



KV2 Audio ESM Series Compact Passive Stage Monitor System User Guide

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ESM Series Compact Passive Stage Monitor System User Guide



ESM Series User Guide · ESM26 · ESM12 · ESM312

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ESM Series Compact Passive Stage Monitor System

The Future of Sound. Made Perfectly Clear.

At KV2 Audio our vision is to constantly develop technologies that eliminate distortion and loss of information providing a true dynamic representation of the source.

Our aim is to create audio products that absorb you, place you within the performance and deliver a listening experience beyond expectations.

ESM Series · Important Safety Instructions

Important Safety Instructions

Before using your ESM Series, be sure to carefully read the applicable items of these operating instructions and the safety suggestions.

1. Read all product instructions.
2. Keep printed instructions, do not throw away.
3. Respect and review all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not block any ventilation openings.
7. Install in accordance with KV2 Audio's recommended installation instructions.
8. Only use accessories specified by KV2 Audio.
9. Install the product only with rigging specified by KV2 Audio, or sold with the loudspeaker.
10. Unplug this loudspeaker during lightning storms or when unused for long periods of time.
11. Refer all servicing to qualified service personnel. Servicing is required when the loudspeaker has been damaged in any way, such as when the plug has been damaged; liquid has been spilled or objects have fallen into the loudspeaker; rain or moisture has entered the loudspeaker; the loudspeaker has been dropped; or when for undetermined reasons the loudspeaker does not operate normally.
12. Do not remove front or back panels. Removal of the panel will expose hazardous voltages. There are no user serviceable parts inside and removable may void the warranty.
13. An experienced user shall always supervise this professional audio equipment.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE PANELS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING: To prevent fire or electric shock, do not expose this equipment to rain or moisture.

SAFETY SUMMARY

To reduce the risk of electric shock, disconnect the loudspeaker from the AC mains before installing audio cable. Reconnect the power cord only after making all signal connections. Connect the loudspeaker to a top-plate, three-wire grounding mains receptacle. The receptacle must be connected to a fuse or circuit breaker. Connection to any other type of receptacle poses a shock hazard and may violate local electrical codes. Do not allow water or any foreign object to get inside the loudspeaker. Do not put objects containing liquid on or near the unit. To reduce the risk of overheating the loudspeaker, avoid exposing it to direct sunlight. Do not install the unit near heat-emitting appliances, such as a room heater or stove. This loudspeaker contains potentially hazardous voltages. Do not attempt to disassemble the unit. The unit contains no user serviceable parts, repairs should be performed only by factory trained service personnel.

ESM26 The Ultimate compact Passive Monitor



Application

Specifically designed as an extremely compact-low profile passive-vocal floor monitor

