1 - Safety information

Important safety information

This unit is intended for indoor use only. Do not use it in a wet, or extremely cold/hot locations. Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to this product or other property.

This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.

Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning operations must thoroughly follow our safety instructions.

**WARNING**: This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact your nearest dealer.

In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no defect.

**Risk of electrocution**

To prevent the hazard of electric shocks, do not use extension cords, multi-socket or any other connection system without making sure metal parts completely are out of reach.

**Sound levels**

Our audio solutions deliver important sound pressure levels (SPL) that can be harmful to human health when exposed during long periods. Please do not stay in close proximity of operating speakers.

**Recycling your device**

- As HITMUSIC is really involved in the environmental cause, we only commercialise clean, ROHS compliant products.
- When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

**Symbols used**

- This symbol signals an important safety precaution.
- The CAUTION symbol signals a risk of product deterioration.
- The WARNING symbol signals a risk to the user’s physical integrity. The product may also be damaged.
Instructions and recommendations

1 - Please read carefully:
We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit.

2 - Please keep this manual:
We strongly recommend to keep this manual with the unit for future reference.

3 - Operate carefully this product:
We strongly recommend to take into consideration every safety instruction.

4 - Follow the instructions:
Please carefully follow each safety instruction to avoid any physical harm or property damage.

5 - Avoid water and wet locations:
Do not use this product in rain, or near washbasins or other wet locations.

6 - Installation:
We strongly encourage you to only use a fixation system or support recommended by the manufacturer or supplied with this product. Carefully follow the installation instructions and use the adequate tools. Always ensure this unit is firmly fixed to avoid vibration and slipping while operating as it may result in physical injury.

7 - Ceiling or wall installation:
Please contact your local dealer before attempting any ceiling or wall installation.

8 - Ventilation:
The cooling vents ensure a safe use of this product, and avoid any overheating risk. Do not obstruct or cover these vents as it may result in overheating and potential physical injury or product damage. This product should never been operated in a closed non-ventilated area such as a flight case or a rack, unless cooling vents are provided for the purpose.

9 - Heat exposure:
Sustained contact or proximity with warm surfaces may cause overheating and product damages. Please keep this product away from any heat source such as a heaters, amplifiers, hot plates, etc...

10 - Electric power supply:
This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product.

11 - Power cords protection:
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture.

12 - Cleaning precautions:
Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

13 - Long periods of non use:
Disconnect the unit’s main power during long periods of non use.

14 - Liquids or objects penetration:
Do not let any object penetrate this product as it may result in electric shock or fire. Never spill any liquid on this product as it may infiltrate the electronic components and result in electric shock or fire.

15 - This product should be serviced when:
Please contact the qualified service personnel if:
- The power cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the appliance.
- The appliance has been exposed to rain or water.
- The product does not appear to operate normally.
- The product has been damaged.

16 - Inspection/maintenance:
Please do not attempt any inspection or maintenance by yourself. Refer all servicing to qualified personnel.

17 - Operating environment:
Ambient temperature and humidity: +5 - +35°C, relative humidity must be less than 85% (when cooling vents are not obstructed). Do not operate this product in a non-ventilated, very humid or warm place.
2 - Introduction

Creating a discreet sound system with both an attractive design and high-quality output regardless of its location or usage is one of the hardest challenges to face.

This concept is appealing, for both permanent and temporary installations. Our CUBsat4 speaker can be added to any regular multi-source installation, of course, but it can also be part of Line Array columns thanks to its smart coupling and angulation system, with up to 8 speakers per column.

Under this scenario, no need for a multitude of amplifiers or power sources since each speaker features its own built-in cabling system: only one amplifier is required to power up both your columns of 8 x CUBsat4.

3 - Quick start

When mounting a speaker onto any stand, always ensure that the stand is on a flat, level surface, with the legs fully extended. Be sure to check that the maximum load weight for the stands is greater than the weight of the ARRAY SYSTEMS loudspeaker. Never use a stand with a maximum load weight lower than the speaker. Do not attempt to mount more than one speaker on a stand at one time.

The ARRAY SYSTEMS loudspeakers are heavy. It is recommended that a second person to help place the cabinet on a stand.

When the speaker is placed on a stand, always check the integrity and center of gravity of the system. If the speaker can be tipped easily, or the pole is swaying, it is recommended that you lower the height of the stand. Position the stand and route cables so that the performers and the audience cannot tip over or trip on the system.
4 - Satellite layout of the connection panel

One module CUBsat4

More module

Versatile mounting options
Compared to many other speaker designs, the satellite Series is remarkably easy to install in several ways. It can be hung easily with chains, strong wires and cables using the accessory brackets. There are also options for hanging with a pre-install frame by itself or configured with a subwoofer. There are also other options including ceiling and wall brackets as well as an adapter for use with a dedicated stand.

