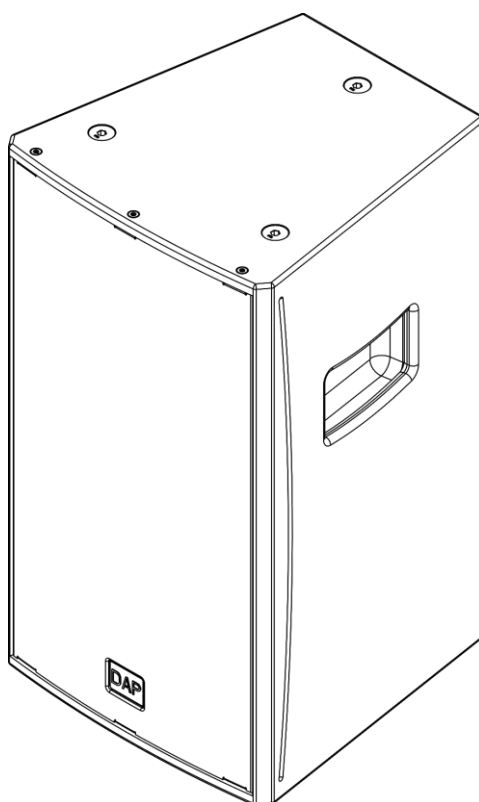# DAP

ENGLISH

NRG-8   V1

Product code: D3623

Preface

Thank you for purchasing this DAP product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Installation and operation of the device
- Intended and non-intended use of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

Table of contents

1. Introduction

1.1. Before Using the Product

	Important
	Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, examine the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- DAP NRG-8
- User manual
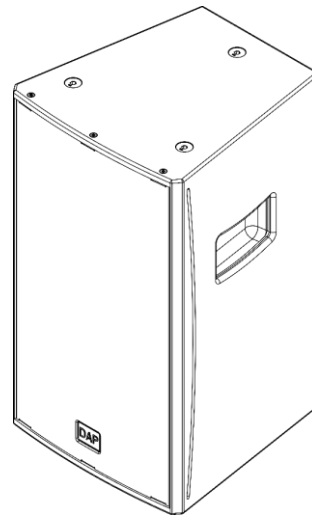
Fig. 01

1.2. Intended Use

This device is designed to be used as a passive full-range loudspeaker. It is suitable only for indoor use. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

1.3. Text Conventions

Throughout the user manual the following text conventions are used:

- References: References to chapters and parts of the device are in bold lettering, for example: "Refer to **2. Safety**", "press the **power switch (03)**"
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.4. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.

⚠	**DANGER**	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
⚠	**WARNING**	Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.
⚠	**CAUTION**	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
❗	**Attention**	Indicates important information for the correct operation and use of the product.
📖	**Important**	Read and observe the instructions in this document.
♻		Provides important information about the disposal of this product.

1.5. Symbols on the Information Label

This product is provided with an information label. The information label is located on the backside of the device.

The information label contains the following symbols:

⌂	This device is designed for indoor use.
♻	This device shall not be treated as household waste.
📖	Read and follow the instructions in the user manual before installing, operating or servicing the device.

2. Safety

	Important
	Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

2.1. Warnings and Safety Instructions

	DANGER
	Danger for children

For adult use only. The device must be installed beyond the reach of children.

● Do not leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach. Packaging material is a potential source of danger for children.

	WARNING
	Stability hazard

The device may fall if it is mounted on a distance pole, causing personal injury or death. The device is for use only with the stands that are recommended in this user manual.

● Make sure that the device is safely mounted on a distance pole.
● Do not place objects on the top of the device when it is mounted on a distance pole. These objects may fall and cause injury.

	Attention
	Speaker load

● Make sure that the total wattage of all connected speakers does not exceed the rated wattage of the amplifier.
● Make sure that the speaker cable run is appropriate for the total speaker load.

	Attention
	General safety

● Do not shake the device. Avoid brute force when installing or operating the device.
● If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
● If the device fails to work properly, discontinue the use immediately.

DAP

> **①** **Attention**
> **This device shall be used only for the purposes it is designed for.**

This device is designed to be used as a passive full-range loudspeaker. It is suitable only for indoor use. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not suitable for households.
- This device is not designed for permanent operation.
- This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

> **①** **Attention**
> **Before each use, examine the device visually for any defects.**

Make sure that:

- There are no deformations on the housing.
- The power cables are not damaged and do not show any material fatigue.

