



WIDE

SERIES

WIDE **15P4**

WIDE **15P8**

WIDE **12P4**

WIDE **12P8**

PROFESSIONAL LOUDSPEAKER SYSTEM

manuale utente - user's manual

Montarbo
Made in Italy





The exclamation point in an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

IMPORTANT ! Safety instructions

WARNING

In order to protect your own and others' safety and to avoid invalidation of the warranty of this product, please read this section carefully before operating this product.

- This product has been designed and manufactured to be operated as a speaker system in the typical applications of a sound reinforcement system or of a sound recording system. Operation for purposes other than these is not provided for by the manufacturer and is therefore to be undertaken at the end user's and/or installer's sole risk and responsibility.

TO AVOID THE RISK OF DAMAGE:

- Never expose this product to rain or moisture, never use it in proximity of water or in high humidity conditions. Never let any liquid, as well as any object, penetrate the product. Should this be the case, do not use the speaker system and refer to qualified servicing before operating it again. Never place burning candles or other sources of open flame on top of the device.
- This product must be connected only to the output of a power amplifier or a powered mixer. Always use a good quality speaker cable (unscreened), and check it frequently for any damage to insulation and connectors.
- Before attempting to move the product after it has been installed, remove all the connections.
- Before moving the product after it has been installed, or while it is operating, make sure that the power amplifier is switched off.
- To disconnect this product from connecting cable never pull the cable directly: hold it by the plug instead.

CAUTION!

**This product does not contain user serviceable parts.
To prevent fire and/or electrical shock, never disassemble it or remove the rear panel. For maintenance and servicing always refer to the official Montarbo Distributor in your Country or to qualified personnel specifically authorised by the Distributor.**

- Before placing the product on a surface of any kind, make sure that its shape and load rating safely match the product size and weight.

When installing the speaker system on a stand, use a stable stand that will fit in the adapter and may carry the loudspeaker weight. When two loudspeakers are laid one upon the other, make sure that stability is guaranteed by matching the upper loudspeaker feet to the lower loudspeaker cavities.

- To avoid shocks, kicks, or whatever action, always reserve a protected area with no access to unqualified personnel as installation site of the product. In case the product is used near children and animals closest supervision is necessary.

- This product can generate very high acoustic pressures which are dangerous for the hearing system. Always avoid operation at loud levels if anyone is excessively near to the product (at least 1 m of distance).

☛ **Never expose children to high sound sources.**

INDEX

1 - INTRODUCTION AND APPLICATIONS	9
1.1 - Introduction	9
1.2 - Applications	9
2 - SYSTEM'S DESCRIPTION	10
3 - INSTALLATION AND WIRING	11
3.1 - Installation	11
3.2 - Wiring of SPEAKON® connector	11
4 - IMPORTANT!	12
4.1 - Connection to the input sockets	12
4.2 - Parallel connection of 2 or more systems	12
4.3 - Product care and maintenance	12
5 - TECHNICAL DATA	13
6 - APPLICATIONS	14 - 15

PACKAGE CONTENTS

- WIDE15P4/WIDE15P8 or WIDE12P4 /WIDE12P8
- Owner's manual
- Warranty certificate
- CE declaration of conformity





1 - INTRODUCTION AND APPLICATIONS

1.1 - INTRODUCTION

WIDE15P and WIDE12P feature a revolutionary new concept in acoustic and electronic design characterized by painstaking attention in terms of component selection, materials and production techniques.

The result is a product of absolutely contemporary, essential and rigorous design, with great attention to detail.

All the system's drivers, designed with great attention to every detail and custom-built specifically for these systems, are equipped with the most efficient and powerful motor assemblies available on the market today:

- woofers with ventilated, high-flux neodymium magnets and long excursion, large diameter voice coils
- controlled directivity wave-guide horns coupled to neodymium drivers with very high magnetic flux.