The bracket support wall and ceiling mounting with most 8 modules. The direction and angle can be adjusted from any side.
Connect Manner

1- Align two units to make the latch hole in the same line. Insert the latch and lock the screw tightly.
2- Adjust the angles of the unit (four angles: 0°-4°-8°-12 can be adjusted), insert the rear connecting pin into the related slot and put the latch into the hole.

You can insert each three different holes when connecting the rear bracket. You can obtain different sound by different angles.
Adjustable sound dispersion (for example four pcs)
A system in configured by vertically stacking four speaker modules with a total driver complement of four woofers and 12 tweeters positioned along the baffle surface, this configuration allows the variable directivity control and low-frequency dispersion control comparable to using a large constant-directivity horn speaker. A choice of four directivities angles (0, 4, 8 and 12 degrees) can be employed as needed. For instance, a specific directivity angle, or each module can have its directivity independently set for a specific coverage requirement. When two or multiple modules are connected to configure an arc, they effectively function as an immense single speaker controlling directivity for considerably lower frequencies. As a result, public address functions demonstrate optimal intelligibility even in environments with long reverb times.

Minimal reflective effects
Whether mounted on the wall or ceiling, the satellite is remarkably free from the comb filter and interference effects often encountered with other speaker designs. It can therefore produce more low frequency output even when mounted on the wall or ceiling.
5 - Satellite back panel description

1 **INPUT**
Receive the power coming from an external power amplifier.

2 **PARALLEL OUT**
Power output for another product to parallel, parallel and input are link.

3 **SERIE OUT**
Power output for another satellite speaker to series.

4 **SERIES OUT slide**
Parallel or Series Transform Switch

   a. Set the slide switch at «OFF» position to make the product in parallel.
   b. Set the switch at «ON» position to make products in series, but the slide switch of the last product has to set at «OFF» position
6 - Satellites connection

Down connection

See safety instructions in section 7
Up connection

See safety instructions in section 7
7 - Satellite technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>CUBsat4</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>4” Two-way passive system</td>
</tr>
<tr>
<td>Rated Power</td>
<td>30W RMS/ 90W PEAK</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>88dB Continuous/ 91dB Peak</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>100Hz-20kHz (-10dB)</td>
</tr>
<tr>
<td>Crossover Frequency</td>
<td>3.0kHz passive</td>
</tr>
<tr>
<td>Transducer Low</td>
<td>4” (105 x 105mm) Neodymium Woofer, 1” Voice Coil 8 ohms</td>
</tr>
<tr>
<td>Transducer High</td>
<td>3 x 0.5” (13mm) soft dome tweeters / 16 ohms</td>
</tr>
<tr>
<td>Dispersion (-6dB)</td>
<td>110° Horizontal, 20° Vertical</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Aluminum Alloy Cabinet</td>
</tr>
<tr>
<td>Finish</td>
<td>Resistant Black Paint</td>
</tr>
<tr>
<td>Connectors</td>
<td>Parallel or Series 6.3mm Socket / Selection Switch</td>
</tr>
<tr>
<td>Fittings Information</td>
<td>Steel stirrup material, 3 Flying Points M6 Threaded sockets (3 in top)</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>(W)141mm x (H)170mm x (D)162mm</td>
</tr>
<tr>
<td>Net Weight</td>
<td>1.46kg</td>
</tr>
</tbody>
</table>

**Satellite Line Array**

<table>
<thead>
<tr>
<th>Single channel configuration</th>
<th>Array Power Rating (AES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 module array</td>
<td>1 channel - 8 Ohms</td>
</tr>
<tr>
<td>2 module array</td>
<td>1 channel - 4 Ohms</td>
</tr>
<tr>
<td>4 module array</td>
<td>1 channel - 8 Ohms</td>
</tr>
<tr>
<td>6 module array</td>
<td>1 channel - 5.33 Ohms</td>
</tr>
<tr>
<td>8 module array</td>
<td>1 channel - 4 Ohms</td>
</tr>
</tbody>
</table>

**SAFETY INSTRUCTIONS**

Be sure to observe the minimum impedances of your amplifiers or you could burn the diaphragms of your speakers or damage your amplifiers. Any wiring errors will not be covered by warranty.
8 - Sub layout of the connection panel

Configuring the CUBsub112 / CUBsub208 Subwoofer

Before you start plugging in cables, you should take a minute to decide how you want to interface your new subwoofer. Most system set-ups fall into one of two categories: Mono or Stereo sub operation.

