

W18As

bi-amped, active
loudspeaker system

instruction manual

Montarbo®
made in Italy





The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions.

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

- This unit conforms to Class 1 insulation, and for safe use it is required that the protective earth contact is connected to a grounded (earthed) outlet.

TO AVOID THE RISK OF FIRE AND/OR ELECTRIC SHOCK:

- Never expose this product to rain or moisture, never use it in proximity of water or on a wet surface. Never let any liquid, as well as any object, enter the product. In case, immediately disconnect it from the mains supply and refer to servicing before operating it again. Never place burning candles or other sources of open flame on top of the device.

- Before connecting this product to the mains supply, always make sure that the voltage on the mains outlet corresponds to that stated on the product.

- This product must be connected only to a grounded mains outlet complying to the safety regulations in force via the supplied power cable.

In case the power cable needs to be substituted, use exclusively a cable of the same type and characteristics.

- This device is connected to the power line even when the mains switch is in the O (off) position and the power indicator is off. As long as it is plugged in there are dangerous electrical potentials inside the device, so, before undertaking any sort of maintenance work etc., always make sure it has been unplugged from the mains socket.

- Never place any object on the power cable. Never lay the power cable on a walkway where one could trip over it. Never press or pinch it.

- Never install the product without providing adequate airflow to cool it. Never obstruct the air intake openings on it. Leave enough room to get to the mains power socket and the mains connector on the back panel.

- In case the external fuse needs replacement, substitute it only with one of the same type and rating, as stated on the product.

- Always make sure the Power switch is in its 'O' (= off) position before doing any operation on the connections of the product.

- Before attempting to move the product after it has been installed, remove all the connections.

- To disconnect the power cable of this product from the mains supply never pull the cable directly. Hold the body of the plug firmly and pull it gently from the mains supply outlet.

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.

Never attempt to hang the product by any means not expressly provided or approved by the manufacturer (i.e. ropes, chains, belts or whatever medium, through carrying handles, bolts, hooks or whatever). In case the product is factory-fitted with specific mounting hardware, always verify before installation that the lifting and/or hanging system you intend to use is of a proper type and can carry the product weight with the safety ratio required by the regulations in force.

- 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.

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PACKAGE CONTENTS

Bi-amplified active system W18As

Power supply cable

Owner's manual

Warranty certificate

CE declaration of conformity

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.

Introduction

The 2-way bass reflex enclosure incorporates:

custom designed, high quality components.

2 amplifiers:

600 + 250 W continuous

850 + 350 W peak

2 independent processors

24dB/Oct electronic crossover

The bass reflex enclosure, constructed from birch plywood, is equipped with a custom designed 18" low frequency woofer and a 2" driver with constant directivity horn for the mid/high frequencies, each driven by its own dedicated power amplifier. A high slope 24dB/Oct. electronic crossover and two processors (one for each amplifier) optimize the dynamic range and frequency response of the system, while protecting the drivers from thermal and electrical overloads, resulting in increased reliability and outstanding performance.

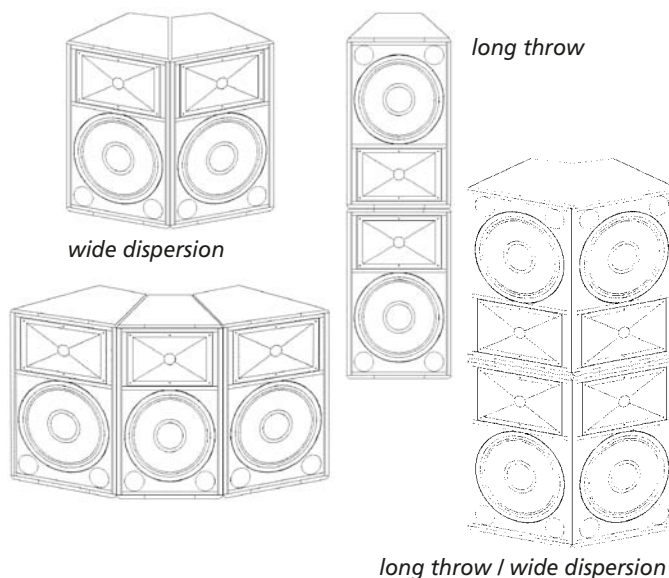
Its adaptability to various applications allows the W18As to be used in any type of installation ensuring optimum results to any professional requirement for sound reinforcement and distribution.