> **①** **Attention**
> **Do not expose the device to conditions that exceed the rated IP class conditions.**

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance and installation may be carried out by ordinary persons. Service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the installation, service and maintenance of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

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3. Description of the Device

The DAP NRG-8 is a passive full-range loudspeaker rated at 400 W peak (120 W continuous RMS). It uses an 8 " woofer and a 1 " compression driver.
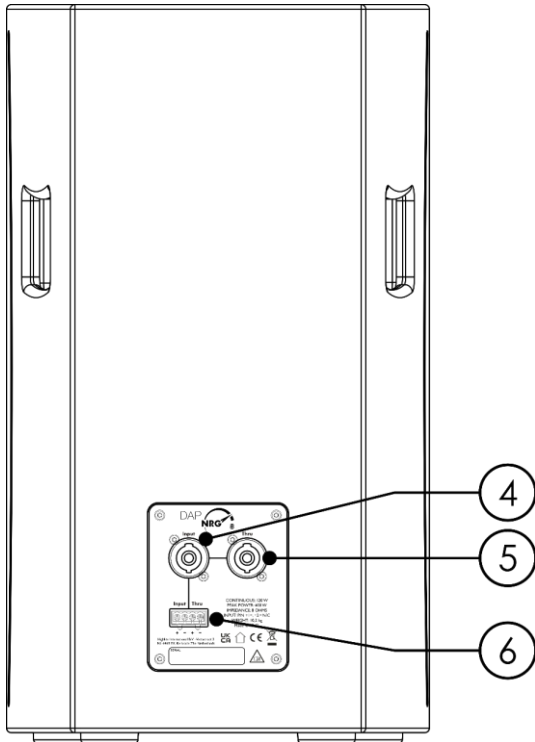
3.1. Front View
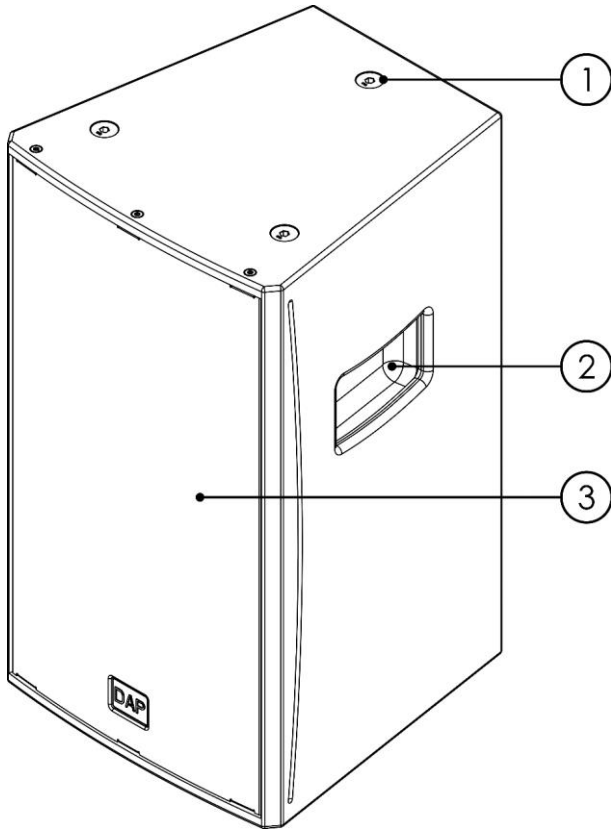
01) 3 mounting openings (M10) with hex screws
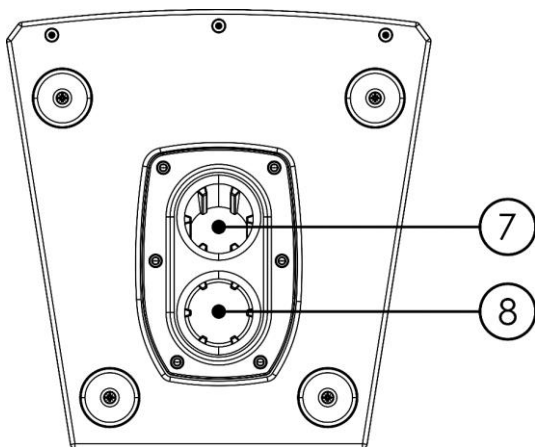02) 2 carrying handles
03) Speaker grill

Fig. 02

DAP

3.2. Back View

04) Speaker connector IN
05) Speaker connector THRU
06) 4-pin terminal connector (IN and THRU)

Fig. 03

3.3. Bottom View

07) Mounting opening 5° (Ø 35 mm)
08) Mounting opening 0° (Ø 35 mm)

Fig. 04

DAP

3.4.   Product Specifications

Model:	DAP NRG-8

Physical:	
Dimensions:	275 x 475 x 280 mm (W x H x D)
Weight:	10,2 kg

Inputs:	
RMS input power:	120 W
Peak input power:	400 W

Audio Specifications:	
Speaker system:	2-way
Speaker sensitivity (1 W/1 m):	93 dB
Speaker impedance	8 Ω
Maximum SPL at 1 m:	114 dB
Frequency response (-6 dB):	80–20000 Hz
Woofer diameter:	8 "
Woofer voice coil:	1,5 "
Woofer magnet type:	Ferrite
Compression driver diameter:	1 "
Compression driver voice coil:	1,4 "
Compression driver magnet type:	Ferrite
Dispersion angle (horizontal):	90°
Dispersion angle (vertical):	60°

Construction:	
Housing:	Plywood
Color:	Black
IP rating:	IP20

Connections:	
Passive input connection:	Speaker connector; 4-pin terminal connector
Passive output connection:	Speaker connector

Product Properties:	
Speaker adapter diameter:	Ø 35 mm
Speaker grill material:	Steel
Rigging eye thread:	M10