- Live performance
- Concert venues
- Portable PA
- Fixed installations

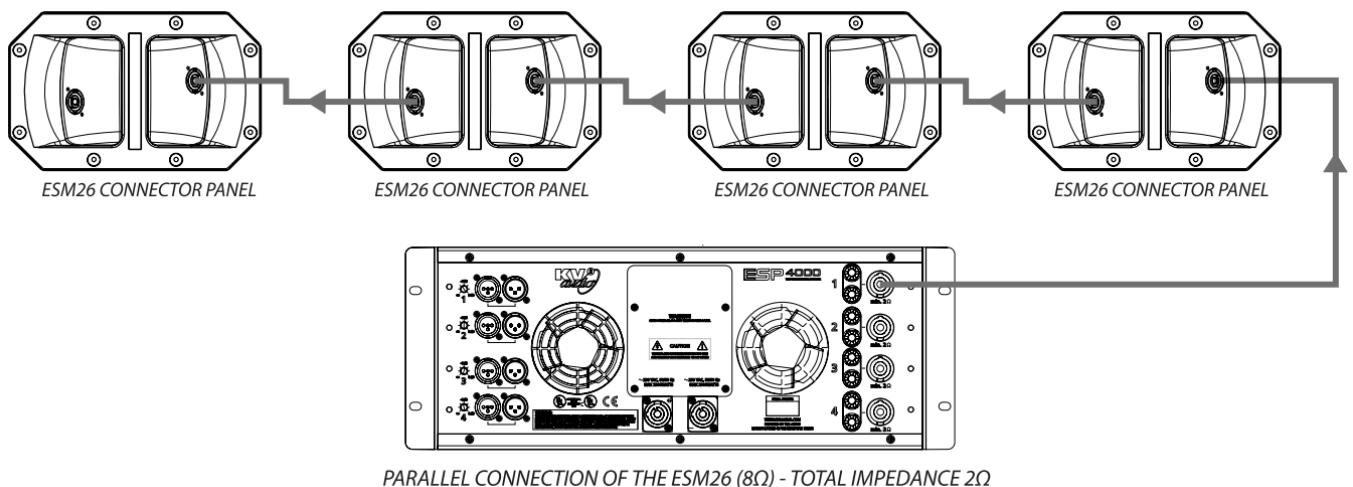
Introduction

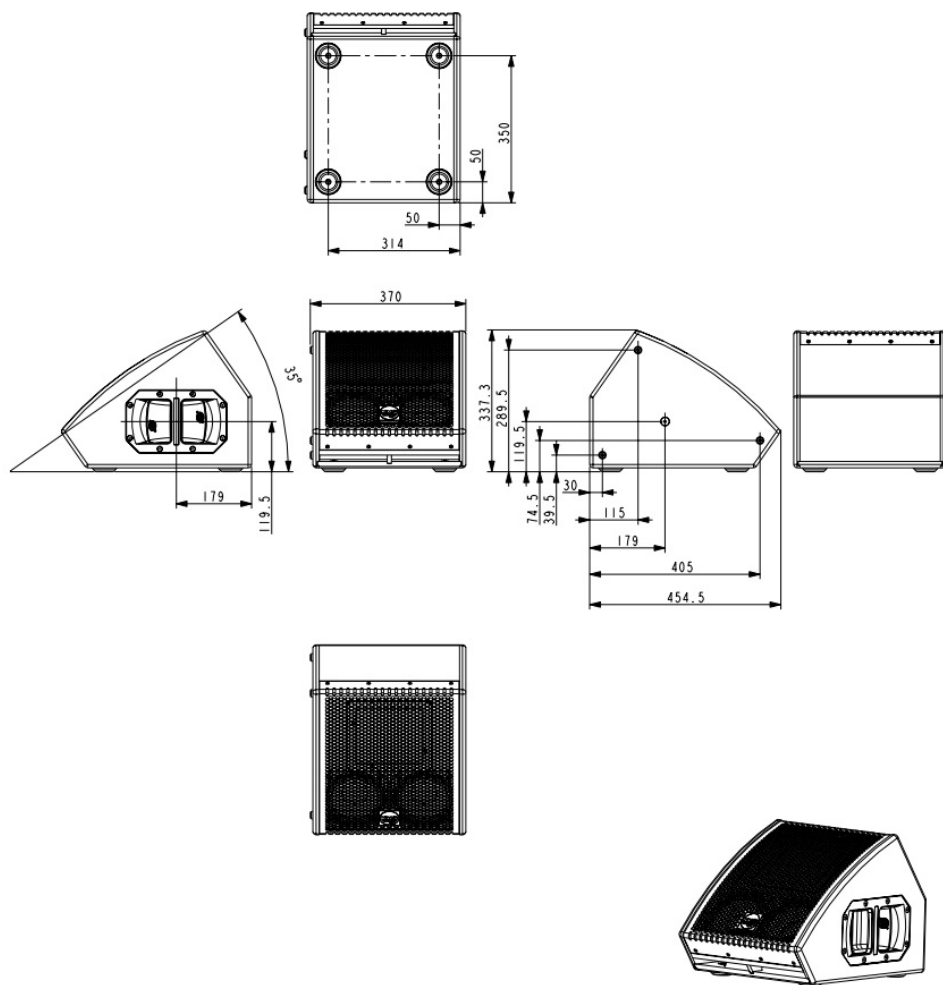
The ESM26 is a purpose built stage monitor with incredible clarity and presence, especially in the all important vocal range.

Incorporating two high quality 6" drivers and a 1.75" compression driver on a 100 x 100 degree horn flare. The ESM26 utilizes KV2's revolutionary delay line technology for optimum output and feedback rejection. A full width bass port along the bottom of the cabinet couples with the floor to deliver bass response comparable to monitors twice its size. Under 400mm wide this small monitor takes up minimal room on stage and is ideal for visually critical applications like TV and theatre.

Connection

The ESM26 features two Speak on (NL4) connectors. The connectors are interconnected in parallel to allow the "daisy chaining" of additional ESM26's.





ESM26 · Specifications

System Acoustic Performance	
Max SPL Long-term	123dB
Max SPL Peak	129dB
-3dB Response	70Hz to 16kHz
-10dB Response	54Hz to 28kHz (half space)
Recommended Power	275W
Sensitivity	98dB
Impedance	8Ω
Crossover Point	2.5kHz
High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	100° x 100°
Throat Exit Diameter / Diaphragm Size	1" / 1.75"
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium

Low Frequency Section	
Acoustic Design	Front Loaded, Bass Reflex
Number of Drivers	2
Woofers Size / Voice Coil Diameter	6" / 1.75"
Magnet Type	Neodymium
Diaphragm Material	Epoxy Reinforced Cellulose
Speaker Input	
Speaker Input	2x Neutral Speak on®
Features	
RMS Limiter	autorepeat
Cabinet	
Cabinet Material	Baltic birch
Handles	1
Color	Orange peeled Matt Black or any RAL
Physical Dimensions	
Height	337.3 mm /13.28"
Width	370 mm /14.57"
Depth	454.5 mm /17.89"
Weight	15 kg (33.8lbs)

The Ultimate Passive Monitor

ESM12 · Overview



ESM12L – part number KVV 987 216

ESM12R – part number KVV 987 218

Application

Specifically designed as an extremely high output, full range-low profile passive vocal and music floor monitor

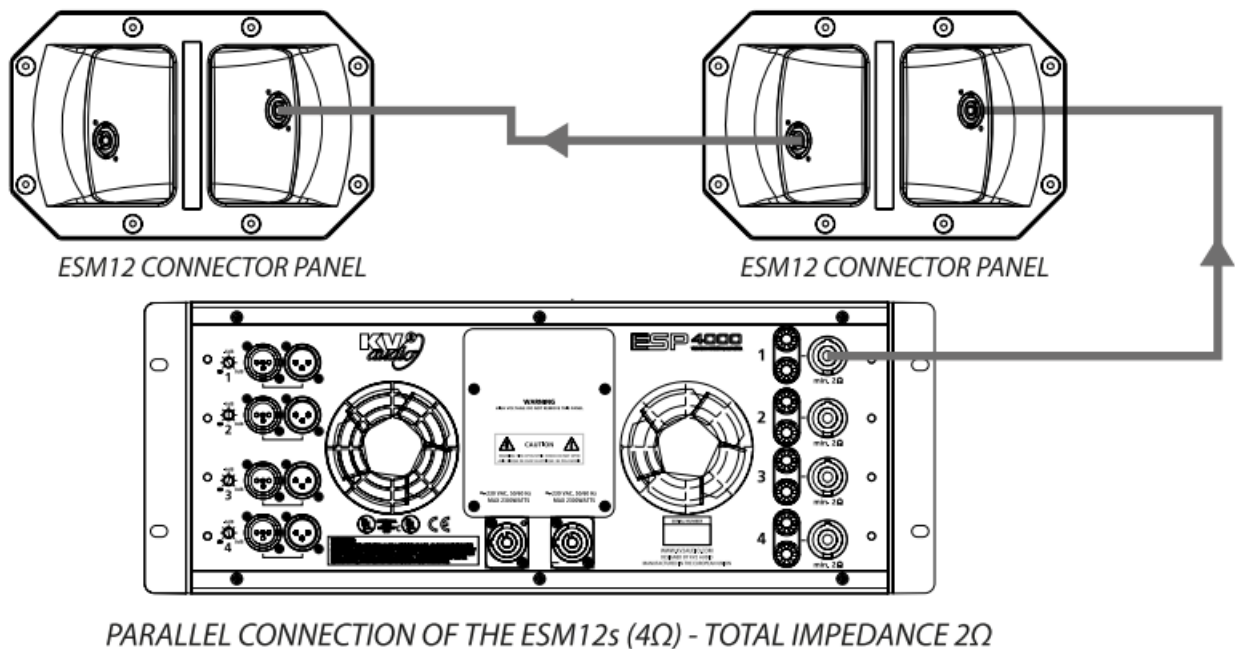
- Live performance
- Concert venues
- Portable PA
- Fixed installations

