

TAURUS MKII Headphone Amplifier / Pre Amplifier



USER'S GUIDE

Revision 1.0

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Welcome

Begins from the pursuit of an extraordinary amplifier that can well match with modern top quality headphones, inspired by the soul of Rupert Neve's legendary design philosophy, bearing with modern simplism style appearance, TAURUS MKII is born with a perfect coalescence of classic and pop elements. Joint using with ARK MX+ and a great headphone, it lets you sailing through the ocean of music, experiencing the wonders of artistic enjoyment.

- **AURALiC ORFEO Class-A Output Module**

Inspired by Neve 8078 analog console's circuit design, AURALiC developed ORFEO Class-A output module. The principle of this module is to use a mass of small signal components with best linear characteristic. By packing them through a thermal balance procedure and bias the transistors into Class-A, ORFEO achieves impressive performance with open loop distortion less than 0.001%. With such sophisticated module, TAURUS MKII shares the same warm and natural sound with Neve 8078.

- **Low Noise Input Buffer**

The input buffer of TAURUS MKII is specifically designed by AURALiC to meet the requirement of headphone amplifier usage. This buffer own an exclamatory low noise of less than 1uV while maintains high input impedance (100K of RCA and 200K of XLR). The low noise input buffer endues TAURUS MKII with a dynamic range over 130dB and possible to fit into any kind of source, even with high output impedance devices such as valve buffered CD, it can still easily capture every details and ensure the reality of music impression.

- **Real-time Switchable Working Mode**

With a unique 4-way individual output structure, you can configure TAURUS MKII into standard or balanced working mode by simply pressing the button on the front panel without power off the unit or unplug the headphone. In the standard mode, TAURUS MKII can output 4500mW continuous and undistorted power into 32ohm, satisfy the toughest headphone's driving requirement; when facing high impedance loads, TAURUS MKII can also deliver 1000mW continuous and undistorted power into 600ohm in balanced mode. Such flexible design allows TAURUS MKII to match most modern top quality headphones in a perfect way.

Smoothed music expression, sophisticated circuit design and brilliant appearance; TAURUS MKII is another exemplary works designed by AURALiC.

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**TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

IMPORTANT SAFETY INSTRUCTIONS

- All safety and operating instructions should be read before the product is operated, and retained for future reference.
- This product should be operated only from the type of power source indicated on the back of the unit. If you are not sure of the type of your mains power supply, consult your dealer or local power company.
- To completely disconnect this product from the AC mains, disconnect the power supply cord plug from the AC receptacle.
- Do not use the product near water, i.e. near a bathtub, kitchen sink, laundry tub, in a wet basement, near a swimming pool etc.
- Do not install the product near heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat. See "Placement and Cabling" on page 7.
- Do not let objects or liquids fall into the product. Do not expose the product to dripping or splashing. Do not place a vessel containing liquid on top of the product.
- Clean only with a soft, dry cloth.
- Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage. Refer all servicing to authorized service personnel. See "Service" on page 12.

Warranty

AURALiC offers a 90-day factory warranty from the date of purchase that can be extended to a 3-Year limited warranty. This non-transferable warranty is available to the original owner by completing the product registration form including the original sales information from your authorized AURALiC dealer within 30 days of purchase. You could either use the online registration form on our website (www.auralic.com) or fill 'AURALiC Product Registration Form' on page 17 and send it back to your dealer to finish the registration.

Warranty coverage includes all parts and labors. Warranty is void if damage is due to abuse, neglect or unauthorized modification. Cost associated with the return of this product is the sole responsibility of the owner. All repair work must be done by AURALiC or by an authorized AURALiC repair agency. Work done by unauthorized persons will void any and all warranty coverage.

AURALiC products are uniquely identified with a serial number (S/N) on the back of the unit. This number is required to validate your warranty. Please reference your serial number if service is required.

Before the product can be returned for service, an RMA (Return Material Authorization) number must be issued by AURALiC. Contact your dealer or AURALiC for further information. Units without an RMA number will not be accepted for service.

