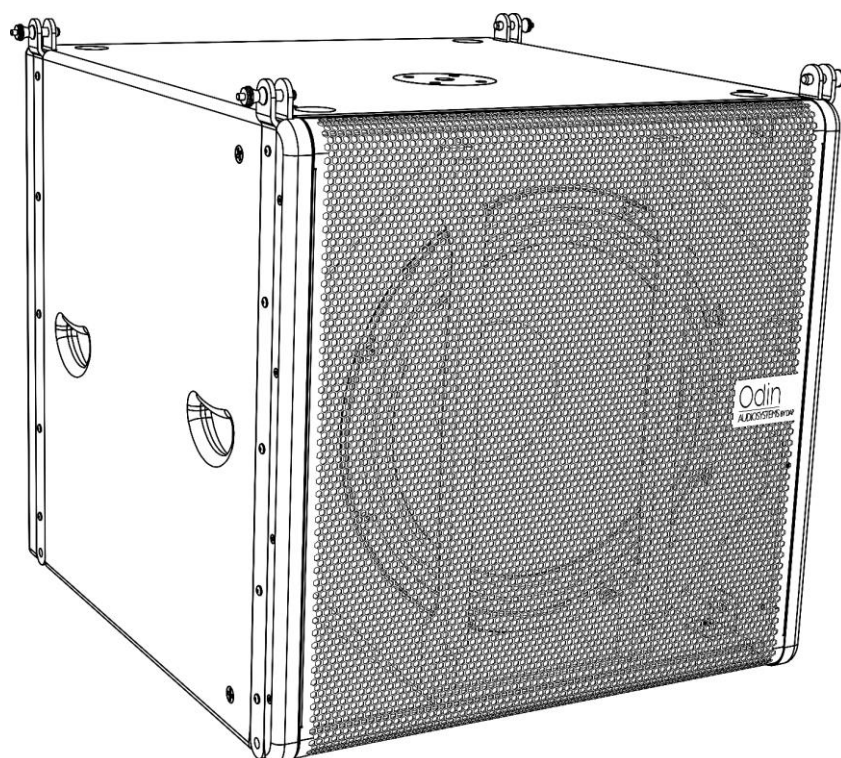


DAP

USER MANUAL



ENGLISH

Odin S-18 Line Array Sub

V1

Product code: D3971

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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.

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

Your shipment includes:

- DAP Odin S-18 Line Array Sub
- User manual

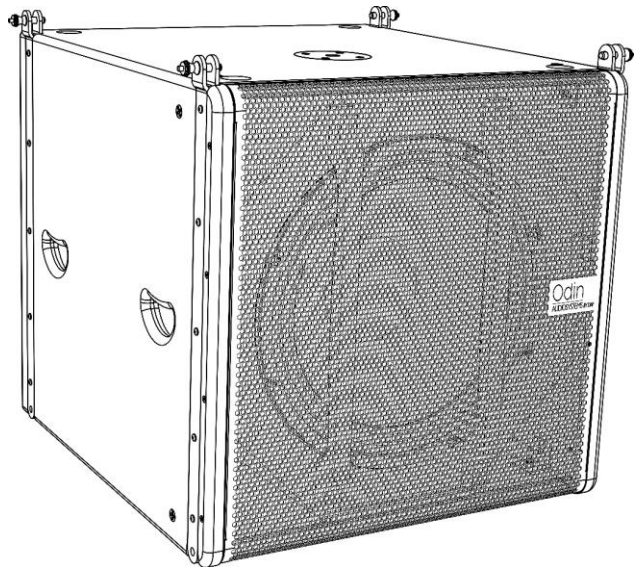


Fig. 01

1.2. Intended Use

This device is designed to be used as a passive line array subwoofer. 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.



Attention

Heavy object



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 bottom plate 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.



Caution: Risk of electric shock. Disconnect input power before opening.
Warning: This appliance must be earthed.

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.

**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**

Heavy object

- This device is heavy. When handling, use a two-person lift to prevent injury.

**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.

**Attention**

This device shall be used only for the purposes it is designed for.

This device is designed to be used as a passive line array subwoofer. 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.

**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.

**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 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.

3. Description of the Device

The DAP Odin S-18 is a passive line array subwoofer. You can combine this device with the DAP Odin T-8 or T-8A satellite loudspeakers, with the DAP Odin FB-02 Flybar (as an adapter) and the DAP Odin FB-01 Flybar.

