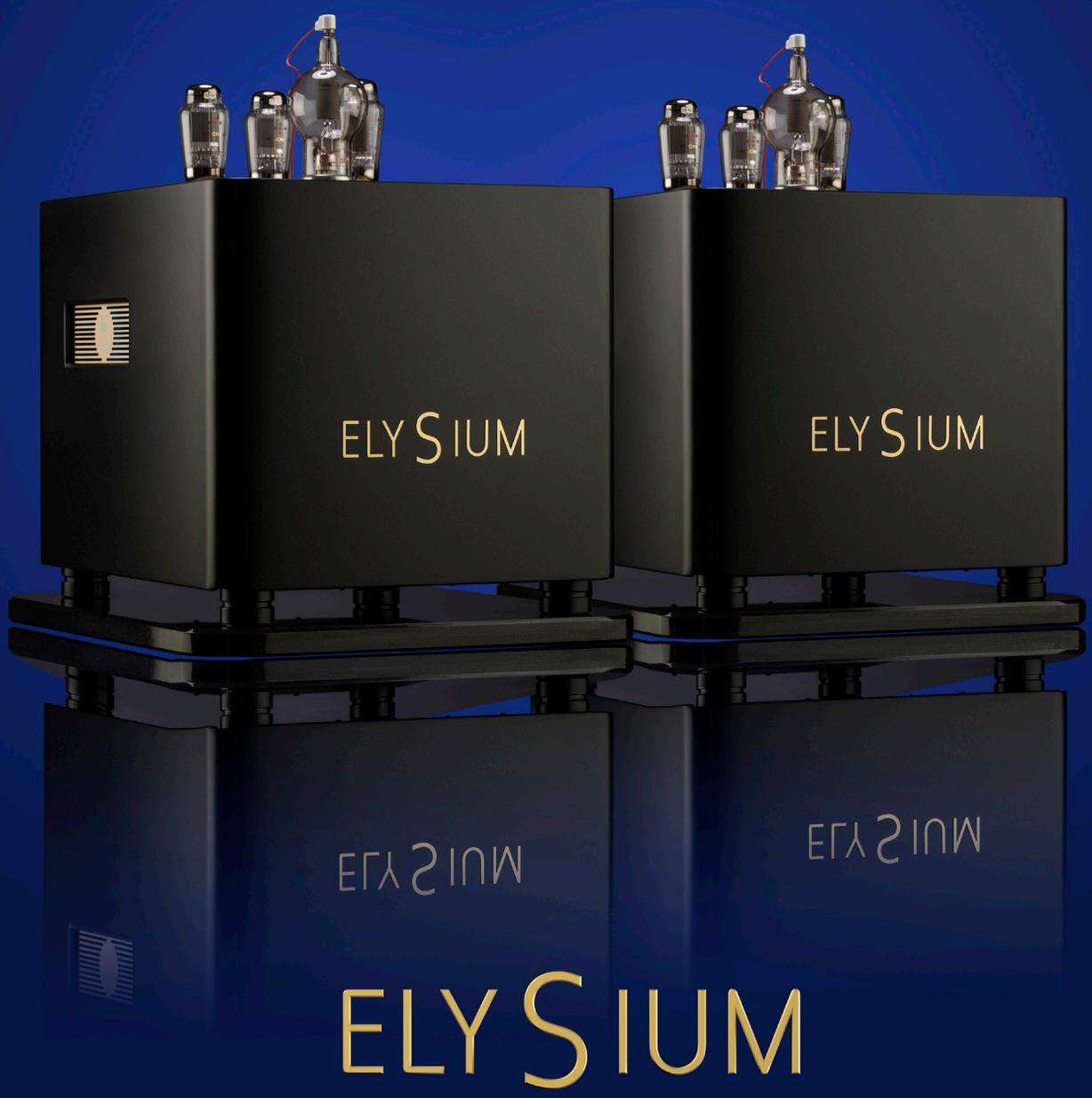


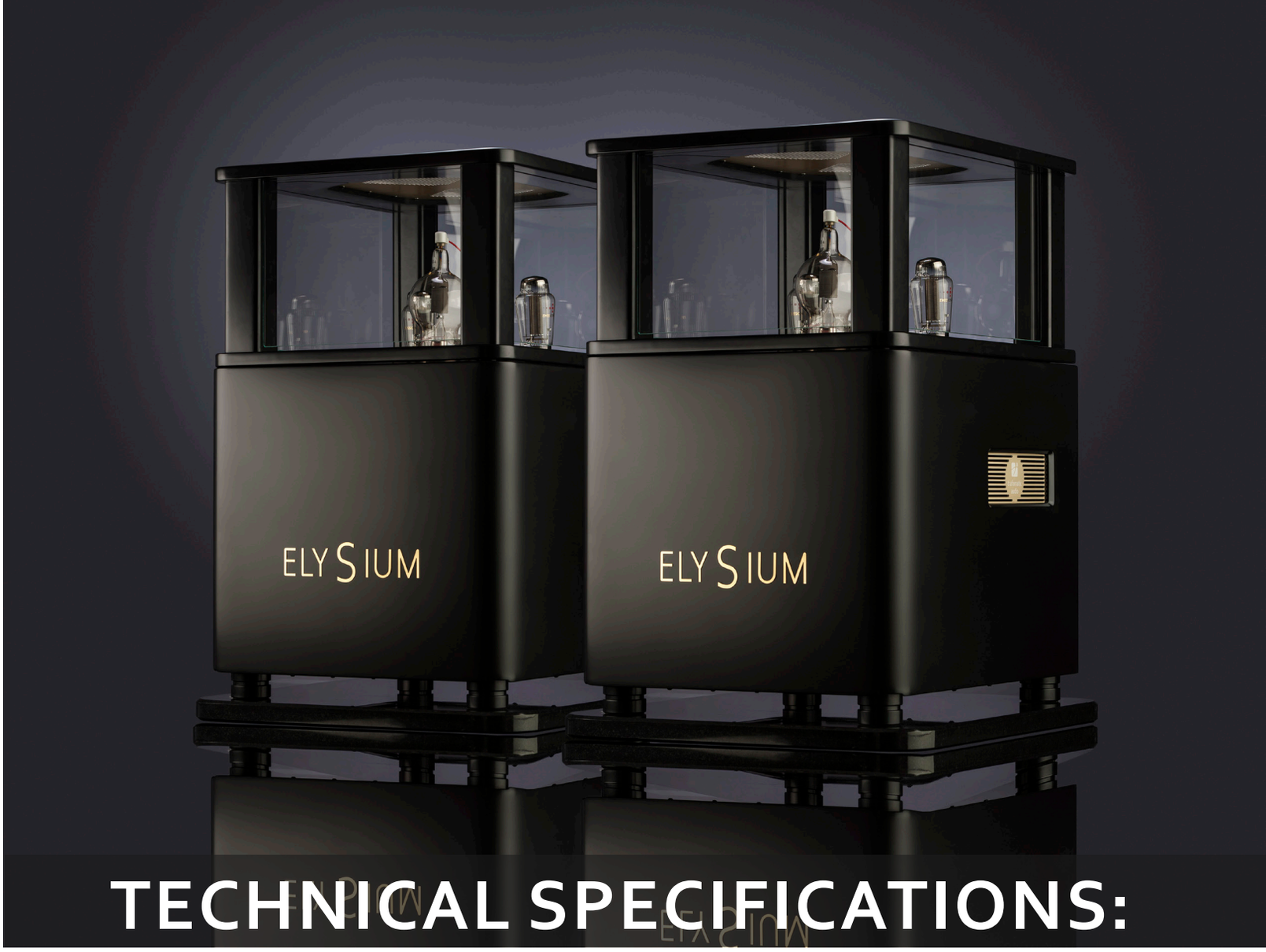
SERVICING

High quality parts and careful design of the ELYSIUM ensure long and reliable operation without need for any maintenance other than that listed in the MAINTENANCE section. In an unlikely case that the unit does not operate as intended, please contact factory or your local distributor for assistance.

CAUTION

Lethal voltages are present inside the amplifier. Do not remove the amplifier's covers. Servicing of the unit should be performed only by authorized service personnel.





TECHNICAL SPECIFICATIONS:

ELYSIUM | SINGLE-ENDED MONO POWER AMPLIFIER

Class of operation: Single-Ended (class A), Direct Heated Triode (DHT)
Tube complement: 2x 20B-V4 EML, 1x 5Z3 EML(or any 5Z3) , 1x 250TL EIMAC
Input impedance: 47 Kohms
Inputs: 1x XLR, 1x RCA
Input sensitivity: 3.5Vrms
Outputs: 4 and 8 ohms
Output power: 70W
THD: 0.3% - 1W/1kHz, 4%-70W/1kHz
S/N ratio: 83dB
Frequency bandwidth: 10Hz (-2dB) – 60kHz(-3dB)
Input voltage: 230V/50Hz (100-120-220-240V, 50-60Hz available on request)
Power consumption: 500VA
Size: 620x520x800 mm
Weight: 85kg

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