Thermal:	
Maximum ambient temperature t_a:	40 °C
Minimum ambient temperature t_a:	0 °C

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3.5.   Optional Accessories

You can additionally purchase the following accessories:

- D8600   Speaker Stand
- D8601   Speaker Stand 35mm Alu
- D8602   Speaker Stand with Baseplate
- D8436   Speaker hanging eye/ring 10mm (Black)
- D8610   Distance Tube 35 mm
- D8611   Distance Tube M20
- 75132   Multigrip Clamp Black
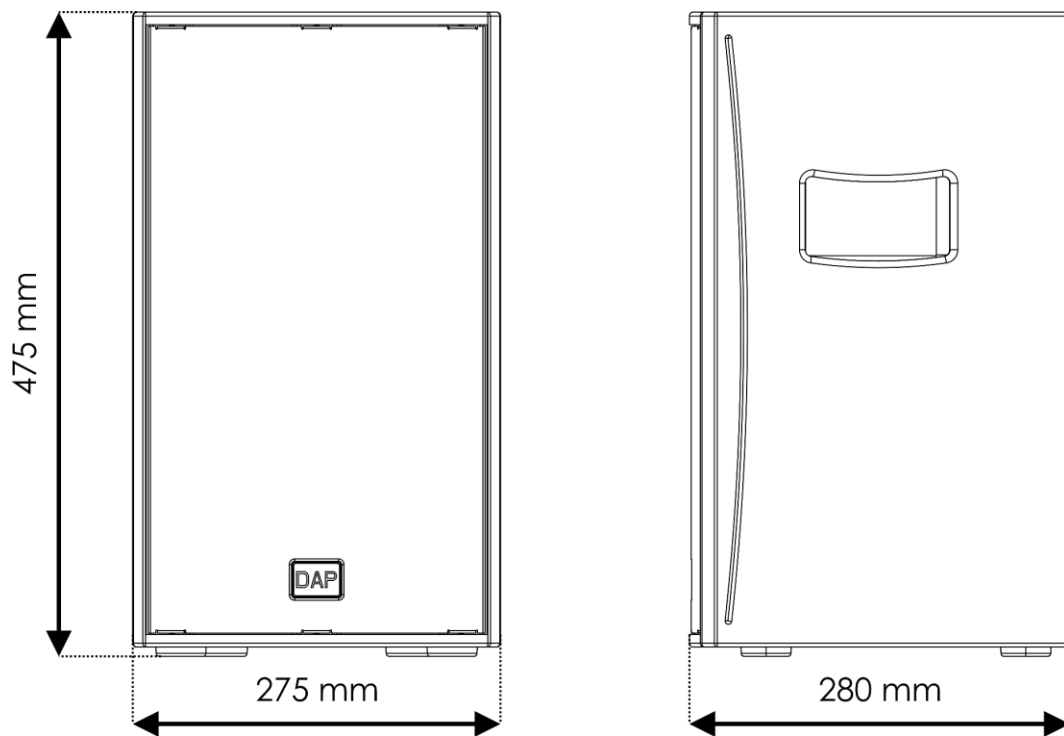- 75133   Spigot for Multigrip M10 x 25

3.6.   Dimensions

Fig. 05

4. Installation

4.1. Safety Instructions for Installation

⚠️	**WARNING** **Incorrect installation can cause serious injuries and damage of property.**

Installation must be carried out only by instructed persons.

Follow all applicable European, national and local safety regulations concerning rigging and trussing.

- Make sure that the overhead structure can hold the weight of the device.
- Make sure that the installation location is free of any obstructions and the speaker cables do not come in contact with other objects.

4.2. Personal Protective Equipment

During installation and rigging wear personal protective equipment in compliance with the national and site-specific regulations.

4.3. Installation Site Requirements

- The device must be installed only indoors.
- The device can be installed on a distance pole, on a speaker stand or suspended from an overhead structure.
- The maximum ambient temperature t_a = 40 °C must never be exceeded.
- The relative humidity must not exceed 90 % with an ambient temperature of 40 °C.

DAP

4.4. Mounting Options

The device can be mounted on a pole, on a speaker tripod, suspended from an overhead structure with cables/chains, or mounted to a truss with a clamp. See **3.5. Optional Accessories** on page 10.

The device has 2 **mounting openings (07)/(08)** on the bottom for upright (0°) or inclined installation (5°) on a pole and 3 **mounting openings (01)** on the top for suspended installation.

4.4.1. Installation on a Speaker Stand

⚠	**WARNING** **Stability hazard**

The device may fall if it is mounted on a speaker stand, causing personal injury or death. Make sure that the device is safely mounted.

Make sure that the speaker stand can support the weight of the device.

You can mount the device on a tripod stand or on a speaker stand with a baseplate. See **3.5. Optional Accessories** on page 10.