3.1. Front View

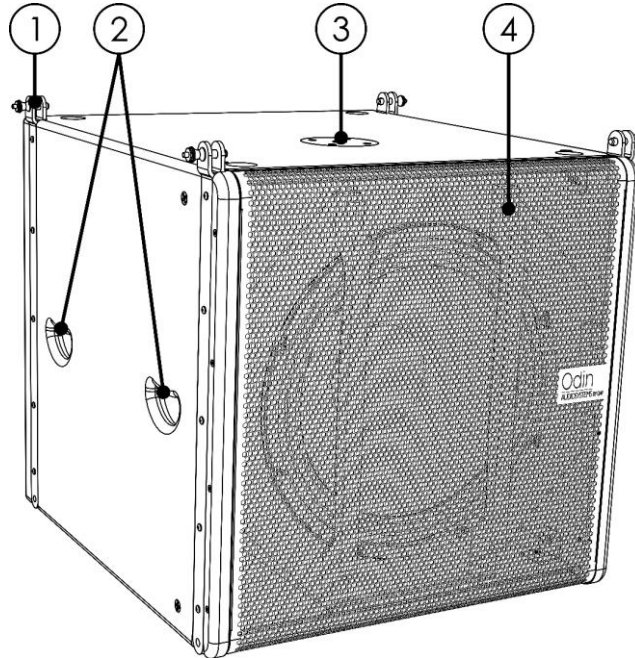


Fig. 02

- 01) 4 x spring-loaded pin
- 02) 4 x carrying handle
- 03) Mounting opening M20
- 04) Speaker grill

3.2. Back View

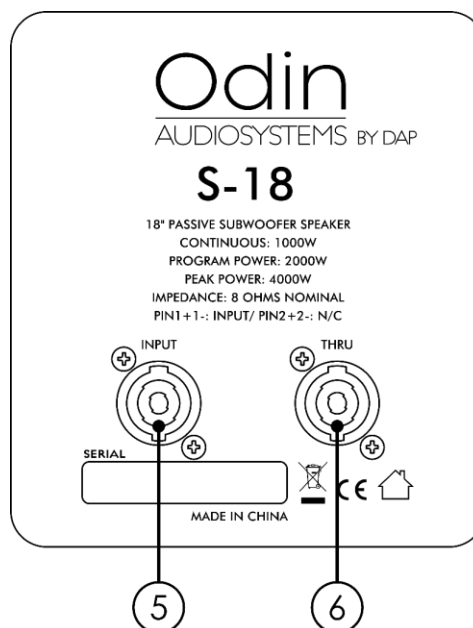


Fig. 03

- 05) Speaker connector IN
- 06) Speaker connector THRU

3.3. Product Specifications

Model:	DAP Odin S-18 Line Array Sub
Physical:	
Dimensions:	700 x 663 x 665 mm (L x W x H)
Weight:	56,9 kg
Inputs:	
RMS input power:	1200 W
Peak input power:	2400 W
Audio Specifications:	
Speaker system:	Subwoofer
Speaker sensitivity (1 W/1 m):	98 dB
Speaker impedance:	8 Ω
Maximum SPL at 1 m:	136 dB
Frequency response (-3 dB):	1–40 Hz
Woofer diameter:	18 "
Woofer voice coil:	4 "
Dispersion angle (horizontal):	360°
Dispersion angle (vertical):	180°
Construction:	
Housing:	Plywood
Color:	Black
IP rating:	IP20
Connections:	
Passive input connection:	Speaker connector IN
Passive output connection:	Speaker connector THRU
Product Properties:	
Speaker adapter diameter:	M20
Speaker grill:	Steel
Thermal:	
Maximum ambient temperature t_a :	40 °C
Minimum ambient temperature t_a :	0 °C

3.4. Optional Accessories

You can additionally purchase the following accessories:

- [D3910](#) (Odin FB-01 Flybar)
- [D3911](#) (Odin FB-02 Flybar)
- [D3912](#) (Odin PM-01 Polemount Adapter)
- [D3913](#) (Odin CA-01 Connection Adapter)
- [D8611](#) (DAP Distance Tube M20)