Introduction

The ESM12 is a full-range low profile 2-way, passive monitoring solution with a 12" trans-coil neo woofer and the same 3" NVPD large format compression driver found in our flagship VHD products. The ESM12 also features our revolutionary passive delay line, which dramatically reduces feedback. Housed in a professional Baltic Birch cabinet, with a protective Polymer coating and heavy-duty grill, the ESM12 can be utilized for FOH applications with the inclusion of a pole mount. Truly one of the most impressive monitoring solutions on the market today, the ESM12 is available in left and right configurations.

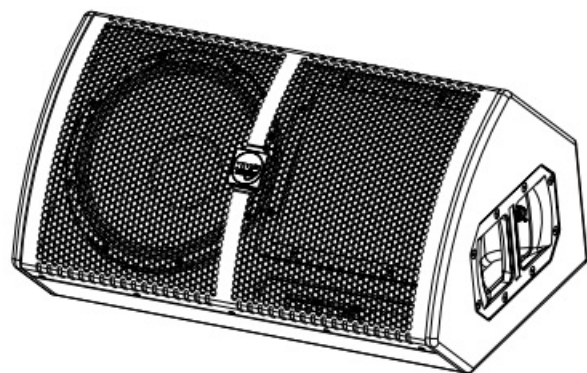
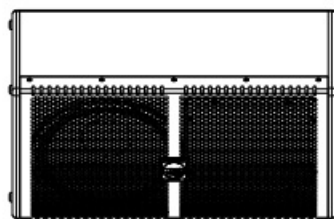
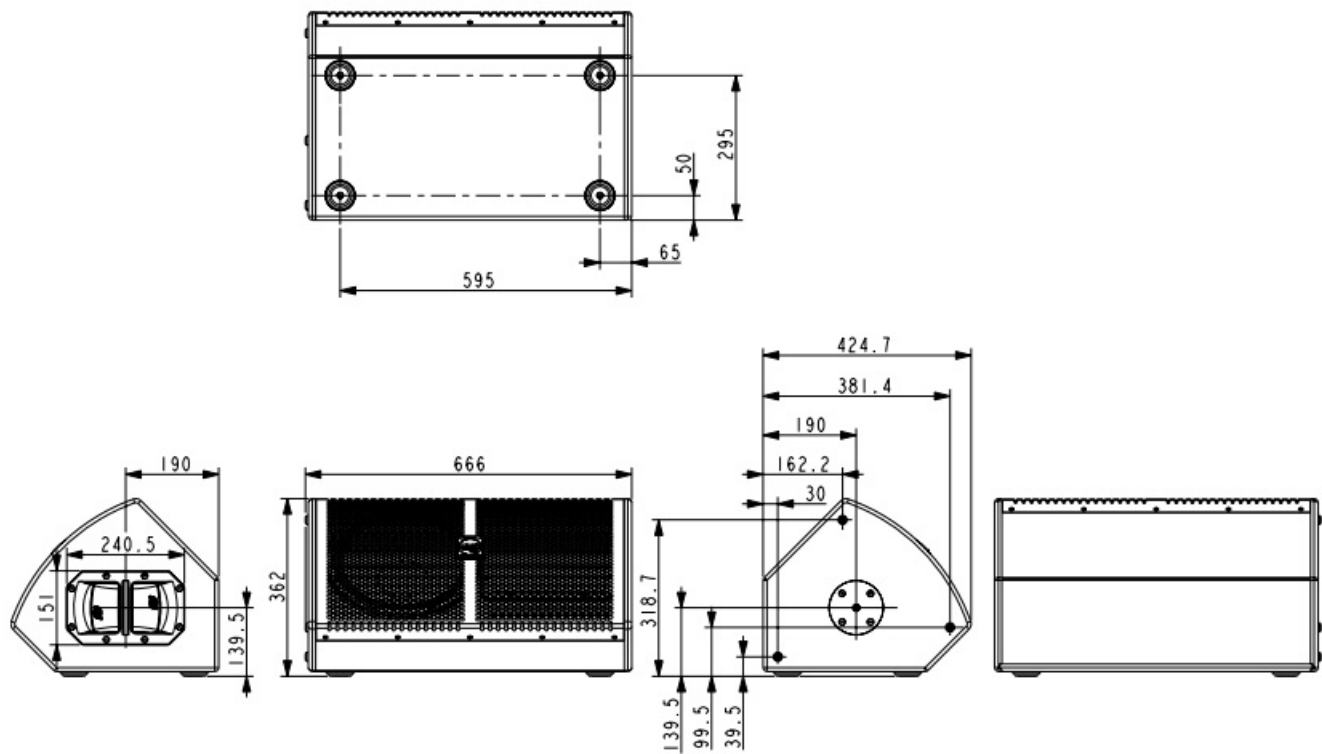
Connection

