## amphion create

# Studio Monitors

Reference manual 01/2022



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#### Introduction

#### Welcome

Thank you for choosing Amphion monitors.

"The human sense of sound is exhilarating, yet at the same time, complex. Trying to understand how we experience sound, and how it affects us, is a lifelong journey. Some speaker designers focus solely on measurements. For us the correct measurements are only a starting point in trying to understand how to convey emotion.

Our job as a speaker manufacturer is to open a large, clean window to music and allow our customers to experience music in an intimate, touching way regardless of their surroundings. The goal is to come up with a pure, highly transparent, emotionally engaging loudspeaker that will vanish leaving just the music.

It is humbling that a growing number of the world's best sound engineers rely on our products to weave their magic. We will continue our efforts to provide them with a tool that allows them to focus on bringing the joy of music to as many people as possible."

Anssi Hyvönen

Founder & Managing Director, Amphion Loudspeakers Ltd.

## Warranty and support

#### Warranty

Amphion Create products come with a two-year warranty against defects in materials and our workmanship. For warranty or out-of-warranty service, in the first instance please contact your original dealer and provide a copy of the original sales receipt. If you require additional assistance, please contact your local sales representative or distributor. If you have difficulty making contact with either of the above, please contact our headquarters. Please do not return or ship any product to Amphion Loudspeakers Ltd. nor its resellers without prior authorisation.



#### Handmade in Finland



Amphion Loudspeakers Ltd. is awarded the right to use the Association for Finnish Work's Key Flag Symbol mark of origin. This mark is granted to Finland-based organizations that manufacture their products in Finland, having a minimum domestic content of 50 percent.

#### Company profile

Amphion Loudspeakers Ltd. was established in 1998.

We design and build loudspeakers that are characterised by a high-resolution, unstrained low-level reproduction and a pure driver integration. Our affordable solutions are rather insensitive to room acoustics and fill any space with a wide and even dispersion. A timeless yet flexible approach with regard to aesthetics and application make Amphion products easy to match with individual styles and preferences.

All products are handmade in Finland to ensure enduring listening quality.

#### Follow us

#### amphion.fi

#### Social media

- www.facebook.com/AmphionLoudspeakers
- twitter.com/amphion fi
- www.youtube.com/user/AmphionLoudspeakers
- www.instagram.com/amphion\_loudspeakers

## Philosophy

#### Hear it all

Your ears are the most important tool in your studio. Providing them with detailed, reliable information is the only way for making right, stress-free decisions. Pushing the acoustic design allows us to keep our products electrically simple, as well as ensure transparency, resolution, and exceptional time and phase coherence. All products use time-adjusted drivers and a 1600 Hz tweeter crossover. This leads into point-source-like behavior and seamless driver integration. Rocksolid "phantom" center, life-like 3D imaging and an extremely wide and deep sweet-spot are characteristic of all Amphion products.

#### Truthful sound

Amphion's Uniformly Directive Dispersion (U/D/D) allows the speakers to work in a predictable and acoustically-stable manner in all rooms. Amphion's fifth generation waveguide ensures driver integration, eliminates cabinet diffractions, and produces a uniform and even response throughout a broad frequency band. The result is a wide, even listening area, which provides predictable results in your current room as well as your next. Use of a passive radiator instead of a vent not only makes for a more natural energy transfer and improved bass definition, but also enhances the midrange clarity.

#### Work smarter

Achieving more in less time with minimum revisions, while keeping your clients happy, is a must in today's world. To achieve this, your monitoring must translate well and guide you to focus on the essential information. Being able to totally trust your monitors leads into substantial time savings and peace of mind - even when working towards the tightest deadlines. All monitor models can be elevated into perfectly integrated 3-way full-range system by combining them with our Bass Systems.