The trapezoidal enclosure design is based on solid technical reasons:

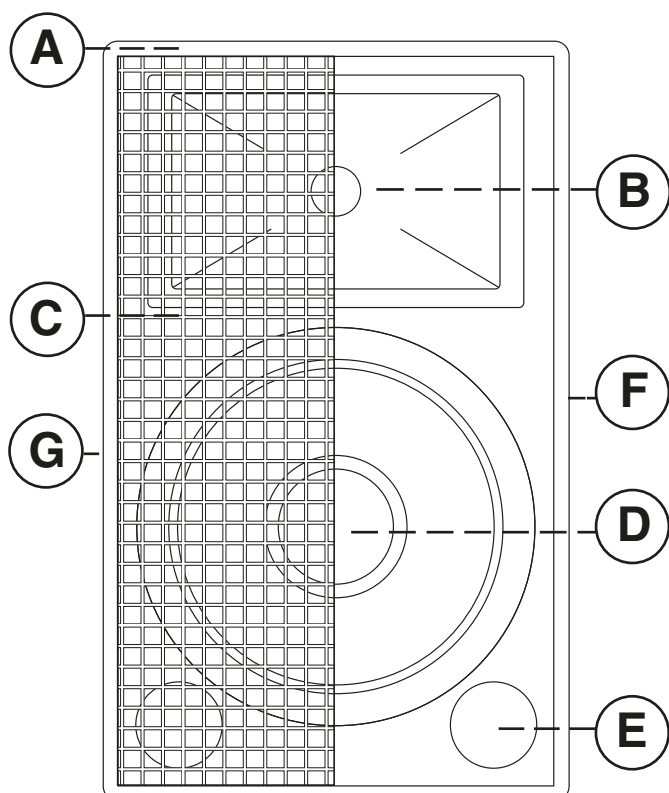
- directivity remains constant and controlled, even when two or more enclosures are installed side by side.

- the problems related to interferences and irregularities in frequency response and directivity, typically encountered when using multiple enclosures, are thus dramatically reduced.

Multiple enclosures arrays can be assembled for wide dispersion and/or long throw.



Description



A High grade birch plywood construction, phenolic glued; polyurethane painted

B Constant directivity, high frequency horn (dispersion 90° x 60°) with 2" dynamic driver (featuring aluminum flat wire voice coil, kapton former, titanium dome)

C Powder coated, perforated, steel grid.

