Outline DVS12P iSP Professional Loudspeaker Instructions

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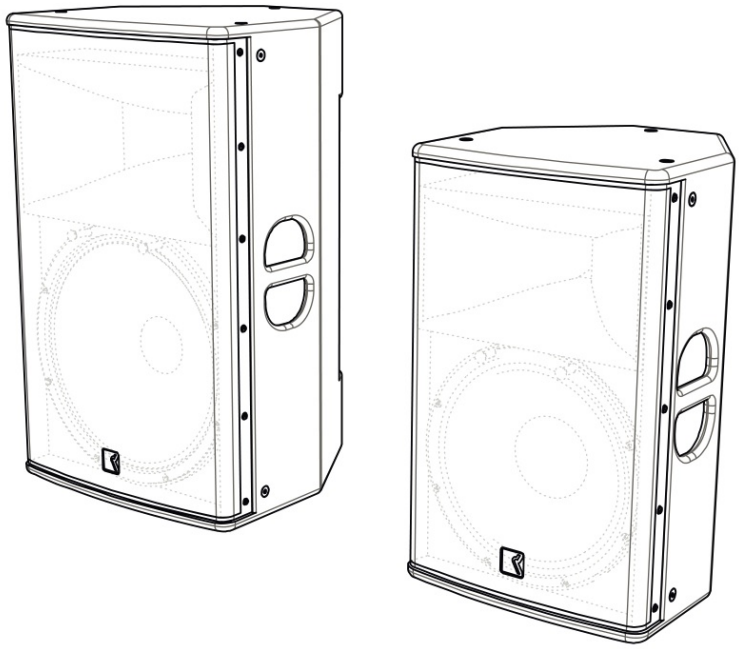
Loudspeaker Instructions

Outline



DVS12PiSP
DVS15PiSP

OPERATINGMANUAL

TheSoundofBigIdeas

SAFETY REGULATIONS

In order to avoid risks for the user's and other people's safety, as well as annulling the warranty, it is advisable to read the suggestions in this section for correct use of the product.
This unit was designed as part of a sound reinforcement or audio recording system.
Any use other than that foreseen by the manufacturer is carried out under the sole responsibility of the user.

- Do not expose the unit to rain and don't use it in locations with a high humidity level.
- Do not allow any type of liquid or solid object to enter the unit; should this occur, stop using the unit and contact OUTLINE or specialist staff.
- The mains power cable is supplied without a plug, to enable it to be connected according to current standards in the country of use, or according to the requirements of the specific situation. ALWAYS carry out connections following the correct procedure.
- When connecting the unit, ALWAYS check ground connection as required by technical and safety norms.
- If the original cable is worn or damaged, it must be replaced with another of the same type (in perfect condition).
- Make sure that the supply voltage corresponds to the selected value on the panel connections
- Carry out connections in an orderly fashion, only allowing access to this procedure to expert staff.
- The unit must only be switched on after having connected and switched on all the other components of the sound reinforcement/recording system, to avoid annoying noises that can sometimes damage the loudspeakers.
- The unit must only be moved when the cables are disconnected.
- Only dedicated accessories, specifically designed for the system, or any standard accessories foreseen may be used when installing.
- The mechanical operation of the product and the accessories usedmust be checked periodically.
- This unit produces high sound pressure levels that can damage hearing if listened to under incorrect conditions.
- The unit must only be opened and/or repaired by specialist staff.
- For any requirements of a technical nature, contact OUTLINE or authorized staff.

DISPOSAL OF WASTE MATERIALS

Your product is designed and manufactured with highly quality material and components, which can be recycled and reused. When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2002/96/EC and subsequent amendment 2003/108/EC. Please in for my our self about the local separate collection system for electrical and electronic products.
Please act according to your local rules and do not dispose your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

CE

- COMFORMITY

- European Community

All the Outline electroacoustic and electronic devices are in accordance with the objects stated by the CEE directives reported at the end of this manual.

	DVS12P iSP	DVS15P iSP
Rispostainfrequenza ***FrequencyResponse***	(-10dB) 53Hz÷20kHz (±3dB) 71Hz÷17kHz	(-10dB) 46Hz÷20kHz (±3dB) 66Hz÷17kHz
Angoli di copertura ***Averagedispersion***	500Hz÷10kHz 94°x73° (HxV) >5kHz 86°x34° (HxV) 500Hz÷4kHz 98°x88° (HxV)	500Hz÷10kHz 90°x64° (HxV) >5kHz 84°x36° (HxV) 500Hz÷4kHz 92°x72° (HxV)
ProcessoreiMode ***iModeDSP*** Type Input Analogsensitivity DigitalInput Communication	 2-channelDSP Analogordigital +10dBu,+20dBuselectable AES/EBUwithsampleratеconverter StandardEthernet(UDP protocol)	 2-channelDSP Analogordigital +10dBu,+20dBuselectable AES/EBUwithsampleratеconverter StandardEthernet(UDP protocol)
Amplificatore ***Poweramplifier*** Type RatedPower on4 Ω Cooling	 2-channelclassD(Digital) 2x750WEIAJon4ohm Forcedairventilation	 2-channelclassD(Digital) 2x750WEIAJ (1kHz,1% THD) Forcedairventilation
Impedenza(Ω) ***Impedance(Ω)***	Low/Mid(min) 4(4.3@255Hz) High(min) 16(10.6@4.6kHz)	Low/Mid(min) 4(4.1@50Hz) High(min) 16(10.5@4.7kHz)
Potenzasostenibile-watt AES ***Powerhandling-watt AES***	Cont. Peak Low/Mid 400 1600 High 80 320	Cont. Peak Low/Mid 500 2000 High 80 320
MaxSPL @1m(calcolato) ***MaxSPL @1m(calculated)***	Cont. Peak 123 129(free-field)	Cont. Peak 125 131(freefield)
Connettori ***Connectors*** Audio Màins Ethernet	 1XLR+1LinkOut 1PowerCon+1LinkOut 2EtherConRJ45	 1XLR+1LinkOut 1PowerCon+1LinkOut 2EtherConRJ45
Trasduttoriecarichiacustici ***Transducersandloading*** Low/Mid High	 1x12” NdFeBventedhigh-passloaded woofer 1x1.4” throat(2.5"titaniumdiaphragm) hornloadedcompressiondriver	 1x15” NdFeBventedhigh-passloaded woofer 1x1.4” throat(2.5"titaniumdiaphragm) hornloadedcompressiondriver
Peso ***Weight***	Singleunit Shipping(1unit) 22.5kg(49.5lb) 25.5kg(56.2lb)	Singleunit Shipping(1unit) 28kg(61.5lb) 31kg(68lb)
Dimensioni ***Dimensions*** Altezzà/ *Height* Làrghezzà/ *Width* Profondit / *Depth*	Singleunit Shipping (1unit) 57cm(22.4") 62cm(24.4") 35cm(13.8") 40cm(15.7") 35cm(13.8") 39.5cm(15.6")	Singleunit Shipping(1unit) 70cm(27.6") 75cm(29.5") 42.5cm(16.7") 47.5cm(18.7") 41cm(16.1") 45cm(17.7")

As well as normal operation contexts, the DVS 12P iSP / DVS 15P iSP enclosure is particularly suitable for:

- LIVE applications (orchestras and groups).
- Speech reinforcement in theatres and TV studios.
- Near-field stage monitoring formusicians and singers.
- High quality sound reinforcement in gyms, aerobic/fitness centres etc.
- Professional sound reinforcement in general (along with a DVS 115 SW iSP or DVS 118 SW iSP, the DVS

range’s subwoofers).