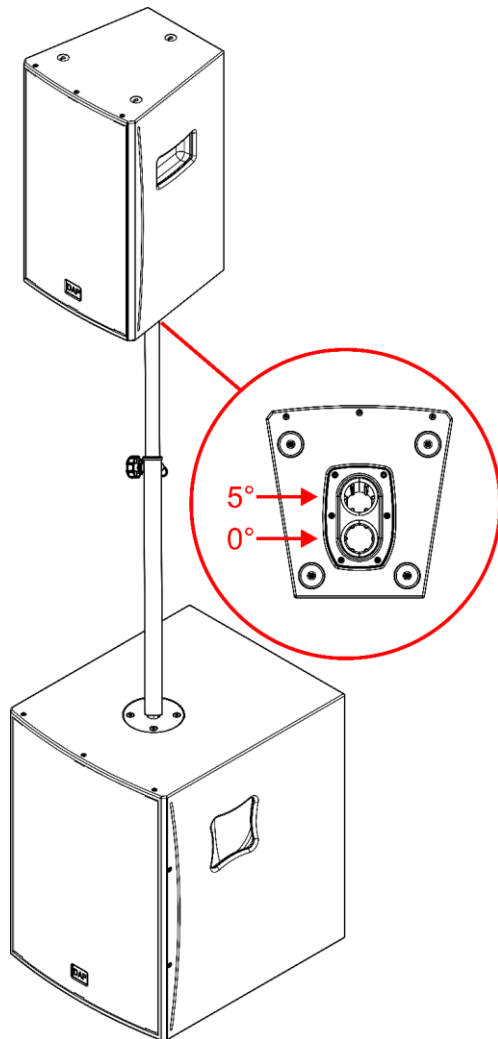To mount the device on a tripod stand:
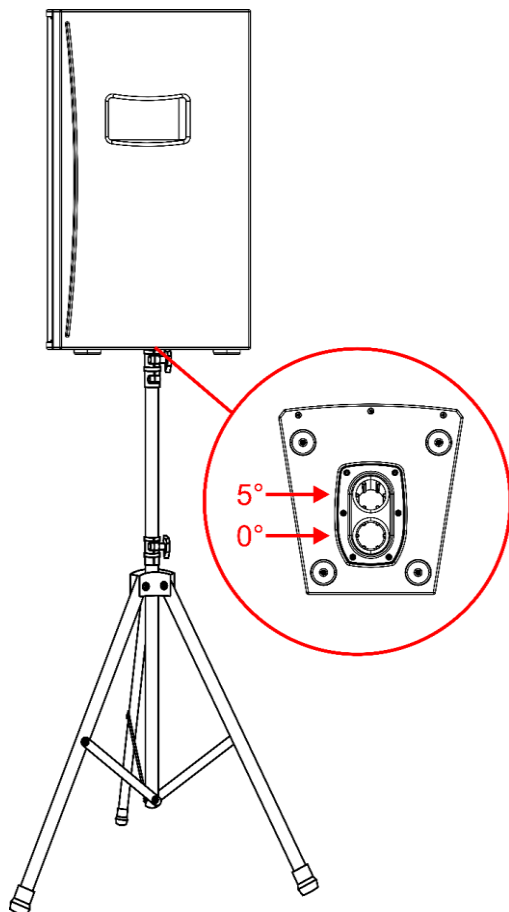
01) Put the tripod stand on a level stable surface.
02) Fully extend the legs of the tripod stand.
03) Lift the device above the tripod stand.
04) Put the device on top of the stand so that the tube of the tripod fits in one of the 2 **mounting openings (07)/(08)**.

Fig. 06

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4.4.2. Installation on a Distance Pole

You can stack the device on top of a subwoofer with a distance pole. See **3.5. Optional Accessories** on page 10.

To mount the device on a distance pole:

01) Put the subwoofer on a level stable surface.
02) Insert the distance pole into the threaded mounting opening on the top of the subwoofer.
03) Turn the distance pole clockwise to secure the distance pole to the subwoofer.
04) Lift the device above the tripod stand.
05) Put the device on top of the distance pole so that the tube of the distance pole fits in one of the 2 **mounting openings (07)/(08)**.

Fig. 07

4.4.3. Overhead Suspension

> ⚠️ **CAUTION**
> **Restrict the access under the work area during installation and/or deinstallation.**

You can suspend the device on an overhead structure from the 3 rigging points with 3 rigging eyes (M10, thread length: min 15 mm, max 30 mm). See **3.5. Optional Accessories** on page 10.

To suspend the device, follow the steps below:

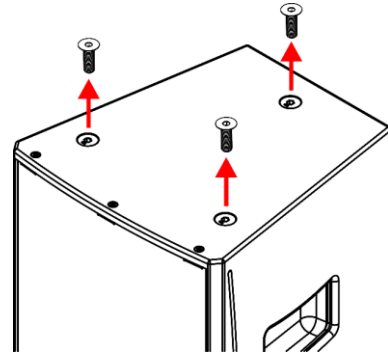01) Use a hex key to remove the 3 hex screws from the 3 **mounting openings (01)**.