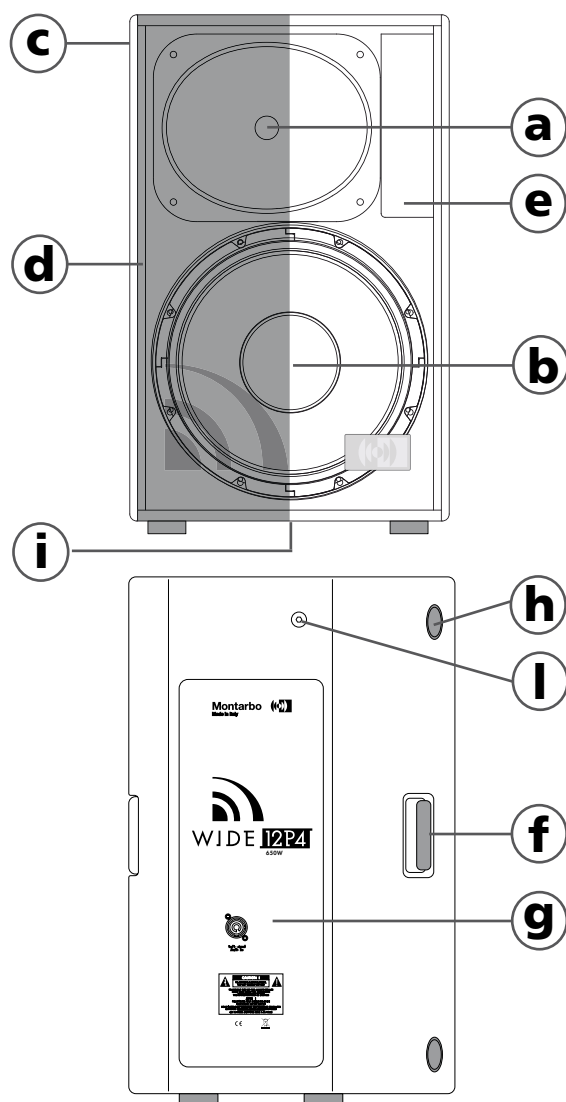
The portability has been optimized: all systems may be carried and installed by a single person.

Very high levels of performance, despite their remarkably small size and low weight.

1.2 - APPLICATIONS

WIDE15P and WIDE12P speakers systems may be used with any power amplifier or powered mixer of adequate quality and power output (750 W EIAJ is suggested for each speaker), but they work best with the PLM3000 "powered loudspeaker controller".

PLM3000 features a built-in DSP loudspeaker controller and four power amplifiers, each rated at 750 W @ 4 ohm. It can effortlessly drive four 4-ohm systems (WIDE15P4 or WIDE12P4) or eight 8-ohm systems (WIDE15P8 or WIDE12P8). The factory presets of the internal controller include those designed for the WIDE series speaker systems in a variety of different applications (front-of-house or stage monitor) and configurations (stereo system or 4 independent channels). It also includes advanced features, such as a full parametric equalizer and delay and noise gate controls, ensuring optimal system set-up.



2 - SYSTEM'S DESCRIPTION

a - WIDE15P: compression driver (1.4" throat, 2.5" voice coil) featuring a neodymium magnet and titanium diaphragm and loaded by a 80°x 60° wave-guide horn.

WIDE12P: compression driver (1" throat, 2.5" voice coil) featuring a neodymium magnet and titanium diaphragm and loaded by a 80°x 60° wave-guide horn.

b - WIDE15P: 15" woofer, featuring a 3" voice coil and a powerful, external neodymium magnet.

WIDE12P: 12" woofer, featuring a 3" voice coil and a powerful, external neodymium magnet.

c - Cabinet made from birch plywood, with high-impact, chip-resistant paint.

d - Steel protection grill with foam protection.

e - Bass reflex vent.

f - Three carrying handles.

g - Controls and connections panel.

h - 2 anti-slip adjustable feet for use as a stage monitor.

i - Speaker-stand adapter.

l - M10 threaded inserts.

CONNECTION PANELS

1 - Input Speakon® connector (IN). Connect it to the power amplifier or to the powered mixer output. See connection examples at pages 19 - 20.

