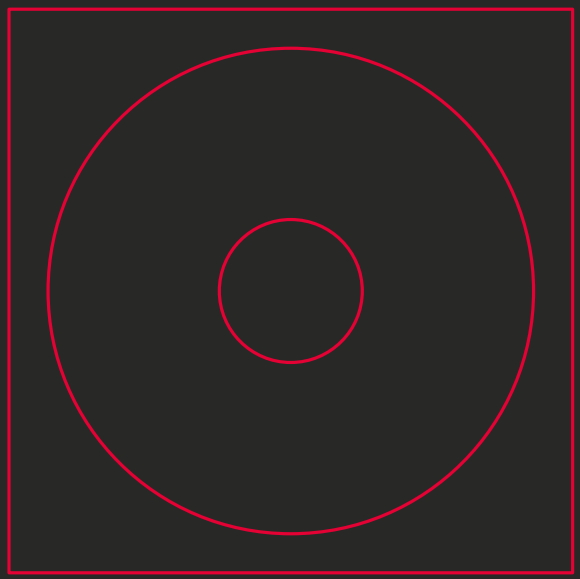
9S

Owner's manual

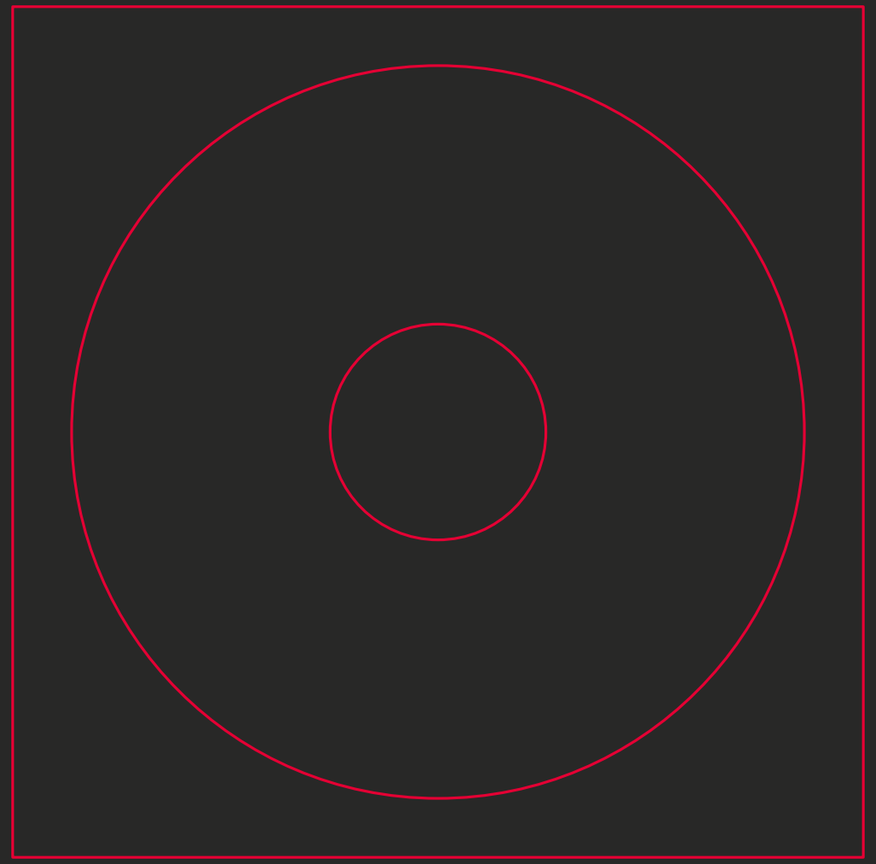


DYNAUDIO

Hello

Welcome to Dynaudio 9S

Precision bass, optimised for the studio



This is 9S

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Introduction

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

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

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type 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.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. 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.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
16. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
17. The mains plug of the power supply cord shall remain readily operable.
18. Danger: To reduce the risk of electric shock, do not remove the back panel and do not expose the apparatus to rain or moisture. No user serviceable parts inside. Refer servicing to qualified personnel.

About this operating manual
Signal words
Caution – Indicates a potentially hazardous situation which, if not avoided, could result in damage to equipment.

CAUTION

CAUTION – Indicates in combination with a safety sign a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment.