PHYSICAL CHARACTERISTICS

DVS 12P iSP / 15P iSP is a highly versatile ultra-compact system, designed to meet the highest standards when used in various demanding contexts.

- High sound pressure level compared to its dimensions.
- Excellent reliability even in the most demanding conditions.
- 2-way configuration with built-in amplifier and DSP.
- The processing and the communication are based on the Outline’s proprietary iMode technology.
- Very low feedback risks.
- Extremely even frequency response from250 to 20kHz.
- Top-grade speech projection for excellent intelligibility.
- Asymmetric cabinet for two preset horizontal positioning possibilities (30° and 45°).
- Internally braced cabinet to minimize vibrations that could jeopardise acoustic response.
- Rigging points for external installation components and various accessories.

Type of product

Multi-purposewide range loudspeaker system.
Two-way, two loudspeakers, high power, short throw, built-in two-channel power amplifier and DSP. Remotely controllable via Ethernet network.

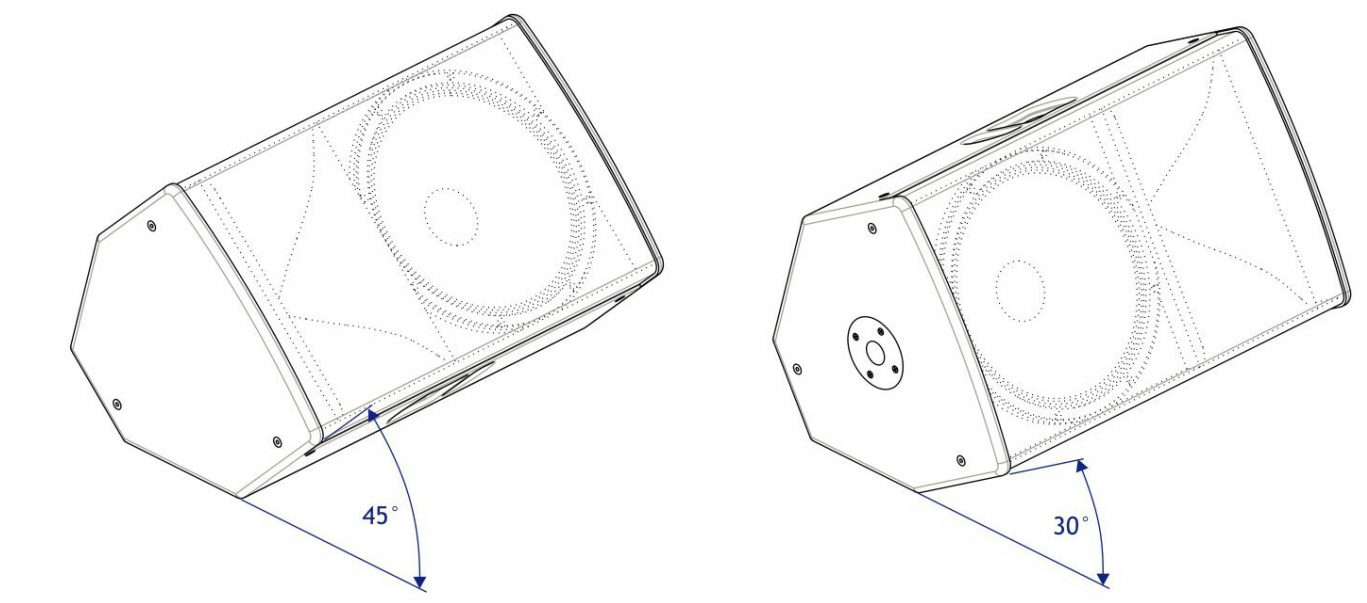
Material and finish

Asymmetric cabinet in 15 mm phenolic-glued birch plywood with internal bracing. Rounded corners and integrated handles.

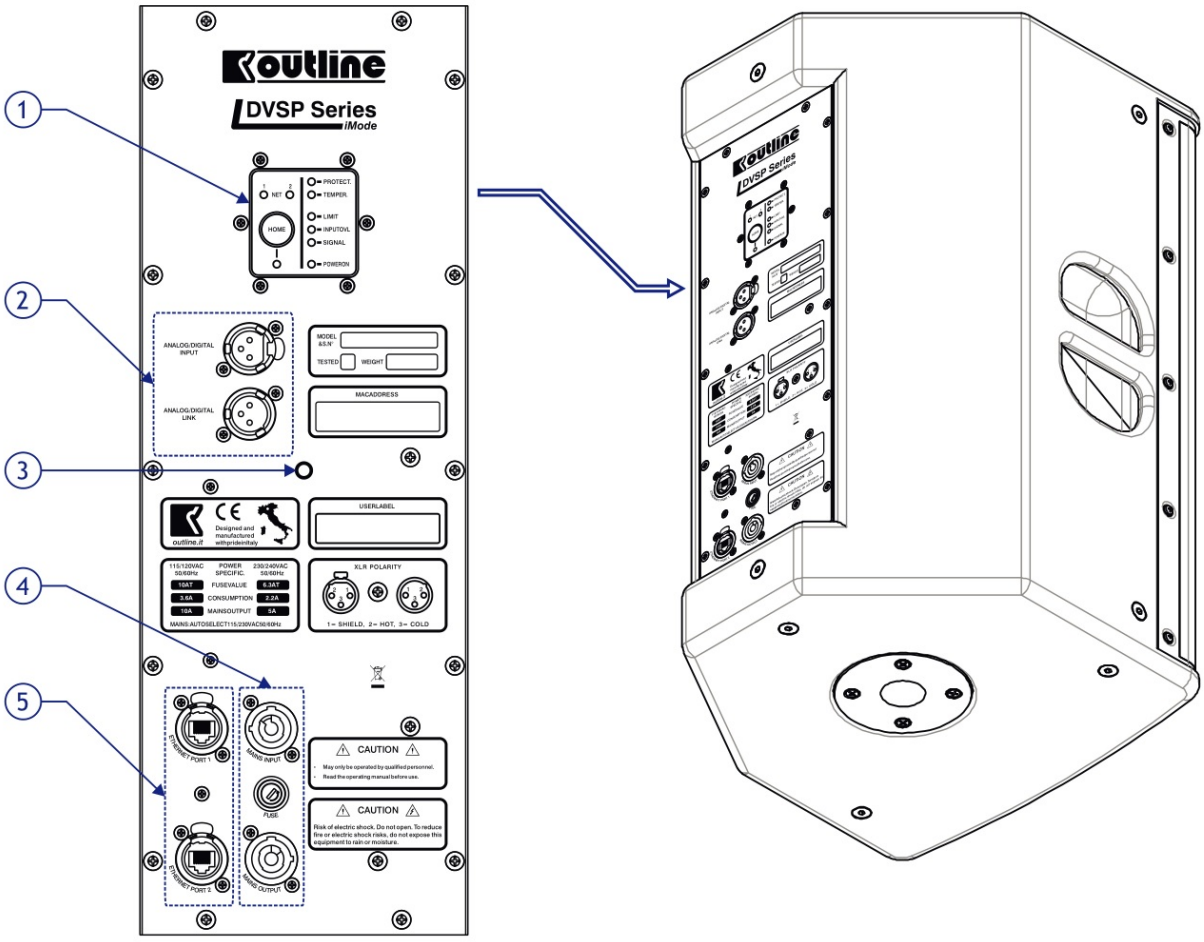
Can be used vertically and in two horizontal positions (30° and 45°). Scratch-resistantwater-proof paint finish

Standard accessories

Twelve rigging pointswith M8 threaded inserts.
Housing for telescopic stand (36mmdiameter).
Ergonomic transport handle on sides. Sturdy protective front grille.



