



# **AMP-150 Integrated Amplifier Anniversary Edition**

## **User Manual**





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## Don't be a stranger

Thank you for purchasing the Gato Audio AMP-150. We are absolutely confident that it will bring you many hours of listening pleasure.

We hereby cordially invite you to join the Gato Audio family by registering your product online. You may also consider signing up for our newsletter to receive information about exciting new products, events and technical updates. We are also present on several social media like Facebook, Twitter, Instagram, Google+ and LinkedIn.

All this and more on [www.gato-audio.com](http://www.gato-audio.com)

Our very best,

Gato Audio

## Package contents

Please check that the following is included in the package:

- 1 Gato Audio AMP-150 Integrated Amplifier
- 1 Mains Cable
- 1 Gato Audio RC-4 Remote Control
- CR2032 3 V battery
- This Manual - which you should be reading now ☺



## Safety first!

### Mains plug and cable:

- Insert the mains plug fully into the mains outlet socket
- Do not use any mains cable other than the one provided with this amplifier
- Do not move the amplifier around while it is connected to mains
- Do not place heavy objects on the mains cable or place the cable near high-temperature objects
- Do not use damaged mains plugs or socket outlets

### Liquids:

Electricity and liquids is not a safe combination, therefore:

- When cleaning the amplifier, remove the mains plug
- Do not handle the mains plug with wet hands
- Do not spray any liquid directly onto the amplifier
- Do not place liquid containers above or near the amplifier
- Keep liquids away from the amplifier

### ...And:

- This is not a toy and should not be handled like one (by children OR adults)
- Do not remove the covers of the amplifier (for service see page 10)
- Do not attempt to put foreign objects inside the amplifier (for service see page 10)
- Do not cover the amplifier with cloth or cover up the rear air vents in any way
- Do not place the amplifier on sloped or unstable surfaces
- When the amplifier will not be used for a long time, remove the mains plug
- Do not short the amplifier outputs
- This unit is made for indoor temperature (15-25° C or 59-77 °F). If it has been exposed to cold temperature, let it adjust itself to indoor temperature before use
- Make sure that your amplifier is able to breathe by securing a minimum safe distance around the heat sinks of 100 mm
- The amplifier can get hot during use. Normal operating temperature is from room temperature to 50° C or 122° F



## About the amplifier

### General design

The main aim for the Gato Audio design team was to create the best sounding integrated amplifier possible inside a compact exterior. Secondly, we wanted to create a line of products where design was not simply a question of a good-looking face plate, but a more complete product design that looks beautiful from every angle and expresses a classic electro-mechanical look.

The top cover in either real wood veneer or painted finish can be chosen to accommodate other design elements in your home or system.

### Preamplifier

Mounted on a separate PCB with a separate regulated power supply, the AMP-150's preamplifier is built up of super low-noise, high-bandwidth analogue amplification and special signal relays originally developed to handle the delicacy of telecom signals. The location close to the connectors adds several advantages, which include an extremely short signal path as well as remarkably low levels of noise and distortion interference.

### TwinFET Power Amplifier

The input section features a bipolar input stage, a separate power supply for the critical driver circuit and a single set of unique high-power MOSFET output devices able to handle current levels up to 300 amperes without using more than one transistor for each positive and negative period. This combines loads of power with softness and the transparent sound of a good tube amplifier.

### Protection

We have incorporated several advanced and highly effective protection circuits in the output stage in order to protect your amplifier and the connected speakers from abuse and faults. Heat, current and DC are under constant surveillance by a microprocessor, which will shut down the amplifier if the accepted values are exceeded.

### Cooling control

The AMP-150 features an advanced active cooling system to provide the most efficient cooling with the lowest noise possible. The system measures music level and temperature level and processes data individually for each channel. The cooling system activates when music is playing and will adjust the cooling level accordingly to the temperature level. When music stops the cooling system will lower into minimum cooling mode and then go into standby when the amplifier has been cooled to the idle temperature.

