



# **FM-2 2-way Speaker**

## **User Manual**

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## Don't be a stranger

Thank you for purchasing this Gato Audio product. We are absolutely confident that it will bring you many pleasurable hours of listening.

We hereby cordially invite you to join the Gato Audio family by register your product online. You may also consider signing up for our newsletter to receive information about exciting new products, demo-events and technical updates.

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 two packages:

- 2 Gato Audio FM-2 speakers
- 2 front grille sets
- This manual - which you should be reading now ☺

## A few words on your new speakers

A good cabinet is the essential foundation of any loudspeaker. The FM-2 cabinet incorporates several noteworthy details. First of all, the cabinet is made from solid high-density fiberboard, and the rounded sides are laminated with five layers of material to ensure strength, stiffness and resonance control. Secondly, the rounded shape itself ensures that stationary waves inside the cabinet never will be a problem. Thirdly, the solid aluminium profile does not only give the speaker a unique design; it also has a function: to add mass and by that dampening resonances and vibration. The cabinet shape will transfer vibration from the front panel to the rear panel. The aluminium profile is mounted with a special gasket, providing instant high mass and a totally different resonance structure than the fiberboard.

Excellent drivers are the foundation of true-to-life sound: the drivers' capability to react instantly to the provided signal together with total control of mechanical resonance is crucial. The drivers in FM-2 are selected from the absolute best drivers available and then modified further to comply with our demands for technical quality. The midrange reproduction of any speaker is without discussion the most important thing at all. This is where it all happens. Whether it is the reproduction of vocals, high-hat or drums, all have important information based in this frequency area. The bass/midrange is specially designed for mid- and high frequency response providing a clean and dynamic impulse response second to none.

The tweeter is a state-of-the-art ring radiator design that not only yields a useful output far beyond the capability of the human ear, thereby providing instruments with their natural harmonic structure, but also adds the crucial benefits of extremely low distortion and coloration of the reproduced material.

At the heart of the FM-2 speaker lies an advanced crossover adorned with no less than ultimate quality components: large air-core coils, low-resonance capacitors and non-inductive resistors mounted on a high-quality fiberglass PCB and cast in a special resonance-controlling epoxy resin.

Hundreds of hours have been spent designing the network to comply with the drivers' frequency response and impedance, while carefully considering phase, resonance and impulse response. Finally, we trimmed the sound, not only providing a flat frequency response but providing a tantalizingly lifelike sound.

All of the above is draped in a beautiful exterior design, as small as possible and perfectly finished in handcrafted veneer or paint. The supplied magnetic cloth grilles are designed to produce a minimum of coloration and distortion to the sound when mounted. Using a small and close-fitting frame clad in sound-transparent fabric ensures that any loss of audio detail is kept at a minimum, and that diffractions are well out of the critical midrange area. In addition, it offers protection for the drivers while enhancing both the beautiful finish and the elegant, simple lines in the design even further.

## Installation

### Mounting the driver grilles

The grilles are easily fastened to the speakers magnetically when the small magnets on the grille are aligned on top of the driver screws.

1. Place and hold the grille lightly on top of the driver as shown below



2. Turn it clockwise or counter-clockwise until you can feel the magnets attach to the screws below.



To detach the grille from the speaker simply turn the grille clockwise or counter-clockwise and remove it.

### Connecting your speakers

Connecting your speakers to your amplifier must only be performed with the amplifier turned off. Otherwise damage may occur. Connect the red speaker terminal (+) to the positive speaker output on your amplifier. Now connect the white speaker terminal (-) to the negative speaker output terminal on your amplifier.

### Bi-wiring and bi-amping

The FM-2 features a double set of high-quality WBT gold plated copper binding posts that can accommodate separate cables and/or amplifiers for high and low frequency reproduction respectively.

#### PLEASE NOTE THE FOLLOWING IMPORTANT INFORMATION:

**Permanent damage may occur to your audio system if the copper shorting plates are not removed before connecting more than one amplifier to your speakers!**

There are many theories about bi-wiring and bi-amping. Our best advice is to experiment with different cables, amplifiers and methods of connection. Whatever performs best in your system might not work equally well in another setup or in a different room. In general, our advice would be to use the same kind of cable both for bi-wiring and bi-amping, and also to use identical amplifiers when bi-amping. This is simply due to the fact that both methods will add more headroom and clarity to the sound



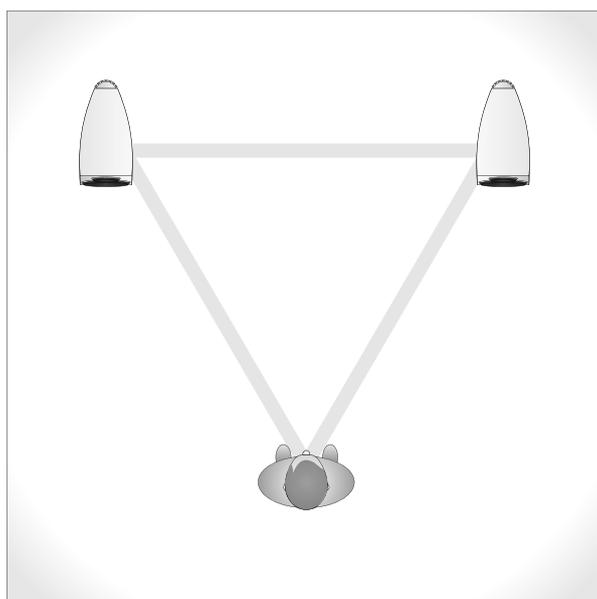


reproduction. The introduction of different amplifiers and/or different cables may cause issues with sound integration and cohesive performance.