3.5. Dimensions

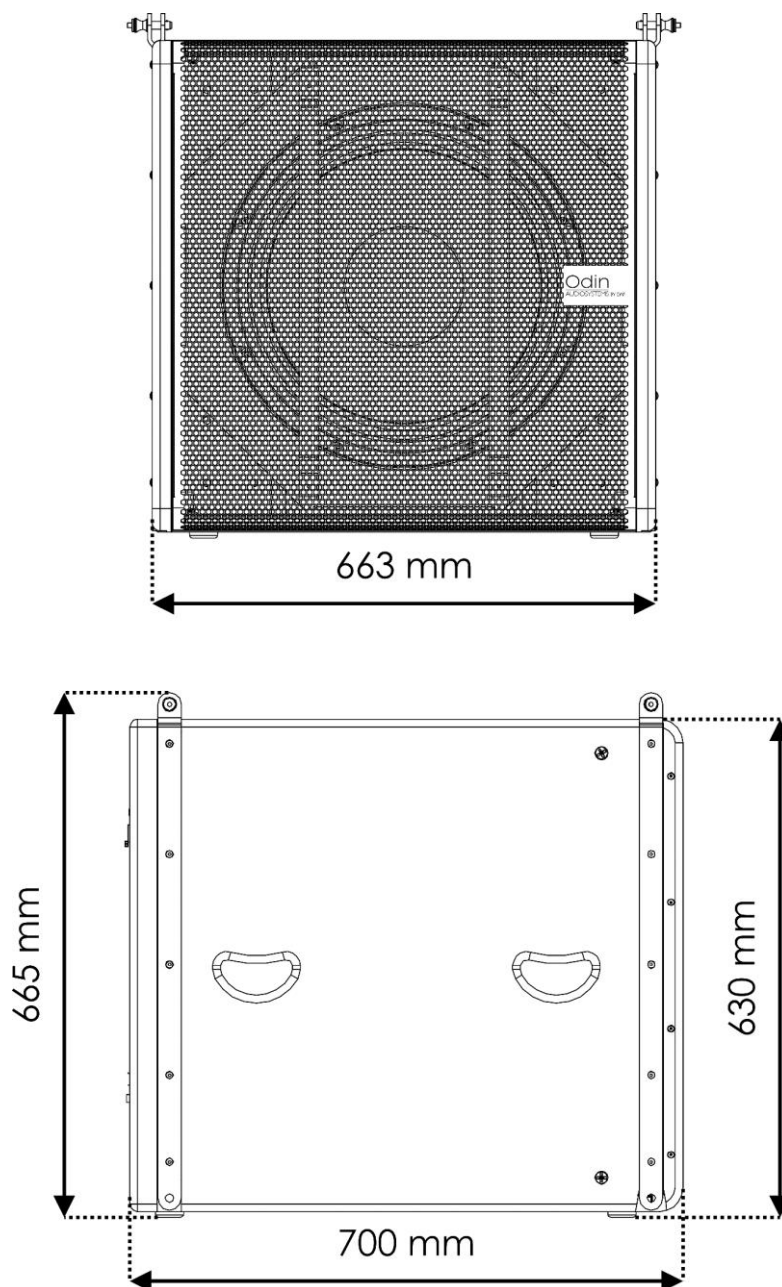


Fig. 04

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.



Attention

Heavy object

This device is heavy. When handling, use a two-person lift to prevent injury.

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 level stable surface, on a pole mount or it can be stacked and suspended on an overhead structure.
- The maximum ambient temperature $t_a = 40\text{ °C}$ must never be exceeded.
- The relative humidity must not exceed 90 % with an ambient temperature of 40 °C.

4.4. Stacking Multiple Devices

You can stack multiple Odin S-18 Line Array Sub devices in one setup.

To stack multiple devices, follow the steps below:

- 01) Put one device on another device.
- 02) Push and hold down the buttons of the **4 x spring-loaded pins (01)**.
- 03) Remove the **4 x spring-loaded pins (01)**.
- 04) Align the openings of top device with the openings of the bottom device.
- 05) Put the **4 x spring-loaded pins (01)** through the openings of the top and bottom devices.

