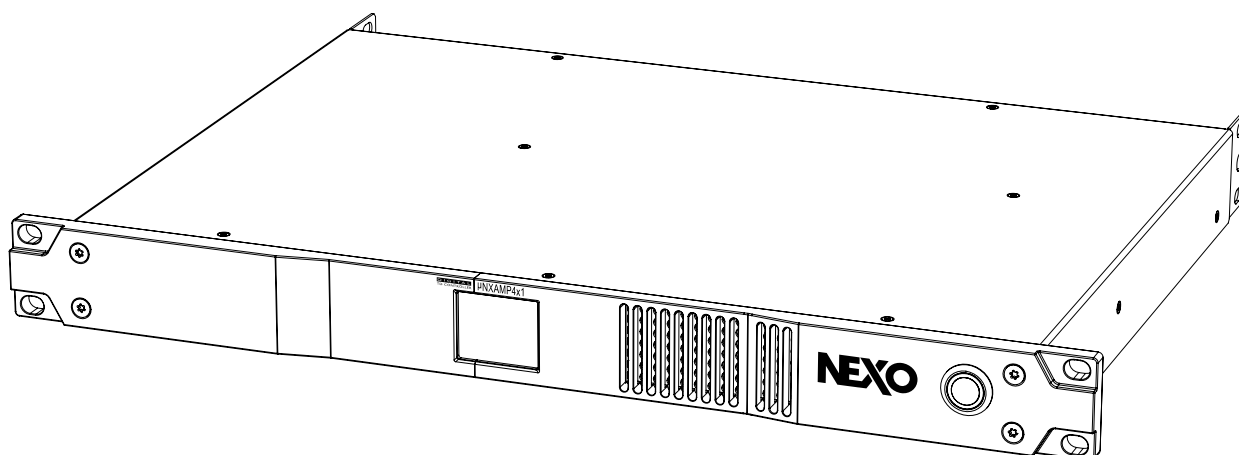


μ NXAMP4x1 POWERED TD CONTROLLER



USER MANUAL (LOAD6_01)

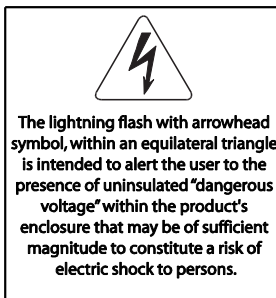


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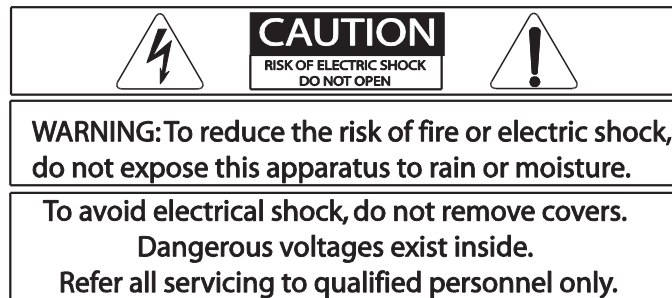
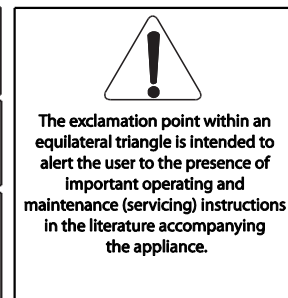
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SAFETY PRECAUTIONS



The above warning is located on the top of the unit.



SAFETY INSTRUCTIONS

Read this manual before using the TD Controller.

Keep this manual available for further reference.

Observe all warnings and cautions.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation opening, install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that product heat.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or exposed to rain or moisture, does not operate normally, or has been dropped.

Please check the NEXO Web site nexo-sa.com to get the most up-to-date version of this manual.

Ensure you are aware of the safety rules applying to rigging, stacking, or installing on tripod or speaker stand. Failure to observe these rules may expose persons to potential wounds or even death.

Only use the system with accessories specified by NEXO.

Please always consult a NEXO-accredited technician if the installation needs architectural works and observe following precautions:

⚠ WARNING!
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

(UL60065_03)

Please regularly check the system condition.

PRECAUTIONS

Please read carefully before proceeding. Please keep this manual in a safe place for future reference.

WARNING!

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

POWER SUPPLY/POWER CORD

Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.

Use only the included power cord if any. If you intend to use the device in an area other than the one you purchased, the included power cord may not be compatible. Please check with NEXO.

Do not use the included power cord for other devices.

Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.

When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.

To disconnect this device from the mains, unplug the power cord.

Even when the Standby/On switch is in standby status (display is off), electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time, make sure you unplug the power cord from the wall AC outlet.

Do not open the device, do not try to disassemble it neither to modify it in any way. The system doesn't include any user-serviceable parts. If the system seems to be malfunctioning or damaged, stop using it at once and have it repaired by a NEXO qualified personnel.

WATER WARNING

Do not expose the system directly to the rain, do not immerse it into fluids, do not place objects filled with liquid on the system. If a liquid gets into the device, turn off the power immediately and unplug the power cord from the AC outlet. Then have it inspected by a NEXO qualified technician.

Never insert or remove an electric plug with wet hands.

IF YOU NOTICE ANY ABNORMALITY

If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the device, or any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified NEXO service personnel.

If this device should be dropped or damaged, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified NEXO service personnel.

LOCATION

Before moving the device, remove all connected cables.

When setting up the device, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet.

If this device is to be mounted in an EIA-standard rack, leave the back of the rack open and make sure that it is at least 10 cm away from walls or surfaces. Also, if the device is to be mounted with devices that tend to generate heat, such as power amplifiers, be sure to keep an adequate gap between this device and the heat-generating devices or install ventilation panels to prevent high temperatures from developing inside this device.

Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.

Do not use in a confined, poorly-ventilated location. If this device is to be used in a small space other than an EIA-standard rack, make sure that there is adequate space between the device and surrounding walls or other devices: at least 10 cm at the sides, 15 cm behind and 40 cm above.

Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.

Do not place the device in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.

Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.

Do not place the device in an instable position where it might accidentally fall over.

Do not block the vents. This device has ventilation holes at front and back to prevent the internal temperature from becoming too high. In particular, do not place the device on the front or the back. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.

Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Doing so may result in noise, both in the device itself and in the TV or radio next to it.

Keep the device out of reach of children, to keep them from putting their fingers into openings on the equipment and accidentally being injured.

CONNECTIONS

Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.

Use only speaker cables for connecting speakers to the speaker jacks. Use of other types of cables may result in fire.

XLR-type connectors are wired as follows (IEC60268 standard): pin 1: ground, pin 2: hot (+) and pin 3: cold (-).

Use only speakON NL4 plugs for connecting SP connectors.

MAINTENANCE

Inspect the ventilation holes and clean them periodically. Dust and dirt can seriously degrade the effectiveness of the cooling and result in malfunction or fire.

Remove the power plug from the AC outlet when cleaning the device.

The performance of components with moving contacts, such as switches, volume controls, and connectors, deteriorates over time. Consult qualified NEXO service personnel about replacing defective components.

HANDLING CAUTION

When turning on the AC power in your audio system, always turn on the device LAST, to avoid speaker damage. When turning the power off, the device should be turned off FIRST for the same reason.

Do not insert your fingers or hands in any gaps or openings on the device (vents...).

Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents, etc.) If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified NEXO service personnel.

Do not use the device for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

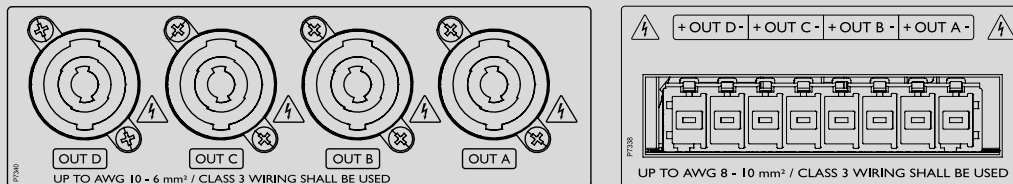
Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches, or connectors.

Do not use this device for any purpose other than driving loudspeakers.

Rapidly turning the unit on and off in succession can cause it to malfunction. After turning the unit off, wait for more than five seconds before turning it on again.

⚠ WARNING!

This ⚡ mark indicates a dangerous electrically live terminal. When connecting an external wire to this terminal, it is necessary either to have “a person who have received appropriate guidance on handling” make the connection or to use leads or a cord that have been manufactured in such way that the connection can be made simply and without problem.