D 18" high efficiency woofer

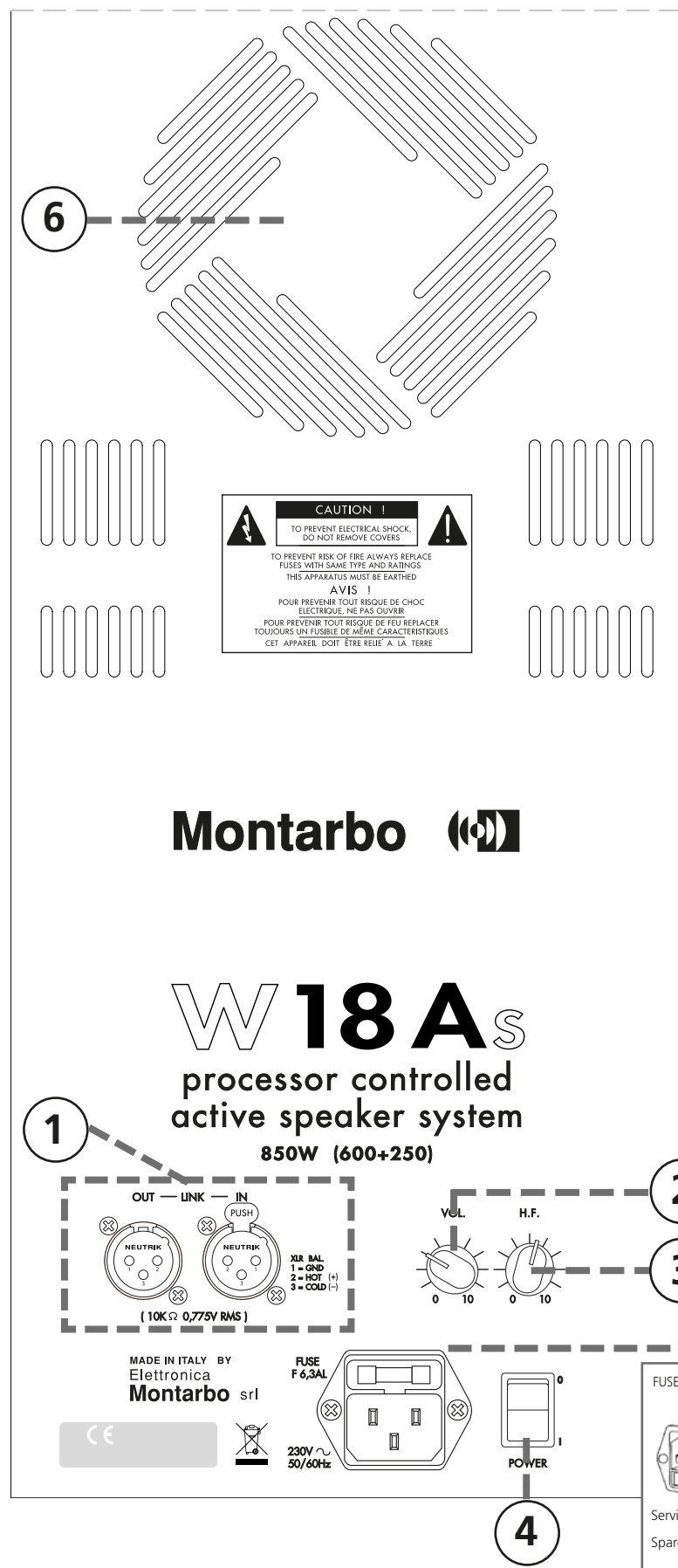
E Tuning ports

F Side recessed handles

G Control and connection panel

Construction and components conform to the highest professional standards for maximum reliability.

Control and connection panel



- 1 The W18As speaker system is equipped with XLR male (OUT) and female (IN) parallel connected sockets allowing easier daisy-chaining.
Mixer output W18As input ('IN' socket)
W18As output ('OUT' socket) input ('IN' socket) of the W18As to be connected in parallel.

See 'connectors' and 'connection examples' at pages 9 and 10.

- 2 Main volume (VOL). Adjusts the input levels of the two built-in power amplifiers to adapt them to the output level of the mixer.
- 3 High frequencies level control (H.F.).
NOTE: if you are using a Montarbo mixer (or any mixer having an output level of 0dB) for optimum performance it is advisable to set both controls fully clockwise (to their maximum settings).
- 4 POWER / 0 - I: Mains power on/off switch.
- 5 Mains power cord socket (with built-in fuse).
Use only the factory supplied mains cable or a suitable cable with a ground connection and marked with the safety approvals valid in the country of use. When installing make sure that it is easy to get to this connector and to the mains plug.
- 6 Thermostatically controlled low turbulence fan.
NOTE: in order to reduce noise and dust build-up, the thermostatically controlled fan is not activated unless the amplifier heats up to a pre-set level, and it turns off automatically when the temperature drops back down below this level.

Important !



Product care and maintenance

- This product has been designed for use in tropical climates and particularly warm weather conditions.
- Never place burning candles or other sources of open flame on top of the device.
- Never expose the enclosure to heat sources (heaters or other products that produce heat).
- Never expose the enclosure to direct sunlight, 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.
- Avoid using the enclosure close to strong sources of electromagnetic interferences (e.g. video monitors, high power electrical cabling). This may lead to degradation of audio quality.
- When setting up the system up outdoors, be sure to protect it against rain.
- Care should be taken so that objects do not fall and liquid is not spilled onto the enclosure. In public event don't let people, musicians, technicians or anyone put glasses, cups, ashtrays or cigarettes on the enclosure.
- Always leave the protective grid mounted on the enclosure.
- Use a soft brush or a jet of air to clean the enclosure. Do not use alcohol, solvents or detergents.
- Take care of your connector cables. Make sure that they are not damaged, knotted or twisted.
- Do not force connectors and controls.
- Make sure the mains power switch is off ('0') before starting any connection.
- As long as it is plugged in there can be dangerous electrical potentials inside the device, so, before undertaking any sort of maintenance work etc., always make sure it has been unplugged from the mains socket.



Mains power connection

- Make sure the mains power switch is off ('0').
 - Check that mains voltage corresponds to the voltage indicated on the panel, under the mains socket.
 - Use only the factory supplied mains cable or, if a different plug style is needed, a suitable cable with a ground connection and marked with the safety approvals valid in the country of use.
 - Leave enough room to get to the mains power socket and the mains connector on the back panel.
- As long as it is plugged in there can be dangerous electrical potentials inside the device, even when the mains switch is in the '0' (off) position and the power indicator is off so, before undertaking any sort of maintenance work etc., always make sure it has been unplugged from the mains socket.



Connection to the mixer

If the mixer has XLR balanced outputs: use standard balanced XLR connectors.

If the mixer has XLR unbalanced outputs: in this case, unless using a Montarbo mixer, make sure that the XLR outputs on the mixer are unbalanced to IEC 268 standard: 1 = GND, 2 = HOT, 3 = GND.

If the mixer has JACK balanced outputs (stereo jacks): it is possible to use stereo jack-XLR adapters, wired according to IEC 268: pin 1 = ground (sleeve), pin 2 = tip, pin 3 = ring.

If the mixer has JACK unbalanced outputs (mono jacks): use suitable Jack-XLR male adapters unbalanced according to IEC 268: pin 1 = ground, pin 2 = tip, pin 3 = ground

See 'connectors' at page 7.

- Always use only heavy gauge, high quality SHIELDED cables (signal cables).
- Always make sure that the mixer and the powered enclosures are switched off before connecting them. This will to avoid annoying noises and signal peaks, which can also be dangerous for the enclosures themselves.