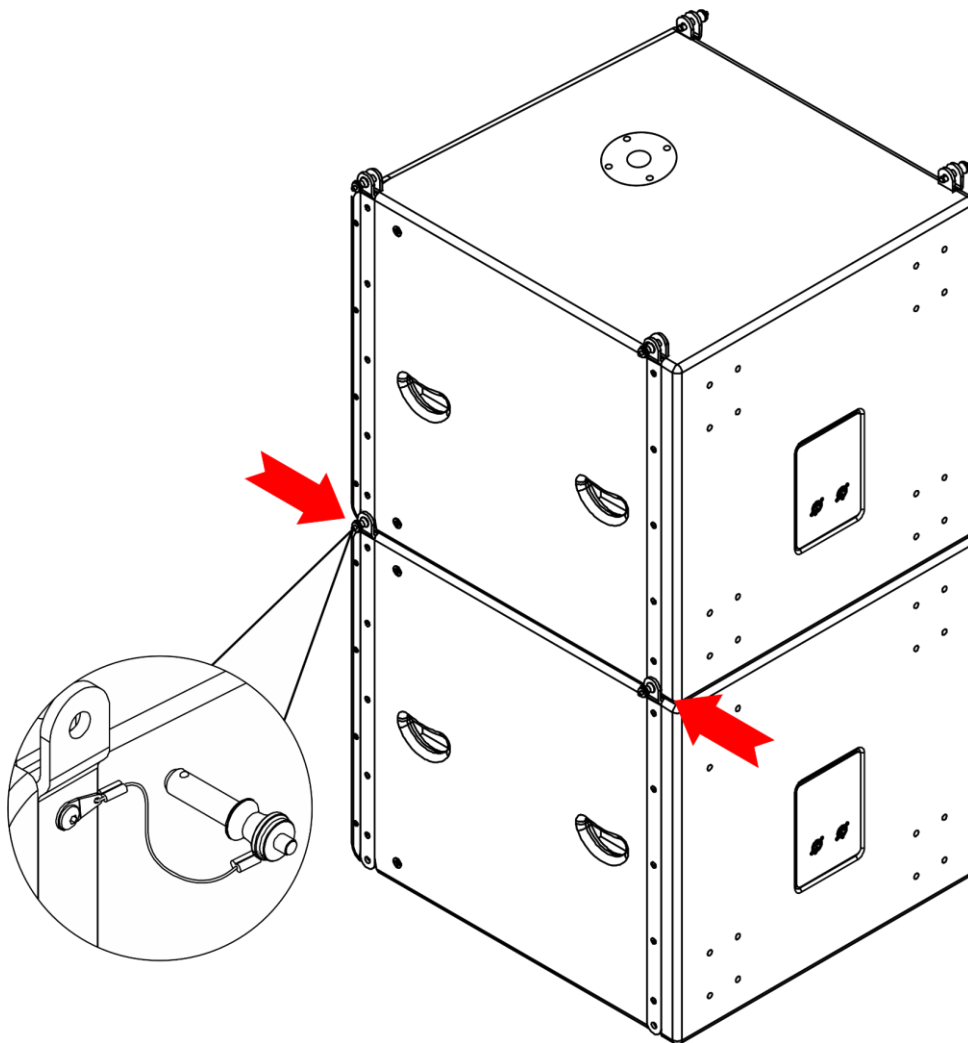


Fig. 05

4.5. Mounting Options



CAUTION

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

You can mount an array of devices in the following ways:

- on a level stable surface
- with a distance pole
- with a fly bar (Odin FB-01 or Odin FB-02)