SIDEPANELS



1) USER INTERFACE

The “Home” button can be used to set the input settings to the “Home” or “default” configuration. To do this you have to press it (you will see the LED under it switching on) and hold it for about three seconds, then you’ll see the“ PROTECT.” and “TEMPER.” LEDs switching on, this means that the input has been reset to the factory default (group and single box input Eqs, delays, gains, etc…). The input sensitivity and selection (analogue or digital) and the network settings are not changed.
The “Home” button can be used also in case of network problems (see the “Troubleshooting” paragraph in the

“Network Setup” pages).

SIGNALLING

NET 1 and 2 these Leds are blinking when a cat 5 cable is connected to the relative port and is working properly, this is useful in order to check if the cat 5 cables are broken.
Perfect: Lighting of this Led indicates that the amplifier had reach a too high temperature and that, in order to avoid permanent damage, has been temporary switched off.
TEMP: Lighting of this Led indicates the achievement of a high temperature of amplification module. The prolonged use of device in these conditions causes the intervention of protection.

LIMIT: Lighting of this Led indicates the achievement of maximum transducers’ power handling and the resulting limiting of the signal. The DSP module is equipped with a dual RMS and peak limiter per output channel.

INPUT OVL: Lighting of this Led indicates that the input signal is too high. It is necessary to lower the input level, in order to avoid distortions.

SIGNAL: Lighting of this Led indicates the presence of input signal.
POWER ON: Lighting of this Led indicates that the loudspeaker’s module is powered on.

2) AUDIO CONNECTORS
ANALOG/DIGITAL INPUT: XLR female connector for input signal. Plug to this connector the cable coming from the signal source. The signal can be analogue or digital (AES/EBU), remotely selectable.
Pin 1: shield
Pin 2: in-phase signal (HOT)
Pin 3: phase-inverted signal (COLD)
ANALOG/DIGITAL LINK: XLR male connector for the interconnection of several devices with the same input signal. If the digital input is selected, then the link presents a re-generated signal.

3) POWERLED: this white Led can only be remotely turned on and off in order to identify the loudspeaker.

4) POWER SUPPLY
MAINS INPUT: powercon connector for power supply. FUSE:Fuse holder. In case of break of fuse replace it with another of equal value and type.
MAINS OUTPUT: powercon connector to power a second device.

5) ETHERNET
ETHERNET PORT1: Ethernet port, to be connected directly to the computer or the access point.
ETHERNET PORT2: Ethernet port for the connection to an other DVS ISP loudspeaker (PORT1) or any other device equipped with the iMode technology.

INSTALLATION

INSTALLATION PRECAUTIONS
If the system is used outdoors provide adequate protection in case of rain.

MAINS POWER CONNECTIONS
Outline DVS ISP Series loudspeakers are supplied with a three- conductor cable; the Green-and-Yellow wire of the mains cord must always be connected to an installation Safety Earth or Ground. This is necessary even in case of cable extension, adjustment to existent mains outlet etc.
The Earth is essential for personal safety as well as the correct operation of the system, and is internally connected to all exposed metal surfaces.

WARNING! THIS APPLIANCE MUST BE EARTHED,
THE PRODUCER DISCLAIMS ALL RESPONSIBILITY FOR ANY DAMAGES CAUSED BY NON-OBSERVANCE OF THIS NORM.
To facilitate the wiring there is a connector (MAINS OUT), on the back panel which allows you to take the voltage to power a second loudspeaker. Do not connect more than two cascaded Outline DVS ISP Series loudspeakers.

MAINS VOLTAGE
Outline DVS ISP Series loudspeakers have an automatic power supply voltage selector. Where this is varied, it is necessary to replace the protection fuse, accessible from the back panel. (FUSE).
THE PRODUCER DISCLAIMS ALL RESPONSIBILITY FOR ANY DAMAGES CAUSED BY NON-OBSERVANCE OF THIS NORM.

AUDIO CONNECTIONS
Outline DVS ISP Series loudspeakers have a electronically. balanced input and use a XLR female connector (ANALOG/DIGITAL INPUT SIGNAL). To facilitate the connection of other systems with the same input signal. there is a XLR male connector (LINK) internally. connected in parallel to XLR female connector.
For unbalanced signals use pins HOT (signal phase) and GND (ground).
Disconnect the device from the mains power supply before changing the connections.

NETWORK COMMUNICATION

COMPUTER, IPAD AND IPHONE CONNECTION
The connection to the PC must be made through the network (ETHERNET) with RJ45 connector, using standard CAT 5 network cables.
The connection to the iPad or iPhone requires the construction of a wireless network. Therefore, it will be necessary to use a wireless router (not included), that can also work as a DHCP server (see the “Network setup” paragraph for more information).
The cable coming from the computer or the wireless router must be connected on the “Ethernet Port 1” on the first loudspeaker. Then it is possible to daisy chain all the other loudspeakers going out from the “Ethernet Port 2” to the “Ethernet Port 1” of the following iMode device and so on.

SOFTWARE
In case of use with a personal computer, no special software is required, but just a web browser that is supporting Java. To communicate with the loudspeaker, start the web browser and write the loudspeaker’s IP address in the address bar.
The application for the iPhone and iPad is available on the Apple Store. With this application is possible to have the total control over each single loudspeaker or groups. After searching the loudspeakers on the network, it is possible to monitor and control all the devices at the same time, in a really friendly and immediate way.

NETWORK SETUP
Outline DVS ISP Series loudspeakers use the UDP (User Datagram Protocol) network protocol, according to standard RFC 768.
In order that several devices in accordance with this standard can communicate, it is necessary that each device has an unique IP address.
If the DVS ISP loudspeaker has the following network settings:
IP: 192.168.1.34
SUBNET MASK: 255.255.255.0

In order to have the communication between the computer (or iPad) and the iSP loudspeakers, it is mandatory that both belong to the same subnet and have different IP addresses.
In this case, one possible network address for PC is:

IP: 192.168.1.10
SUBNET MASK: 255.255.255.0
MAC ADDRESS: (assigned)
Or any other configuration with the same subnet (192.168.1.xxx), but with an address different from the ones of

the loudspeakers in the network.
The IP addresses can be assigned manually or automatically (DHCP). In the case of automatic IP addressing, almost no network tuning is required.
The DVS ISP devices are supplied, as standard, with the DHCP option enabled.
DHCP means “Dynamic Host Configuration Protocol”. If this option is enabled, the devices are waiting for a valid IP address from a DHCP server (usually implemented in any wireless router).
IT ISSTRONGLY SUGGESTED TOSWITCHON THEROUTER AT LEAST ONEMINUTEBEFORE ANY DVSISP DEVICE.

TROUBLESHOOTING
If the DHCP server is not available or if you do not know the IP address manually assigned to the loudspeaker, you can restore the default address (192.168.1.34) by switching on the system holding down the “HOME” button for at least 5 seconds (you will see the “TEMPER” and “PROT” Leds lighting). This will take the the network setting in a temporary configuration (IP address: 192.168.1.34, Subnet mask: 255.255.255.0).