Mono Sub Operation

In most cases, a common (mono) sub bass setup is preferable. Low frequencies produced by a sub-woofer tend to be non-directional. Since low frequency waves take so much space to develop, it is difficult for the ear to tell if sub bass is coming from the left or right side (unless you are in a very large room). Because of this phenomenon, just about all sub bass material is mixed in mono.

Stereo Sub Operation

In larger rooms, as well as in theaters and theme park installations (for low frequency special audio effects), two or more subwoofers can be used in stereo. For additional low-end, you can daisy chain a pair of subwoofers to each side of your speaker system using the parallel outputs.

Positioning the Subwoofer

The placement of the subwoofer can affect the overall performance of your system since room acoustics may create standing waves, an acoustical phenomenon that causes certain bass frequencies to sound louder. Here are a few points you should consider when setting up your system, which can help you achieve optimal performance in your space.

The ideal placement of the subwoofer is as close to the main front of house speakers as possible, in order to blend the satellites and subwoofer. Mounting the satellite speakers on top of the subwoofer allows you to align the drivers. The closer the subwoofer is to a wall, the louder the bass frequencies will sound, and you can adjust the mix between the subwoofer and satellite speakers by moving the subwoofer closer to and further from a wall.

Avoid placing the subwoofer in a corner. This can make the subwoofer appear to be louder, but only for a limited frequency band, and will make the mix sound «boomy» and not well defined. The best way to increase the overall level of bass is to add a second subwoofer.
9 - Subwoofer back panel description

1 INPUT
Receive the power coming from an external power amplifier. Speakon +1/-1 connected; Speakon +2/-2 not connected.

2 LINK
Power output for satellite speaker, under passive crossover filtered at 180 Hz. Speakon +1/-1 connected; Speakon +2/-2 not connected.

3 4 pins screw terminal

Screw terminal 4P

Speaker +
Speaker -

Connected
Not connected

Speakon NL4MP x 2
## 10 - Subwoofer technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>CUBsub208</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>2 x 8&quot; passive Bandpass Subwoofer</td>
</tr>
<tr>
<td>Rated power</td>
<td>300W, 600W max.</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>121 dB Continous / 124dB max</td>
</tr>
<tr>
<td>Frequency response</td>
<td>52 Hz - 800 Hz (-10 dB)</td>
</tr>
<tr>
<td>Impedance</td>
<td>4 Ohms</td>
</tr>
<tr>
<td>Transducer</td>
<td>2 x 8&quot; woofer (208 mm), 2&quot;coil</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Plywood Cabinet</td>
</tr>
<tr>
<td>Finish</td>
<td>Resistant Black Paint, Metal Grille</td>
</tr>
<tr>
<td>Connecteurs</td>
<td>4 PIN Terminal Block and 2 x NL-4 Speakon©</td>
</tr>
<tr>
<td>Accessories</td>
<td>One Metal Standard Pole-mount</td>
</tr>
<tr>
<td>Dimensions (L x H x P)</td>
<td>(L)510mm x (H)250mm x (P)540mm</td>
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<tr>
<td>Net Weight</td>
<td>18.5 kg</td>
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</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>CUBsub112</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>12&quot; Passive Vented Subwoofer</td>
</tr>
<tr>
<td>Rated power</td>
<td>300 W RMS/ 600 W max</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>122 dB Continu / 125dB max</td>
</tr>
<tr>
<td>Frequency response</td>
<td>45 Hz - 2,8 KHz (-10 dB)</td>
</tr>
<tr>
<td>Impedance</td>
<td>8 Ohms</td>
</tr>
<tr>
<td>Transducer</td>
<td>1 Boomer 12&quot; (320 mm), bobine 2,55&quot;</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Plywood Cabinet</td>
</tr>
<tr>
<td>Finish</td>
<td>Resistant Black Paint, Metal Grille</td>
</tr>
<tr>
<td>Connecteurs</td>
<td>4 PIN Terminal Block and 2 x NL-4 Speakon©</td>
</tr>
<tr>
<td>Accessories</td>
<td>One Metal Standard Pole-mount</td>
</tr>
<tr>
<td>Dimensions (L x H x P)</td>
<td>(L)350mm x (H)500mm x (P)542mm</td>
</tr>
<tr>
<td>Net Weight</td>
<td>20.1 kg</td>
</tr>
</tbody>
</table>
11 - Typical use

- Satellite
- Left speaker cable
- Right speaker cable
- Stereo amplifier
- Sound processor
- Computer
- DSP cable
- Main output
  - Left / Right
- Mixing console
- Stereo amplifier
- Satellite
- Subwoofer
- Right speaker cable
- Subwoofer
- Left speaker cable
- Computer
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