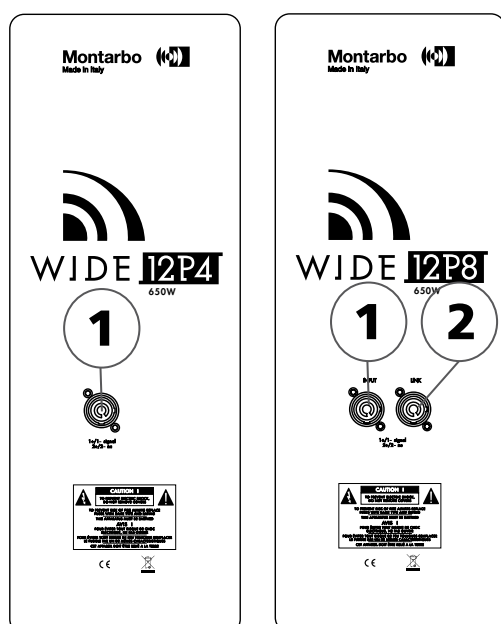
2 - Input link Speakon® connector (LINK). Wired in parallel to the input connector, making it possible to drive another, parallel connected, speaker system.

Always pay attention to the total impedance (see page 17)
NOTE: Connector 2 is not installed on models with 4-ohm rated impedance (WIDE15P4 and WIDE12P4).

Use only loudspeaker cables (unscreened) having suitable cross section (at least 2 x 1.5 mm²) and quality. Do not twist or sharply bend the cables and do not allow for knots to be formed, because they may result in insulation damage. Do not use shielded cables (microphone/signal cables). For detailed instructions about connector wiring, see par. 3.2.



Never connect two power amplifiers to the same speaker system; this could cause serious damage to the amplifiers.





3 - INSTALLATION AND WIRING

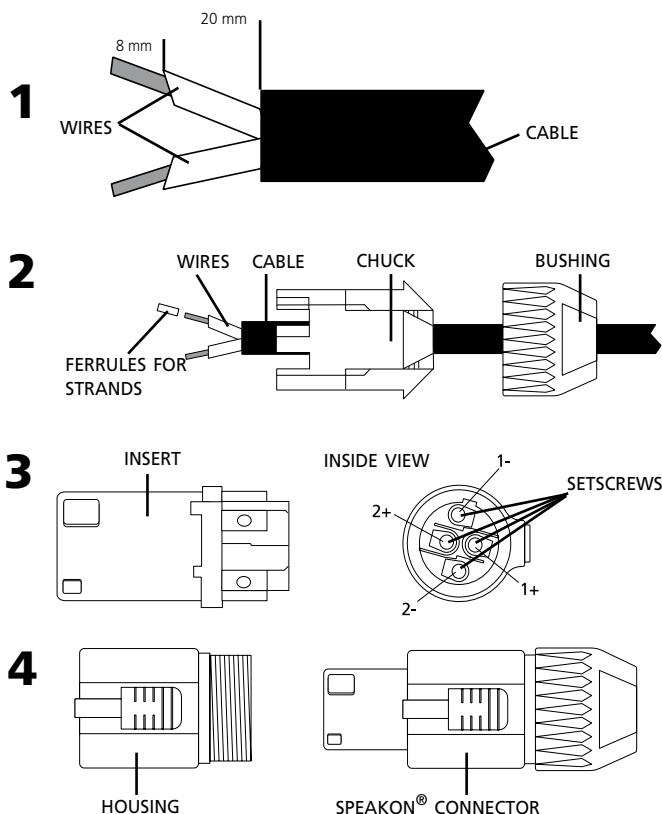
3.1 - INSTALLATION

Make sure that the installation position is a protected one so that the cables cannot be trampled or tripped on. Make sure that the shape and load rating of the mounting surface are suitable for a safe installation.

If the system is placed over a surface, make sure that the cables are placed in a protected position to avoid the risk of the speakers falling over if somebody trips over them. The WIDE15P / WIDE12P speaker system may be placed over standard speaker supports stand by means of built-in adapter (i: page 13).

The M10 threded inserts (I: page 13) are intended for fixed installation by means of standard or custom-made mounting accessories.

For a safe installation is mandatory that these accessories are specified to safely support the speaker weight. It is the installer's responsibility to verify that the installation's safety has not been compromised. When used as stage monitors, the exclusive, adjustable anti-slip feet allow to adjust the tilt angle.



3.2 - WIRING OF THE CONNECTION CABLE TO THE SPEAKON® CONNECTOR

1 - Strip the cable for 20 mm of length and strip each wire for 8 mm of length. We suggest to use a cable with 2 x 1.5 mm² section wires (the insert terminals are however suitable for a cable with wires up to a section of 4mm²/12AWG).