COMPLIANCE INFORMATION

FCC INFORMATIONS (U.S.A.)

IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by NEXO-SA may void your authority, granted by the FCC, to use the product.

IMPORTANT

When connecting this product to accessories and/or another product use only high-quality shielded cables. Cable(s) supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

NOTE

This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class “A” digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the user manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations, which can be determined by turning the unit “OFF” and “ON”, please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter(s).

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 Ohms ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you cannot locate the appropriate retailer, please contact the After Sales department of NEXO-SA, Parc d'Activité du Pré de la Dame Jeanne, B.P.5, 60128 PLAILLY, FRANCE.

Declaration of Conformity

<p>We,</p> <p>Declare under our sole responsibility that the product</p> <p>Type</p> <p>Serial number</p> <p>Is in conformity with the provisions of the following directive including all applicable amendments:</p>	<p>NEXO SA</p> <p>ZA DU PRE DE LA DAME JEANNE</p> <p>60128 PLAILLY – France</p> <p>TD Controller</p> <p>uNXAMP4x1-T, uNXAMP4x1-I</p> <p>On the product</p> <p>2014/35/UE (Low Voltage Directive)</p> <p>2014/30/EU (EMC)</p> <p>2011/65/EU (RoHS)</p> <p>EN 55103-1:2009 + A1:2012</p> <p>EN55103-2:2009 + IS:2012</p> <p>FCC Part 15:2013</p> <p>This device complies with Part 15 of the FCC Rules.</p> <p>Operation is subject to the following two conditions:</p> <p>1) this device may not cause harmful interference, and</p> <p>2) this device must accept any interference received including interference that may cause undesired operation.</p> <p>See user manual instructions if interference to radio reception is suspected.</p> <p>EN60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011</p> <p>IEC60065 (ed7) + AM1 + AM2, including national differences for EU, AU, CA, JP, US</p> <p>CSA and CCC Certification</p> <p>Plailly, March 23rd, 2024</p>
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Joseph CARCOPINO, R&D Director



INFORMATION

European models

Purchaser/User information specified in EN55103-2:2009.

Conforms to Environments: E1, E2, E3 and E4.

The model number, serial number, power requirements, etc., be found on or near the name plate, which is at the top of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No

Serial No

PACKAGING

CONTENT

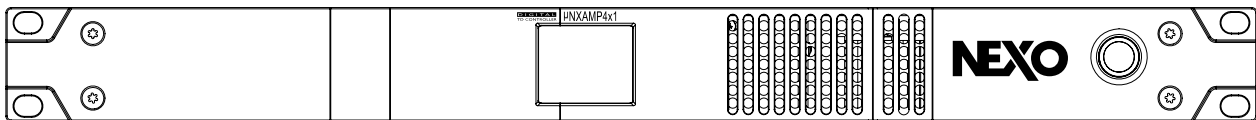
Open the box with care to prevent damage on the content. Inside you will find:

- 1 x uNXAMP4x1 Powered TDController.
- 1 x uNXAMP4x1 Quick Start guide
- 1x Input connector WAGO 2734-1112 (for installation version only)
- 1x Output connector WAGO 831-1108 (for installation version only)

WEIGHT

The shipping weight of the uNXAMP4x1 is nearly **12kg (26 lb)**

INTRODUCTION

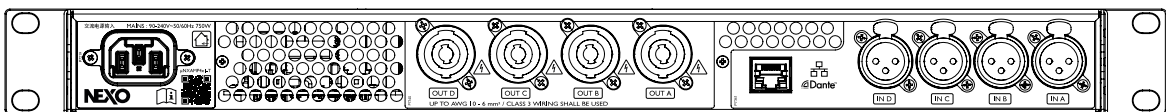


Welcome to the uNXAMP4x1 manual. Please take some time to read it and learn how to set up the device. The uNXAMP4x1 is a four-channel powered TD Controller developed to perfectly match the NEXO range of speakers.

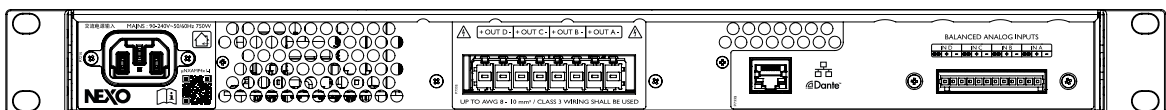
A TD Controller is a highly sophisticated audio processing unit, design to enhance the sonic performances as well as to protect the NEXO speakers. This processor is coupled with four channels of power amplifier.

There are two versions of the uNXAMP4x1:

- uNXAMP4x1-T (Touring version): Uses Touring connectors at the back (XLR for analog audio inputs, SpeakON for amplifier outputs).



- uNXAMP4x1-I (Installation version): Uses Installation connectors at the back (WAGO 2734-1112 for analog inputs, WAGO 831-1108 for amplifiers outputs).



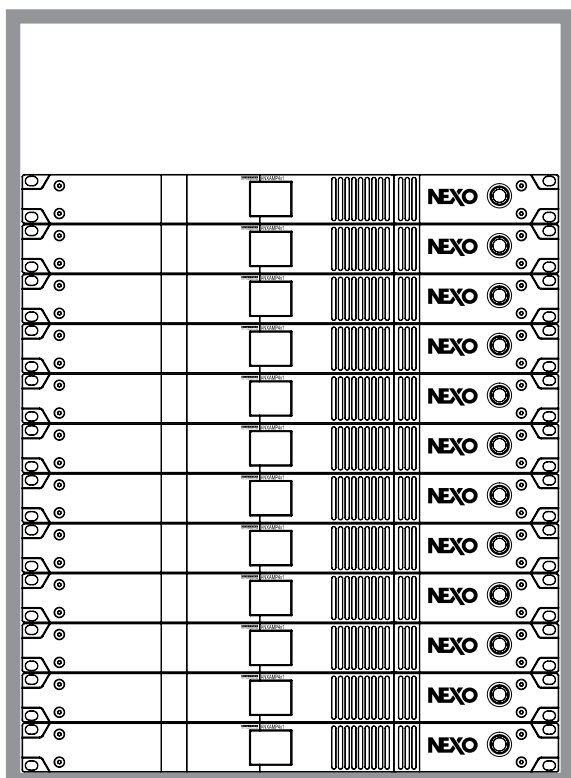
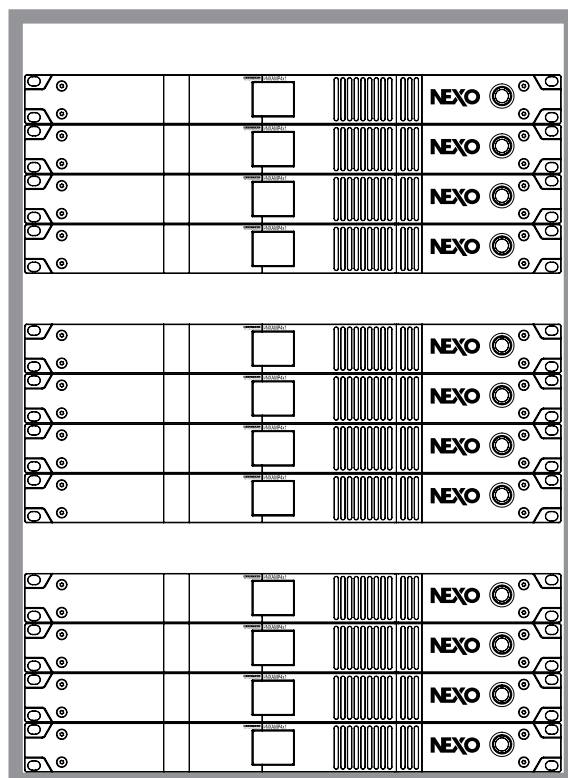
RACK INSTALLATION

The uNXAMP4x1 should be mounted into a suitable rack unit, ensuring both front and rear mounting holes are used to protect the device from mechanical damage.

Air flow of the uNXAMP4x1 is from front to back, thus installation can mix DTDAMP (with DTD Controller), first generation NXAMP, second generation NXAMPmk2 and uNXAMP4x1 in the same rack, all using the same air flow direction.

⚠ WARNING!

Please add 1U (44mm) height of empty space every 4x uNXAMP4x1 piled up into a rack to ensure sufficient cooling.