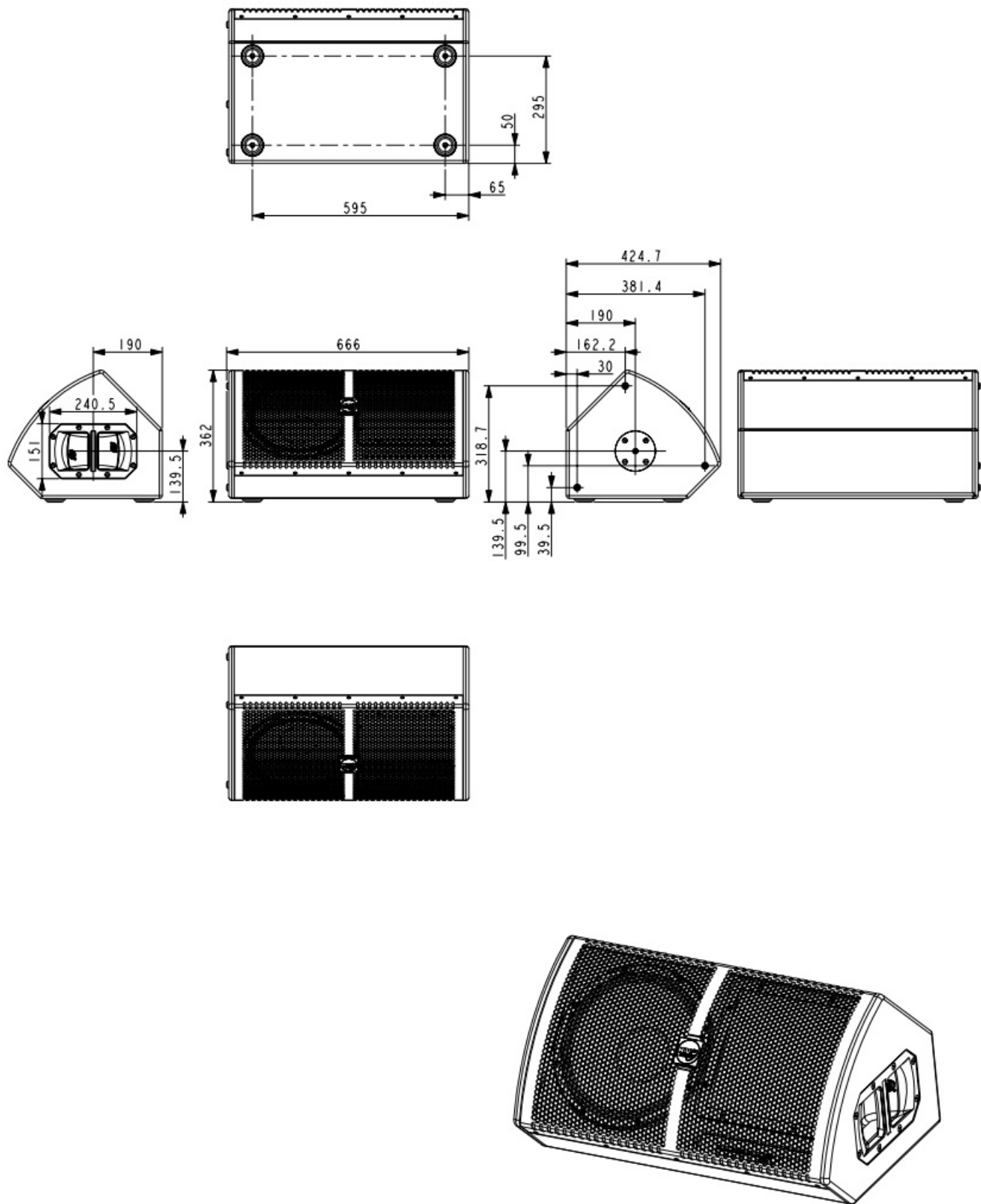
The ESM12 features Speak on (NL4) connectors. The connectors are interconnected in parallel to allow the "daisy chaining" of additional ESM12's.



ESM12L · Drawings

Drawings





ESM12 · Specifications

Specifications

System Acoustic Performance	
Max SPL Long-term	127dB
Max SPL Peak	133dB
-3dB Response	55Hz to 22kHz

-10dB Response	41Hz to 30kHz (half space)
Recommended Power	500W
Sensitivity	98dB
Impedance	4Ω
Crossover Point	1.2kHz
High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	40° x 80°
Rotatable Horn	YES
Throat Exit Diameter / Diaphragm Size	1.4" / 3"
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium
Protection	RMS Limiter
Low Frequency Section	
Acoustic Design	Front Loaded, Bass Reflex
Woofer Size / Voice Coil Diameter / Design	12" / 2.5" / Trans Coil
Magnet Type	Neodymium
Diaphragm Material	Epoxy Reinforced Cellulose
Protection	Thermal breaker – autorepeat
Speaker Input	
Speaker Input	2x Neutral Speak on®
Cabinet	
Cabinet Material	Baltic birch
Handles	1
Pole Mount	35 mm
Color	Orange peeled Matt Black or any RAL
Physical Dimensions	
Height	368 mm (14.48")
Width	606 mm (23.86")
Depth	368 mm (14.48")
Weight	23 kg (50.7lbs)