2 - Insert the cable into the bushing and into the chuck (white chuck for a cable diameter of 5 ÷ 11mm; black chuck for a cable outer diameter of 9.50 ÷ 15mm). Fit a ferrule at the end of each wire and connect wires on the insert.

3 - The wire ends can be clamped in the terminals using a PZ1 screwdriver or soldered. Always pay attention to the symbols shown on the connector body: connect the positive wire to the terminal labelled 1+, the negative wire to the terminal labelled 1-. Terminals 2+ and 2- are not used.

4 - After connecting the wires to the insert, lead it through the body and screw down the body with the bushing.

Mating connector is a Neutrik Speakon® model NL4-FC.



4 - IMPORTANT



4.1 - CONNECTION TO THE INPUT SOCKETS

- Use only loudspeaker cables (unscreened) having suitable cross section (at least $2 \times 1.5 \text{ mm}^2$) and quality. Do not twist or sharply bend the cables and do not allow for knots to be formed, because they may result in insulation damage.



4.2 - PARALLEL CONNECTION OF 2 OR MORE SYSTEMS

IMPORTANT: models WIDE 153P4 and 123P4 (with 4 ohm rated impedance) are not intended for parallel connection, to avoid damages to the power amplifier (see following paragraph). Only in the case that the power amplifier is rated for 2-ohm operation, it is possible to parallel-connect two 4-ohm speakers to one amplifier channel, wiring them directly to the amplifier output connectors, with two separate cables (one each speaker).

- Connect the IN socket of the second system to the LINK socket of the second one. Please note that IN and LINK sockets are wired in parallel, thus both of them may be used as input or output, indifferently.

- **PAY SPECIAL ATTENTION TO THE PARALLEL IMPEDANCE:** if two 8-ohm systems are parallel connected, the resulting load impedance for the amplifier will be 4 ohm, a value that is within the allowed range for all power amplifiers and powered mixers manufactured by Montarbo and by most other manufacturers. For 3 parallel connected systems, the resulting total impedance decreases to 2,7 ohm, and for 4 system to 2 ohm.



If the speakers are rated at 4 ohm impedance, then this 2 ohm limit is reached by simply wiring two of them in parallel.

Some power amplifiers and powered mixers cannot operate reliably with these low values of load impedance. Always check the technical specifications of your amplifier or powered mixer for the value of the minimum load impedance.



4.3 - PRODUCT CARE AND MAINTENANCE

To avoid malfunctions and premature degrading of specifications....

- Never expose the loudspeaker for long periods to direct sunlight.
- Never expose the loudspeaker to heat sources such as radiators or other products that produce heat.
- Never expose the loudspeaker to excessive vibrations or mechanical shocks
- Avoid operating and storing the enclosure in damp or dusty places: this may lead to malfunctions and premature degrading of specifications.
- Care should be taken so that objects do not fall and liquid are not spilled into the enclosure. In public event don't let people, musicians, technicians or anyone put glasses, cups, ashtrays or cigarettes on the enclosure.
- Use a soft brush or a jet of air to clean the enclosure. Do not use alcohol, solvents or detergents.
- Always leave the protective grille mounted on the enclosure.
- Take care of your connecting cables. Make sure that they are not damaged, knotted or twisted.
- Do not force connectors.
- Before performing any connection, make certain that the power amplifier or the powered mixer are switched off.





5 - TECHNICAL DATA

SPECIFICATIONS	WIDE15P4 / WIDE15P8	WIDE12P4 / WIDE12P8
Enclosure	2-way bass-reflex	2-way bass-reflex
Frequency response	50 ÷ 20.000 Hz	60 ÷ 20.000 Hz
Sensitivity	100 dB SPL @ 1W/1m	98 dB SPL @ 1W/1m
SPL max.	132 dB	130 dB
Nominal Power	400 W AES	400 W AES
Power handling	1600 W PEAK	1600 W PEAK
Recommended amplifier	750 W EIAJ	750 W EIAJ
Impedance	WIDE15P4: 4 ohm WIDE15P8: 8 ohm	WIDE12P4: 4 ohm WIDE12P8: 8 ohm
• Components	Custom designed to Montarbo specifications	Custom designed to Montarbo specifications
LF	15" woofer (3" voice coil) with external neodymium magnet	12" woofer (3" voice coil) with external neodymium magnet
HF	compression driver (1.4" throat, 2.5" voice coil) with neodymium magnet and titanium diaphragm wide dispersion (80° H x 60° V) wave guide horn, 90° rotatable	compression driver (1.4" throat, 2.5" voice coil) with neodymium magnet and titanium diaphragm wide dispersion (80° H x 60° V) wave guide horn
• Cross-over	1200 Hz	1400 Hz
• Connections	WIDE15P4: 1 Neutrik Speakon® WIDE15P8: 2 Neutrik Speakon®	WIDE12P4: 1 Neutrik Speakon® WIDE12P8: 2 Neutrik Speakon®