CAUTION

WARNING – Indicates in combination with a safety sign a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

DANGER – Indicates in combination with a safety sign a hazardous situation which, if not avoided, will result in death or serious injury.

About this manual

This manual is divided into three main chapters…

- **Before you start:** learn how to unpack and connect the subwoofer. The controls and connections on the back panel are also described here.
- **Operation:** in this chapter you will learn how to operate the subwoofer and how to position it properly for optimum performance.
- **Optimizing settings/Troubleshooting:** detailed explanations on how to optimize settings to achieve maximum sound quality.

Before you start

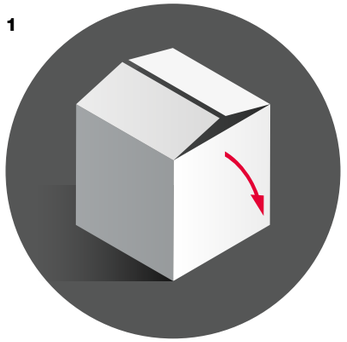
Unpacking the subwoofer
In this operating manual, the following signs and symbols are used:

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

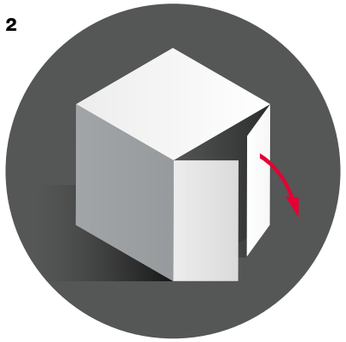
Indicates (in combination with a safety sign) a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment.

1. Unpack the subwoofer on a clean, even and soft area; floor carpeting is very suitable.
2. The packaging should be opened from the top (1). Remove all accessories that come packed with the subwoof er (such as AC power cord and grille). Do not remove the top part of the protective material.
3. With the protective material still in place but with accessories removed, carefully tilt the packaging on its side (1) and tilt again to turn it upside-down (2). Ensure that no part of the top-cover is obstructing the opening at the top.

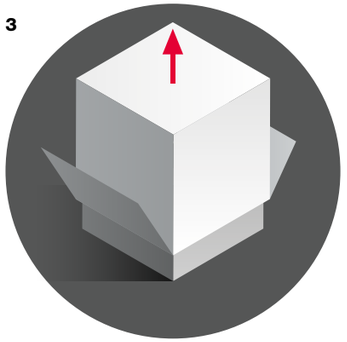
1



2



3



4. The outer packaging can now be lifted away from the subwoofer itself (3). Remove the protective material that now is on top.
5. Open the bag and remove such from around the base of the subwoofer.
6. Again, carefully tilt the subwoofer on its side and again to turn it onto its feet. Note that the top part of the protective material will now come off easily so ensure that the subwoofer doesn't drop or slide away in the process.

Check that the contents are complete:

- **Subwoofer:** The factory-set power requirements (refer to label on rear of subwoofer) should correspond for the region where the subwoofer was purchased. Refer also to "Important safety instructions" on page 1.
- **AC mains lead.** The supplied lead should be suitable for the region where the subwoofer was purchased.
- This **owner's manual**.

Controls and connections

1. POWER ON (Main)
Main power switch (to switch the subwoofer manually on and off). LED shows operation mode:
- red: subwoofer switched on and in mute mode
- green: subwoofer is activated

2. AC IN
Mains power input.

3. Power (Mode)
- On: subwoofer is permanently on
- Auto: subwoofer switches on when signal is detected

4. Gain
Subwoofer volume level.

5. Phase
Phase setting: phase can be s et to 0° or 180°.

6. Lowpass
Subwoofer lowpass frequency: continuously variable from 50 to 150Hz.

7. SAT/SUB (output)
Output for satellite system to be connected. This signal is processed according to the Highpass setting.