Unpacking

Please confirm that the following items are in the box:

- TAURUS MKII
- AC Power Cord
- User's Guide

Carefully unpack each piece, if there is any damage, or if anything is missing, please contact your dealer or AURALiC.

ONLY SHIP THIS PRODUCT IN ITS ORIGINAL PACKING!

Please be sure to retain the original shipping carton and all packing materials as they are specially designed to protect the unit during transportation or shipping.

Placement and Cabling

Placement

TAURUS MKII should be placed on a solid and stable surface with good ventilation. Do not install this product near any heat sources such as radiators or other product (such as amplifiers) that produce heat. Site the product so that its location or position does not interfere with its proper ventilation. For example, it should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Ventilation Requirement

TAURUS MKII dissipates up to 50 Watts of power during normal operation. It should be installed in a space with at least five inches of clearance above; one inch behind and on both sides of its enclosure to provide adequate ventilation. Avoid placing it directly above other equipment that produces heat.

Check Your AC Mains Voltage

TAURUS MKII is shipped with its mains voltage preset for operation in the destination country. The mains voltage setting is written on the back of the unit, left besides power cord socket. Mains voltage setting is not intended to be changed by the user. If it needs to be changed, contact your dealer or AURALiC.

The power cord has a three-wire grounding type plug (a plug having a third pin for grounding). It will only fit into a grounding type power outlet. If you are unable to insert the plug fully into the outlet, contact your dealer or AURALiC. Do not defeat the safety purpose of the grounded type plug.

**TAURUS MKII MUST BE USED WITH CORRECT
MAINS VOLTAGE AND PROPERLY EARTHED!**

Cabling

The I/O ports on the back of the unit are shown as following:



1	Right Balanced Analog Input	5	Right Balanced Analog Output
2	Right Single-Ended Analog Input	6	Right Single-Ended Analog Output
3	Left Single-Ended Analog Input	7	Left Single-Ended Analog Output
4	Left Balanced Analog Input	8	Left Balanced Analog Output
9	AC Mains Power Cord Socket	10	AC Mains Power Switch

Please be sure to power off all units in your system before any cabling job, failed to follow this instruction may result in permanent damage to the device and void any warranty.

ALWAYS POWER OFF TAURUS MKII BEFORE CABLING!

● Analog Inputs

The balanced and single-ended analog inputs are individually buffered, however, it is still strongly recommended to disconnect unused ports to avoid any potential electromagnetic interference induced by cable.

The sensitivity of both RCA and XLR inputs are same as 2Vrms with a maximum allowed level at 6Vrms. Please be sure to use a source component with its output level within this range.

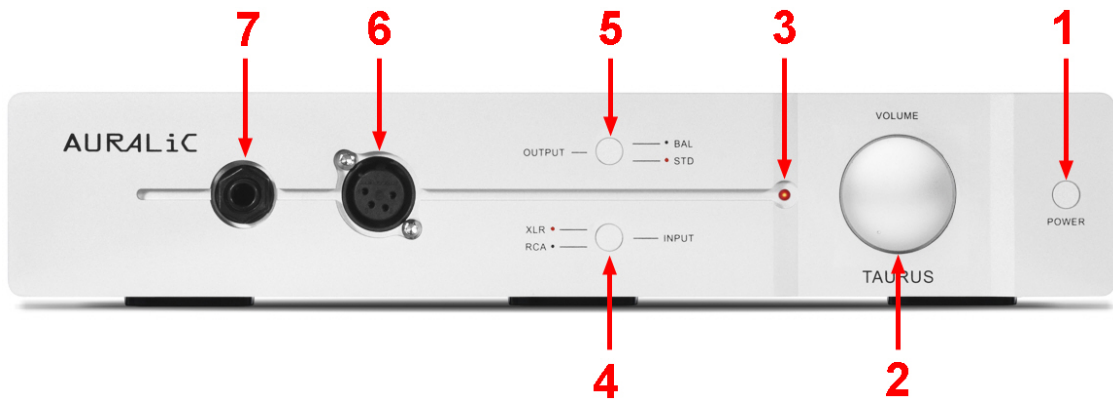
Since the input impedance of the RCA and XLR ports are designed to be very high (100K@RCA / 200K@ XLR) to capture music details from the source, we recommended you to use shielded interconnect cable to avoid noise pick-up from the environment.