PHYSICAL SPECIFICATIONS

• Construction	Birch plywood, anti-abrasion paint, steel protection grille with external foam	Birch plywood, anti-abrasion paint, steel protection grille with external foam
• Fittings	2 adjustable feet that enable the use as variable-angle stage monitors 10 threaded studs (M10) for safe and simple suspension Adapter for a supporting pole 3 transport handles made of a special technical elastomer material	2 adjustable feet that enable the use as variable-angle stage monitors 10 threaded studs (M10) for safe and simple suspension Adapter for a supporting pole 3 transport handles made of a special technical elastomer material
• Dimensions / Weight	W 436 x H 730 x D 395 mm 30.8 Kg	W 366 x H 590 x D 377 mm 24.5 Kg



Waste from Electrical and Electronic Equipment

Attention !

The crossed out wheeled bin symbol that can be found on this product means that the product is covered by the Waste from Electrical and Electronic Equipment Directive. The symbol is intended to indicate that waste from electrical and electronic equipment must be subject to a selective collection. For more details on available collection facilities please contact your local government office or the retailer where you purchased this product. The solid bar underneath indicates that the product has been put on the market after 13th August 2005.

INFORMATION ON PROPER DISPOSAL

Information on Disposal for Users (private households)

In the European Union: Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin! Used electrical and electronic equipment should not be disposed of via the normal household waste stream but must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment. Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one. * Please contact your local authority for further details.

In other Countries outside the EU: If you wish to dispose of this product, please contact your local authorities and ask for the correct method of disposal.

In Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

Information on Disposal for Professional Users

In the European Union: If the product is used for business purposes and you want to discard it: please contact your Montarbo dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

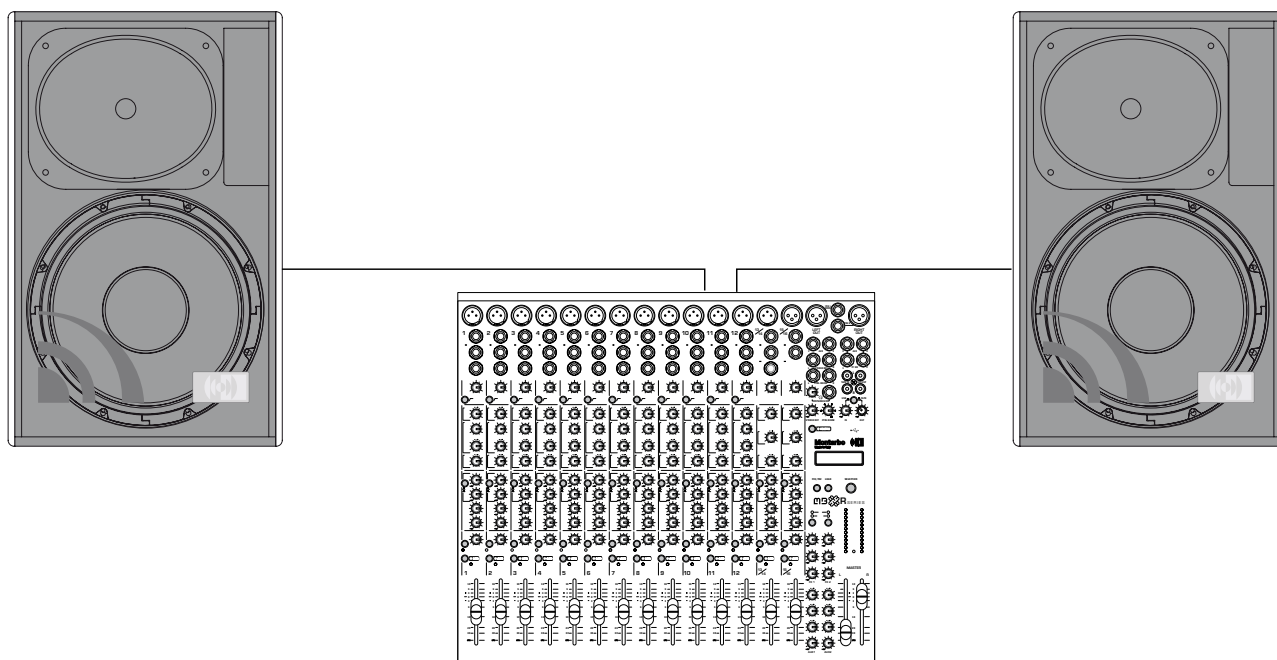
In Spain: Please contact the established collection system or your local authority for takeback of your used products.