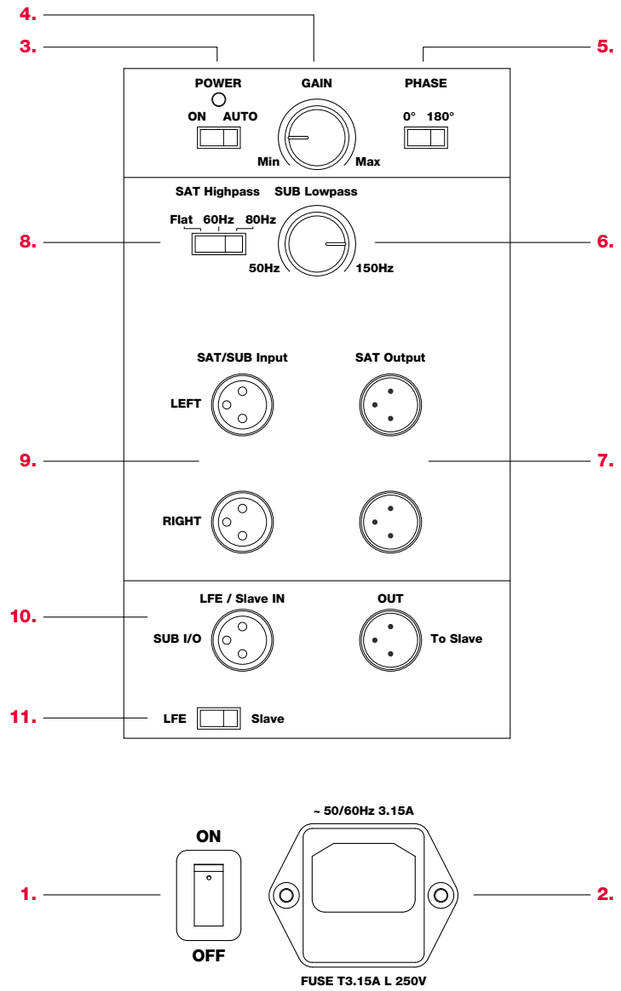
8. Highpass
Allows cutting off low frequencies of the signal provided at the T/SUB output:
- Flat: signal is not processed
- 60: cutoff frequency at 60Hz
- 80: cutoff frequency at 80Hz

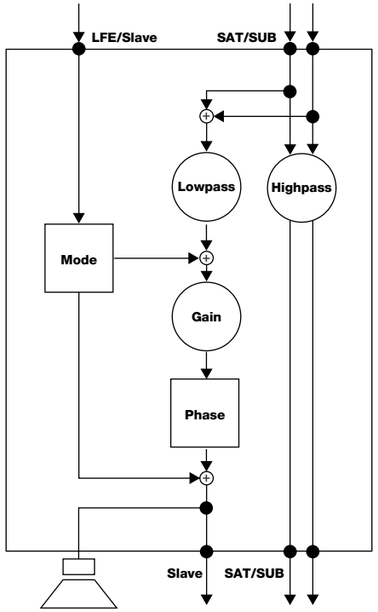
9. SAT/SUB (input)
Input for full bandwidth signal. This signal will be processed according to the Highpass setting and provided at the SAT output.

10. LFE
- LFE/Slave: input for LFE signal
- Slave: output to next subwoofer if installed

11. Mode
Subwoofer operation mode LFE or Slave:
- LFE: setting for normal use and Master use
- Slave: setting for second and all following subwoofers

Terminal pinout (sockets 9, 10 and 11)
1 = 0
2 = +
3 = –





CAUTION

Damage due to improper connections!

Improper connections may damage the device.

- ▶ Set the mains power switch to OFF before connecting the 9S.
- ▶ Only switch the subwoofer on (mains power switch to ON) after all connections and set up steps have been properly completed.

Subwoofer inputs

The 9S provides two different signal inputs:

LFE/Slave

This input allows the LFE (Low Frequency Effect) channel to be connected. The signal is:

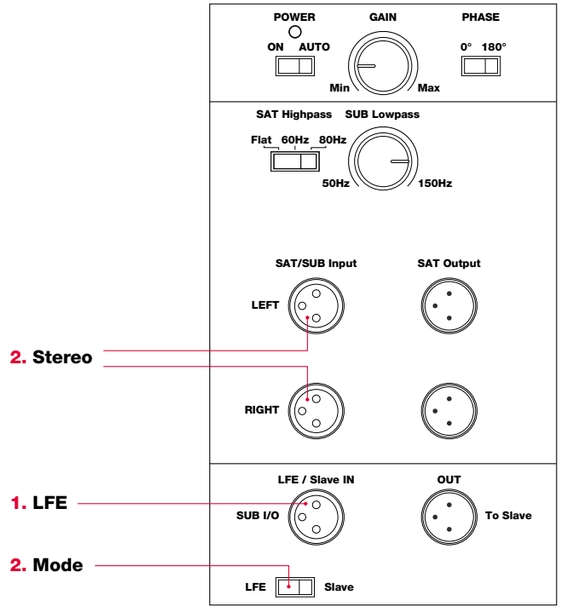
- reproduced by the subwoofer
- routed to the Slave output for a second subwoofer to be connected.