Parallel connection of two or more systems

- Always use only heavy gauge, high quality SHIELDED cables (signal cables). Connect the LINK OUT socket of the first system to the LINK IN socket the second system and the LINK OUT of the second system to the LINK IN of the third, and so on.

See 'connection example' at page 7.

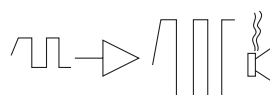


Input sensitivity and clipping. How to avoid clipping

Every amplified speaker system is characterized by a value of input sensitivity. The sensitivity is defined as the value of the amplifier's input signal that will result in maximum power output. An increase in input signal over that threshold will result, not in increased power, but in a distortion phenomenon called 'clipping' (output stage saturation).



In this condition, the speaker will operate improperly. The diaphragm will exceed it's excursion limits, and the voice coil will overheat beyond it's thermal limits, resulting in overheating and premature failure. The active processors will help in avoiding clipping, by reducing the amplifier gain and thus the input sensitivity, but this type of protections may be overridden in very extreme conditions. What the active processor cannot modify is a signal that is distorted before getting to the active speaker's input.



The effects of this type of signal are the same as described above.

How to avoid clipping

The simplest way to avoid clipping is to check each level in the signal's chain. Start from each input channel of the mixer and adjust the gain control and the equalizer's controls so that the PFL meter will never (or only occasionally) indicate more than 0dB. In simpler mixers, check that the 'clip' or 'peak' indicator is always off, or blinks only occasionally. If these levels are exceeded, reduce the channel's input gain. Once the desired mix is obtained, adjust the output level so that it never exceeds the active speaker's or the power amplifier's input sensitivity, as displayed on the master output VU-meter. In model W18As the input sensitivity is 0dB.

Specifications

Speaker system

- Components:

- bass frequencies

Nominal diameter
Frequency range
Power capacity
Sensitivity
Rated impedance
Net weight
TThiele & Small Parameters
fs
Re
Qms
Qes
Qts
Vas
ho
B.l
SD
Xmax
Pe

2-way bass reflex

custom designed to Montarbo specs

18" high efficiency woofer

18"
32÷2000Hz
600W
101 dB
4 Ohms
13,5 Kg
32Hz
2,8 Ohms
5,45
0,31
0,293
0,376m³
3,85%
19,87/m
0,104m²
0,0099m
600W r.m.s.

- mid/high frequencies

2" driver coupled with a constant directivity horn

Exponential horn

Nominal coverage
Cutoff frequency
Throat diameter
Material
Dimensions
Net weight

(H x V) 90° x 60°
500 Hz
50 mm
aluminium fusion
435x270x230 mm
3 Kg

Driver

Throat diameter
Nominal impedance
D.C. resistance
Power capacity
Sensitivity
Frequency range
Voice coil diameter
winding material
former material
Dome material
Inductance
Flux density
Overall diameter
Depth
Net weight

50 mm
8 ohms
6,2 ohms
180 Watt RMS
108 dB
500 ÷ 20kHz
74,5 mm
aluminum flat wire
kapton
titanium
0,17 mH
1,95 T
165 mm
70mm
4,8 kg

- Impedance
- Frequency response
- Sensitivity (1W / 1m)
- Max SPL

4 ohm (bass) / 8 ohm (mid/high)
40Hz ÷ 20kHz
- bass: 40Hz ÷ 800Hz
- mid/high: 800Hz ÷ 20kHz
101 dB SPL
131 dB

Built-in electronic crossover:

- crossover frequency
- slope

800Hz
24dB/Oct

Built-in power amplifiers

- Max. output power
- bass

2 MOSFET (class AB);
2 independent processors
850 W continuous / 1200 W peak
600 W continuous (4 ohms @ 0,1 %THD)
850 W peak
250 W continuous (8 ohms @ 0,1 %THD)
350 W peak

- mid-high

Forced cooling, thermostatically controlled low turbulence fan

- Frequency response
- Input impedance
- Input sensitivity
- Noise referred to input
- Power supply

35Hz ÷ 25kHz +0/-1dB
10KOhms (balanced)
0dB (775 mV)
- 108dB (A weighted)
220 V.A.C. 50÷60 Hz / Fuse: F 6,3AL
on request 117 V.A.C. 50÷60Hz / Fuse: F10AL