Fig. 08

02) Insert the 3 rigging eyes (M10, thread length: min 15 mm, max 30 mm) in the 3 **mounting openings (01)**.
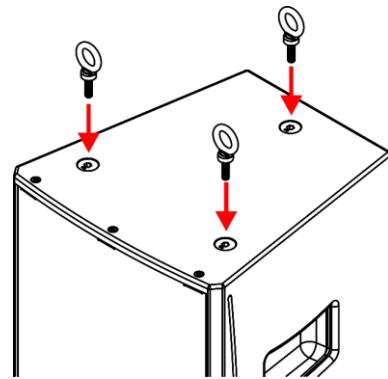
Note:

It is recommended to use fender washers under the rigging eyes to distribute the load on the enclosure.

03) Turn the 3 rigging eyes clockwise to tighten them.

Fig. 09

04) Make sure that the 3 rigging eyes are fully seated and oriented in the plane of pull.
05) Suspend the device on the overhead structure with suitable suspension cables/chains.

Note:

If the rigging eyes are removed, reinstall the hex screws in the 3 **mounting openings (01)**. If the screws are not installed in the 3 **mounting openings (01)**, air leaks occur in the enclosure. This results in undesirable performance of the device.
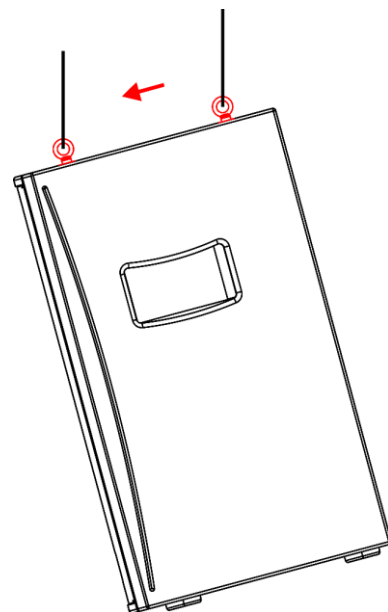
Fig. 10

4.4.4. Overhead Mounting with a Clamp

⚠	**CAUTION** **Restrict the access under the work area during installation and/or deinstallation.**

You can mount the device with a clamp to a truss. See **3.5. Optional Accessories** on page 10.

To mount the device, follow the steps below:

01) Use a hex key to remove the hex screw from the **mounting opening (01)** at the back end of the device.

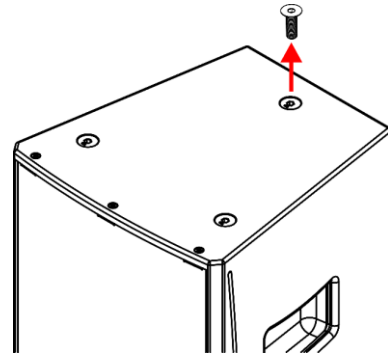**Fig. 11**

02) Insert a spigot (M10, thread length: min 15 mm, max 30 mm) in the **mounting opening (01)**.
03) Turn the spigot clockwise to tighten it.

Fig. 12

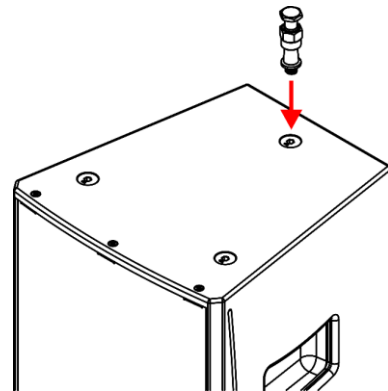04) Attach the clamp to the overhead structure.
05) Lift the device under the clamp and insert the spigot into the socket on the base of the clamp.

Note:

If the spigot is removed, reinstall the hex screw in the **mounting opening (01)**. If the screw is not installed in the **mounting opening (01)**, air leaks occur in the enclosure. This results in undesirable performance of the device.
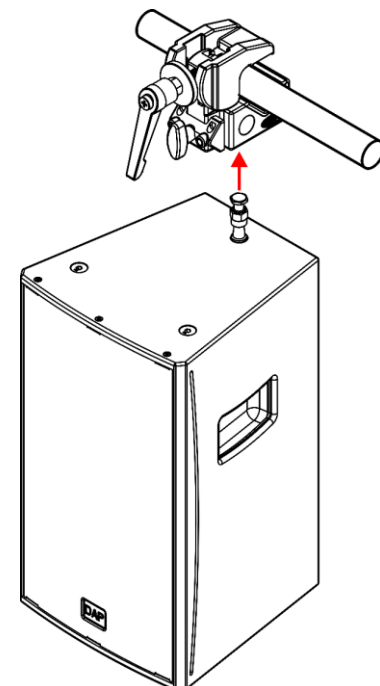
Fig. 13

DAP

5. Setup and Operation

5.1. Warnings and Precautions

> (!) **Attention**
> **This device must be used only for the purposes it is designed for.**

This device is designed to be used as a passive full-range loudspeaker. It is suitable only for indoor use.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

5.2. Connection Types

The devices has 2 types of connections:

● 2 speaker connectors (IN and THRU), and
● a 4-pin terminal connector (IN and THRU).

You can connect another device, a passive subwoofer and an amplifier to the device through one of the 2 connection types.