ESM 312
STAGE MONITOR 4 Ohms / 1000 Watts

High Output Full-range 3-Way Monitor
ESM312 – part number KVV 987 467



Application

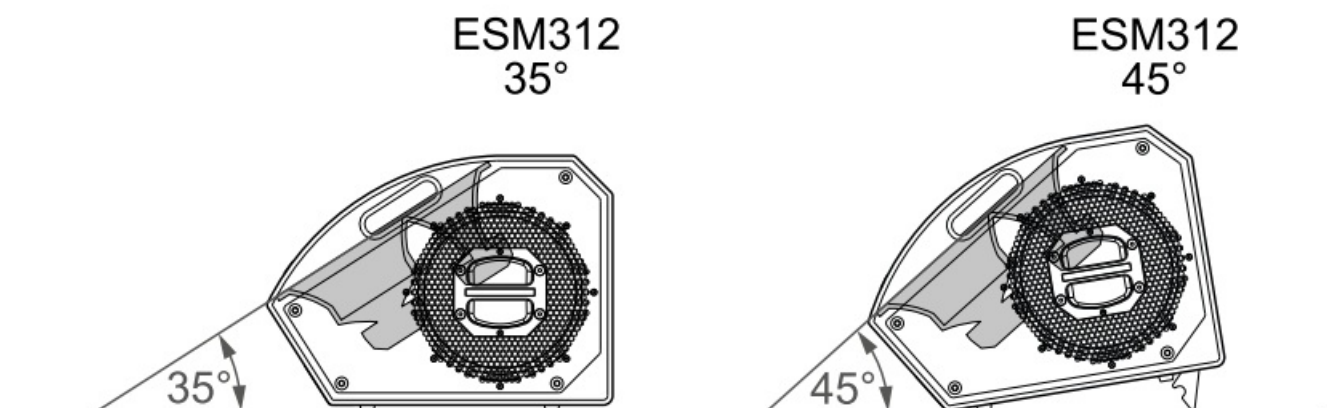
Specifically designed as an extremely compact-low profile passive-vocal floor monitor

- Live performance
- Concert venues
- Portable PA
- Fixed installations

Introduction

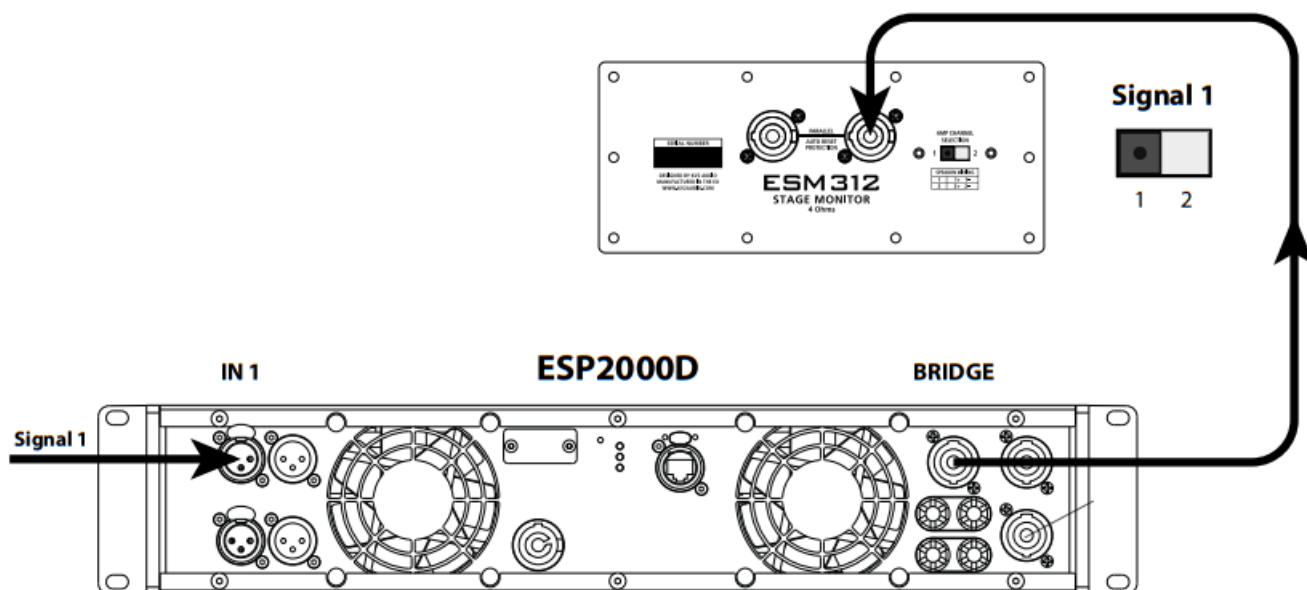
The ESM312 is a very high output full-range low profile 3-way, passive monitoring solution with two bass reflex loaded 12" neo woofers, a single horn loaded 6" mid range woofer and a 1" compression driver. Housed in a professional robust Baltic Birch cabinet, with a protective Polymer paint coating and heavy-duty grille, the ESM312 can be utilized for all large scale stage monitoring applications, where quick and easy set up is required. The ESM312 is truly one of the most impressive monitoring solutions on the market today.