- **Analog Outputs**

When using as pre-amplifier, TAURUS MKII will provide high level, low distortion audio signal to your power amplifier through its analog outputs. In STD mode, both RCA and XLR outputs are connected together with XLR's pin 2 as hot; in BAL mode, only XLR outputs are active with a maximum output level at 36Vrms. AURALiC recommended you only connecting RCA or XLR outputs at the same time for best sonic performance.

Operation

The front panel of TAURUS MKII is shown as following:



1	Power Switch	2	Volume Control Knob
3	Power LED	4	Input Control Switch
5	Output Control Switch	6	4PIN Balanced Headphone Jack
7	6.35mm Stereo Headphone Jack		

Power On/Off

As soon as you have plugged the power cord, and set the AC Mains Power Switch to position 'I', TAURUS MKII will be in deep standby mode with power dissipation at about 0.1 Watt, you can power on and off the unit by pressing the tactile switch 'POWER' on the front panel.

The Power LED indicates current work status of TAURUS MKII:

- LED off: Power off

- LED light: Ready to work

Volume Control

The volume control allows you to increase or decrease the output level of analog outputs and headphone jack from -80dB to +16dB.

LISTENING WITH HEADPHONE AT LARGE SOUND PRESURE LEVEL WILL PERMANENTLY DAMAGE YOUR HEARING!

TAURUS MKII is very powerful in driving ability; this also means it can produce sound at level which may permanently damage your hearing. Always take care of your hearing when enjoy the music and try to reduce the volume all the time as far as possible.

Please always reduce the volume before plug/unplug as well as put on the headphones. This not only protects your headphones from loud click and pop noise during the plug/unplug but also avoid reproduce a much higher sound level when a new headphone with lower impedance is plugged.

Input/Output Control

The input control switch allows you to choose the music source between RCA and XLR inputs. Though both inputs are individually buffered, we recommended you only connecting one pair of inputs to avoid any potential electromagnetic interference induced by cable.

The output control switch set the working mode of TAURUS MKII on the fly. In the standard mode, TAURUS MKII can output 4500mW continuous and undistorted power into 32ohm and 1000mW continuous and undistorted power into 600ohm in balanced mode.

All outputs and jack are active under STD mode; RCA outputs at the back panel and 6.35mm stereo headphone jack will be muted under BAL mode for proper operation. For best sonic performance, please connect only one kind of outputs/jack at a same time.

Using TAURUS MKII as Pre Amplifier

Since analog outputs on the back panel and headphone jack on front panel are in parallel connection, please unplug your headphones when using TAURUS MKII as pre amplifier. Failed to do those will result in high power output on the headphone jack and damage your headphone.

Headphone Connection

TAURUS MKII is designed to well match all modern dynamic headphones with either 6.35mm stereo headphone jack (TRS jack) or 4PIN balanced XLR jack. Please make sure the plug is seated for a solid connection.

The pin wiring for 6.35mm jack is: tip=left channel, ring=right channel, sleeve=ground. Pin wiring for 4PIN XLR jack is: pin1=left positive, pin2=left ground/negative, pin3=right positive, pin4=right ground/negative.

Don't use mono 6.35mm plug (TS plug)!

A mono 6.35mm plug (TS plug) will create a short connection; this will destroy the ORFEO output module in TAURUS MKII! Double check that you use 6.35mm stereo plugs when you connect headphones.

Burn-in period and Warm-up

As the same with the other audio components, TAURUS MKII requests at least 100 hours music signal burn-in to achieve its designed performance; the sonic will be in best after 500 hours music signal burn-in.

Since TAURUS MKII is working in Class-A, it need regular warm-up before it can sound best for enjoyment. The warm-up time depend on room temperature which should between 30 to 60 minutes.

Maintenance & Service

Maintenance

TAURUS MKII does not require regular maintenance in normal use. However, there are a few things that will help to keep it in good operating and cosmetic condition:

Cleaning

Only clean the enclosure with a soft, dry cloth.