Connections

Balanced male (OUT) and female (IN) XLR inputs wired in parallel

Construction and finish

Phenyl-glued multiply birch
Polyurethane paint

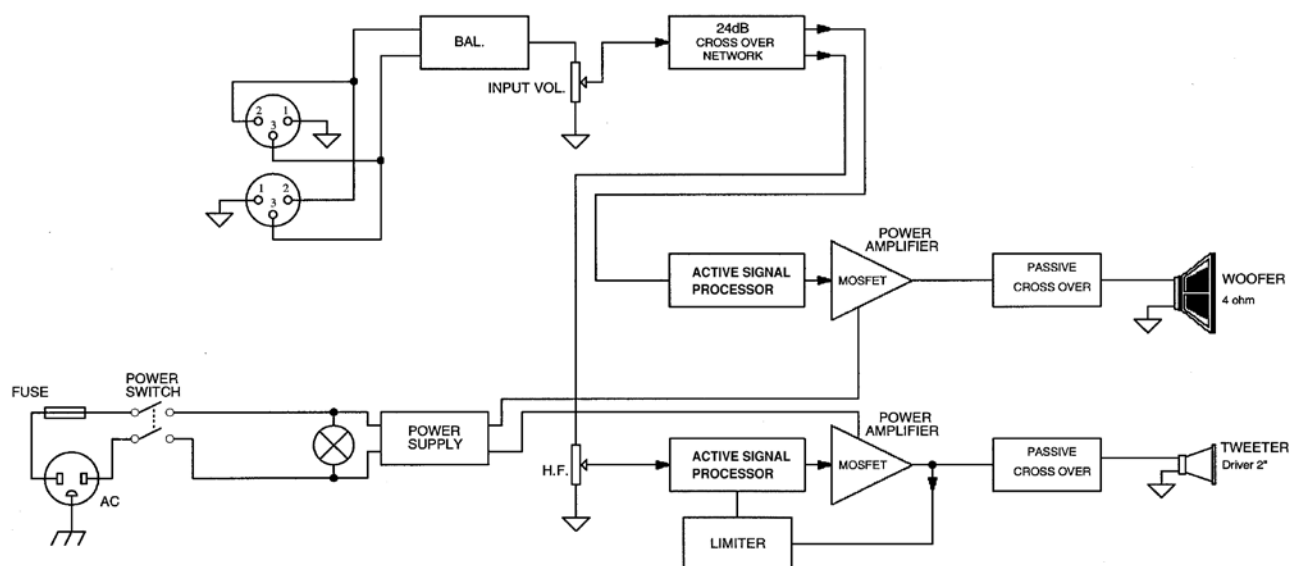
Dimensions (w x h x d)