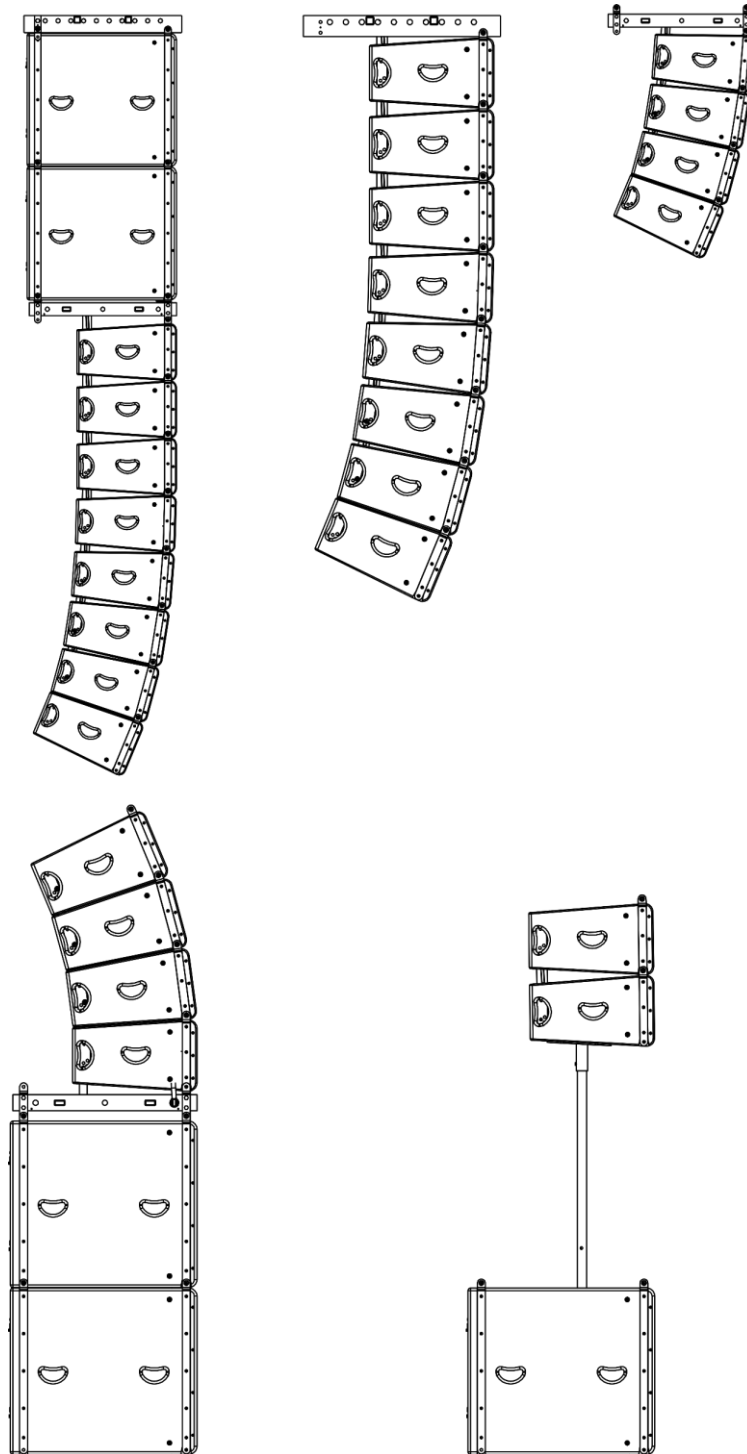


Fig. 06

4.5.1. Installation with a Distance Pole

You can create a setup of the Odin satellite speakers installed on top of the device, with an M20 distance pole (D8611). See **3.4. Optional Accessories** on page 8.

To install the devices with an M20 distance pole, follow the steps below:

- 01) Connect multiple Odin satellite speakers to each other.
- 02) Install the pole adapter on the lowest Odin satellite speaker.
- 03) Install the satellite speaker(s) on the distance pole.
- 04) Insert the other end of the distance pole into the opening of the device.

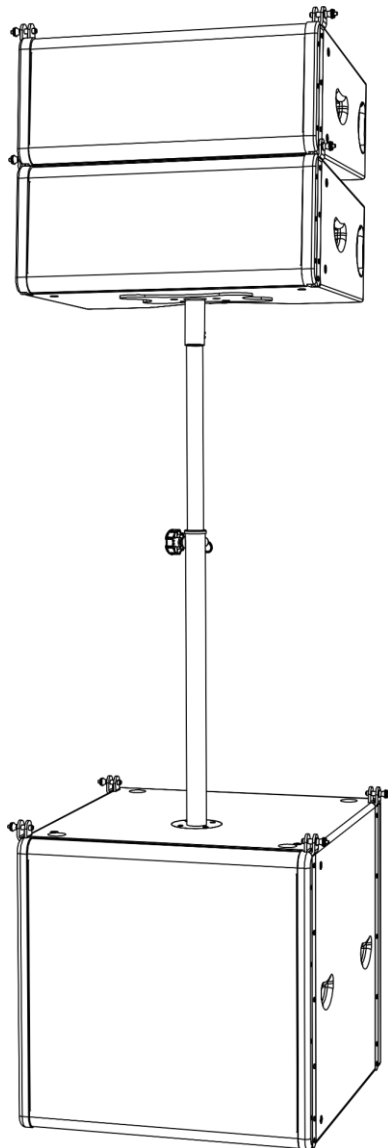


Fig. 07

4.5.2. Installation with the Odin FB-01 Flybar



WARNING

Do not hang more devices on one fly bar than the maximum allowed number.