ESM312 Angles options

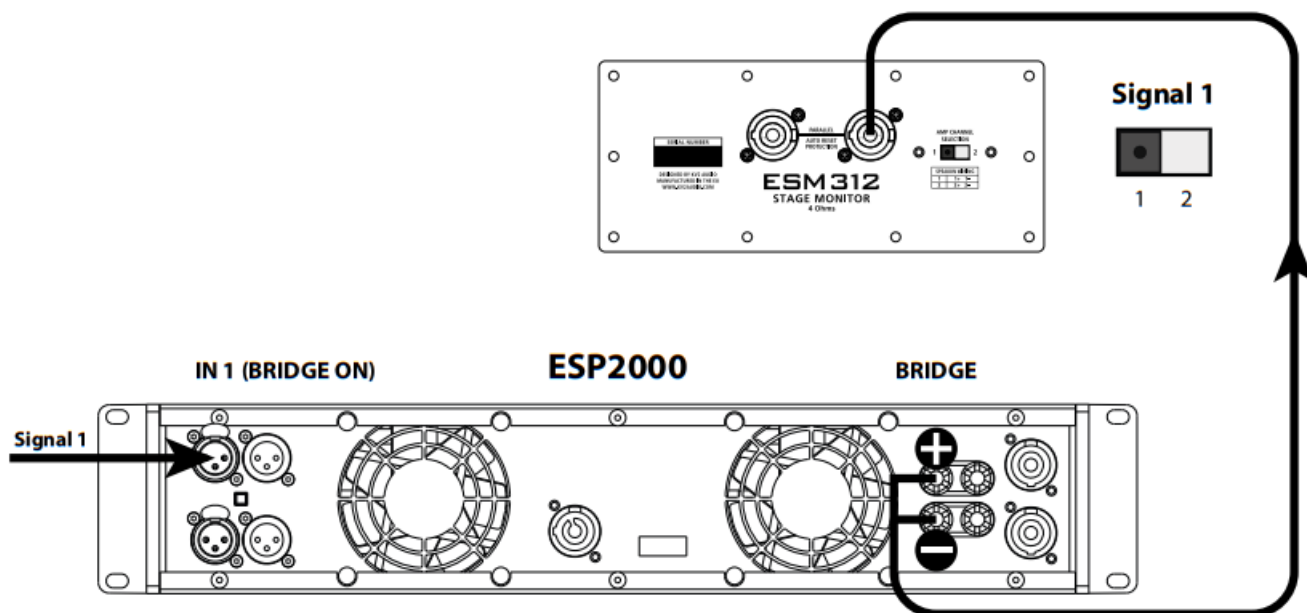


ESM312 · Connection
Connection

ESM312 + ESP2000D



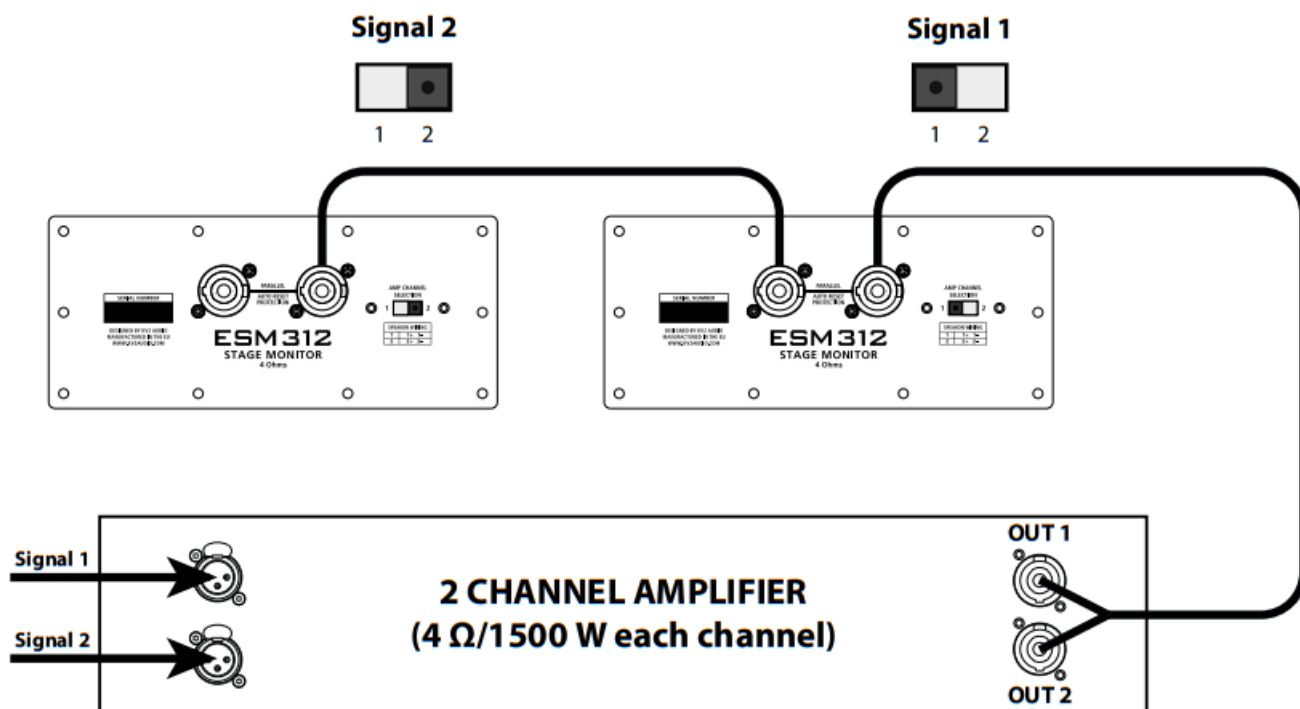
ESM312 + ESP2000