54 x 87 x 45 cm

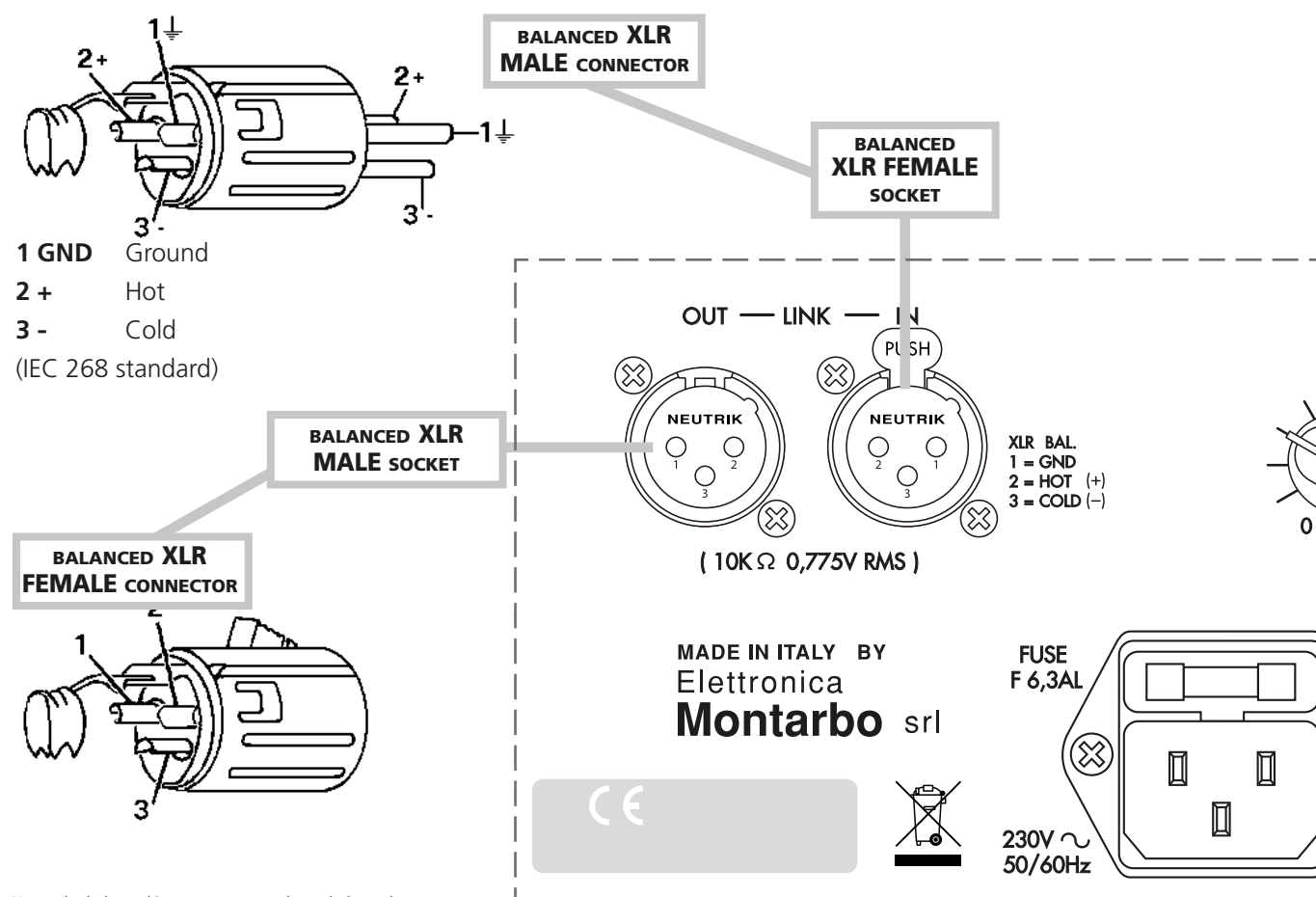
Weight

55,7 Kg

Block diagram



Connectors



Note: the balanced input can accept also unbalanced connectors (automatic unbalancing)

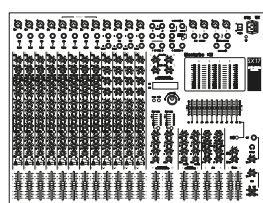
Connection example

W18As parallel connection

Mixer 'L/R' outputs → W18As inputs

W18As outputs → W18As inputs

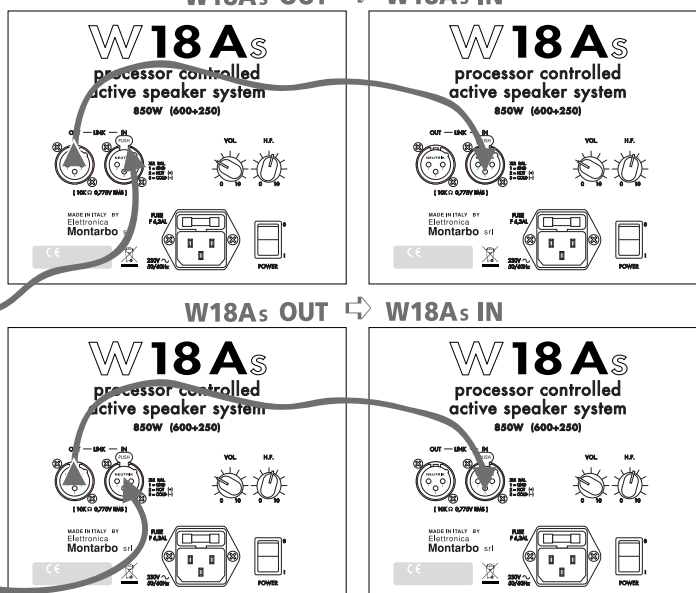
MIXER L/R OUTPUTS → W18As INPUTS



L OUTPUT

R OUTPUT

W18As OUT → W18As IN



هام! التعليمات الخاصة بالسلامة والعناية

IMPORTANT SAFETY INSTRUCTIONS

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إنذار!

تحذير!

هذا المنتج لا يحوي قطع غيار خاصة بتفيد المستخدم. من أجل تفادي حدوث أي صدمة كهربائية للمنتج يرجى عدم فتح هذا المنتج أو أزاحه الجزء الخلفي. ومن أجل الصيانة والخدمة يرجى الرجوع إلى وكيل مونتاربو الرئيسي في بلدك وإحضار المنتج إلى الأشخاص المخولين بالصيانة عن طريق الوكيل الرئيسي.

قبل تثبيت المنتج على أي سطح من أي نوع تأكد من الشكل والحجم وقوة التحمل أن تكون مطابقة لحجم ووزن المنتج عن طريق سلسلة، كذلك يرجى بأي حال من الأحوال عدم تعليق المنتج على مكان معين إلا إذا كان ينصح به من قبل المصنع مثل (الحبال، السلاسل، الأحزمة أو المقبض المحمولة المتوسطة الحجم، كذلك البراغي، المنجل أو غيره). وفي حالة إذا كان المنتج مزود من المصنع بمترا (للتثبيت) على الحائط، يجب دائما التأكد قبل التركيب ومعاينة قوة تحمل هذا الجزء الصلب أثناء الحمل أو تعليق المنتج على سطح معين بحيث أن يكون مطابق لمواصفات السلامة من حيث الوزن والنسبة الموضوعة من قبل الشركة المصنعة.

من أجل تجنب أي صدمات أو ركلات أو أي تأثير على المنتج دائما قم بتوفير مكان خاص لحفظ المنتج وكذلك عدم السماح لأشخاص غير مؤهلين لتركيب المنتج، وفي حالة استخدام المنتج بالقرب من دواليب الأطفال والحيوانات فأن المراقبة والإشراف هنالك مطلوب.