To connect the device to the Odin FB-01 Flybar, follow the steps below:

- 01) Push and hold down the buttons of the **4 x spring-loaded pins (01)**.
- 02) Remove the **4 x spring-loaded pins (01)**.
- 03) Align the device with the fly bar.
- 04) Put the **4 x spring-loaded pins (01)** through the openings of the fly bar and of the device.

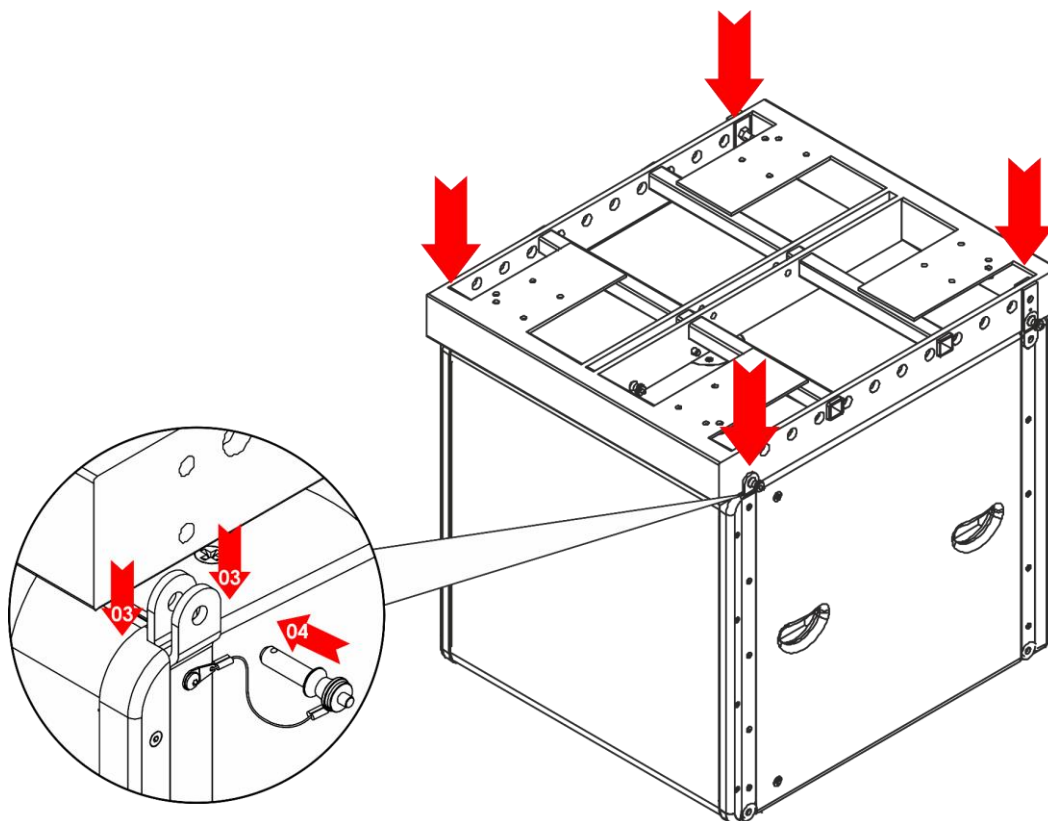


Fig. 08

4.5.3. Installation with the Odin FB-02 Flybar



WARNING

Do not hang more devices on one fly bar than the maximum allowed number.

To connect the device to the Odin FB-02 Flybar, follow the steps below:

- 01) Push and hold down the buttons of the **4 x spring-loaded pins (01)**.
- 02) Remove the **4 x spring-loaded pins (01)**.
- 03) Align the device with the fly bar.
- 04) Put the **4 x spring-loaded pins (01)** through the openings of the fly bar and of the device.