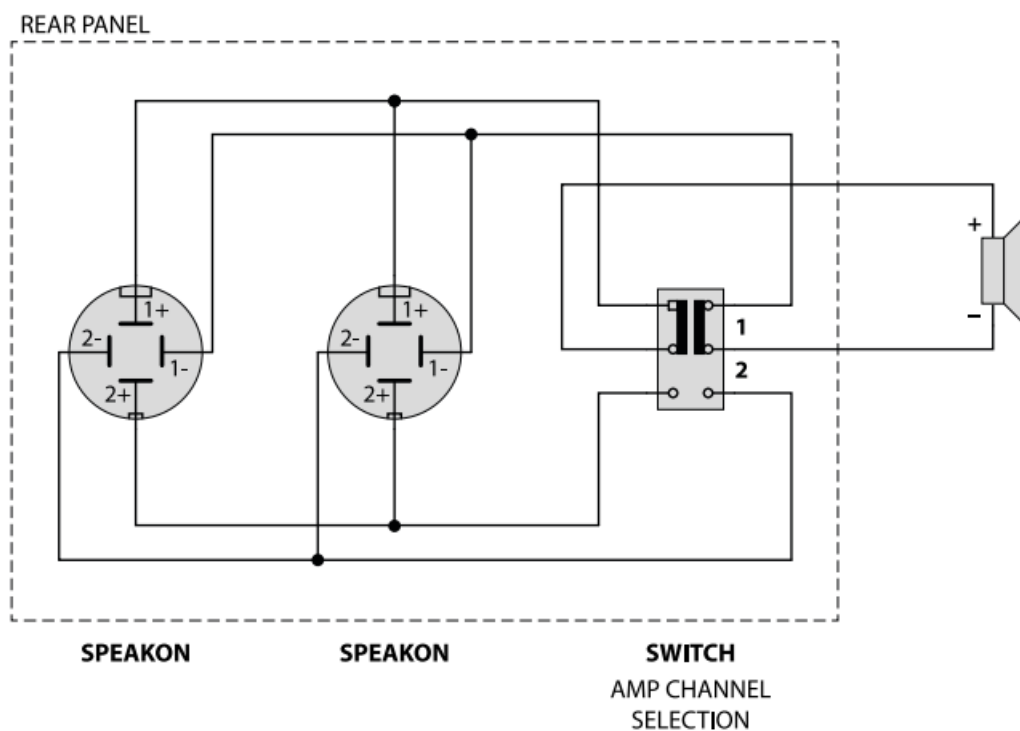
ESM312 · Connection · Wiring

Connection

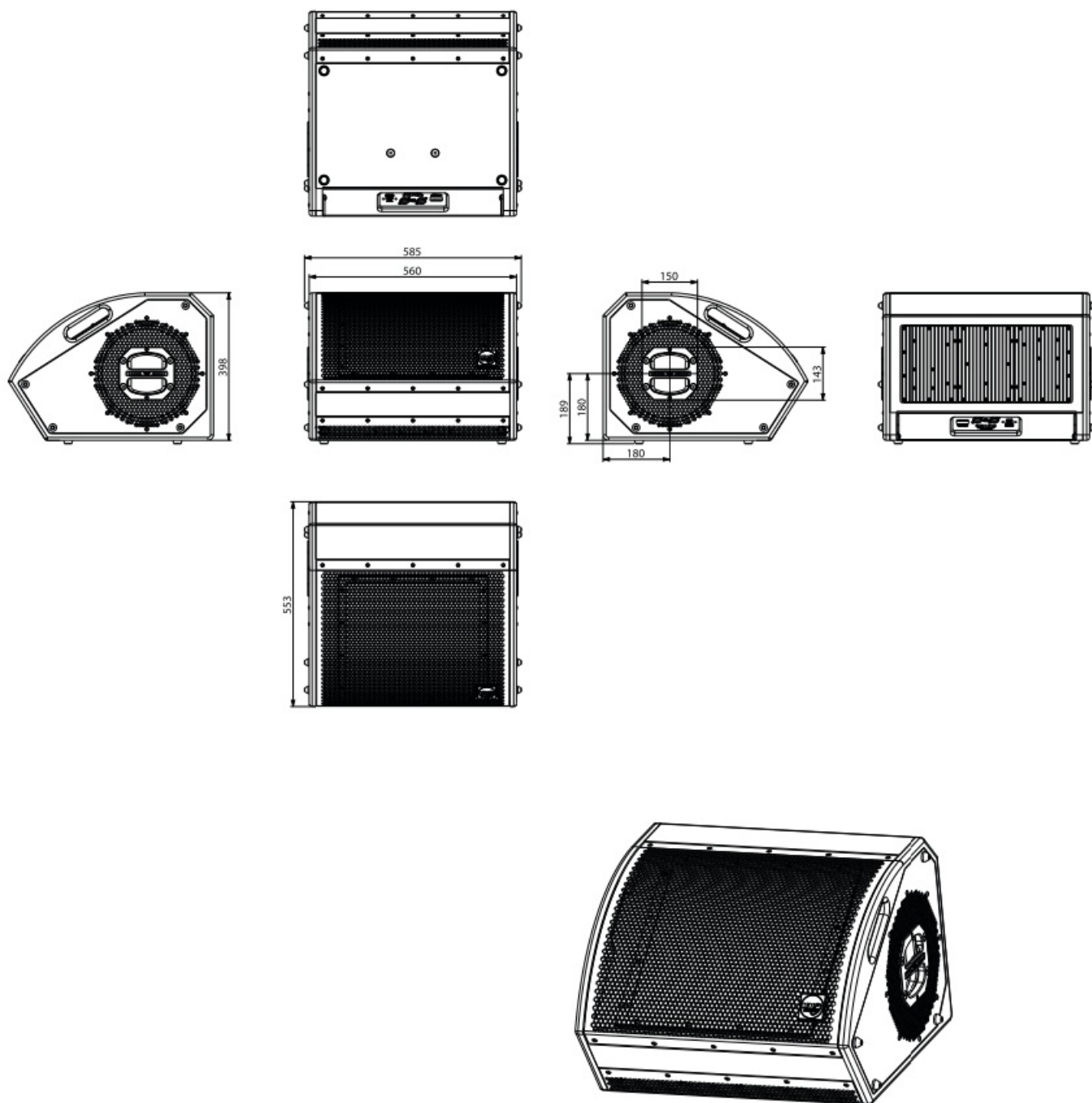
2x ESM312 + any amplifier according to the specifications