## Monitors

Front









## Rear









#### **Features**

1 Passive speaker Simplicity leads to improved resolution, transparency and longer lifespan.

Crossover point

All products have time-adjusted drivers with crossovers at a low 1600 Hz. This leads into point-source-like behaviour and seamless driver integration. Rock-solid "phantom" centre, life-like 3D imaging and an extremely wide and deep sweet-spot are characteristic of all Amphion products.

Amphion's Uniformly Directive Dispersion (U/D/D) allows the speakers to work in a predictable and acoustically stable manner in all rooms. Amphion's signature fifth generation waveguide ensures driver integration, eliminates cabinet diffractions and produces a uniform and even response through a broad frequency band. The result is a wide, even listening area, which allows you to trust your monitors in your current room as well as your next.

The acoustic center point of Amphion monitors is located in the middle of the speakers. In One -series it is between the drivers (under the waveguide, on top of the woofer), which allows them to be used both vertically and horizontally. In Two -series the center point is in the tweeter. We recommend using Two15 and Two18 vertically to avoid any loss in imaging and depth information. Line the acoustic centre point to your ear-level for optimal performance.

(5) Passive radiator

Eliminating the reflex ports improves bass control. In addition to improving the speed and tonality of bass this creates a more natural energy transfer and enhances midrange clarity. Due to the passive radiator the speaker can be used closer to the walls, which creates more flexibility for speaker placement.

(6) DSP free

Amphion's advanced acoustic design and electrical purity allows harnessing the full power of latest monitor controllers, other signal processing devices, as well as room-correction or other types of advanced software.

(7) Connections

3-way binding post can be used with banana plugs, spades and bare wire.

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Waveguide

Acoustic centre

point

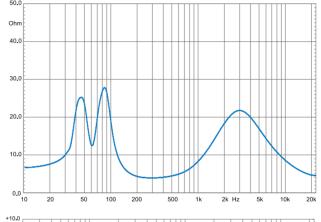
## One12 Technical specifications



Operating principle	Two-way, passive radiator
Tweeter	25 mm / 1" titanium
Mid / woofer	12 cm / 4½" aluminium
Crossover point	1600 Hz
Impedance	8 Ω
Sensitivity	84 dB @ 2.83V/1m
Frequency response	78 - 20 000 Hz +/-3dB
Power recommendation	50 - 200 W
Measurements (H x W x D)	259 x 132 x 220 mm
Weight	5 kg
Listening Distances	~ 0.5 m - 1.25 m
Application	Home Studio, Small Post-Production Edit Bays, Mobile Trucks, FOH

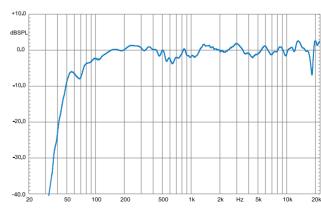
### Measurements

#### Impedance



Because all real control rooms have at least one surface (a floor) the speaker low end (below 100Hz) is measured in half free space. This gives a fairly accurate estimation of a very large control room, with the speaker placed far from back and side walls. As the room size decreases, the amount of bass increases, which means that the smaller speaker models are particularly well suited to smaller rooms which will support the bass response of the speaker. In other words, the plotted frequency response corresponds to the minimum amount of bass you can expect in any control room.

#### Frequency response



#### One15 Technical specifications

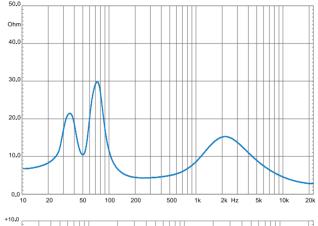


Operating principle	Two-way, passive radiator
Tweeter	25 mm / 1" titanium
Mid / woofer	15 cm / 51/4" aluminium
Crossover point	1600 Hz
Impedance	8 Ω
Sensitivity	84 dB @ 2.83V/1m
Frequency response	49 - 20 000 Hz +/-3dB
Power recommendation	50 - 200 W
Measurements (H x W x D)	316 x 160 x 265 mm
Weight	7 kg
Listening Distances	~ 0.75 m - 1.5 m
Application	Home Studio, Project Studio,

Commercial Studio

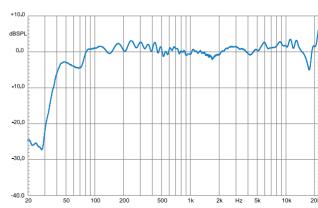
#### Measurements

#### Impedance



Because all real control rooms have at in any control room.