يمكن أن يصدر هذا المنتج ضغط صوتي عالي والذي يشكل خطر على النظام السمعي، دائما تجنب التشغيل لمستويات عالية وفي حالة إذا كان أي شخص قريب للمنتج (يجب أن تكون هنالك مسافة متر على الأقل).

يرجى عدم تعريض الأطفال لمصدر ذو صوت عالي.

من أجل حمايتك أنت والآخرين ومن أجل عدم حدوث إلغاء لشهادة الضمان الخاصة بهذا المنتج، يرجى قراءة هذا الجزء من دليل الاستخدام بعناية قبل الشروع بتشغيل هذا المنتج.

لقد تم تصنيع وتصميم هذا المنتج بعناية فائقة ليتم استخدامه كنظام سماعات فعال في التطبيقات النموذجية الذي يقوم بتعزيز نظام الصوت أو نظام التسجيل الصوتي. إن عملية الاستخدام لأغراض وتطبيقات أخرى لم يتم التنويه عنها عن طريق الشركة الصانعة حتى الآن والتي تتعلق بتصميم هذا المنتج، ولذلك تقع المسؤولية على عاتق المستخدم أو على الشخص الذي قام بتركيب نظام السماعات.

من أجل تفادي الحرائق أو التعرض لصدمة كهربائية:

لا يجوز أن يتعرض الجهاز للتقطير أو الرش أو أية أشياء مبللة بالسوائل، مثل المزهريات، التي توضع على الجهاز. ولا تدع أي سائل يمكن أن يتسرب داخل المنتج. وفي حالة تسرب أي سائل، قم على الفور بفصل التيار الكهربائي، وارجع إلى التعليمات الخاصة بالصيانة قبل عملية التشغيل مرة أخرى.

هذا المنتج مطابق إلى درجة ١ من العزل، وللاستخدام الآمن ننصح بتوصيل الجزء المحمي (الأرضي) مع المخرج الأرضي.

يرجى عدم وضع أي شمع مشتعل على سطح هذا المنتج أو أي مصادر أخرى.

قبل القيام بتوصيل هذا المنتج إلى التيار الرئيسي تأكد من الفولتية الموجود على المخرج الرئيسي هو المطابق والمحدد على المنتج.

يجب أن يكون هذا المنتج موصول في مخرج أرضي متوافق مع شروط السلامة من خلال كيبيل الكهرباء المرفق.

عند الحاجة إلى استبدال كيبيل الكهرباء يرجى استخدام نفس النوعية حصريا بالمواصفات والخصائص.

يعتبر هذا المنتج موصول مع منفذ الكهرباء حتى لو كان المفتاح الكهربائي الرئيسي في حالة توقف ومؤشر الطاقة في حالة توقف، مادام المنتج موصول بالكهرباء فهذا يعني بان هناك خطر كامن بالجهد الكهربائي للمنتج، ولذلك وقبل البدء بأية صيانة يرجى التأكد من فصل الكيبيل من المفتاح الرئيسي للتيار.

يرجى عدم وضع أي شيء على كيبيل الكهرباء مطلقا، كذلك عدم وضع كيبيل الكهرباء في الطريق حتى لا يتعثر به الناس عند المرور من فوقه، كذلك عدم الضغط عليه مطلقا.

يرجى التأكد من توفير مصدر للهواء من أجل تبريد المنتج قبل البدء بالتركيب. يرجى عدم إغلاق مصدر الهواء للمنتج مطلقا وكذلك إبقاء مساحة كافية للوصول إلى مفتاح الطاقة الرئيسي وكذلك الرابط الرئيسي في الجزء الخلفي.

عند الحاجة إلى استبدال أي فيوز خارجي، استبدله فقط بنفس النوع الأصلي والتصنيف كما هو مذكور على المنتج.

دائما تأكد بأن مفتاح التشغيل في حالة توقف قبل الشروع في أي خطوة بتوصيل المنتج بالتيار الكهربائي.

قبل المحاولة بتحريك المنتج وبعد تركيبه يرجى فصل جميع التوصيلات. قبل القيام بفصل كيبيل الكهرباء للمنتج، يرجى عدم سحب الكيبيل مباشرة، قم بتثبيت جسم القابس أولا ومن ثم سحبه ببطء من مخرج التيار الكهربائي الرئيسي.

IMPORTANT SAFETY INSTRUCTIONS

English

WARNING!

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TO AVOID THE RISK OF FIRE AND/OR ELECTRIC SHOCK:

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus. Never let any liquid, as well as any object, enter the product. In case, immediately disconnect it from the mains supply and refer to servicing before operating it again.

This unit conforms to CLASS I insulation, and for safe use it is required that the protective earth contact is connected to a grounded (earthed) outlet.