In other Countries outside the EU: please contact your local authorities and ask for the correct method of disposal.

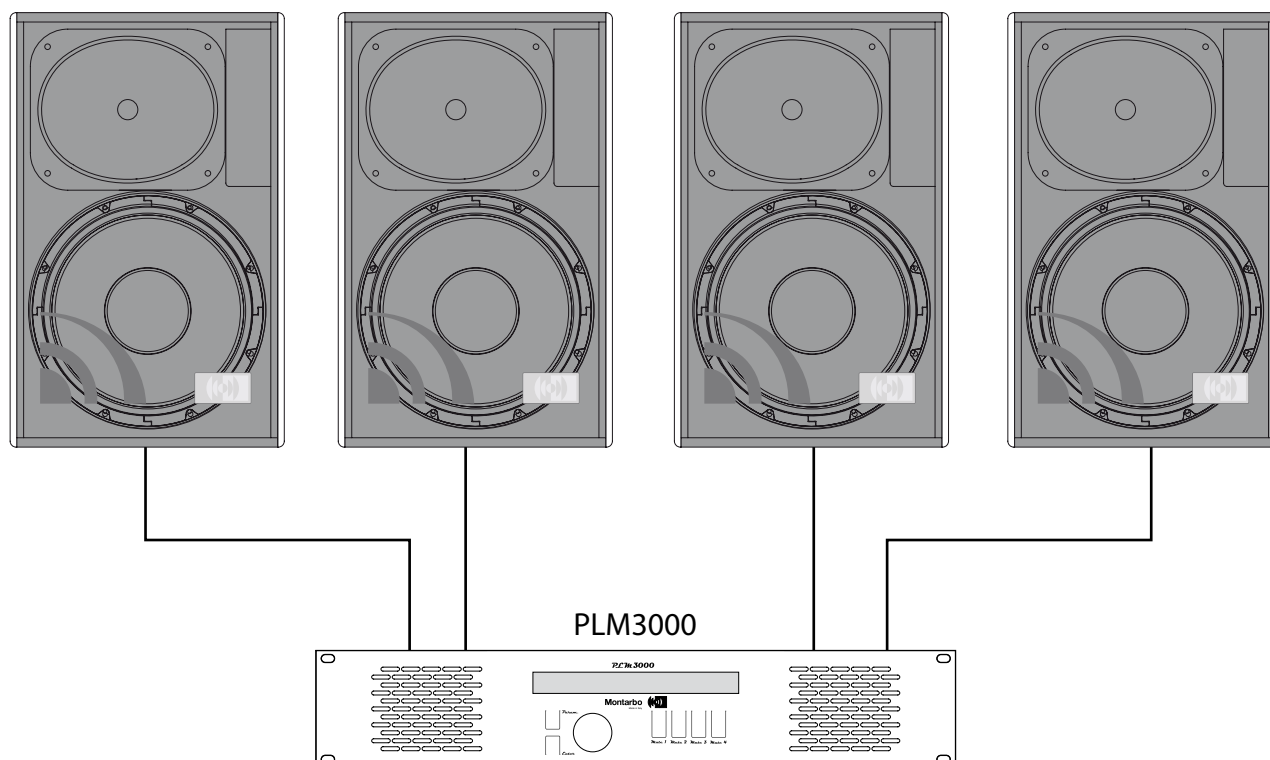