SPEAKER CABLE CHOICE

⚠ WARNING!

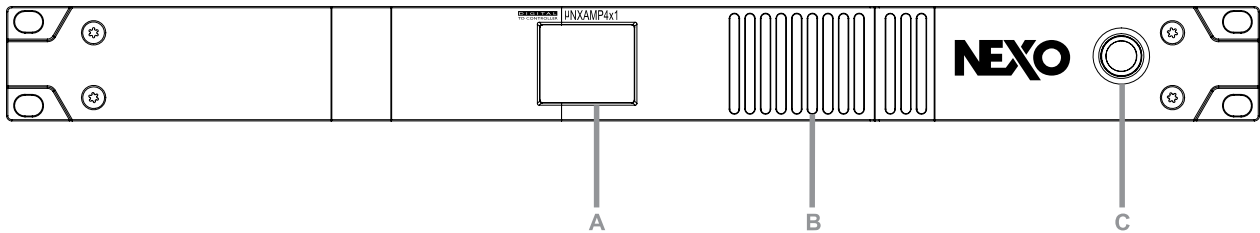
High voltage can be present on the power amplifier output terminals. Use at least NEC (National Electrical Code) UL13 CL3 (under 300V) wiring cable to connect the uNXAMP4x1 to the NEXO speakers.

To minimize power and damping factor losses in speaker cable, use suitable gauges from the table below.

Load Impedance (Ohms)	2	2.6	4	8
Cable section	Maximum length in meters (feet)			
2.5 mm ² (AWG #13)	20 (66)	28 (92)	40 (130)	80 (260)
4 mm ² (AWG #11)	32 (105)	40 (130)	64 (210)	128 (420)
6 mm ² (AWG #9)	48 (160)	64 (210)	96 (315)	192 (630)

FRONT PANEL DESCRIPTION

The uNXAMP4x1 features a colour 1.8 inches display and a push switch with a surround backlight.

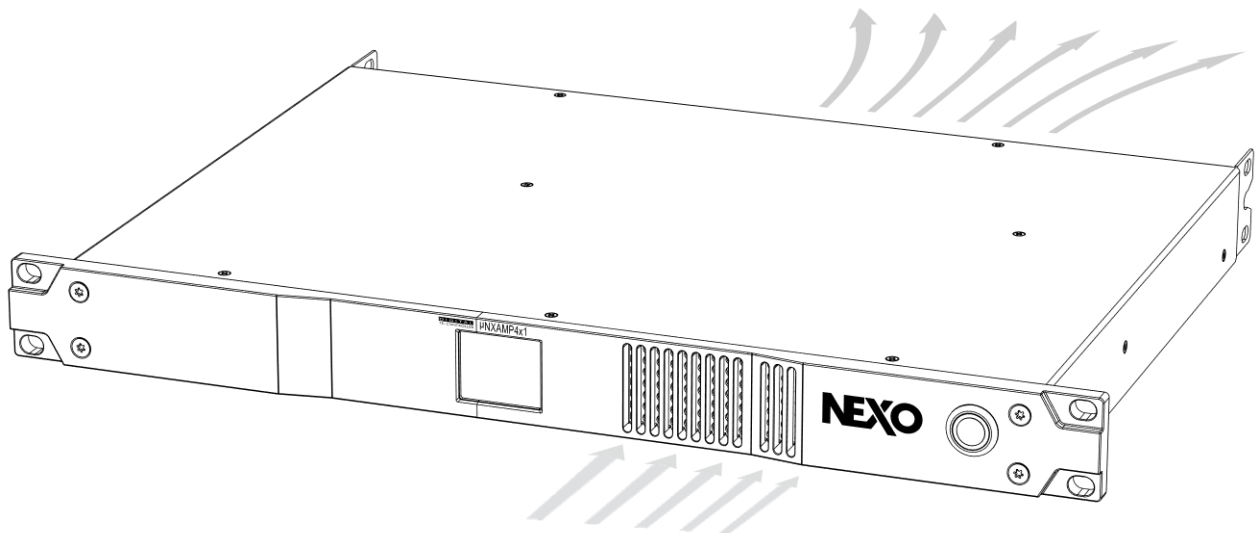


A: 1.8 INCHES COLOR TOUCH SCREEN

The screen is used for the display of the amplifier essential settings and status. To access all the parameters of the uNXAMP4x1 a network based remote control software like NEXO NeMo should be used. Check nexo-sa.com for download.

B: AIR INTAKES

The uNXAMP4x1 uses forced-air cooling. The variable speed cooling fan draws air in from the front and exhausts it through the rear. Please be sure that you do not block the air intakes or exhaust vents.



C: MAIN SWITCH

The main switch is used to start the amplifier, go to stand-by mode, or enter recovery mode.

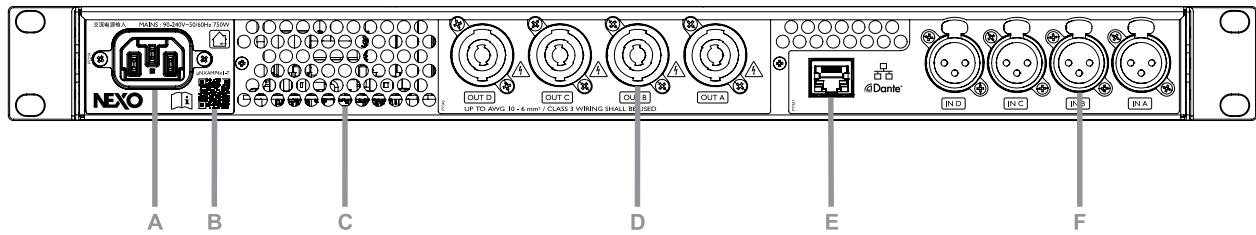
Once all the wiring has been done and mains is present, the surround backlight of the encoder is glowing slowly. Long press this switch till the system boots up. The first screen will show the NEXO logo and the revision of the firmware starting with "LOAD".

See [Start-up & Menu Operations](#) section for more information.

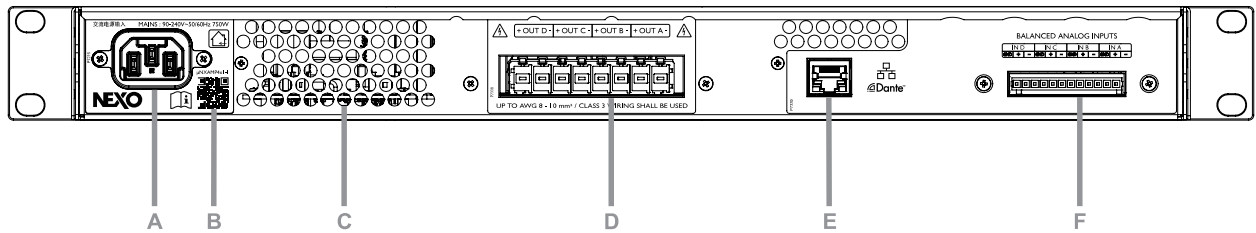
BACK PANEL DESCRIPTION

The back panel is different depending on the version of the uNXAMP4x1.

For uNXAMP4x1-T:



For uNXAMP4x1-I:



A: MAINS CONNECTOR

The uNXAMP4x1 can accept Mains from 90 to 240 Volts, both 50 to 60 Hz, thanks to its high efficiency active PFC (Power Factor Correction) system.

⚠ WARNING!

Check the local mains value and ensure that fits the needs of the uNXAMP4x1 before connecting.

Refer to the specification page of this document to know the mains power requirement of the uNXAMP4x1 depending on the load connected.

The mains connection is done through standard IEC 60320 C14 socket.

B: QR CODE

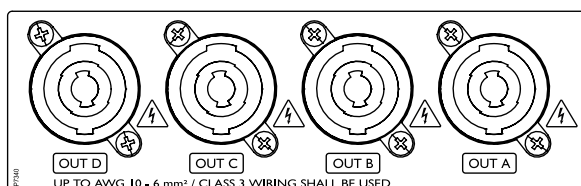
The QR code at the back of the unit links to the technical documentation of the uNXAMP4x1 on the NEXO website.