The Lowpass control has no impact on this input.

SAT/SUB

This input allows the connection of a full bandwidth signal. The signal is:

- reproduced by the subwoofer
- routed to the SAT output terminals. Low frequencies are cut-off according to the Highpass setting
- routed to the Slave output for a second subwoofer to be connected. High frequencies are cut-off according to the Lowpass setting.



Connecting a single subwoofer

Connecting as LFE channel (1.)

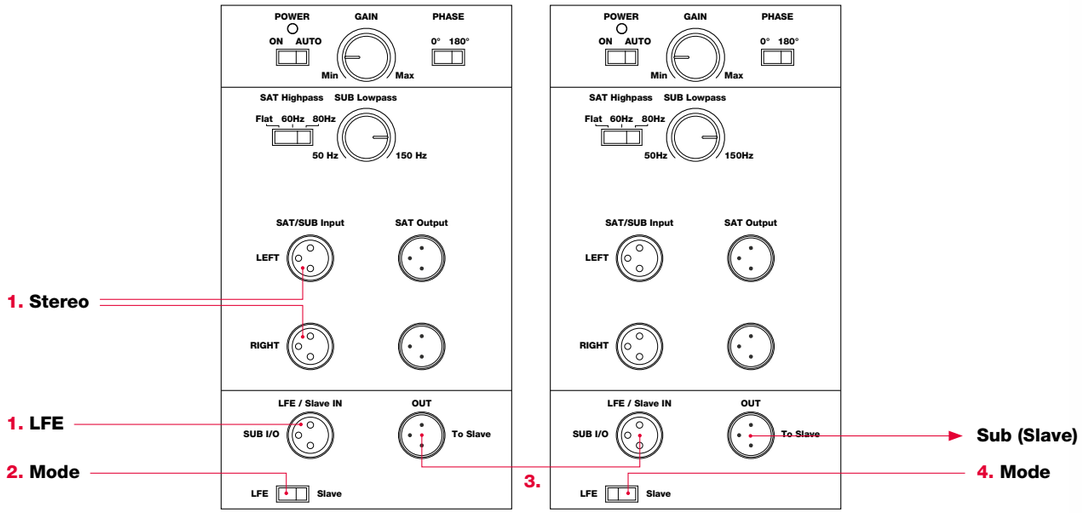
- ▶ Connect subwoofer to LFE/Slave input.

Connecting as subwoofer for satellites (2.)

- ▶ Connect fullbandwidth signal to SAT/SUB input. Sub reproduces sum of right and left signal.
- ▶ Set the Mode switch to LFE.

Notes

- You can also use both connection types. The signals will be combined in the 9S and routed accordingly. This allows the 9S to reproduce both the LFE channel information as well as the bass range of the connected satellite system.
- Use Slave mode if you want to use an external bass management system.



Multiple subwoofer connections

The 9S can be used stand-alone or together with multiple subwoofer units. Using multiple units may be helpful if the listening room is quite large or has difficult acoustic conditions. When using two or more subwoofers, the first one (designated “Master”) controls the following subs (designated “Slave”) via a subwoofer cable.