6 - APPLICATIONS

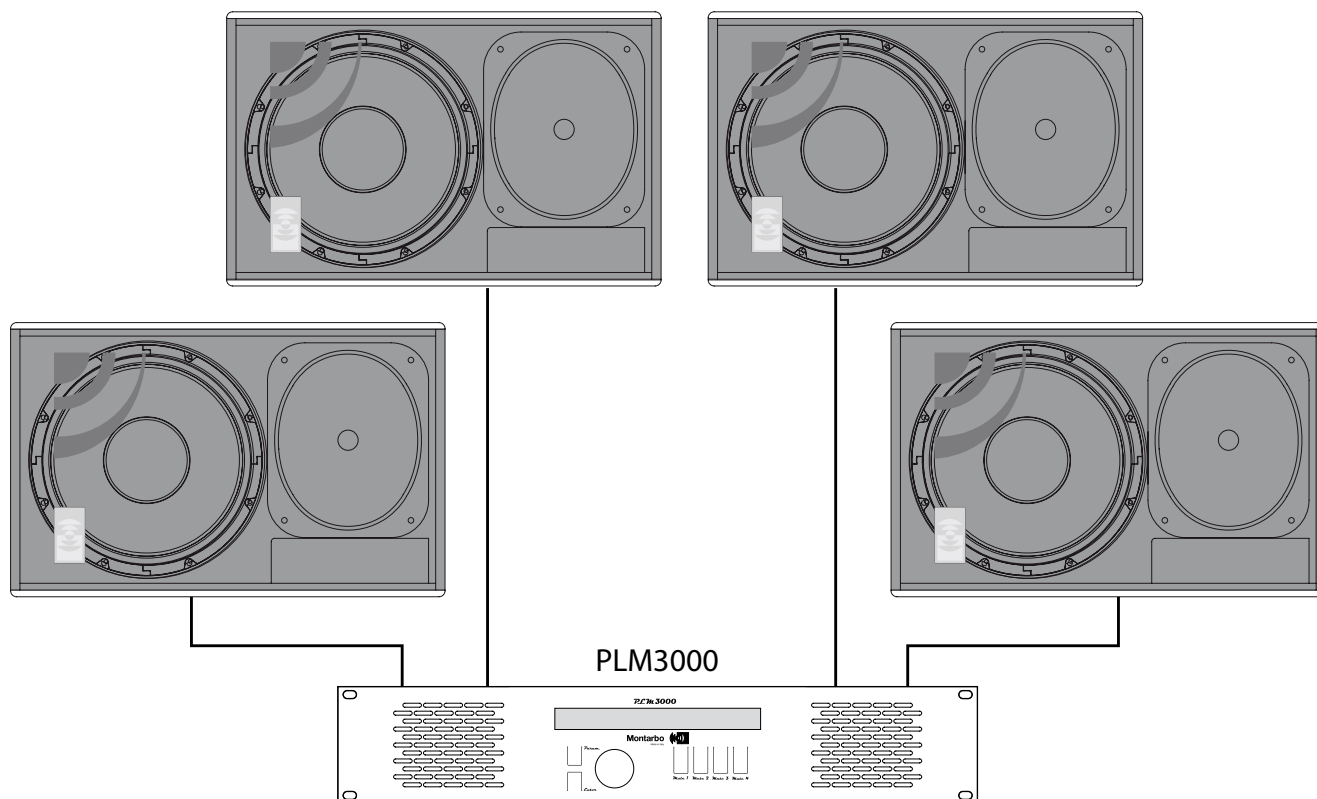
EXAMPLE 1: MBR12FXP Powerd mixer and 2 WIDE15P4 / WIDE12P4 systems