#### Frequency response



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## One18 Technical specifications



Operating principle	Two-way, passive radiator
Tweeter	25 mm / 1" titanium
Mid / woofer	18 cm / 6½" aluminium
Crossover point	1600 Hz
Impedance	8 Ω
Sensitivity	85 dB @ 2.83V/1m
Frequency response	45 - 20 000 Hz +/-3dB
Power recommendation	100 - 350 W

380 x 191 x 305 mm

~ 1.25 m - 2.25 m

Commercial Studio, Broadcast Studio,

Home Studio, Project Studio,

10 kg

Measurements (H x W x D)

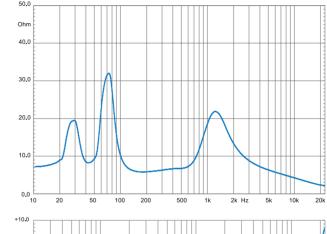
Listening Distances

Weight

Application

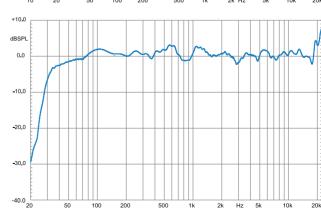
#### Measurements

#### Impedance



Because all real control rooms have at least one surface (a floor) the speaker low end (below 100Hz) is measured in half free space. This gives a fairly accurate estimation of a very large control room, with the speaker placed far from back and side walls. As the room size decreases, the amount of bass increases, which means that the smaller speaker models are particularly well suited to smaller rooms which will support the bass response of the speaker. In other words, the plotted frequency response corresponds to the minimum amount of bass you can expect in any control room.

### Frequency response



Small~Large Studios

-40.0 20 50 100 200 500 1k 2k Hz 5k 10k 20k

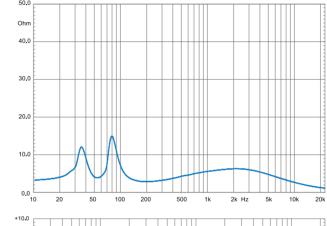


Operating principle	Two-way, passive radiators
Tweeter	25 mm / 1" titanium
Mid / woofer	15 cm / 51/4" aluminium
Crossover point	1600 Hz
Impedance	4 Ω
Sensitivity	86 dB @ 2.83V/1m
Frequency response	44 - 20 000 Hz +/-3dB
Power recommendation	100 - 350 W
Measurements (H x W x D)	510 x 160 x 265 mm
Weight	10 kg
Listening Distances	~ 1.0 m - 1.75 m
Application	Home Studio, Project Studio Commercial Studio, Broadcast Studio,

Medium~Large Studios

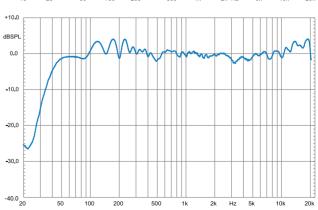
#### Measurements

#### Impedance



Because all real control rooms have at least one surface (a floor) the speaker low end (below 100Hz) is measured in half free space. This gives a fairly accurate estimation of a very large control room, with the speaker placed far from back and side walls. As the room size decreases, the amount of bass increases, which means that the smaller speaker models are particularly well suited to smaller rooms which will support the bass response of the speaker. In other words, the plotted frequency response corresponds to the minimum amount of bass you can expect in any control room.