C: AIR EXHAUST

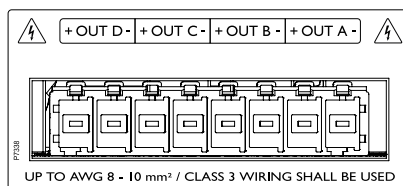
The uNXAMP4x1 uses forced-air cooling. The variable speed cooling fan draws air in from the front and exhausts it through the rear. Please be sure that you do not block the air intakes or exhaust vents.

D: POWER OUTPUTS

- The uNXAMP4x1-T uses four SpeakON NL4 outputs to connect the speakers. Up to 4 or 6 mm² wire size (12 AWG / 10 AWG) can be used depending on the plug connector (not supplied) used (screw type terminals or soldering).

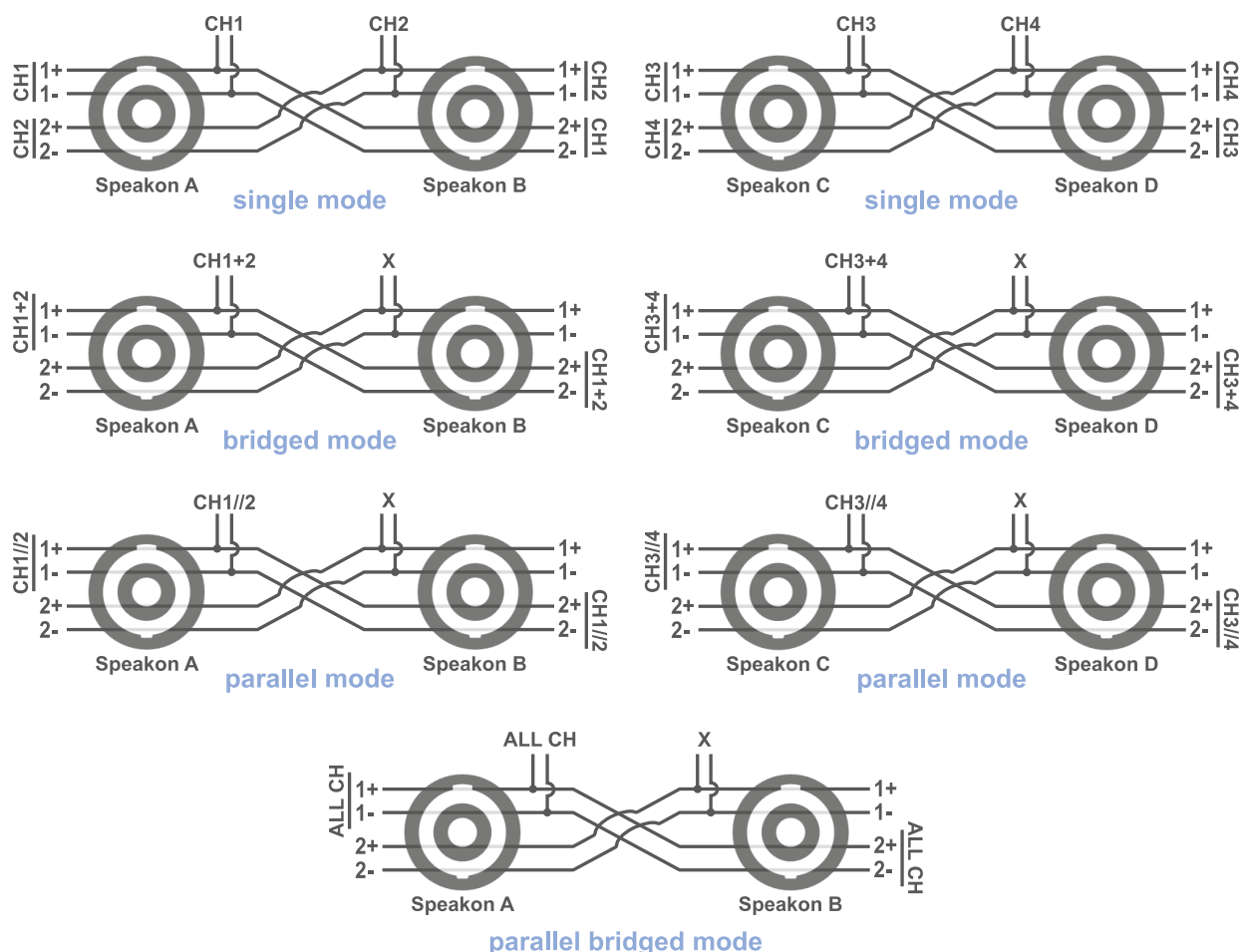


- The uNXAMP4x1-I uses one WAGO 831-1108 connector (supplied). Up to 10 mm² wire size (8 AWG) can be used.



Outputs can be bridged two by two independently, in serial or parallel mode, CH1 with CH2 (“CH1/2”) and CH3 with CH4 (“CH3/4”). Also, all channels (CH1/2/3/4) can be bridged in serial and parallel at the same time, delivering the total power of the four channels on one output.

As shown on the following graph, in single mode, the amplifier CH1 is always connected to SpeakON A 1+/1-, and amplifier CH2 is always connected to SpeakON B 1+/1-. Furthermore, both SpeakON are crossed, so CH1 is also available on SpeakON B 2+/2- and CH2 on SpeakON A 2+/2-. When bridged or parallel, CH1+2 or CH1//2 is connected where CH1 was. The structure is symmetrically the same for CH3 and CH4 with SpeakON C and D. When parallel bridged mode is use, all channels are connected where CH1 was in single mode.



NOTE

In some cases, the uNXAMP4x1 optimizes the output pinout by swapping CH1 with CH2 (and CH3 with CH4) depending on speaker presets used and “Output Mode” setting. See [Speaker cabling & output mode](#) section precisely describing this process, and also presenting typical speaker cabling cases.

In all cases, please check front display indication to know where to connect your NEXO speaker.

⚠ WARNING!

When used in bridged, parallel or parallel bridged mode, never touch (or short-circuit) the unused pins on the output NL4 as some high voltage can be present.

Please check the speaker impedance before connecting to the uNXAMP4x1.

⚠ WARNING!

The uNXAMP4x1 works with output load down to 2 Ohms in single mode, parallel mode, parallel bridged mode, and down to 4 Ohms in bridged mode.

E: DANTE / REMOTE CONTROL NETWORK PORT

Through this RJ45 connector at the back of the uNXAMP4x1, the unit can be connected to a 100 Mb Ethernet network for both remote control and digital audio (Dante® or AES67).

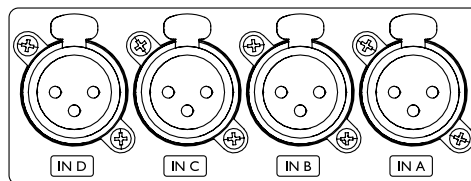
A network based remote control software like NEXO NeMo should be used for remote control of the unit. Check nexo-sa.com for download.

The audio routing from the digital audio network (Dante® or AES67) and its related settings can be setup using Dante Controller. Check audinate.com for download.

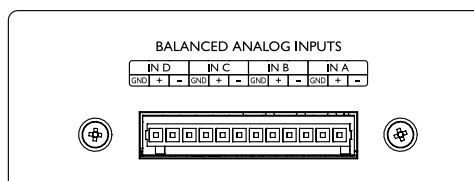
Use STP (Shielded Twisted Pair) cable to prevent electromagnetic interference. Make sure that the metal parts of the plugs are electrically connected to STP cable shield by conductive tape or comparable means.

F: BALANCED AUDIO INPUTS

- The uNXAMP4x1-T uses four XLR3 female inputs to connect the balanced analog audio inputs source, typically the analog outputs of a mixer. Use the standard XLR pinout: Pin 1 is ground, Pin 2 is (+) and Pin 3 is (-).