Never place burning candles or other sources of open flame on top of the device.

Before connecting this product to the mains supply, always make sure that the voltage on the mains outlet corresponds to that stated on the product. This product must be connected only to a grounded mains outlet complying to the safety regulations in force via the supplied power cable.

In case the power cable needs to be substituted, use exclusively a cable of the same type and characteristics.

This device is connected to the power line even when the mains switch is in the 'O' (=off) position and the power indicator is off. As long as it is plugged in there are dangerous electrical potentials inside the device, so, before undertaking any sort of maintenance work etc., always make sure it has been unplugged from the mains socket.

Never place any object on the power cable. Never lay the power cable on a walkway where one could trip over it. Never press or pinch it.

Never install the product without providing adequate air flow to cool it.

Never obstruct the air intake openings on it. Leave enough room to get to the mains power socket and the mains connector on the back panel.

In case the external fuse needs replacement, substitute it only with one of the same type and rating, as stated on the product.

Always make sure the Power switch is in its 'O' (=off) position before doing any operation on the connections of the product.

Before attempting to move the product after it has been installed, remove all the connections.

To disconnect the power cable of this product from the mains supply never pull the cable directly. Hold the body of the plug firmly and pull it gently from the mains supply outlet.

CAUTION!

This product does not contain user serviceable parts.

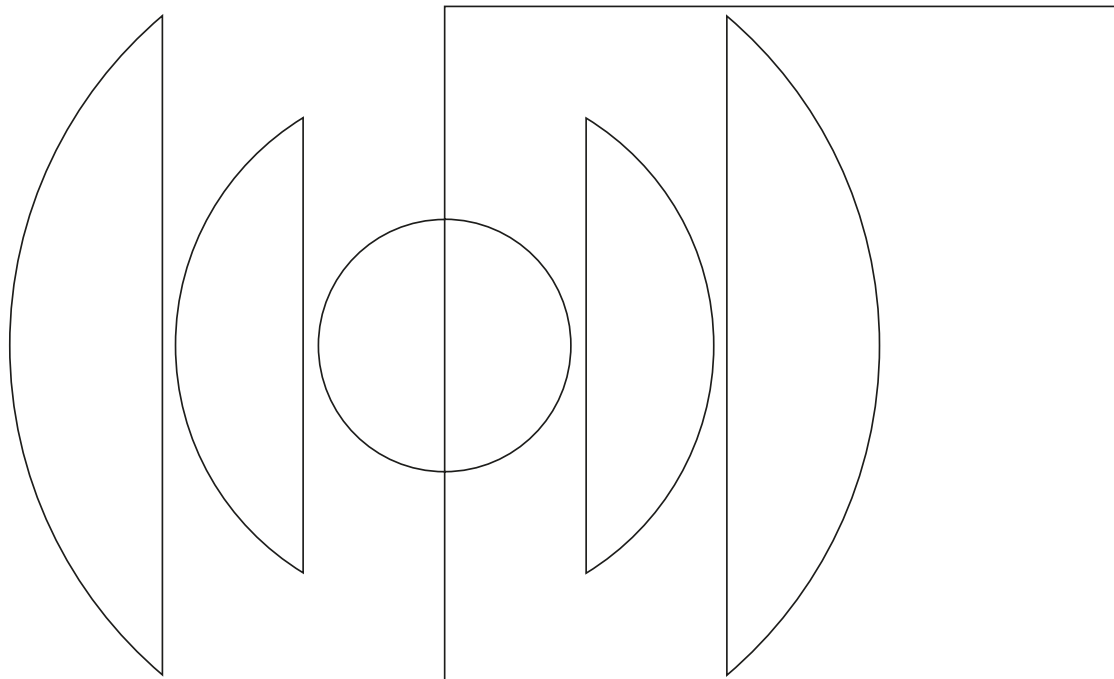
To prevent fire and/or electrical shock, never disassemble it or remove the rear panel. For maintenance and servicing always refer to the official Montarbo Distributor in your Country or to qualified personnel specifically authorized by the Distributor.

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. Never attempt to hang the product by any means not expressly provided or approved by the manufacturer (i.e. ropes, chains, belts or whatever medium, through carrying handles, bolts, hooks or whatever). In case the product is factory-fitted with specific mounting hardware, always verify before installation that the lifting and/or hanging system you intend to use is of a proper type and can carry the product weight with the safety ratio required by the regulations in force.

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.



The information contained in this manual has been carefully drawn up and checked. However no responsibility will be assumed for any inexactitude.

This manual can not cover all the possible contingencies which may arise during installation and use of the product. 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 AND FEATURES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.



Elettronica Montarbo srl

via G. di Vittorio 13 | 40057 Cadriano Granarolo Emilia (BO) ITALY

T +39 051 6047711

F +39 051 765226

@ mail@montarbo.com

www.montarbo.com



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