## Frequency response



#### Two18 Technical specifications



#### Operating principle

Two-way, passive radiators

Tweeter

Mid / woofer

Crossover point

Impedance

Sensitivity

Frequency response

Power recommendation

Measurements (H x W x D)

Weight

Listening Distances

Application

25 mm / 1" titanium

18 cm / 61/2" aluminium

1600 Hz

 $4 \Omega$ 

89 dB @ 2.83V/1m

39 - 20 000 Hz +/-3dB

100 - 350 W

550 x 191 x 305 mm

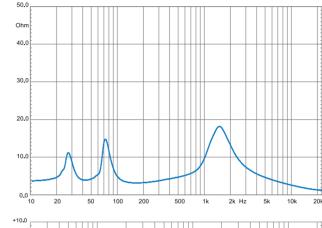
14 kg

~ 1.5 m - 2.5 m

Home Studio, Project Studio, Commercial Studio, Broadcast Studio, Medium~Large Studios

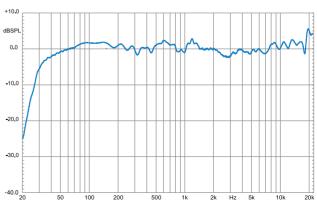
#### Measurements

#### Impedance



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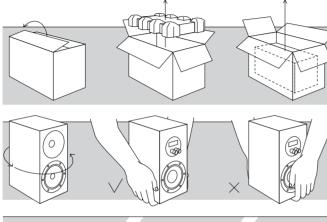
#### Frequency response



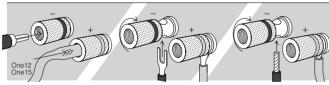
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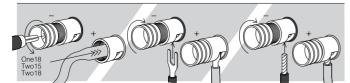
### Instructions

## Unpacking

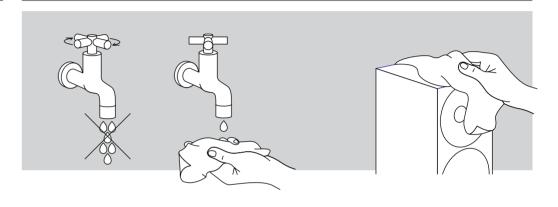


## Connecting





#### Care

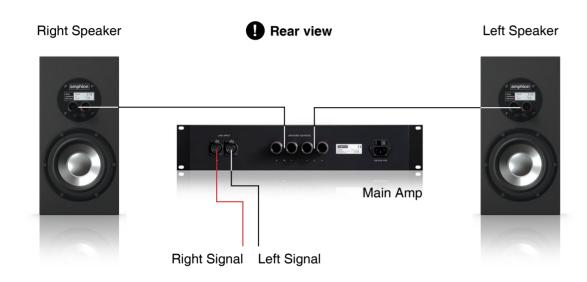


#### Maintenance support

Please contact your local Amphion dealer or sales representative for additional guidance on cabinet, driver, or radiator maintenance. For more information, you can also contact Amphion headquarters or our regional offices in Asia (Japan) and North America (USA).

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## Setup guide



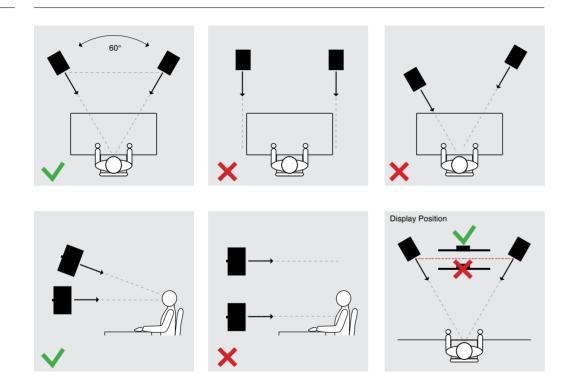
PLEASE NOTE! Always turn power off before inserting or removing cables.



"Amphion studio monitors are very transparent. Due to this all the pros and cons of the signal chain are revealed. We recommend pairing the monitors with matching Amphion amplifiers and cables, but they work adequately with other products as well."