ESM312 Wiring



ESM312 · Drawings
Drawings



ESM312 · Specifications

Specifications

System Acoustic Performance	
Max SPL Long-term	133dB
Max SPL Peak	139dB
-3dB Response	40Hz to 20kHz
-10dB Response	35Hz to 20kHz (half space)
Power Handling	1000W continuous / 4000W peak
Sensitivity	100dB
Impedance	4Ω

Crossover Point	400Hz; 2kHz
High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	90° x 40°
Rotatable Horn	NO
Throat Exit Diameter / Diaphragm Size	1" / 1,75"
Diaphragm Material	Titanium
Magnet Type	Neodymium
Protection	RMS excursion limit
Mid Range Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	90° x 40°
Rotatable Horn	NO
Woofers Size / Voice Coil Diameter	6" / 1,75"
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium
Protection	RMS Limiter
Low Frequency Section	
Acoustic Design	Front Loaded, Bass Reflex
Woofers Size / Voice Coil Diameter	12" / 3"
Magnet Type	Neodymium
Diaphragm Material	Epoxy Reinforced Cellulose
Protection	RMS Limiter
Speaker Input	
Speaker Input	2x Neutral Speak on®
Cabinet	
Cabinet Material	Baltic birch
Handles	2 + 2
Color	Polymer paint coating
Physical Dimensions	
Height	398 mm (15.669")
Width	585 mm (23.032")
Depth	553 mm (21.76")

Weight	42 kg (92.59lbs)
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ESM Series · Accessories



Covers

Cover for ESM26

part name:
COVER ESM26
part number: KVV 987 281
description:



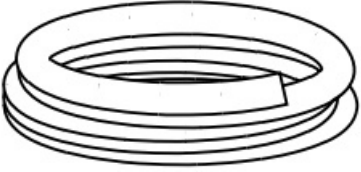

- heavy duty
- padded

Cover for ESM12-Left	Cover for ESM12-Right
<p>part name: COVER ESM12L</p>  <p>part number: KVV 987 262 description: – heavy duty – padded</p>	<p>part name: COVER ESM12R part number:</p>  <p>KVV 987 261 description: – heavy duty – padded</p>

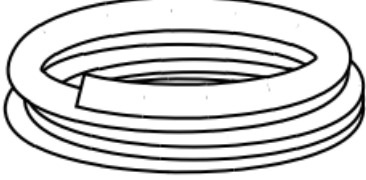
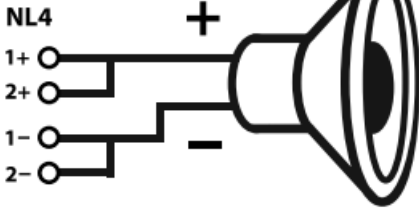
Bass speaker cables

<p>Bass speaker cable Speak on 4.40</p> <p>part name: Cable Speakon 4.40 part number: KVV 987 327</p>  <p>description: – 4 wire speaker cable – Speak on NL4 connectors – 4m (13ft) – for K-RIG Bass Module hook-up</p>	<p>Bass speaker cable Speak on 4.15</p> <p>part name: Cable Speak on 4.15 part number: KVV 987 326</p>  <p>description: – 4 wire speaker cable – Speak on NL4 connectors – 1,5m (5ft) – for K-RIG Bass Module hook-up</p>
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Speaker cables

<p>Speaker cable 2 x 1,5mm</p> <p>part name: 1m – round flexible speaker cable,</p>  <p>cross section 2 x 1.5mm part number: WX 002</p>	<p>Speak on NL4</p> <p>part name: SPEAKON NL4 part number:</p>  <p>KA 027</p>
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Speaker cable 4 x 2,5mm

<p>part name: 1m – round flexible speaker cable, cross section 4 x 2.5mm</p>  <p>part number: WX 003</p>	<p>part name: ESM, Speak on NL4 wiring positive pin</p> <p>ESD SPEAKER</p>  <p>(1 +, 2 + parallel) negative pin (1 -, 2 - parallel)</p>
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MINIMUM CROSS SECTION [mm ²]	LENGTH [m], impedance 4Ω	LENGTH [m], impedance 8Ω	LENGTH [m], impedance 16Ω
1.5	8	15	30
2.5	15	30	60
2 x 2.5	20	40	90
4	25	50	100

ESM Series · Warranty · Service

Warranty

Your ESM Series is covered against defects in material and workmanship.
Refer to your supplier for more details.

Service

In the unlikely event that your ESM Series develops a problem, it must be returned to an authorized distributor, service center or shipped directly to our factory. Because of the complexity of the design and the risk of electrical shock, all repairs must be attempted only by qualified technical personnel.

If the unit needs to be shipped back to the factory, it must be sent in its original carton. If improperly packed, the unit may be damaged.

To obtain service, contact your nearest KV2 Audio Service Centre, Distributor or Dealer.

ESM Series · Notes



The Future of Sound.
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KVV120075-00-10-0

Documents / Resources

The image shows the cover of the 'ESM Series User Guide'. It features the KV2 audio logo at the top, followed by the title 'ESM Series User Guide' and a list of models: 'ESM26 · ESM12 · ESM312'. Below the text is a photograph of three black, rectangular passive stage monitor units. At the bottom, the slogan 'The Future of Sound. Made Perfectly Clear.' is printed.	<p>KV2 Audio ESM Series Compact Passive Stage Monitor System [pdf] User Guide ESM Series Compact Passive Stage Monitor System, ESM Series, Compact Passive Stage Monitor System, Passive Stage Monitor System, Stage Monitor System, Monitor System, ESM26, ESM12, ESM312</p>
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References

-  [KV2 Audio](#)

Manuals+.