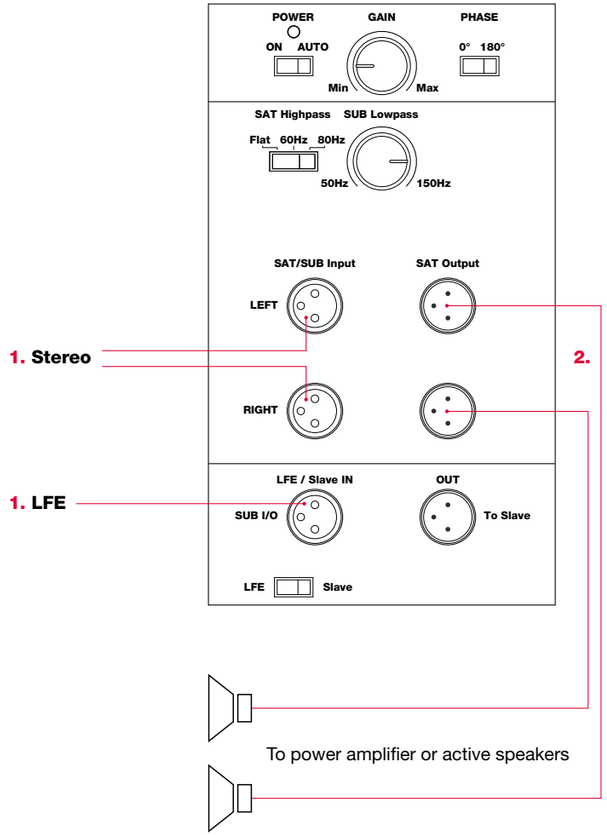
To connect multiple subwoofers:

1. Connect the first subwoofer as described before.
2. Set Mode switch of first subwoofer to LFE.
3. From the Slave output of the first subwoofer connect a XLR cable to the LFE/Slave input of the following subwoofer. This one now becomes the slave.
4. Set the Mode switch of the second subwoofer to Slave.

Further subwoofers can be connected in the same way. Set the Mode switch of all following subwoofers to Slave respectively.

Notes

- When using multiple subwoofers in a Master-Slave setup, it is recommended that the subwoofers are all the same model.
- If you wish to use multiple subwoofers with full individual control, set the Input switch for all to the LFE position. From the source subwoofer output, use a Y-connector.



Connecting loudspeakers

If your source bass management, you can use the 9S’s LFE input alone in LFE or SLAVE mode, depending on the management system capabilities. Avoid double processing if possible.

To connect loudspeakers

1. Connect the subwoofer (see “Connecting a single subwoofer” on page 15.
2. From the subwoofer SAT output connect a XLR cable to the inputs of the power amplifier you use for your speakers.

Note

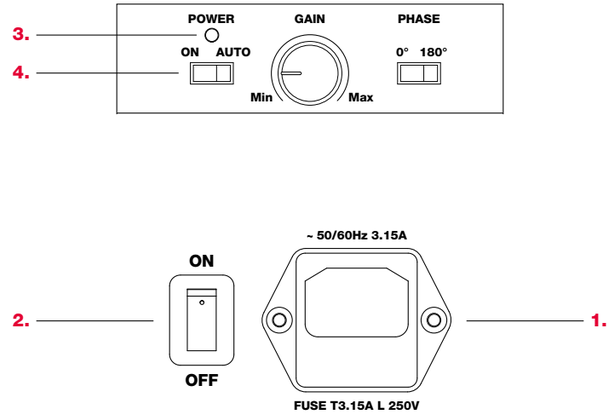
The signals connected to the inputs are provided at the Slave output for connecting another subwoofer. See page 16 to learn more about connecting multiple subwoofers.



It’s time to create

Here’s how to optimise your new 9S for your own studio

Operation



Switching the subwoofer on

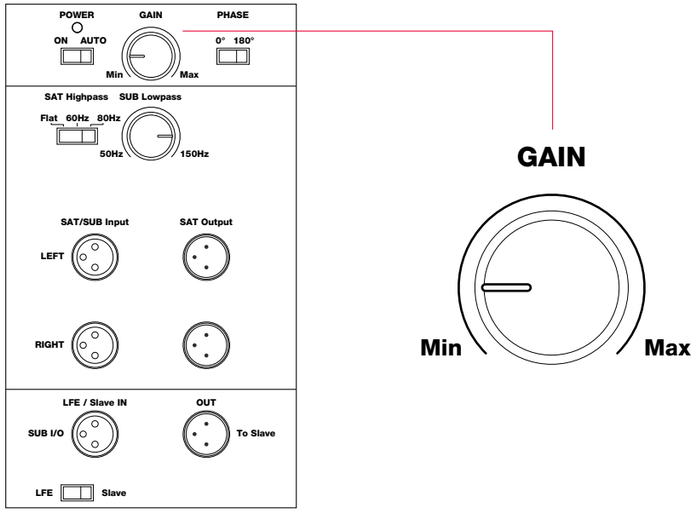
Once you have ensured yourself that all necessary connections have been made, the subwoofer and the connected components can be switched on.