## Setup guide

### Studio-monitor placement



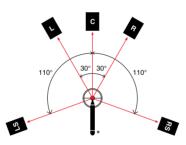
Basic Monitor Setting Video Guide: <a href="https://youtu.be/600vjl3YN50">https://youtu.be/600vjl3YN50</a>

#### Studio-monitor stencil

#### Instructions:

Centre of Template: Head/Listening Position

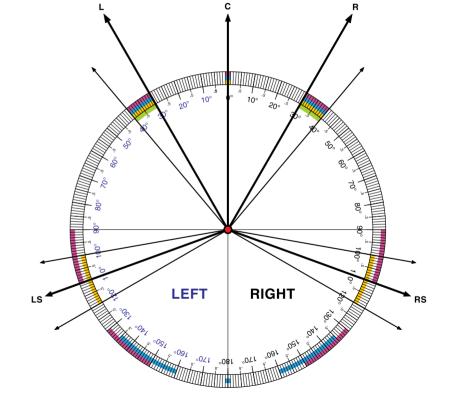
Set Primary Angles: Monitor(L) → Head → Monitor(R) "60° Rule" Correct Imaging #1: Monitors → Head + Monitor → Monitor Distance Correct Imaging #2: Use Tilt + Toe-in for Monitor → Ear Directionality



\*Use laser-pen for accurate alignment. Alignment/Angle = Tweeter → Ear

- Listening Position Location-point
- Front Stereo 30~40° From Centre [L|R]
- 5.1 Surround Sound 100~120° [LS|RS]
- 6.1 Surround Sound 135~160° [LS|RS] | 180° [B]

■ 7.1 Surround Sound 90~110° [LS|RS] | 130~150° [BLS|BRS]



### Complete studio solutions

#### Power amplifiers

Amphion amplifiers provide abundant, fast, controlled power with low distortion. After evaluating all the available D-class solutions, suitable platforms were identified. To reach the needed sonic character and performance, an in-house designed buffer-stage was added to ensure optimal impedance matching to complement the merits of D-Class technology. Our amps are perfect partners to all Amphion monitors and other passive speakers.

#### Base systems

Making correct decisions regarding the low frequencies is fundamental and often the hardest part of sound making. Our Bass Extension systems transforms your 2-way monitor into a cohesive 3-way full-range system and deliver clear, accurate and dependable low frequency information for making fast, well translating decisions. The system's extreme resolution, speed and control make it easy to pack the maximum energy into your low-end or spot potential problems before they turn into headaches.

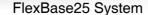




Amp700

Amp400.8







BaseTwo25 System

#### Accessories

#### Speaker cables

Amphion speaker cables. Specially braided silver coated copper conductor and chord banana connectors. Available lengths 2.5 m, 3.5 m and 5 m in Black.



#### Speaker Wire vs Brand

Amphion's benchmark position on speaker-wire vs brand-name is based on the principles of physics and sonic delivery. Claims of exotic materials usage, general brand hype, and exaggerated performance-levels are not genuine criteria. Reputable cable manufacturers follow the science and practice of ensuring the following cable performance standards are met whether for Project, Private, Commercial, or Dolby Atmos studio applications:



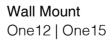
## Resistance | Conductance | Inductance | Terminations | Build-Quality | Materials

- high-tolerance wire gauge-to-length ratios → SWG, AWG, or IEC 60228 Standards
- high-quality insulation/shielding  $\rightarrow$  prevention of dielectric loss + non-reactive material on wire
- meeting inductive reactance benchmarks  $\rightarrow$  10m cable length and <1% audible losses
- high-level connectors/materials and build → component QA and assembly QC are met

#### Wall bracket

Amphion adaptors are available to fit K&M wall brackets, and are suitable for all Amphion monitors.







Wall Mount
One18 | Two15
Two18



Ceiling Mount One12 | One15 One18





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