The last saved network configuration is not overwritten, that is: if the user had enable the DHCP option or set a manual IP address, these information are not lost, and are still visible from the “System” page in the Java or iPad application.

The idea is: “I forgot my last saved network configuration, but I don’t want to loose it. What can I do?”. You can restart in this “temporary” configuration and you can read it again. Once you are communicating with the device you can also change and save a new network configuration.

The temporary configuration is active only up to the shutdown of the system.

Note: even in the temporary configuration you have to respect the rules described in the “Network Setup” paragraph. So the wireless router and the computer or iPad device have to be on the 192.168.1.xxx subnet and the subnet mask must be 255.255.255.0

WIRELESS ROUTER BASIC SETTINGS
The minimum wireless router set-up requires:

- at least one LAN port for connection to the DVS ISP devices;
- DHCP server enabled;
- wireless Network enabled (for the communication with iPad, iPhone and wireless computers).

It is strongly suggested, from the first use, to change the router administrator password and to modify the wireless name and choose a security password (WPAZ).

Please store these data, they will be useful in the future both to access to the net and to set it up.

The Computer and the iPad running the control application have to respect the network communication rules, so it is suggested to set them as DHCP or in the Automatic IP mode when using a wireless router.

The ability to control via wireless device dramatically depends on many factors, such as the position of the wireless antenna and interferences with other wireless networks. Specifically, we recommend to:

- place the access point so that the antenna is visible and away from obstacles;
- if many networks are active in the same place (typical case in trade fairs, large structures or crowded places) use a 5 GHz wireless (not supported by iPhone).

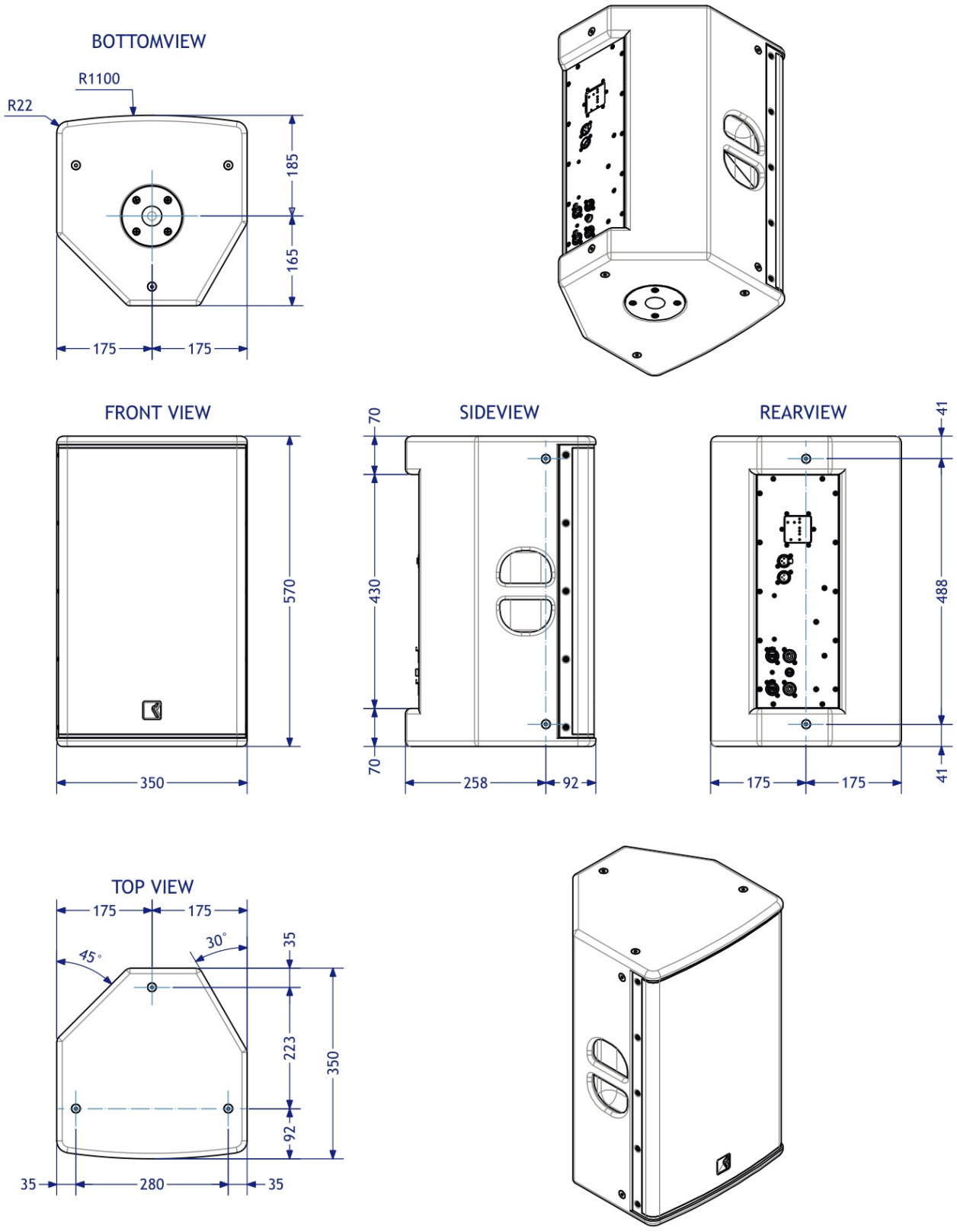
To have a deeper control over the wireless performance, many wifi analyzer for computers, tablets and phones are available on the web.

SOFTWARE USE

Due to the continuous evolution of the means of communication and development, the examples of use of the software's are kept up to date in the official YouTube channel: http://www.youtube.com/user/OutlineProAudio