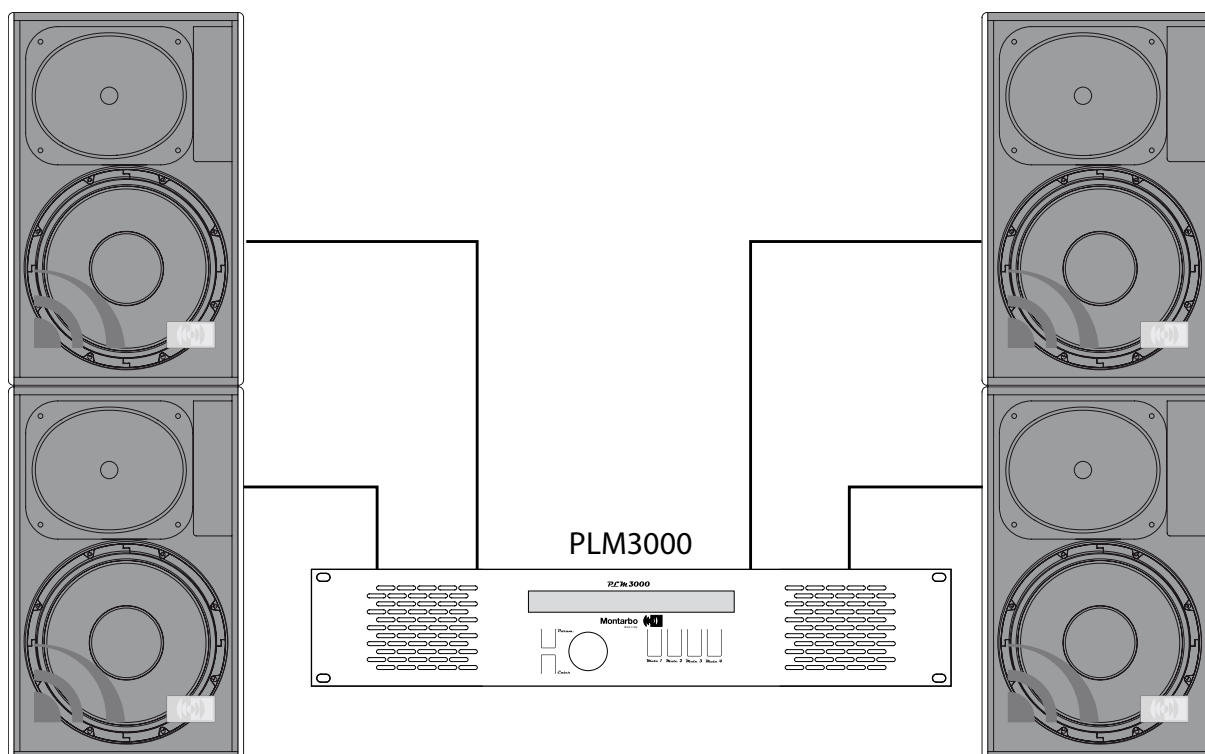
EXAMPLE 2: Four channel F.O.H / GENERAL PURPOSE system with PLM3000 powered processor and 4 WIDE 15P4 / 12P4 systems (PLM3000 PRESET # 4)



**EXAMPLE 3: STAGE MONITOR system with
PLM3000 powered processor and 4 WIDE 15P4 / 12P4 systems (PLM3000 preset # 5)**



**EXAMPLE 4: stereo F.O.H system with
PLM3000 powered processor and 4 WIDE 15P4 / 12P4 systems (PLM3000 preset # 6)**





WIDE SERIES

Le informazioni contenute in questo manuale sono state attentamente redatte e controllate. Tuttavia non si assume alcuna responsabilità per eventuali inesattezze. Questo manuale non può contenere una risposta a tutti i singoli problemi che possono presentarsi durante l'installazione e l'uso dell'apparecchio. Siamo a vostra disposizione per fornirvi eventuali ulteriori informazioni e consigli. La Elettronica Montarbo srl non può essere ritenuta responsabile per danni o incidenti a cose o persone, causati o connessi all'utilizzazione o malfunzionamento dell'apparecchio. Caratteristiche, dati tecnici e immagini possono essere modificati senza preavviso.

The information contained in this manual have been carefully drawn up and checked. However no responsibility will be assumed for any incorrectness. This manual cannot cover all the possible contingencies which may arise during the product installation and use. Should further information be desired, please contact us or our local distributor. Elettronica Montarbo srl can not be considered responsible for damages which may be caused to people and things when using this product. Specifications, features and pictorial material are subject to change without prior notice.

WIDE **15P4**

WIDE **15P8**

WIDE **12P4**

WIDE **12P8**

PROFESSIONAL LOUDSPEAKER SYSTEM

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