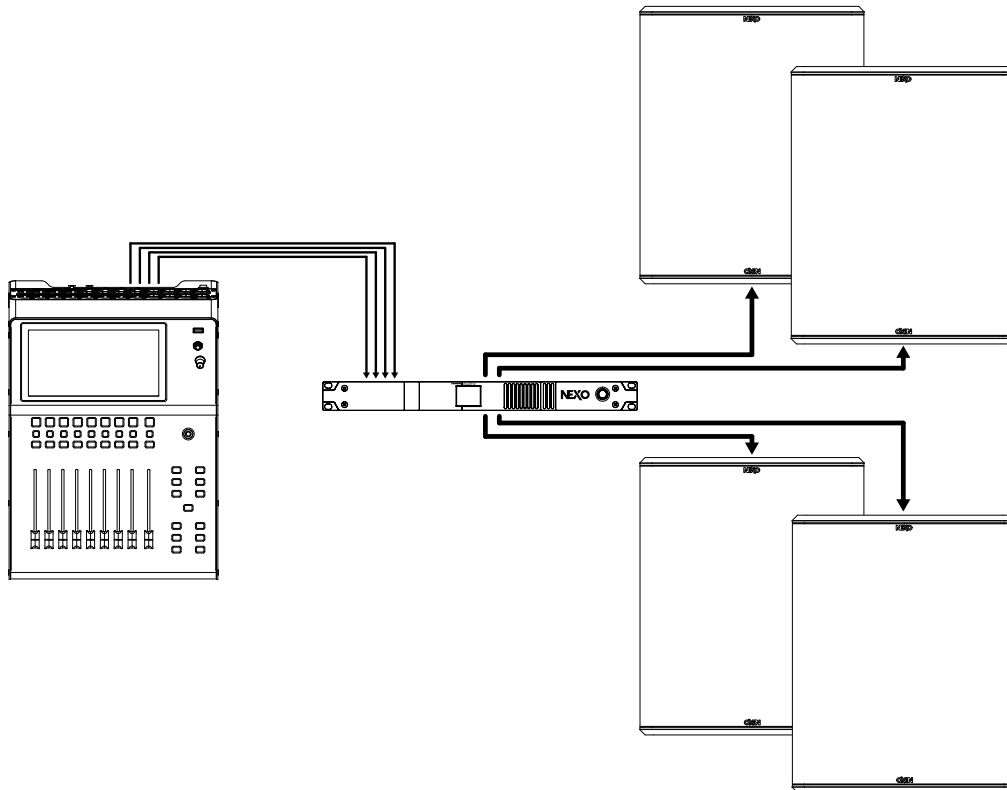


- The uNXAMP4x1-I uses one WAGO 2734-1112 connector (supplied). Be sure to use two core (+ and -) shielded microphone cable to connect the balanced analog audio source. The pinout is shown on the silkscreen.

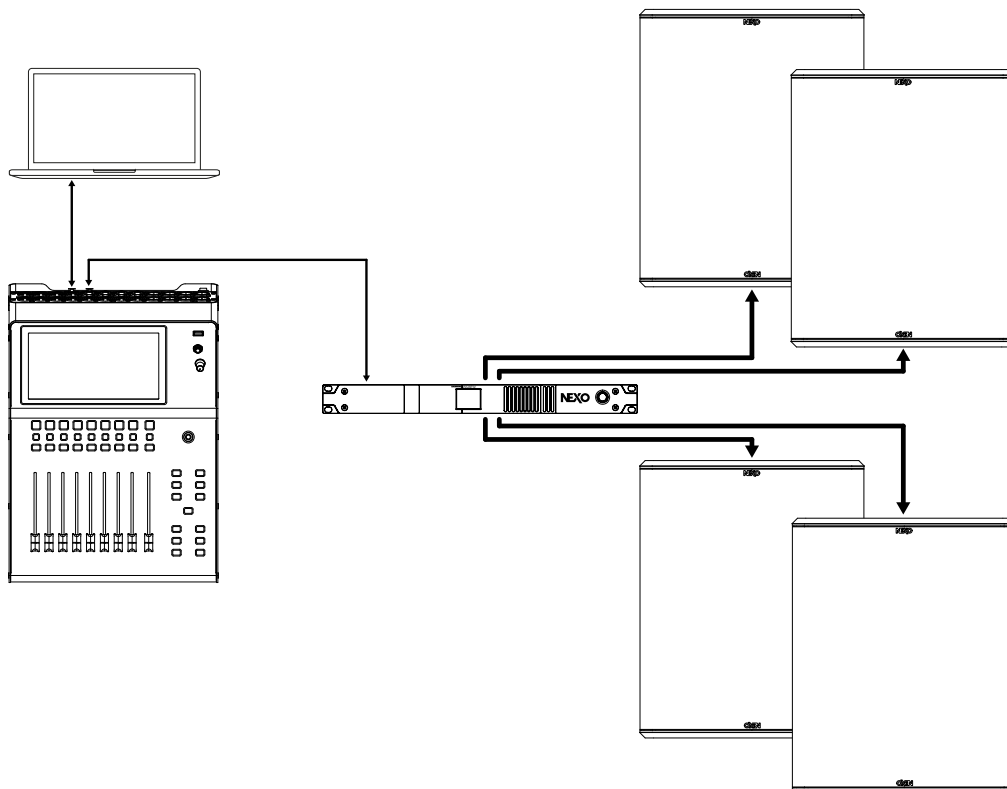


AUDIO INPUT AND OUTPUT CONNECTIONS

Place the uNXAMP4x1 in the audio chain just before the NEXO speakers, typically at the output of the mixer or matrix. Below is first a schematic for analog input and second is a schematic for digital (Dante) input.



The four thin cables from the mixer on the left to the uNXAMP4x1-T represent the four analog inputs to the unit. The four thick cables from the uNXAMP4x1-T to the four NEXO speakers are Speakon cables.



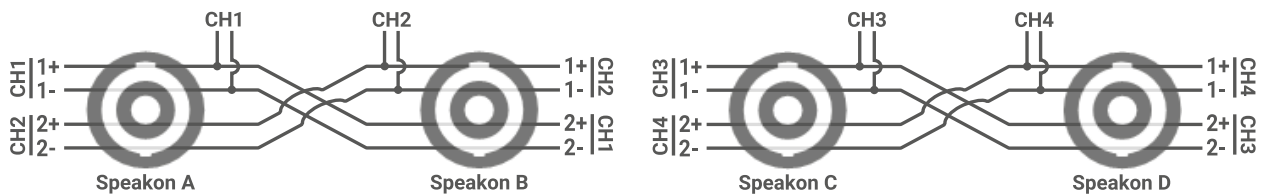
In case the Dante network is used to send digital audio from the mixer to the uNXAMP4x1-T, only a single network cable is used to send up to four channels of digital audio + remote control data. This schematic refers to the simplest Dante network, the mixing desk Dante interface being used in “Switch” mode, with Primary Port connected to the remote-control computer for both Dante network management and uNXAMP4x1 management, Secondary Port connected to the uNXAMP4x1.

⚠ WARNING!

Unplug the device from mains before connecting or disconnecting any cable to it.

SPEAKER CABLING & OUTPUT MODE

As explained in [Power outputs](#) section, the amplifier outputs are cabled as on the following graph:



In some cases, the uNXAMP4x1 optimizes the output pinout by swapping CH1 with CH2 (and CH3 with CH4) depending on speaker presets used and “Output Mode” setting.

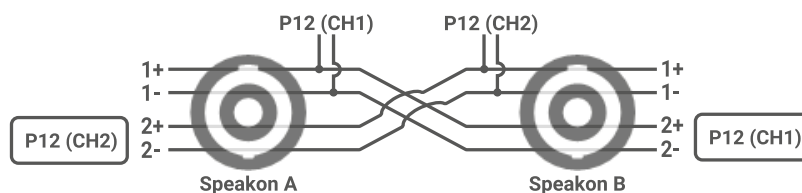
Output Mode can be configured “Static” or “Dynamic” (see [Output mode](#) section to change this setting).

To understand the output mode usage, we will take 3 specific speaker configurations for CH1 and CH2 and see on which speakON speakers must be connected and how output mode setting is used.

As a reminder, NEXO speakers are mostly cabled as following: Subwoofers on 1+/1-, Passive speakers on 2+/2- and Active speakers (2 channels) with LF on 1+/1- and HF on 2+/2-.

CONFIGURATION WITH TWO SPEAKERS 2+/2-

In that case, we will take two P12 speaker in passive mode (taking the signal from 2+/2-), recalled on amplifier CH1 and CH2.



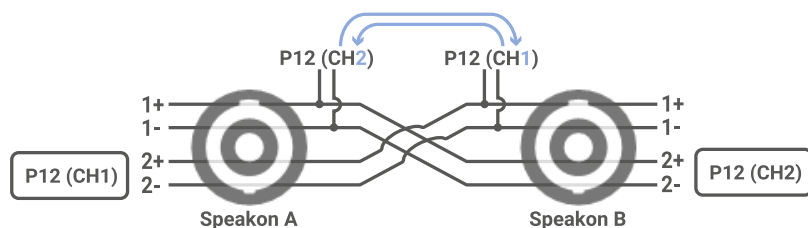
If nothing is done in this configuration, the cabling is not straight forward, CH1 is taken from speakON B and CH2 from speakON A. This crossed cabling can be very confusing when using the amplifier. This is where output mode is used.