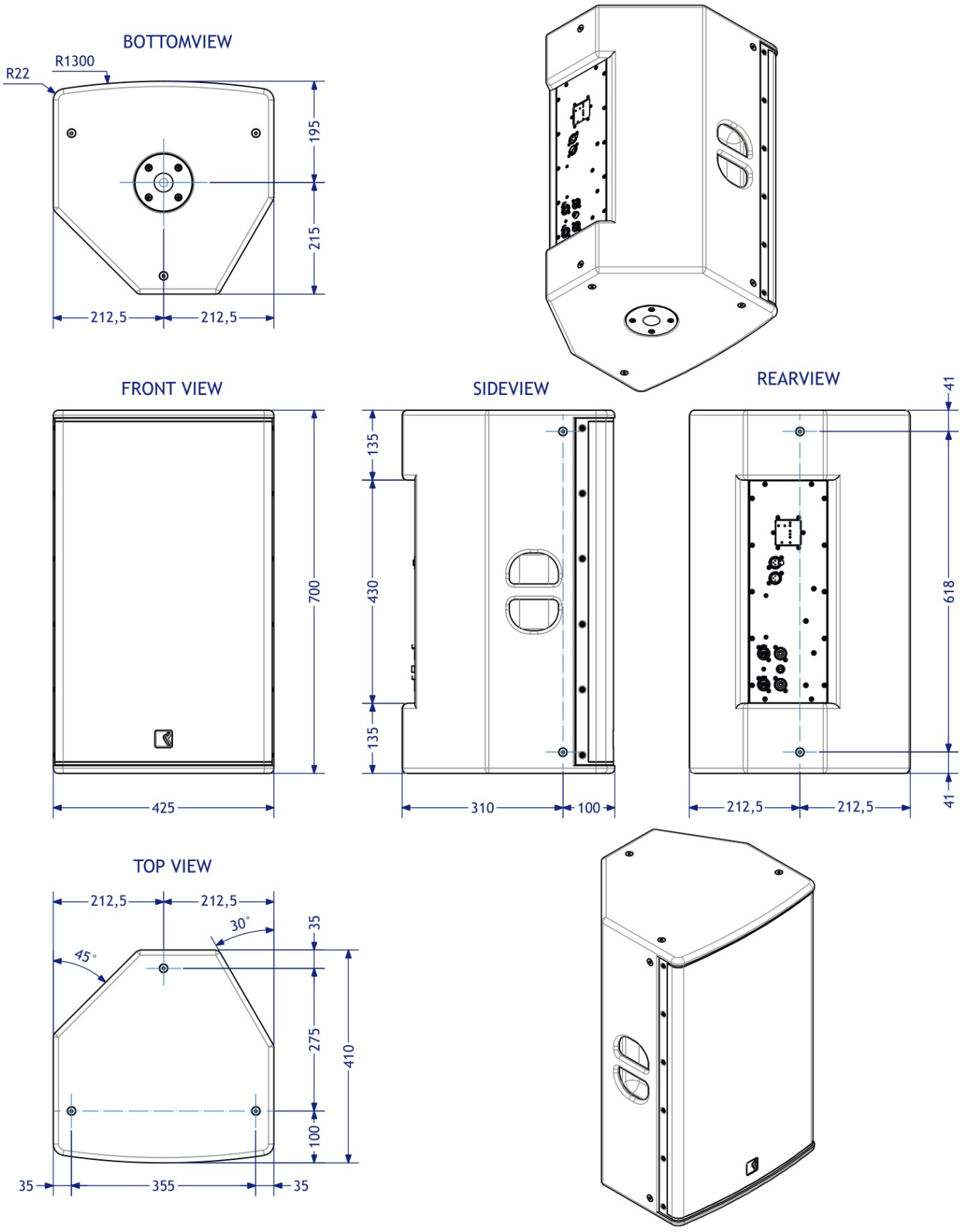
DVS 12P iSP

DIMENSIONS



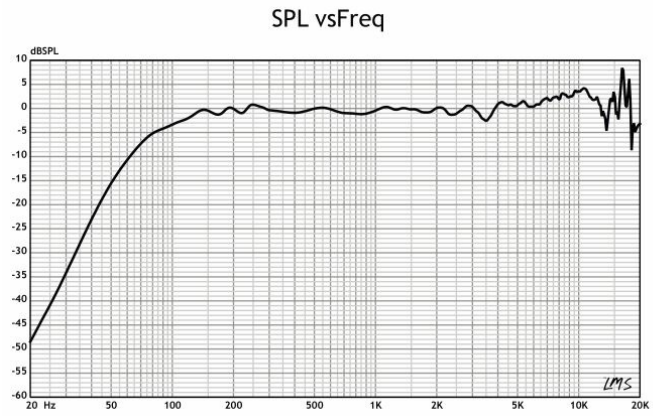
DVS 15P iSP

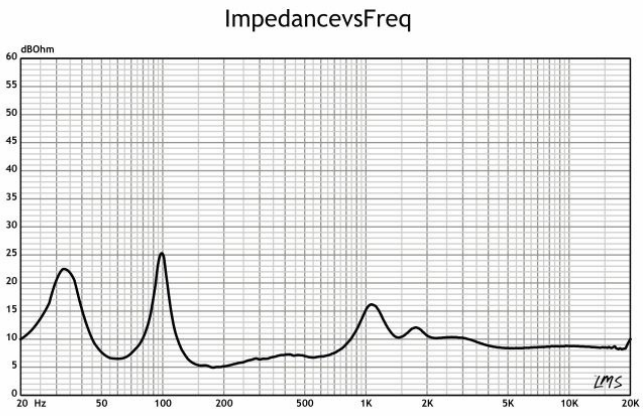
DIMENSIONS



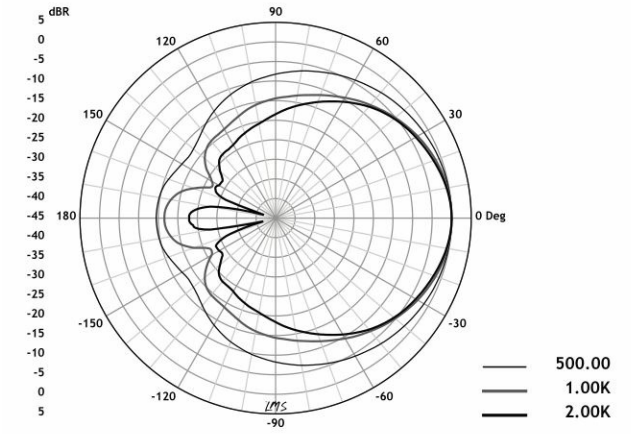
DVS 12P iSP

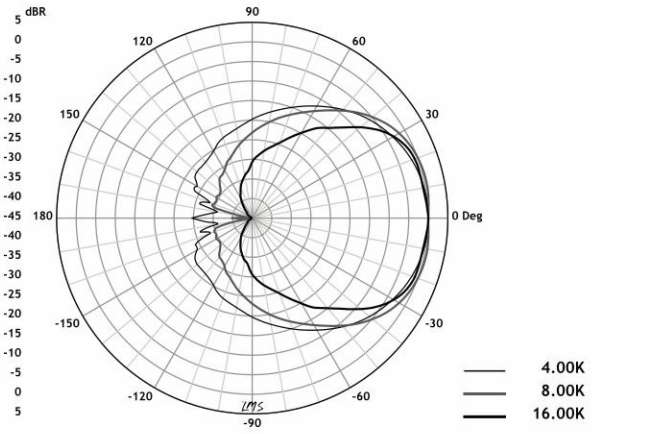
FREQUENCY RESPONSE AND IMPEDANCE



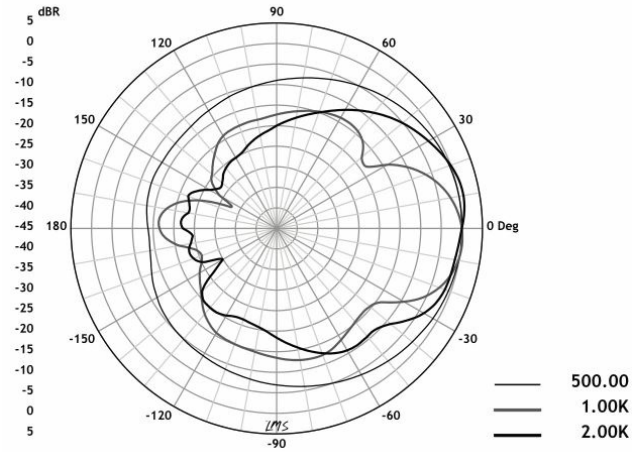


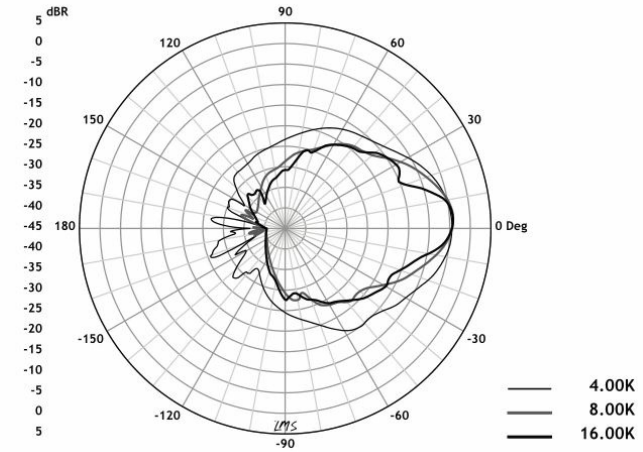
HORIZONTAL POLAR PLOTS





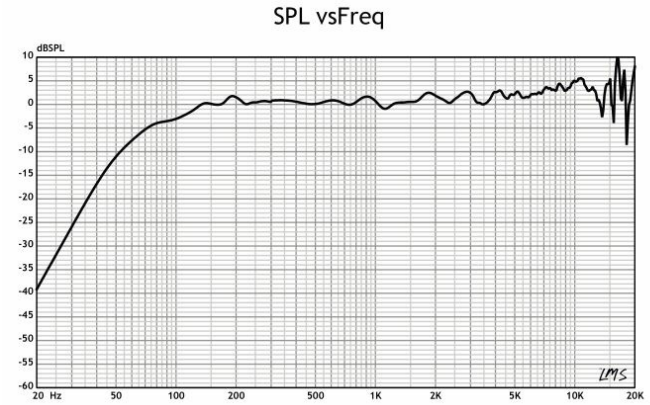
VERTICAL POLAR PLOTS

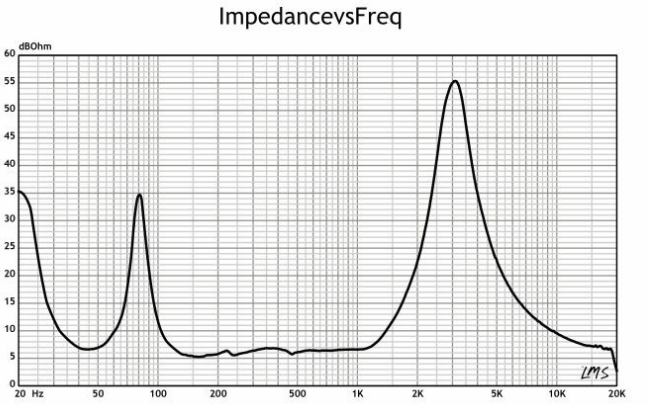