1. Connect the subwoofer to the mains power.
2. Switch the subwoofer on with the main POWER switch on the rear panel.
3. The status LED on the rear of the subwoofer will light up red.
4. Select a power mode with the Power switch on the rear panel.

Power modes

- On: the subwoofer is switched on permanently
- Auto: when a music signal is detected, the internal amplifier is activated automatically. The status LED on the back of the subwoofer will light up green. As long as a music signal is available on the subwoofer's input, it will remain switched on.
- After 15 to 20 minutes of not sensing any input music signal, the subwoofer will switch itself to Standby mode automatically. The status LED on the back of the subwoofer will light up red.

Note
To switch the subwoofer completely off, set the main POWER switch to the OFF position.



Adjusting the volume (Gain)

CAUTION

CAUTION
High Sound Levels!

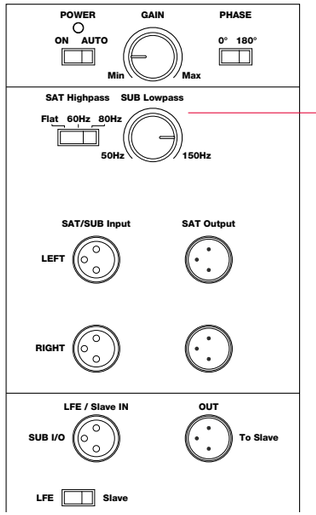
High sound levels can cause auditory defects. To avoid auditory period of time. defects, do not listen to high sound levels over a longer period of time.

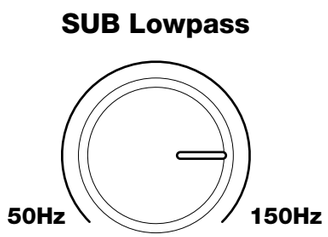
The correct volume setting is an important aspect in achieving a well balanced speaker combination.

To adjust the gain:

▶ Adjust the Gain control, until correct setting is reached.

Note
You cannot adjust the volume when the subwoofer is in slave mode. In this case the volume is controlled by the setting of the master subwoofer.





Selecting the subwoofer cut-off frequency (Lowpass)

The Lowpass control allows the frequency range of the subwoofer to be defined. Above the selected frequency the sound level decreases rapidly. the correct setting of this cut-off frequency is important for a well balanced combination of subwoofer and speakers.

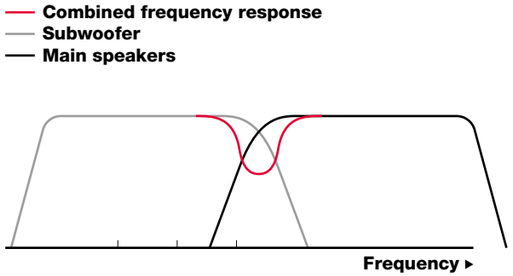
To select the cutoff frequency

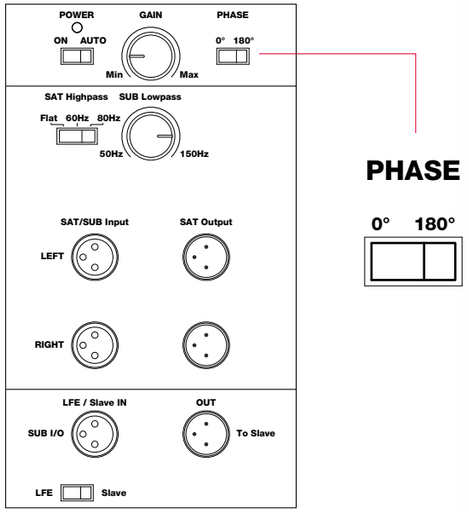
▶ Set the Lowpass control to the desired frequency between 50 and 150Hz.

Notes

- The Lowpass only works on SAT/SUB input.
- Perhaps subwoofer cut-off frequency is already set in the bass management of your source. Please refer to the operating manual of your source. In general use only one bass management system.

You should also heed the instructions given in the operating manual of your loudspeakers.