If output mode is configured “Static”, nothing is done, and the cabling stays crossed as described above.

If output mode is configured “Dynamic” (which is the default value), the amplifier detects that two speakers (taking signal from 2+/2-) are next to each other.

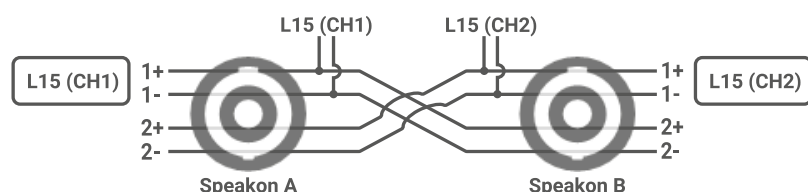
With this setting, the amplifier crosses CH1 and CH2 just before amplifier stages. Of course, the channel arrangement on touchscreen and NeMo stays unmodified.

As it can be seen on the following graph, CH1 is now taken from speakON A and CH2 from speakON B, which is way easier to understand and use.



CONFIGURATION WITH TWO SPEAKERS 1+/1-

In that case, we will take two L15 subwoofers (taking the signal from 1+/1-), recalled on amplifier CH1 and CH2.

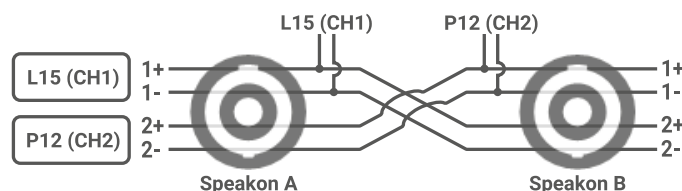


In that configuration, the cabling is straight forward, CH1 is taken from speakON A and CH2 is taken from speakON B.

Because cabling is already straight, the output mode ("Static" or "Dynamic") has no influence in this case, and amplifier is not crossing channels.

CONFIGURATION WITH ONE SPEAKER 1+/1- & ONE SPEAKER 2+/2-

In that case, we will take one L15 subwoofer (taking the signal from 1+/1-) and one P12 speaker in passive mode (taking signal from 2+/2-), recalled respectively on amplifier CH1 and CH2.

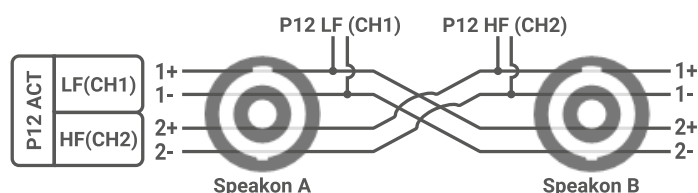


Here, both L15 and P12 have to be connected on speakON A. Crossing CH1 and CH2 channels wouldn't help, but just sending them both to speakON B. The output mode ("Static" or "Dynamic") has again no influence in this case, and amplifier is not crossing channels.

Because there is only one speakON plug on the amplifier, the LINK plug on the speaker can be used by entering first the L15 and then link to P12 (or entering first the P12 and then link to L15).

Note: An Y speakON adaptor can be used on speakON A if both speaker lines are not going to the same direction, and then save cable length.

For 2 channels active speakers, this is the same situation. For example, if we load P12_LF on CH1 and P12_HF on CH2, the speaker has to be connected to speakON A. Oppositely, if we load P12_LF on CH2 and P12_HF on CH1, the speaker has to be connected to speakON B.



CONCLUSION & 4-CHANNEL ARRANGEMENT

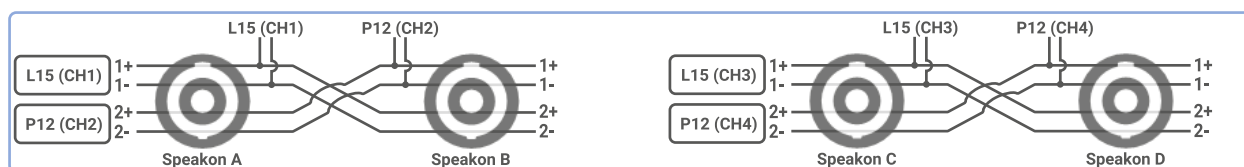
We can summarize the cabling with the following table:

Combination		SpeakON to be used		Output mode	Note
CH1	CH2	CH1	CH2		
SUB (1+/1-)	SUB (1+/1-)	A	B	-	Straight
PASSIVE (2+/2-)	PASSIVE (2+/2-)	A	B	Dynamic	Straight
		B	A	Static (deprecated)	Crossed
SUB (1+/1-)	PASSIVE (2+/2-)	A		-	Both on SUB side (use Link or Y adaptor)
PASSIVE (2+/2-)	SUB (1+/1-)	B		-	Both on SUB side (use Link or Y adaptor)
LF (1+/1-)	HF (2+/2-)	A		-	Active speaker (LF+HF) on LF side
HF (2+/2-)	LF (1+/1-)	B		-	Active speaker (LF+HF) on LF side

The structure being symmetrically identical for CH3 and CH4 with SpeakON C and D, all previous examples are also applicable to them independently.

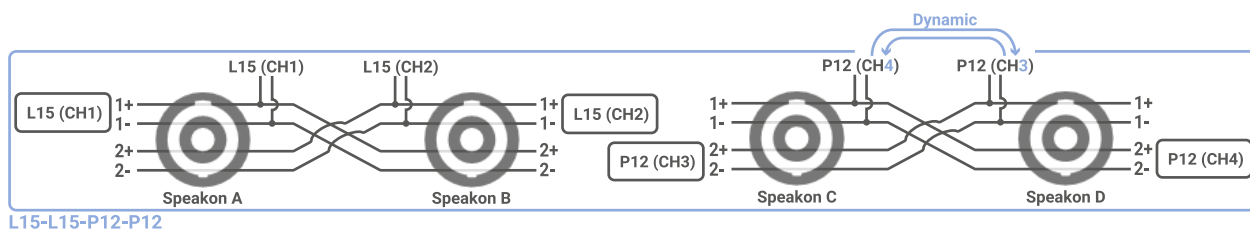
Based on everything just said, we can see that the way speakers are arranged on the 4 channels can change the cabling structure. If we take for example a 2 x P12 and 2 x L15 system, we can see that two particular arrangements gives us very different cabling possibilities, and selection must be made to fit our needs:

If we arrange CH1-CH2-CH3-CH4 with respectively L15-P12-L15-P12, the whole system can be distributed by using 2 speakON cables connected on speakON A and speakON C and using links on speakers.



L15-P12-L15-P12

If we arrange CH1-CH2-CH3-CH4 with respectively L15-L15-P12-P12, the whole system can be distributed using 4 separated speakON cables.



AMPLIFIER START-UP & MENU DESCRIPTIONS

AMPLIFIER START-UP

The uNXAMP4x1 setup is straightforward. Once all the wiring has been done and mains is present, the surround backlight of the encoder is glowing slowly meaning that the amplifier is in standby mode.

Long press the encoder to leave standby mode until the system boots up.



Boot screen

DEFAULT VIEW

After a few seconds, **default view** is displayed. This view shows basic information like output meters, amplifier IP address and output pin-out.

All the settings can be setup using NEXO NeMo remote control software.

RESET TO FACTORY SETTINGS

To reset to factory settings, keep the power button pushed while plugging the mains cord.

By selecting Continue, factory settings will be reset. Alternatively, the rescue mode to download a new firmware can be accessed from here.

ENERGY SAVER

The amplifier goes to automatically in Energy Saver Mode when no input signal has been received during a given time interval. The power consumption is then reduced. When input signal is received again, the amplifier leaves the Energy Save Mode.

Energy saving measurements are available in [Thermal Dissipation and Current Draw](#) section.