Note:

Make sure that the cable polarity is correct when you connect other devices through the **4-pin terminal connector (06)**.
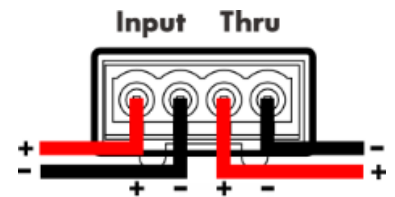
5.3. Setup Examples

> (!) **Attention**
> **Speaker load**

Make sure that the total load of all connected speakers is less than the maximum rating of the amplifier. If the total load is more than the maximum rating of the amplifier, this can damage the amplifier and the speakers.

To determine if the setup is correct:

01) Add up the wattage settings of all connected speakers.
02) Compare the value with the maximum rating of the amplifier.
03) Disconnect speaker(s) as necessary.

5.3.1. Stereo Setup

You can connect 2 full-range passive speakers NRG-8 in a basic stereo setup with an amplifier and an audio mixer.

To complete this setup:

01) Connect the **speaker connector IN (04)** of the 1st full-range passive speaker to the output A of the amplifier.
02) Connect the **speaker connector IN (04)** of the 2nd full-range passive speaker to the output B of the amplifier.

Note:

As an alternative you can use the **4-pin terminal connector (06)** to connect the device to other devices. See **5.2. Connection Types** on page 16.

Fig. 14

DAP

5.3.2. Setup with Multiple Passive Full-Range Speakers

You can use multiple full-range passive speakers NRG-8 as stage monitors and connect them to an amplifier and an audio mixer.

To complete this setup:

01) Connect the **speaker connector IN (04)** of the 1st full-range passive speaker to the output A of the amplifier.
02) Connect the **speaker connector THRU (05)** of the 1st full-range passive speaker to the **speaker connector IN (04)** of the 2nd full-range passive speaker. You can connect more full-range passive speakers on line A, as necessary.
03) Connect the **speaker connector IN (04)** of the 3rd full-range passive speaker to the output B of the amplifier.
04) Connect the **speaker connector THRU (05)** of the 3rd full-range passive speaker to the **speaker connector IN (04)** of the 4th full-range passive speaker. You can connect more full-range passive speakers on line B, as necessary.

Note:

As an alternative you can use the **4-pin terminal connector (06)** to connect the device to other devices. See **5.2. Connection Types** on page 16.
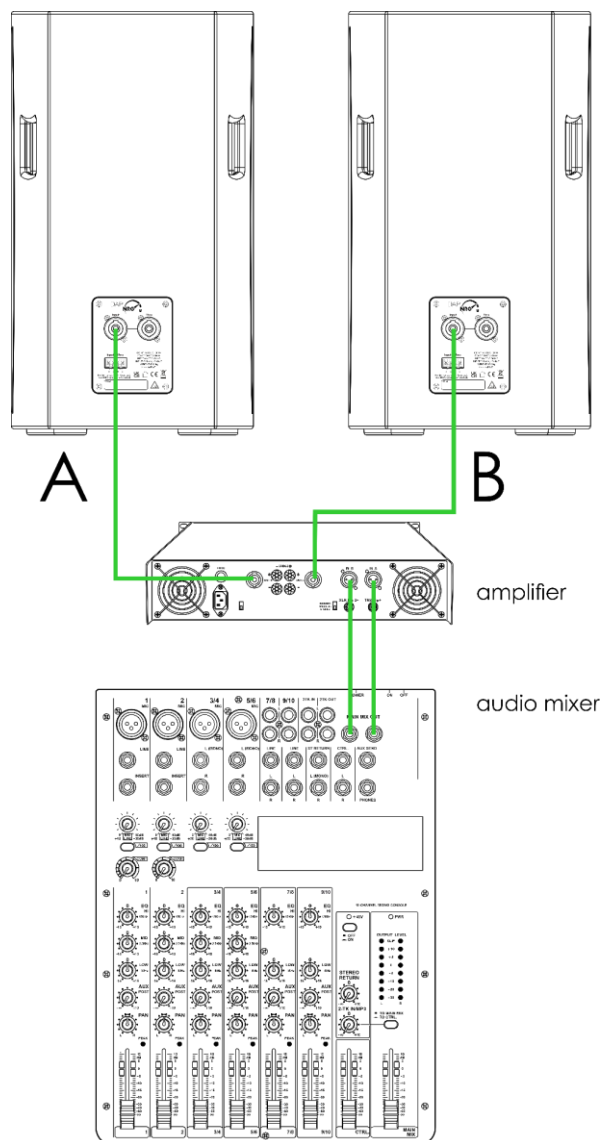