Setting the phase (Phase)

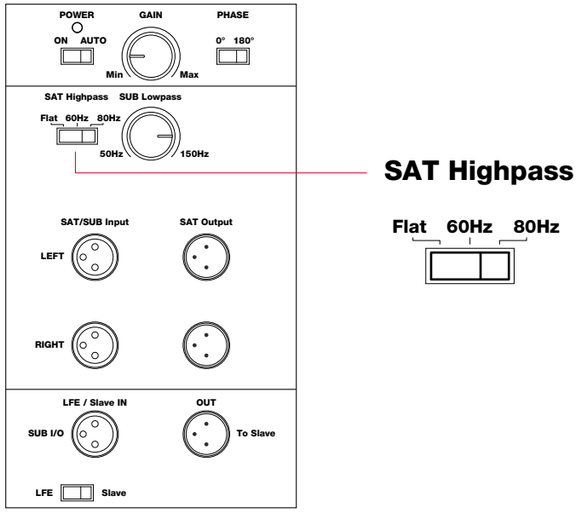
With the phase settings you can adjust the phase relationship between the subwoofer and main speakers. If either subwoofer or main speaker are slightly out of phase in relation to the other, it can result in decreased bass output in the frequency response area where the overlap each other.

The phase relationship between subwoofer and satellite speakers is very dependent on relative distance, construction and working principles of the main speakers. The figure above shows a case whereby phase of the subwoofer and main speakers are incorrect in the critical overlap area, thus significantly reducing acoustic output in the listening room in that area.

To find the correct phase setting:

1. Play a bass-rich track which also covers the overlap area.
2. Toggle the Phase switch between 0° and 180°. Choose the setting for which you experience the most bass.

Note
You can not set the phase if the subwoofer is in slave mode. In this case the phase in controlled by the setting of the master subwoofer.



Setting the satellite cut-off frequency (Highpass)

Depending on the bass capabilities of the speakers, the frequency range of subwoofer and speakers can overlap between 50Hz and 150Hz. A bump or a gap in the frequency response and thus a lower sound quality will be experienced if the system is not matched properly. In addition, small speakers and low powered amplifiers will particularly be affected by the low frequency signals, which again has a negative effect on the sound quality. Therefore it makes sense to limit the bass range of the connected speakers (called “satellites” in this case) by a highpass filter. The 9S provides three settings to achieve this:

- **Flat** = no limiation
- **60Hz** = frequencies below 60Hz are cut off.
- **80Hz** = frequencies below 80Hz are cut off.

To set the cut-off frequency

▶ Switch Highpass control to needed position.

Troubleshooting

There may be various reasons why the subwoofer doesn't function properly in a system without it being faulty. The checklist below will help solve problems you may encounter. Before consulting your Dynaudio Professional dealer, check this list first.

Check this first:

- ▶ Check if all signal cables are connected properly.
- ▶ Check settings in bass management menu of the connected source.
- ▶ Carefully and gradually increase the subwoofer volume level on the source.
- ▶ Carefully and gradually increase the subwoofer volume level on the subwoofer Gain control.

Problem	Cause	Solution
The subwoofer switches itself off while music is being played.t	There is hardly any low-frequency signal available in the signal. This can happen if the music or movie itself does not contain very low frequencies (e.g. long dialogues).	• The subwoofer will switch on automatically as soon as low frequent music signals are detected. • Switch subwoofer off and on again by means of the main POWER switch.
The subwoofer will not switch on at all.	• AC mains cable has become disconnected (LED does not lit) • Mains switch on the back is switched to OFF (LED does not lit)	Make sure to switch the system off first before making any changes! • Reconnect mains cable. • Switch mains back on. • Check if all signal cables are connected properly.
The subwoofer will not switch on automatically.	• No signal is present on either of the subwoofer's inputs (LED lights red).	Make sure to switch the system off first before making any changes! • Check if all signal cables are connected properly. • Check if the subwoofer output on the source is engaged.
Subwoofer is switched on but no sound from the subwoofer.	• No signal is present on either of the subwoofer's inputs. • In the source's bass-management set-up, subwoofer has been disabled. • Subwoofer volume level has been turned down all the way on the source. • Subwoofer volume level has been turned down all the way with the subwoofer's control.	Make sure to switch the system off first before making any changes! • Check if all signal cables are connected properly. • Check settings in bass management menu of the source. • Carefully and gradually increase the subwoofer volume level on the source. • Carefully and gradually increase the subwoofer volume level on the subwoofer Gain control.

Maintenance

Cleaning the subwoofer
Dynaudio loudspeakers require no special treatment apart from the kind of careful handling you would normally apply to any high tech product in your home.