### Placement of the speakers

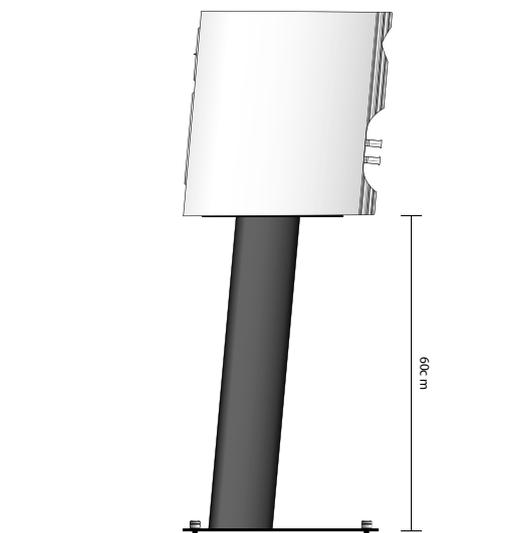
Just like with real estate, location is the most important factor when setting up a high-end audio system. It is impossible to give you an exact instruction via this manual to set up your specific system perfectly in your listening room. However, we can give you some thumb rules:

- Place your speakers at least 0.5m from the rear and side walls. Placing a speaker close to the rear wall will provide an extension in level of bass and coloration in the mid band.
- Basic setup should be an even-sided triangle with equal distance between the speakers as well as the listening position.
- The FM-2 speakers are developed to play facing directly into the listening room, so no toe-in should be needed. However, if the room is very small and the speakers must be placed closely to the side walls, then some degree of toe-in may be useful.
- Hard surfaces like glass, stone and wooden floors create many reflections which can make midrange reproduction sound harsh and with a blurry soundstage. These reflections can be dampened with curtains and carpets.
- Many soft surfaces, thick carpets and furniture may on the other hand provide too much dampening. This may cause the midrange reproduction to become "thin" and lacking in musical timing and energy. In such cases, it is advised to remove some of the dampening items.



In any case, time spent setting up your speakers is by far the most important adjustment parameter for your system. Room acoustics is a hugely complicated field with an almost infinite number of variables. Again: what might work well in your listening room may not be the perfect solution in other setups.

For the best result, place the FM-2 on a solid stand with a height of approx. 60cm. Use spikes or other hard coupling material between the speaker and the stand and also between the stand and the floor. Take extra care that the speaker and the stand are not able to vibrate, which would cause resonances. Make sure that the stand itself is of high quality, stable and preferable filled with sand or other resonance dampening material.



## Make it last!

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

- Regular care: wipe the surfaces carefully by using a 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 on the cabinets 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 cabinets away from prolonged contact with rubber or PVC materials
- Do not expose the speakers 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 [info@gato-audio.com](mailto:info@gato-audio.com) or visit our website [www.gato-audio.com](http://www.gato-audio.com) for more information.



## Technical stuff

### Technical specifications

Frequency response	48 Hz – 25 kHz (-6 dB)
Sensitivity (2,83 v)	89 dB
Recommended power amplifier	50 to 300 Watts
Nominal impedance	4 $\Omega$
Connectors	Gold plated WBT binding post / 4 mm plugs, bi-wire

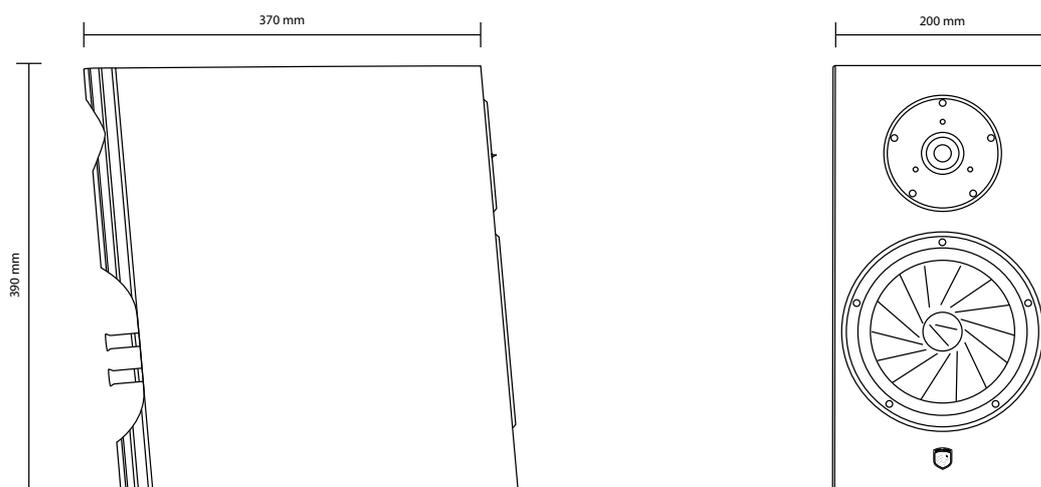
### Drivers

High Frequency	30 mm Ring Radiator, neodymium motor
Mid & Low Frequency	180 mm sliced cone, SD-1 motor, optimized voice coil

### Weight & Dimensions

Weight	10.5 Kg / 23.15 lb
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### Dimensions





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