Extended Nonuse

Disconnect TAURUS MKII from mains power when it will be left unattended or unused for an extended period of time.

Service

If your TAURUS MKII encounters a problem, contact your dealer or AURALiC. Do not void the warranty by allowing unauthorized personnel to attempt repairs. Do not attempt to service the product yourself. Opening the cover may expose you to dangerous voltage, as well as void the warranty.

Before TAURUS MKII can be returned for service, an RMA (Return Material Authorization) number must be issued by AURALiC. Contact your dealer or AURALiC for further information.

Contact

If you have any question, please feel free to contact our technical support department:

AURALIC LIMITED
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Shijingshan District, Beijing, 100041
China

support@auralic.com
www.auralic.com

Troubleshooting

No Power

- Examine the power cord to be sure that it is connected to both the AC mains connector and an AC wall outlet.
- Try substituting another power cord.
- Check the AC mains voltage setting on the back of the unit and see if it is according to your local power voltage.

No Sound or Low Output

- Examine all cables to ensure a solid connection between the TAURUS MKII and associated components.
- Make sure you have selected the right input and output ports.
- Make sure all associated components are powered on and not muted.
- Make sure all associated components connected to the selected input are producing an audible input signal.

Distorted or Partial Sound

- Check the cables between the TAURUS MKII and associated components, making sure all connections are good and sound.
- Check out the output level of your source component and make sure it will not overdrive TAURUS MKII's input by delivering signal level above 6Vrms.

Noise/Hum

- Check the input cables between TAURUS MKII and associated components, making sure all connections are good and sound.
- Make sure the input cables between the TAURUS MKII and sources component are not routed near AC cables, power transformers, or other EMI inducing devices.
- Try to use high quality interconnect cable with full ground shield.
- Try to plug TAURUS MKII and associated components with different AC main socket to avoid ground loop induced hum noise.

Specifications

Frequency Response	<ul style="list-style-type: none"> ● 3Hz - 300KHz, +/- 3dB ● 20Hz - 20KHz, +/- 0.1dB 		
THD+N	<0.002%, 20Hz-20KHz at rated output		
Dynamic Range	>130dB, 20Hz-20KHz, A-weighted		
Crosstalk	<-80dB at 1KHz		
Output Power		STD Mode	BAL Mode
	32ohm	4500mW	1200mW
	120ohm	1200mW	4500mW
	300ohm	500mW	2000mW
	600ohm	250mW	1000mW
Input Port	<ul style="list-style-type: none"> ● RCA: Sensitivity: 2Vrms; Maximum: 6Vrms ● XLR: Sensitivity: 2Vrms; Maximum: 6Vrms 		
Output Port	<ul style="list-style-type: none"> ● 6,35mm Stereo Headphone Jack (STD only) ● 4PIN XLR Headphone Jack (AKG K1000 wiring) ● RCA analog out (STD only) ● XLR analog out (PIN2:HOT) 		
Power Dissipation	50 Watts at max.		
Dimension	11"W x 9"D x 2.6"H (33cm x 23cm x 6.5cm)		
Weight	8 lbs (3.6kg)		

All specifications are subject to change without notice.

EC Declaration of Conformity

AURALIC LIMITED declares this product is in conformity with the Low Voltage Directive 73/23/EEC and Electromagnetic Compatibility 89/336/EEC as amended by 92/31/EEC and 93/68/EEC.

The conformity of the designated product with the provisions of Directive number 73/23/EEC (LVD) is proved by full compliance with the following standards:

EN60065 2002 General requirements

The conformity of the designated product with the provisions of Directive number 89/336/EEC (EMC) is proved by full compliance with the following standards:

EN55013 2001 Conducted emissions

EN55013 2001 Absorbed emissions

EN55020 2002 Immunity

AURALiC Product Registration Form

Owner Information	
Your Name	
Street Address	
City	
Zip Code	
Country	
Email	
Telephone	
Product Information	
Product Type	
Serial Number	
Dealer Name	
Purchase Date	
Purchase Price	
Currency	