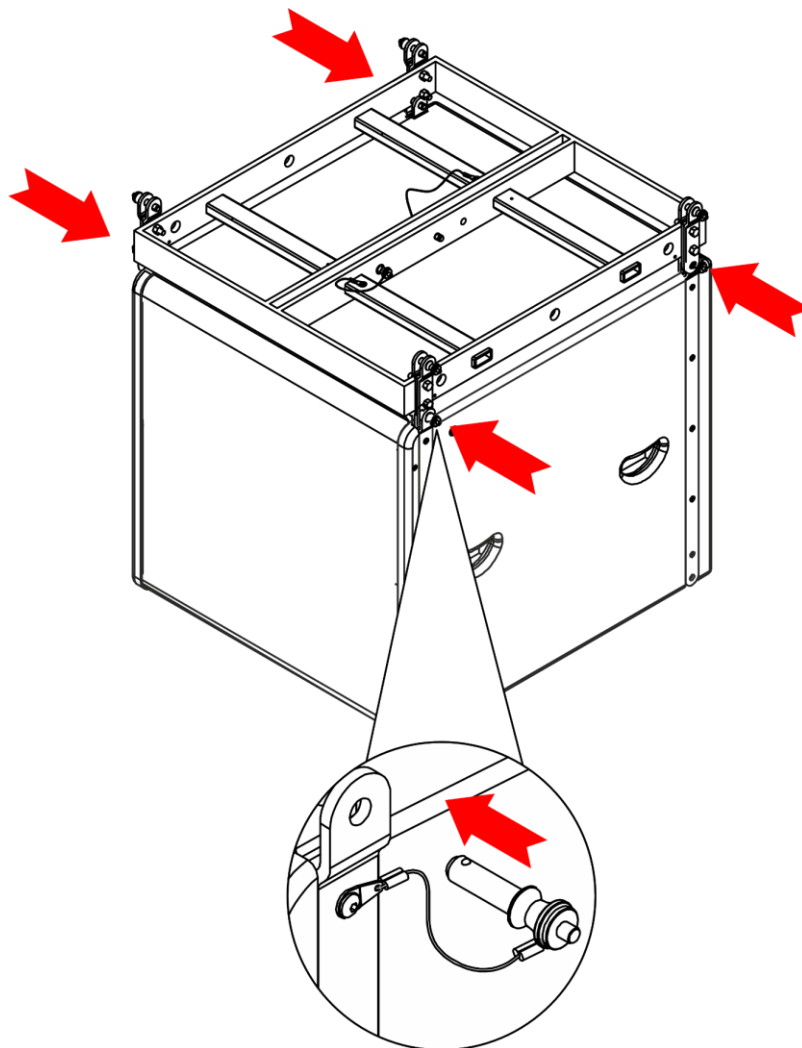


Fig. 09

5. Setup and Operation

5.1. Safety Instructions for Operation

**Attention**

This device must be used only for the purposes it is designed for.

This device is designed to be used as a passive line array subwoofer. It is suitable only for indoor use.

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

**Attention**

Power supply

Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.

5.2. Setup

You can combine the Odin devices and connect an audio mixer and an amplifier.

To connect the devices, follow the steps below:

- 01) Connect the Odin devices and the amplifier. See **5.2.1. Connecting the Amplifier** on page 16.
- 02) Connect the audio mixer to the amplifier.
- 03) Switch on the audio mixer and the amplifier.

After use:

- 01) Disconnect the Odin devices.
- 02) Switch off the audio mixer and the amplifier.

5.2.1. Connecting the Amplifier

**Attention**

Speaker load

Before connecting the amplifier to the power supply, make sure that the total load of all connected speakers is below the maximum rating of the amplifier. If the total load is higher, it may cause damage to the amplifier and to the speakers.

To determine if the settings are 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.

To connect the device to a conventional amplifier and connect multiple speakers to each other:

- 01) Connect the **speaker connector IN (05)** of the first device to the output of the amplifier.
- 02) Connect the **speaker connector THRU (06)** of the first device to the **speaker connector IN (05)** of the second device.
- 03) Repeat step 2 to connect multiple devices as shown in Fig. 10.