amplifier

audio mixer

Fig. 15

DAP
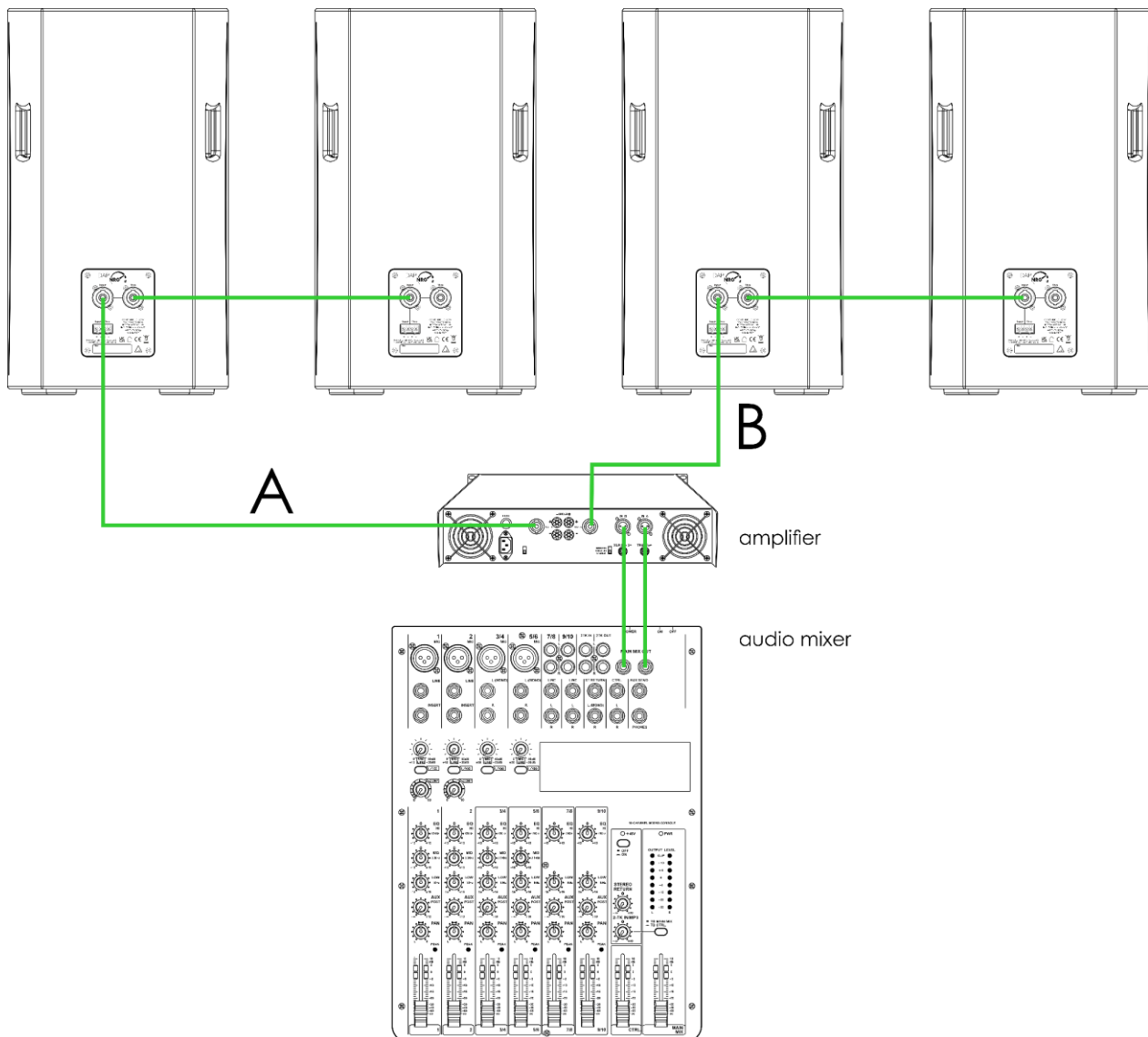
5.3.3. Setup with Passive Subwoofers

You can stack 2 full-range passive speakers NRG-8 with 2 passive subwoofers from the NRG range (NRG-12S/NRG-15S/NRG-18S) and connect them to an amplifier and an audio mixer.

To complete this setup:

01) Connect the **speaker connector IN (04)** of the 1st full-range passive speaker to the speaker connector THRU of the 1st passive subwoofer.
02) Connect the 1st passive subwoofer to the output A of the amplifier.
03) Connect the **speaker connector IN (04)** of the 2nd full-range passive speaker to the speaker connector THRU of the 2nd passive subwoofer.
04) Connect the 2nd passive subwoofer to the output B of the amplifier.

Note:

As an alternative you can use the **4-pin terminal connector (06)** to connect the device to other devices. See **5.2. Connection Types** on page 16.
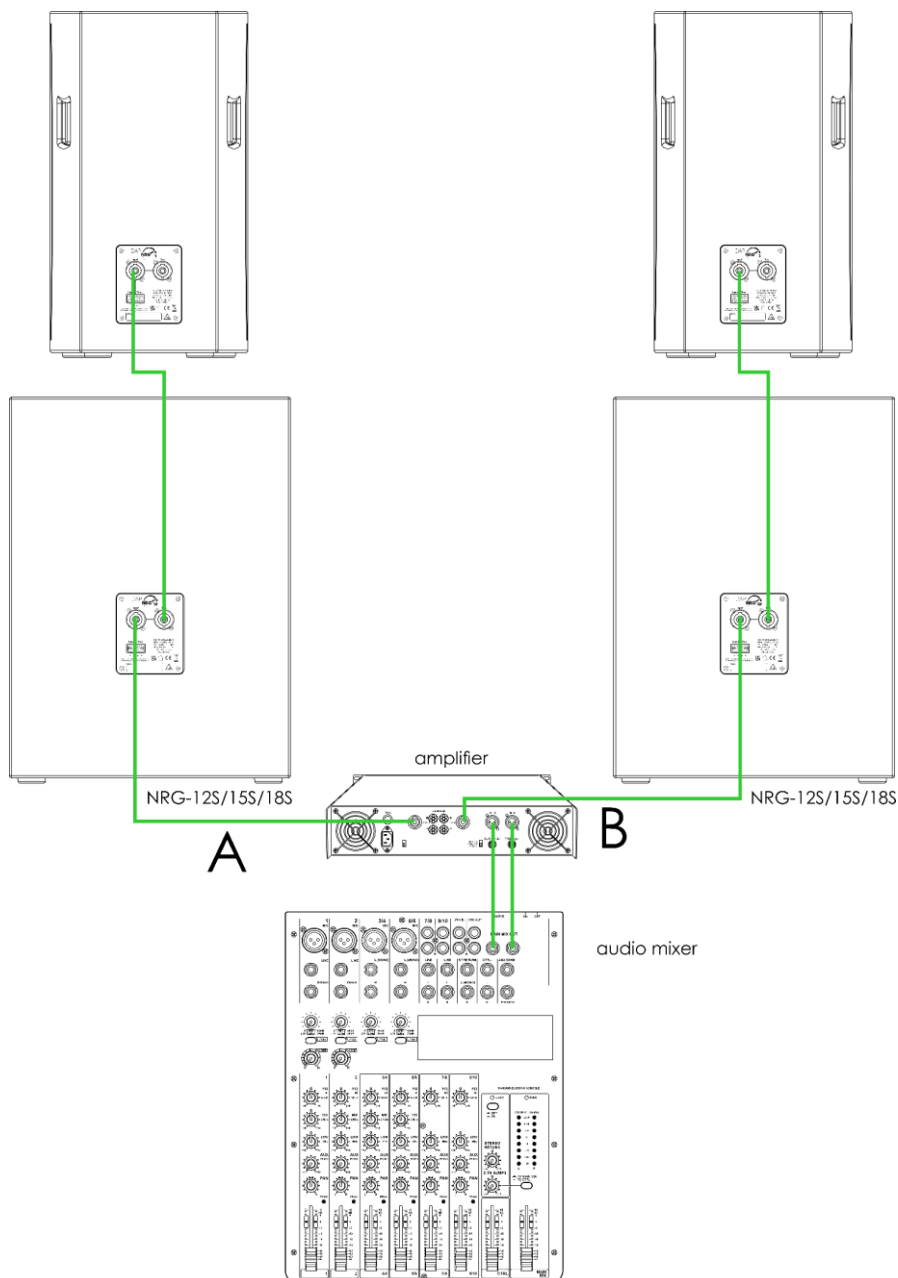

Fig. 16

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6.   Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution
No sound	Amplifier is defective	● Use a different amplifier
	Incorrect connections	● Make sure that the connections between the device and the amplifier are correct ● Make sure that the polarity is correct
Poor sound	Incorrect polarity	● Make sure that the polarity is correct
Intermittent output	Poor connections	● Make sure that the connections between the devices are correct. Replace damaged cables as necessary
Constant noise such as buzzing or hissing	Incorrect system grounding or a ground loop	● Make sure that the grounding of the system is correct. Correct the system grounding as necessary

7. Maintenance

7.1. Safety Instructions for Maintenance

⚠	**DANGER** **Electric shock caused by dangerous voltage inside**

Disconnect power supply before servicing or cleaning.

7.2. Preventive Maintenance

🛈	**Attention** **Before each use, examine the device visually for any defects.**

Make sure that:

● There are no deformations on the housing.
● The power cables are not damaged and do not show any material fatigue.

7.2.1. Basic Cleaning Instructions

To clean the device, follow the steps below:

01) Switch off the device.
02) Clean the device with a soft, lint-free cloth.

🛈	**Attention**

● Do not immerse the device in liquid.
● Do not use alcohol or solvents.

7.3. Corrective Maintenance

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

DAP

8. Deinstallation, Transportation and Storage

8.1. Instructions for Deinstallation

⚠️	**WARNING** **Incorrect deinstallation can cause serious injuries and damage of property.**

- Disconnect power supply before deinstallation.
- Always observe the national and site-specific regulations during deinstallation of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

8.2. Instructions for Transportation

- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

8.3. Storage

- Clean the device before storing. Follow the cleaning instructions in chapter **7.2.1. Basic Cleaning Instructions** on page 21.
- Store the device in the original packaging, if possible.

9. Disposal

Correct disposal of this product
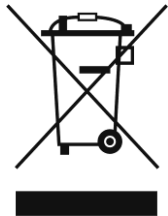
Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

10. Approval

$C\epsilon$ UK CA

Check the respective product page on the website of Highlite International (www.highlite.com) for an available declaration of conformity.

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