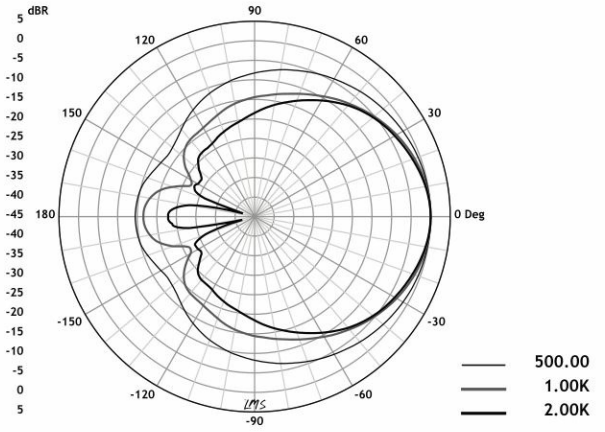
DVS 15P iSP

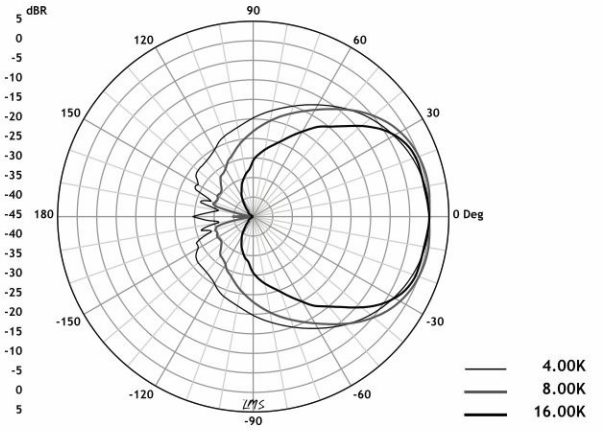
FREQUENCY RESPONSE AND IMPEDANCE



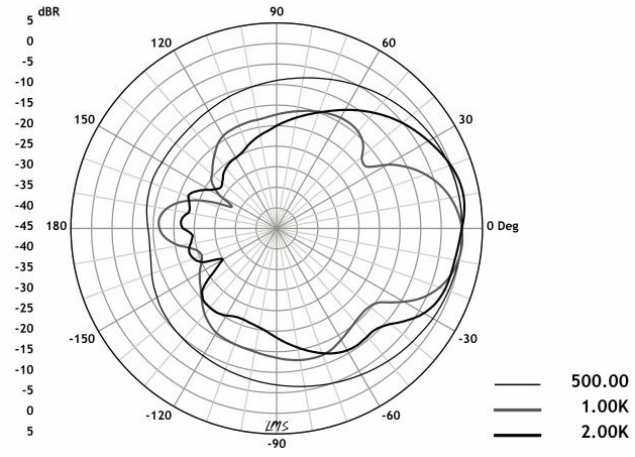


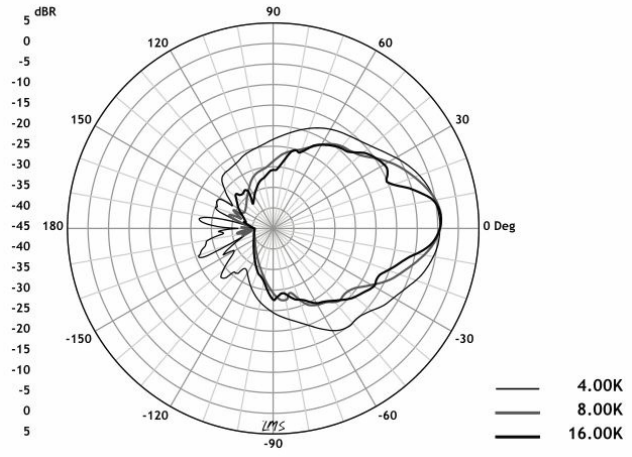
HORIZONTAL POLAR PLOTS





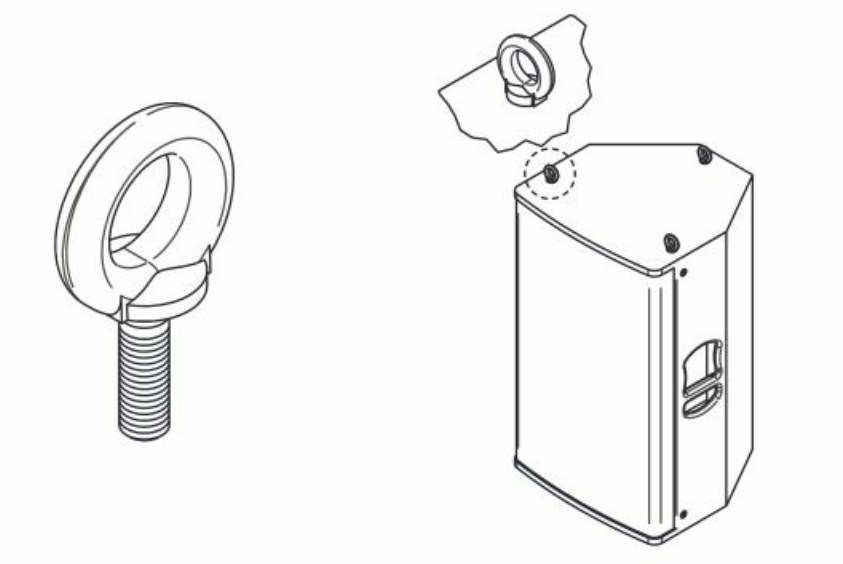
VERTICAL POLAR PLOTS





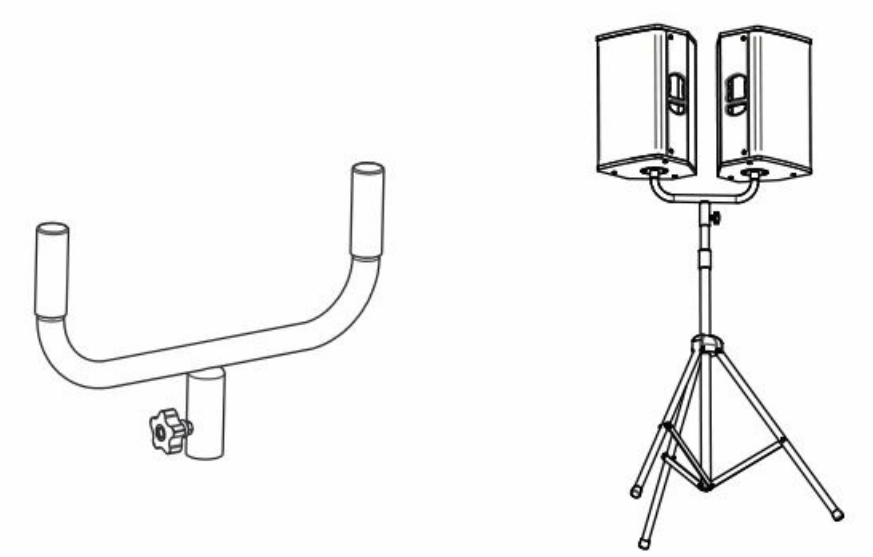
OPTIONAL ACCESSORIES

AEYE NUT M8X25



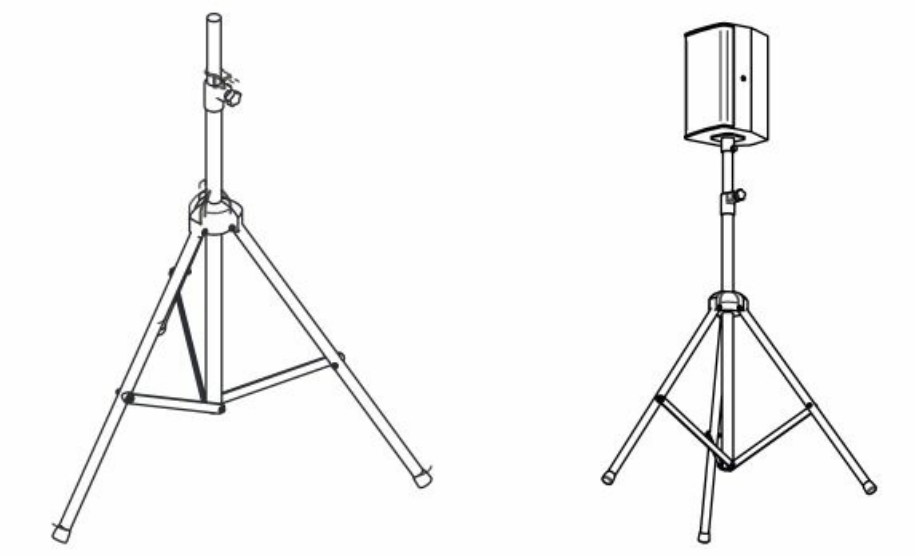
Flaring male eye-bolt M8x25 for easy suspension of loudspeakers by using built-in flying points.