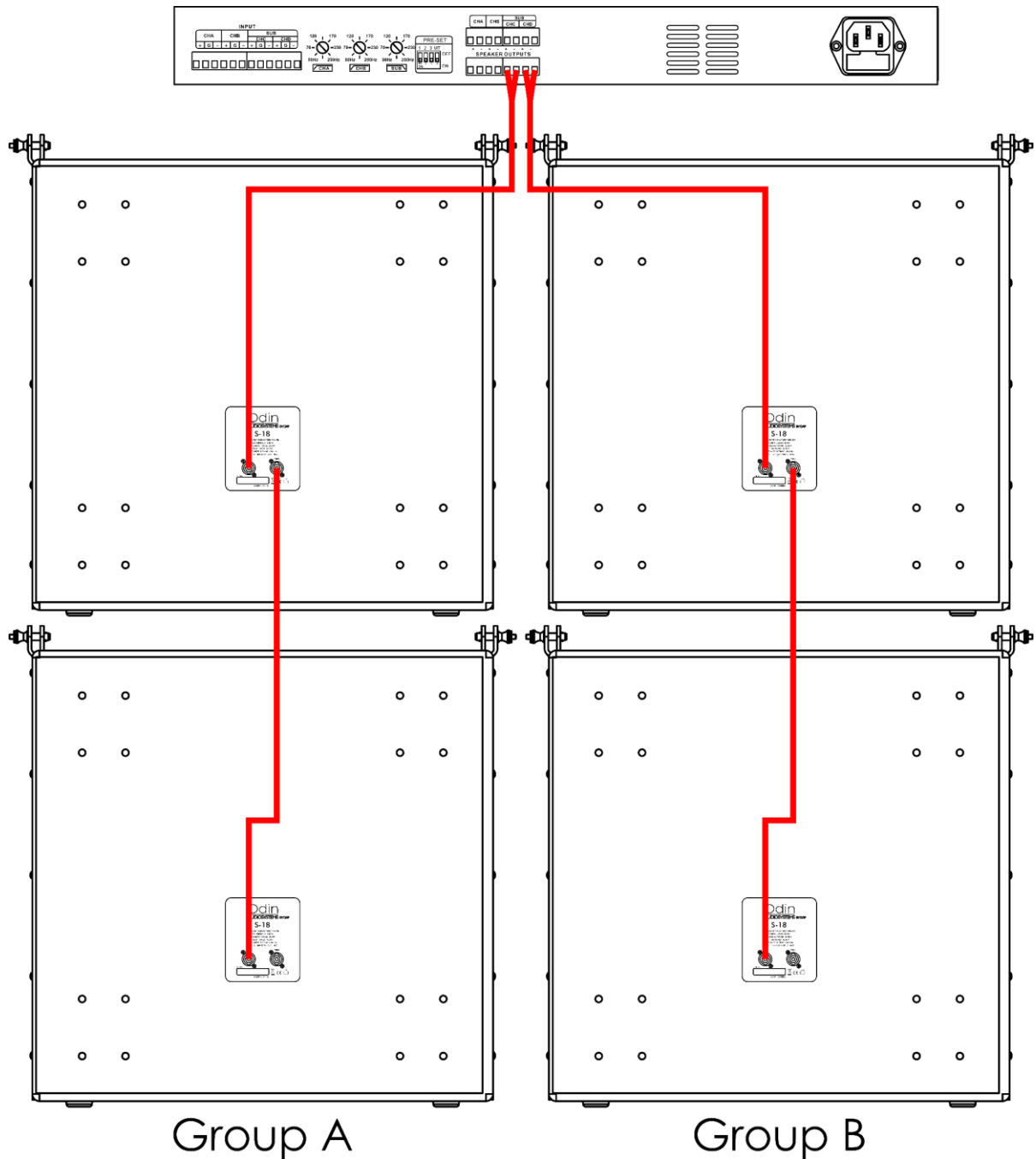


Fig. 10

Note:

- Recommended high pass: 30 Hz
- Recommended low pass: 110 Hz

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	<ul style="list-style-type: none"> • Use a different amplifier
	Incorrect connections	<ul style="list-style-type: none"> • Make sure that the connections between the device and the amplifier are correct
Intermittent output	Poor connections	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Make sure that the grounding of the system is correct. Correct the system grounding as necessary

7. Maintenance

7.1. 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.

7.1.1. 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.

7.2. 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.

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

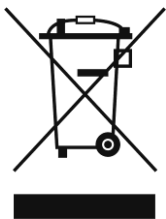
- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

8.3. Storage

- Clean the device before storing. Follow the cleaning instructions in chapter **7.1.1. Basic Cleaning Instructions** on page 18.
- 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



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

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