### Components

Every single component in the AMP-150 must live up to not only stringent production tolerances and over specified values, but equally importantly, it will not be selected before having been approved for its sonic capabilities through many intensive listening tests. Simply put, if it does not sound right inside its circuitry environment, we cannot use it regardless of how good its measurement values are. This is the only way to maintain a natural, crisp and clear soundstage. Most of the components are only working at 30% of their maximum workload capacity under normal use. This will ensure your amplifier a long life with a minimum of stress.

### PCB design

The amplifier is divided into three basic parts, each with a separate PCB. The first is dedicated to the delicate small signals from the source, input selection and volume control. The second consists of the mains power supply and high-power amplification, and the third is the microprocessor board that controls the functions and display. All boards are produced from high-quality fibreglass base with a double-sided thick copper layer.

### Fine-tuning – by listening

The last 5% of fine-tuning and voicing is by far the most complicated and time consuming part of our development work. Single critical components are replaced, and often voltage and current supplies need to be modified to accommodate them, and consequently, listening starts all over again.

In addition, blind-test listening is used, not just using our own reference system but also in other setups, as measures we have taken to complete this amplifier just as comprehensively as every other product in our range.




## How does it work?

### Power on

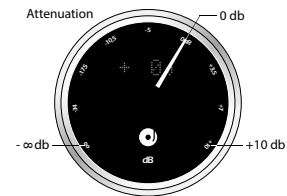
Use the mains switch on the back of the amplifier to turn it on. The amplifier is now in standby mode.

### Standby


The amplifier can exit and enter standby mode by pressing  on the remote control or the Standby button on the front panel. Only the microprocessor and the standby LED are powered during standby. Therefore, the AMP-150 has an ultra-low standby power consumption of less than 1W.

### Adjusting the volume

Turning the volume control knob clockwise increases the volume. Turn it counter-clockwise to decrease the volume. The front panel display shows the volume level.

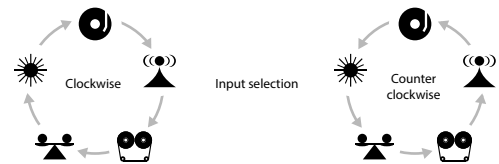


### Muting

For complete silence simply press the mute button  on the remote control. The mute indicator will turn on when muted. Press the mute button once more to return to the previous volume level.

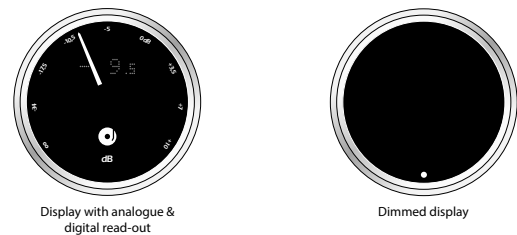
### Input selection

Use the input selection knob to select input channel. You can turn the input selection knob both clockwise and counter-clockwise endlessly. See the order of the input channels when turning the knob in the two figures on the right.






### Display modes and dim

The display can be set to two different display modes. One with analogue and digital volume read out, and one where the display is dimmed. This can be selected by pressing the Display button on the front panel.



### Direct

The direct function bypasses the volume control  turning this amplifier into a power amplifier. This can be very useful in surround setups. To activate this mode, select the tape input  and press and hold the Standby button on the amplifier for 5 seconds. The display will show the direct indicator .

To disable the Direct function, press and hold the Standby button again for 5 seconds.

This function can only be enabled and disabled on the amplifier itself.





## RC-4 Remote Control







The RC-4 is an infrared remote control for the Gato Audio AMP-150 and CDD-1.







### How to insert/replace the battery

The RC-4 runs on a standard CR2032 3 V button battery.