DANGER
Dangerous voltage inside!
Cleaning the 9S or other system components when switched on can lead to damages or electric shock.

- ▶ Switch off the subwoofer and all other components of your system when cleaning any of these components.

To clean the subwoofer:

- ▶ The cabinet and other plain parts should be cleaned with a soft dry or slightly damp cloth.
- ▶ Dust on the woofer diaphragms may be removed with a fine furniture brush.

Changing the fuse

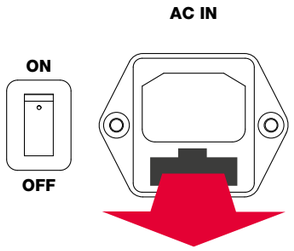


WARNING
Risk of fire due to wrong fuse type!

Inserting the wrong fuse type can lead to overheating and inflammation of the subwoofer.

- For continued protection against risk of fire, replace only with same type fuse and rating.

The fuse is placed on the rear of the subwoofer below the mains power input. It can be changed without removing the amplifier module.



To change the fuse:

1. Switch off the mains power switch and unplug the power cable.
2. Pull out the fuse holder.
3. Replace fuse with same type and rating.
4. Push fuse holder back firmly until it is locked into position.

Warranty

Dynaudio Professional products are warranted to be free from defects in components and factory workmanship under normal use and service for a period of two (2) years when bought from a reseller within the EU.

Dynaudio Professional products are warranted to be free from defects in components and factory workmanship under normal use and service for a period of one (1) year when bought from a reseller outside the EU.

When failing to perform as specified during the warranty period we will undertake to repair, or at our option, replace this product at no charge to its owner, provided the unit is returned undamaged and shipping prepaid, to an authorized service facility or to the factory.

Dynaudio shall not be responsible for any incidental or consequential damages. Dynaudio's responsibility is limited to the product itself. Dynaudio assumes no responsibility for any loss due to cancellation of any events, or rent of replacement equipment or costs due to third party's or customer's loss of profit, or any other indirect cost or losses however incurred. Dynaudio reserves the right to make changes or improvements in design or manufacturing without assuming any obligation to change or improve products previously manufactured and / or sold.

The product warranty is only valid in the country where the product was purchased.

Exceptions
Dynaudio will always follow the law of the respective markets should it differ from the policy stated above or the exceptions stated below.

This warranty shall be null and void, if the product is subjected to repair work or alteration by a person or facility other than those authorized by Dynaudio; mechanical damage including shipping accidents; war, civil insurrection, misuse, abuse, operation with incorrect AC voltage, incorrect connections, wrong accessories, incorrect use of accessories, operation with faulty associated equipment, exposure to inclement weather conditions and normal wear and tear.

Units, on which the serial number has been removed or defaced, are not eligible for warranty service.

Technical specifications

System	Single driver, active 9,5 in subwoofer
Analog inputs	1 x XLR LFE, 2 x XLR Stereo
Input impedance – + branch	20 kOhm
Input impedance – - branch	10 kOhm
Max. input voltage	10 VRMS
Analog outputs	1 x XLR Slave Out, 2 x XLR SAT Out
Output impedance	100 Ohm (each branch)
XLR Pinout	1 = 0 / 2 = + / 3 = –
Mode selector	LFE, Slave (Phase and volume controls are bypassed in slave mode)
Frequency response (± 3 dB)	22 Hz – 175 Hz
Max SPL	106 dB
Auto ON/OFF	Yes
Box principle	Sealed
High pass filter	Flat / 60 / 80 Hz
Low pass filter	50 Hz -150 Hz
Phase adjustment	0/180 degrees
Woofer	24 cm MSP
Amplifier power	300 W
AC power input	100-120 V/200-240 V 50/60 Hz
Standby power consumption	< 0.5 W
Maximum power consumption	350 W
Weight	10.5 kg / 23.1 lb
Dimensions (W x H x D)	266 x 276 x 320 mm / 10.5 x 10.9 x 12.6 in
Shipping box dimensions (W x H x D)	400 x 430 x 400 mm / 15.7 x 16.9 x 15.7 in

9S

Designed and engineered by Dynaudio Labs in Denmark

DYNAUDIO

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8660 Skanderborg
Denmark

dynaudio.com

9S Owner's Manual
Item no. 4556201C

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