ALERTS LIST

GLOBAL

MAINS VOLTAGE(V)

The mains voltage is out of the limits Under 60[V] or over 276[V]	Automatically shut down and reboot. After reboot, Error Screen displayed until the causes are removed.	A. The connection between the power source and the amplifier might be wrong. B. Unstable power source.	Check AC power connection
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POWER SUPPLY VOLTAGE(V)

The output of the power supply is out of the limits	Automatically shut down and reboot. After reboot, Error Screen displayed until the causes are removed.	The power supply unit of the amplifier might malfunction due to some unexpected reason.	Call service center
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POWER SUPPLY OVERTEMPERATURE

Abnormal temperature has been detected by the temperature sensor on the heat sink of the power supply.	FAN starts rotation at max speed	A. Environmental temperature is too high B. Unexpectedly overloaded	Check the air flow
--	----------------------------------	--	--------------------

AMPLIFIER MUTING OUTPUT

The output is muted to protect the amplifier	All channels Mute.	A. Environmental temperature is too high B. Unexpectedly overloaded	This alert is triggered only if the alert condition cannot be removed by other protections such as limiter, mute and fan rotation.
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FAN ERROR

Error detected on Fan 1	Number of malfunctioned fans: 1 of 3: Display alert message on GUI. 2 or more of 3: Automatically shut down and reboot. After reboot, Error Screen displayed	This alert is triggered when CPU cannot sense the fan's actual rotation speed, which implies: A. FAN might malfunction. B. FAN rotation sensing circuit might malfunction.	Call service center
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	until the causes are removed.		
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ANALOG FALLBACK

The input signal is switched over due to digital input error		This alert is triggered when Analog Fallback logic is triggered.	Check the digital input connection or network settings.
--	--	--	---

PER CHANNEL

POWER AMP DC OUTPUT ALERT

DC output is detected in the given amplifier channel	Automatically shut down and reboot. After reboot, Error Screen displayed until the causes are removed.	The amplifier unit might malfunction due to some unexpected reason.	Call service center
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AMPLIFIER OVERTEMPERATURE LEVEL 1

Amplifier temperature reaches 70 degree: Output is reduced by 1dB	Per channel limit	A. Environmental temperature is too high B. Unexpectedly overloaded	Check the air flow
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AMPLIFIER OVERTEMPERATURE LEVEL 2

Amplifier temperature reaches 80 degree: Output is reduced by 3dB	Per channel limit	A. Environmental temperature is too high B. Unexpectedly overloaded	Check the air flow
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AMPLIFIER OVERTEMPERATURE LEVEL 3

Amplifier temperature reaches 100 degree: Output is muted (4x4)	Per channel limit	A. Environmental temperature is too high B. Unexpectedly overloaded	Check the air flow
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AMPLIFIER OVERCURRENT ALERT

Overcurrent is detected in the given amplifier channel	Per channel mute	The impedance of the connected speaker might be too low or shorten wrongly.	Please check the speaker connection.
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HIGH LOAD ALERT

The measured impedance is over the predefined upper limit.	Behaves as defined in Load Monitoring function specification		
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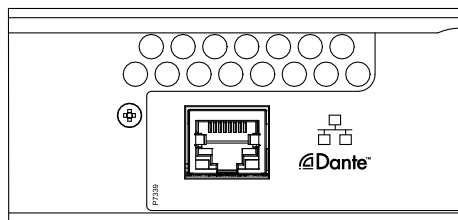
LOW LOAD ALERT

The measured impedance is under the predefined upper limit.	Behaves as defined in Load Monitoring function specification		
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REMOTE CONTROL – NEXO NEMO

IP BASED REMOTE CONTROL PROTOCOL

uNXAMP4x1 can be remote control through an Ethernet network. Connect the RJ45 port to the remote-control network. Use STP (Shielded Twisted Pair) cable to prevent electromagnetic interference.



Remote control is IP based. There is no setup for IP address, it will be done automatically by the uNXAMP4x1, although more advanced IP setup can be done through the Dante Controller software if needed. By default:

- When no DHCP server is running on the network (typical simple network with remote control computer directly connected on the uNXAMP4x1), the uNXAMP4x1 will automatically choose a unique IP address.
- When a DHCP server is running on the network (typical network using a wireless router for example), a unique IP address will be affected by the DHCP to the uNXAMP4x1.

In both case user does not have to worry about IP address settings. However, it is possible to set a static IP address to the uNXAMP4x1, please refer to [Remote Control Settings](#).

NEMO (NEXO REMOTE): UNXAMP4X1 CONTROL SOFTWARE

NEXO NeMo is the remote-control app of a set of NEXO products (nanoNXAMP, uNXAMP, NXAMP Powered TD-controllers and DTD Digital TD-controllers). It allows you to control from a Mac or PC through a wired or Wi-Fi network one or many NEXO devices.



Managing and positioning amplifiers, monitoring their parameters (levels, etc.), and setting new values (preset, volume, delay, EQ, etc.) is made possible thanks to an attractive and intuitive user interface. NEXO NeMo also comes with a powerful engine for logging, alerting and emailing.

Its main functionalities include:

- Creating and editing offline sessions and matching to real NEXO devices when going online (macOS and Windows only).
- Intelligent matching of online and offline devices (macOS and Windows only), and a way of locating the online devices.
- Visualizing and positioning the connected NEXO devices within a 2D space.
- Adding custom background pictures and editing their brightness and blurriness.
- Grouping devices or channels for multi-device control, and visualizing groups and zones on the 2D space.
- Quickly muting, soloing, and monitoring the status of devices, groups or zones, including peak and protect, for the entire network.
- Selecting setups from the standard library and building custom setups.
- Monitoring and controlling simultaneously parameters of several NEXO devices, among which mute-solo, input and output levels, and volume, delay, gain, array-EQ and headroom of each output channel.
- Patching input channels to output channels.
- Viewing and editing EQ and compressor. EQs can be saved in an EQ Library.
- Saving and recalling scenes (NXAMP only).
- Undoing and redoing every control step.
- Copying and pasting parameters and scenes from one to many NEXO devices.
- Saving and sharing user configurations, thanks to Sessions (.nemo documents).
- A configurable way of managing alerts of different levels.
- Visualizing and exporting a log of all the values of the NEXO devices (including temperature, voltage, current...) that you can record when NeMo is online.
- A fully configurable Live mode.
- A Demo mode to test the app.
- A use in portrait on iPhone and iPad, and in portrait or landscape mode on iPad. A use in full-screen on Mac and PC.

FIRMWARE UPDATE – NEXO NEFU

Like any digital devices, firmware upgrade can provide new functions (such as NEXO Speakers Presets) and bug fixes in the uNXAMP4x1.

The firmware file (LOADX_XX) can be downloaded from the NEXO website and installed through an Ethernet network, using RJ45 connector of the uNXAMP4x1.

To proceed to the firmware update of the uNXAMP4x1 device, it is necessary to use NEXO NeFu. The installation file of NEXO NeFu is provided with the LOAD firmware package which is available on the NEXO website.



NEXO NeFu is the NEXO firmware update software for NEXO devices. It allows you to simultaneously update a set of amplifiers (uNXAMP4x1 and NEXO NXAMP Powered TD-controllers).

NEXO NeFu software runs on both Windows and macOS computers.

Its main functionalities include:

- Automatically detecting devices through the network.
- Viewing and verifying all necessary information about the device updating.
- Loading a firmware file and viewing all versions of targeted systems.
- Performing an intelligent update of all device's parts.
- Simultaneous update.
- Automatically notifying for new application and firmware version.
- Better error handling.
- Exporting a log of the update process.

Check out our web site nexo-sa.com for more information about NEXO NeFu features and the latest released version.

Hardware maintenance

 WARNING!

Always unplug the uNXAMP4x1 from the main before cleaning it.

Regularly check the dust level of the air intakes of the uNXAMP4x1. If some dust is inserted into the cooling tunnel of the amplifier, use compressed air to remove it from the amplifier.

The chassis and the front panel can be cleaned using a dry cloth.