1. Remove the small lid on the bottom side of the remote
2. Insert or replace the CR2032 3 V button battery
3. Reinstall the small lid on the bottom side of the remote

### Functions:

- Standby**  - Press the button to put the amplifier in standby  
Press it again to turn it on
- Mute**  - Press the button to mute the amplifier  
Press it again to return to the previous volume level
- Volume up**  - Press the button to increase the volume
- Volume down**  - Press the button to decrease the volume
- Next input channel**  - Press the button to select next input channel
- Previous input channel**  - Press the button to select previous input channel

- Play/Pause**  - Press to toggle between inputs on the CDD-1
- CD Input Select**  - Press to set the CDD-1 in Repeat mode
- Repeat**  - Press the button to stop playing
- Stop**  - Press the button to select the next track  
Press and hold to scan forward
- Next Track/Scan Forward**  - Press the button to select previous track  
Press and hold to scan backward
- Previous Track/Scan Backward**  - Press the button to select previous track  
Press and hold to scan backward

**1-9/ 10+ Direct Track Selection**

These functions are not available on the AMP-150



## Make it last!

Please apply simple common sense to maintain the sound quality and lifespan of your Gato Audio amplifier. Here are a few guidelines:

- Regular care: wipe the surfaces carefully by using a clean soft dry cloth
- Cleaning: if necessary, wipe the hard surfaces clean using a soft cloth dampened only with clean water.
- Grease stains or finger marks can be removed carefully with a clean soft cloth lightly dampened in a mix of clean lukewarm water and a single drop of household washing-up liquid. Then wipe the surfaces dry using a soft dry cloth
- Be careful never to use hot water or any type of concentrated detergent, solvent, thinner, or any other volatile substance on the surfaces, or you may cause permanent damage to the surface coating
- Keep the cabinet away from prolonged contact with rubber or PVC materials
- Do not expose the amplifier to direct sunlight or other heat sources

## If all else fails...

...don't panic! Every Gato Audio product comes with a minimum 2-year warranty. See our website for details.

This warranty does not cover damage or wear directly or indirectly caused by improper use, violence, tampering with or unauthorized access to or servicing of any part of the product.

If you are in need of service or repair, please do not hesitate to contact us at [hello@gato-audio.com](mailto:hello@gato-audio.com) or visit our website [www.gato-audio.com](http://www.gato-audio.com) for more information.



## Technical stuff

### Technical specifications

Output power (230 VAC)	2x 150 W RMS 8 $\Omega$ / 2x 250 W RMS 4 $\Omega$
Input impedance	20 k $\Omega$ RCA or 40 k $\Omega$ Balanced
Frequency response	20 Hz-20 kHz $\pm$ 0.5 dB, and 2 Hz-100 kHz $\pm$ 3 dB
Preamplifier output impedance	100 $\Omega$ RCA and 200 $\Omega$ Balanced
Total Harmonic Distortion	< 0,05 % at rated power
Signal to Noise ratio A-weighted	> 100 dB
Voltage gain	27 dB (+10 db headroom)
Recommended speaker load	4 $\Omega$ -16 $\Omega$
Load protection	Speakers < 1.5 $\Omega$

### Connectors

Balanced analogue inputs	1 pair gold-plated XLR Neutrik
Unbalanced analogue inputs	4 pairs of gold-plated RCA stereo
Balanced analogue outputs	1 pair gold-plated XLR Neutrik
Unbalanced analogue outputs	1 pair of gold-plated RCA stereo
Speaker output	2 pairs of gold-plated safety banana

### Size & Power

Power Requirements	115 VAC or 230 VAC, 50 Hz or 60 Hz
Fuse	20 mm sand filled, 6,3 AT@115 VAC, 3.15 AT@230 VAC
Power Consumption	Standby <1 W, Idle < 40 W, Heat <200 W, Max is 600 W
Dimensions (WxHxD)	325 x 105 x 430 mm / 12.8 x 4.1 x 16.9"
Weight	13.8 Kg. / 30.4 lbs.



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