ASTAND-ADAPT



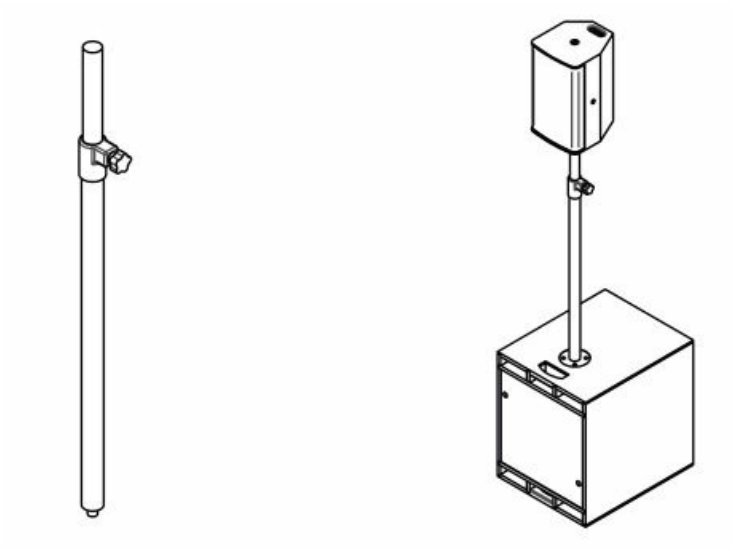
Steel adaptor which allows installing of two speakers on a single loudspeakers stand. Distance between centres of male attachments is 420 mm. Fixing on speaker stand by M8 knob.

ASTAND-2



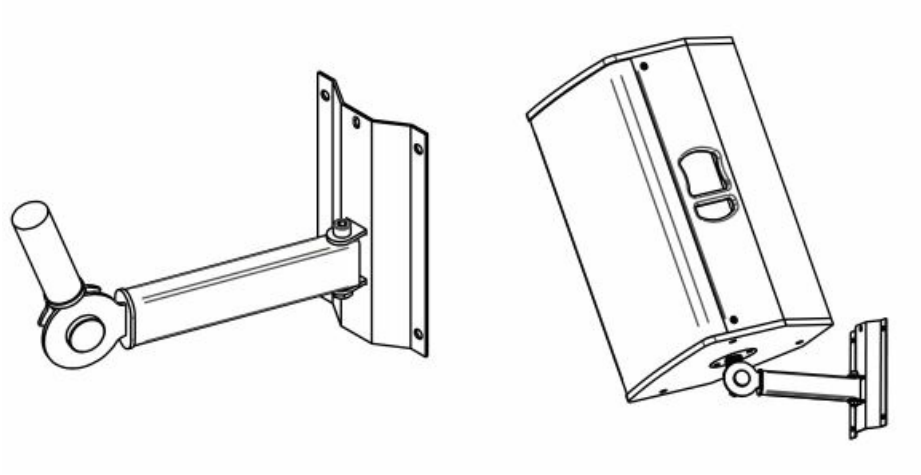
Floor stand with tripod legs, full aluminium tube structure. Height adjustable and lockable by nylon fixing clamp. To facilitate transport of stand the tripod can be fully closed.