TECHNICAL SPECIFICATIONS

POWER SPECIFICATIONS FOR μ NXAMP4x1

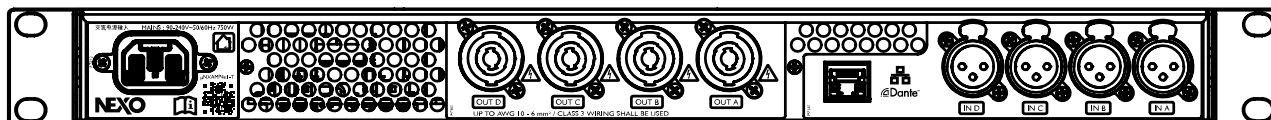
Number of channels	4x channels, 2x channels or 1x channel
Max. output voltage (no load)	4x 135 Volts
Max. output power (4 channels mode /8 Ohms load per channel)	4x 750 Watts
Max. output power (4 channels mode /4 Ohms load per channel)	4x 1000 Watts
Max. output power (4 channels mode /2 Ohms load per channel)	4x 750 Watts
Max. output power (2 channels bridge mode /8 Ohms load per channel)	2x 2000 Watts
Max. output power (2 channels bridge mode /4 Ohms load per channel)	2x 1500 Watts
Max. output power (2 channels parallel mode /8 Ohms load per channel)	2x 800 Watts
Max. output power (2 channels parallel mode /4 Ohms load per channel)	2x 1500 Watts
Max. output power (2 channels parallel mode /2 Ohms load per channel)	2x 2000 Watts
Max. output power (1 channel bridge parallel mode /8 Ohms load)	1x 3000 Watts
Max. output power (1 channel bridge parallel mode /4 Ohms load)	1x 4000 Watts
Max. output power (1 channel bridge parallel mode /2 Ohms load)	1x 3000 Watts
Power consumption (Standby)	5 Watts
Power consumption (Idle)	20 Watts

INPUT TO POWER OUT SPECIFICATIONS

Frequency response	+/-1 dB from 10 Hz to 20 kHz
Input impedance / Input Sensitivity	20 K Ω / +13 dBu
Dynamic range / TDH + N	110 dB unweighted / Typical 0.01% on a flat setup
Latency	580 us on a flat setup
Audio AD and DA Converters	24 bits @ 96 kHz
Processing	2 x multicore 64 bits processing DSPs

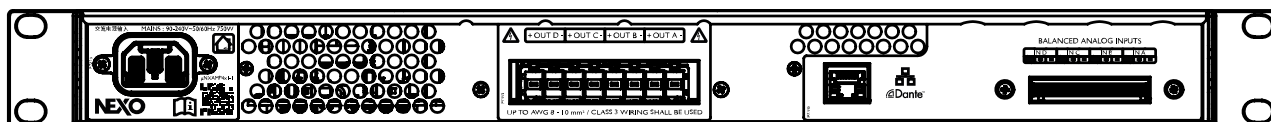
BACK PANEL FEATURES (TOURING VERSION)

Analog audio inputs	4x balanced analogue inputs on XLR3
Digital audio inputs	4x DANTE™ inputs from the remote control RJ45 port
Power outputs	4x Neutrik Speakon NL-4 outputs
Remote control	1x Ethernet 100 Mb on RJ45 connector
Mains socket	1x IEC C13 with lockable power cord



BACK PANEL FEATURES (INSTALL VERSION)

Analog audio inputs	4x balanced analogue inputs on WAGO 2734-1112 with Push-in CAGE CLAMP®
Digital audio inputs	4x DANTE™ inputs from the remote control RJ45 port
Power outputs	4x outputs on WAGO 831-1108 with Push-in CAGE CLAMP® (up to 10 mm² cable)
Remote control	1x Ethernet 100 Mb on RJ45 connector
Mains socket	1x IEC C13 with lockable power cord



USER INTERFACE

Front panel buttons and knobs	One stand-by power switch with led ring
Display	1.8 inches diagonal color TFT display, resolution 128 x 160

MAINS REQUIREMENTS

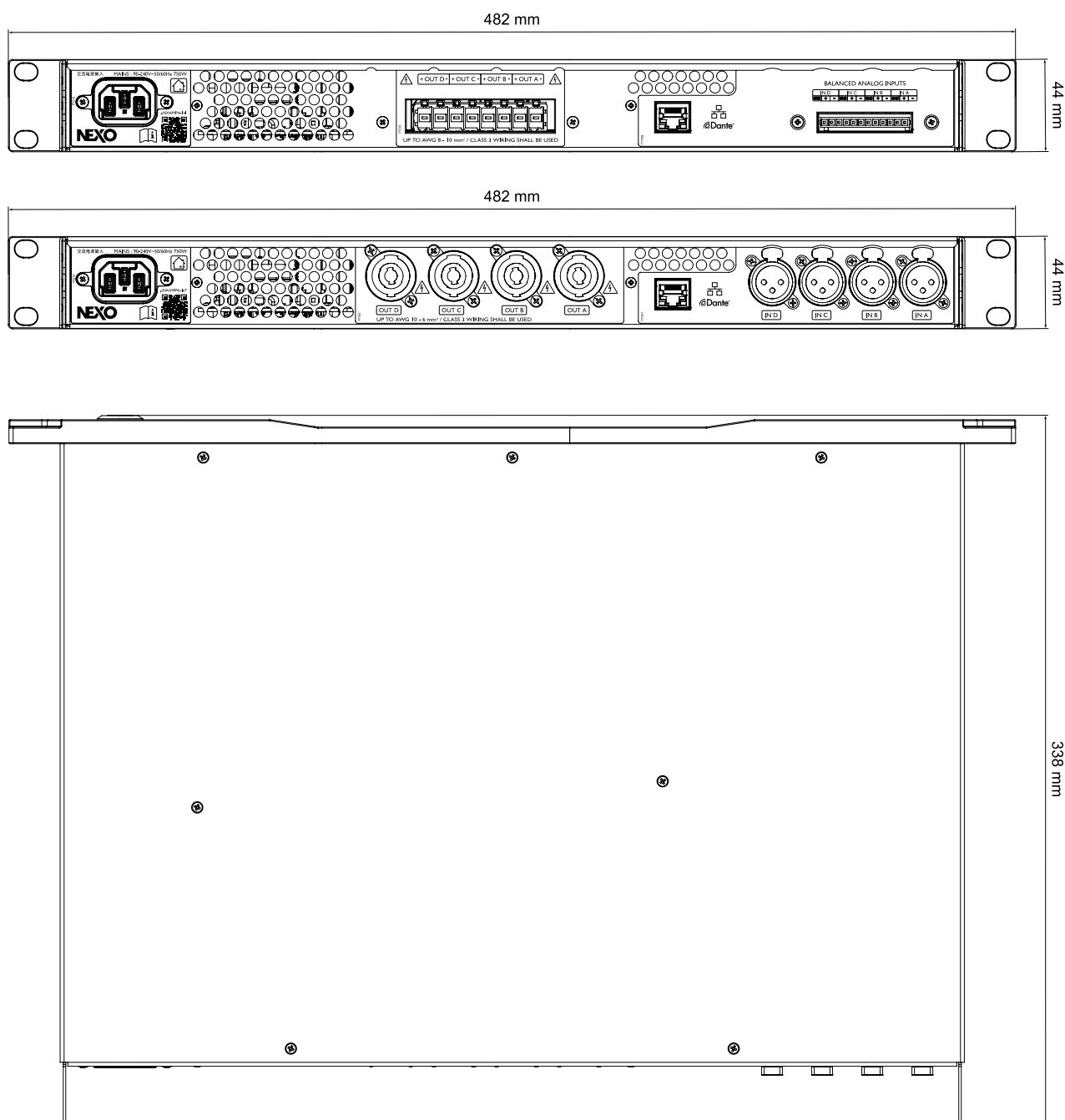
Mains voltage	Universal Power Supply with Active PFC 100 - 240 Volts (50/60 Hz)
Power consumption 1/4 max. 2 Ohms	1200 Watts

DIMENSIONS AND CERTIFICATIONS

Dimensions	1U 19" Rack, 502 mm (20") depth, 10 kg (22 lbs)
Electrical safety certification	cETLus, CB (CE), CCC, PSE, KC
EMC certification	CE, FCC
Green status	Compliant with ROHS & REACH directive

*Various Stand-by mode can be configured to minimize power consumption depending on use case.

DRAWINGS AND DIMENSIONS



INFORMATION FOR USERS ON COLLECTION AND DISPOSAL OF OLD EQUIPMENT



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(weee_eu_de_02)

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En vous débarrassant correctement des déchets d'équipements électriques et électroniques, vous contribuerez à la sauvegarde de précieuses ressources et à la prévention de potentiels effets négatifs sur la santé humaine qui pourraient advenir lors d'un traitement inapproprié des déchets.

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Pour les professionnels dans l'Union européenne :

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(weee_eu_es_02)

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