ASTAND-M20



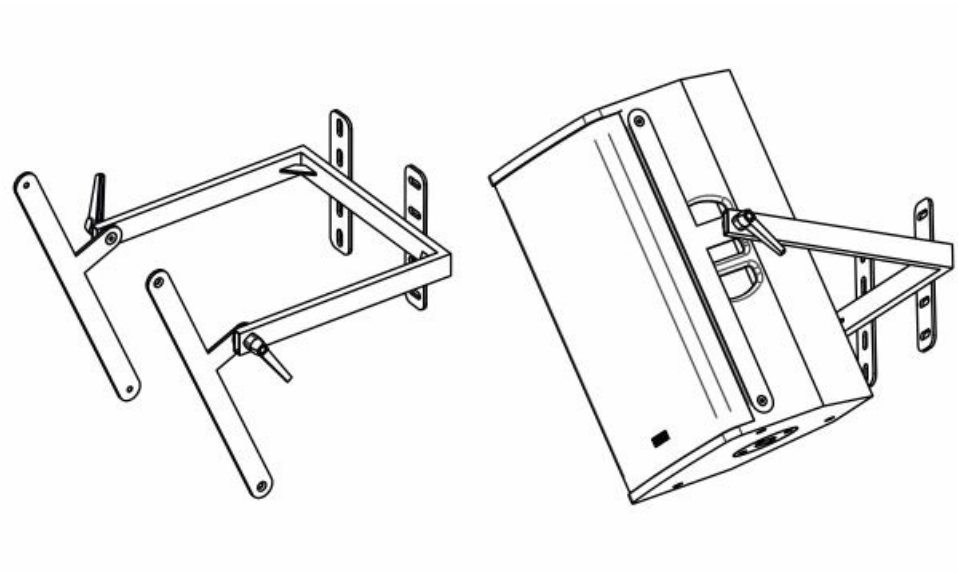
Telescopic aluminium tube to join two loudspeakers. Height adjustable and lockable by nylon fixing clamp. To be fixed on the subs by pivot M20 thread (DVS 115 / 118 SW iSP).

ASTAND-WALL1



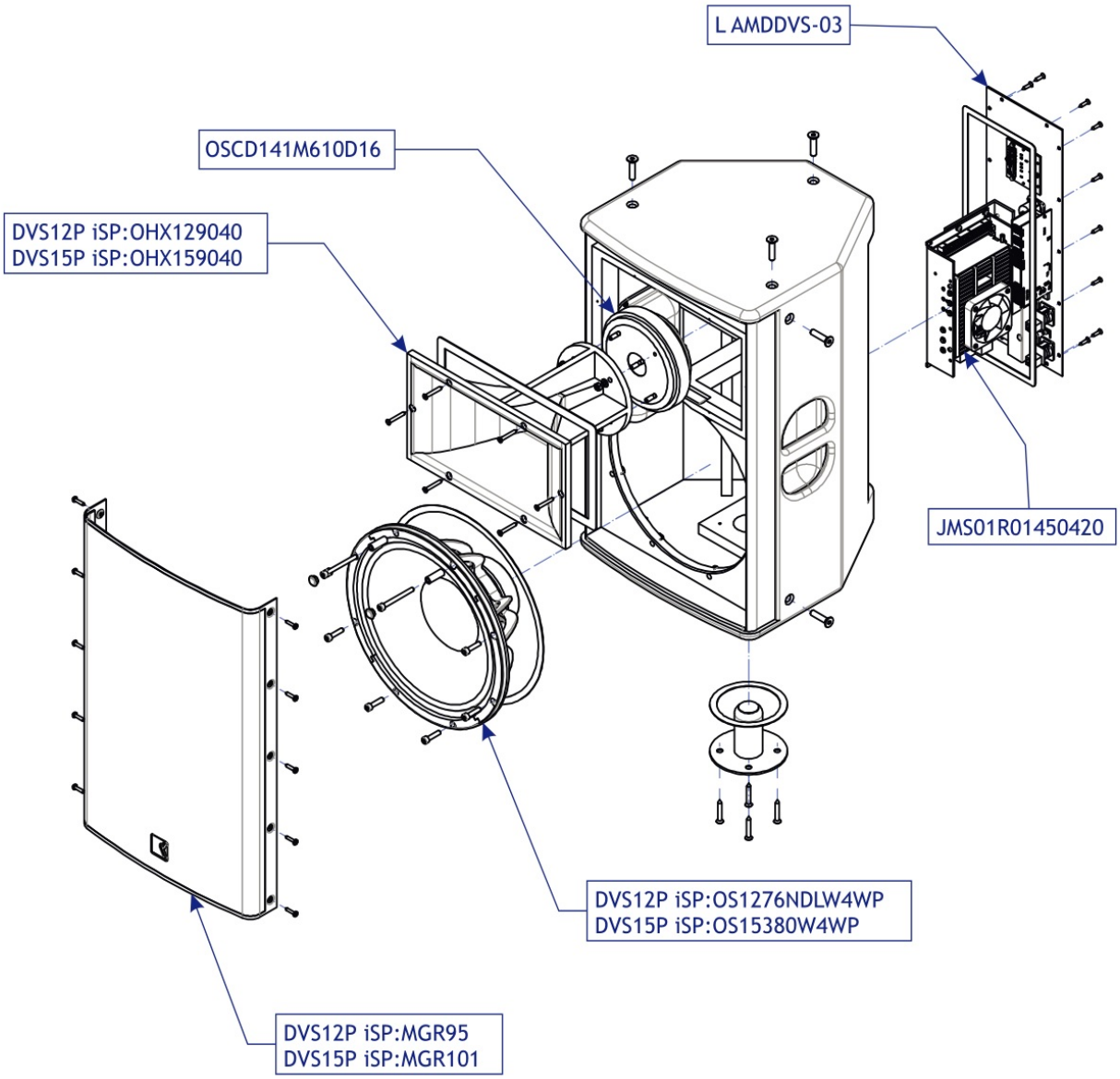
Adjustable wall mounting bracket with arm l=320 mm and male attachment h=120 mm to hold speaker with a progressive inclination of 4° through a nylon wheel joint, with a security fixing system. The bracket can be fixed to the wall using the 4 holes diam. 10 mm located on the wall plate 200×140 mm which allows also the fixing of the security wire. Max load: 40 kg

AADJ-BRACK15



Wall-ceiling mounting bracket with arms l=445 mm, side balancing elements and female lever handle attachments to hold speaker with a desired inclination. The bracket can be fixed to the wall or ceiling using secure anchorage system on the slot holes located on the two wall brackets 250 mm.

SPARE PART CODES



Outline carries out on-going research for product improvement. New materials, manufacturing methods and design upgrades are introduced to existing products without prior notice as a routine result of this philosophy. For this reason, any current Outline product may differ is some aspect from its description, but will always equal or exceed the original design specifications unless otherwise stated.

Operating manual product code: Z OMDVS12P-15PiSP

Release: 271212

Printed in Italy

CE DECLARATIONOF CONFORMITY

The company

Outline s.r.l.
Via Leonardo da Vinci, 56
25020 Flero (Brescia) – Italy

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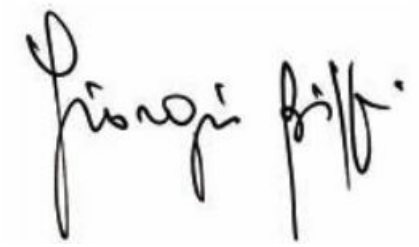

Giorgio Biffi-President

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- User Manual