

# **Audience SUB-20A**

# **Audience SUB-30A**

**Owner's Manual**  
and Safety Instructions



# Important Safety Instructions

Read these instructions before any connection to the apparatus.  
Please keep these instructions in a convenient place.



To avoid electric shock, do not open the subwoofer.  
There are no user-serviceable parts inside.

## ***Installation***

Do not operate this apparatus near water.

Do not install near any heat sources such as radiators, heat registers, fireplaces, stoves, or other items (including large amplifiers) that produce heat.

Do not cover the apparatus. Keep it ventilated.

## ***Power connection***

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

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

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

## ***Attachments***

Only use attachments/accessories specified by the manufacturer.

## ***Servicing***

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in a way such as power supply 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, has been dropped, or does not operate normally.

## ***Maintenance***

To prevent fire or shock hazard, clean only with a damp cloth. Never use cleansers or chemicals.

# Important Safety Instructions

## ***Sound pressure level***

Please note that excessive listening at high sound pressure levels may cause permanent hearing damage.



## **Warning**

**This equipment can  
produce sound pressure  
levels in excess of 90 dB(A)**

# Unpacking

Every loudspeaker leaving Dynaudio has been carefully and thoroughly inspected and tested.

When unpacking the subwoofer, be sure to check if any physical damage has occurred to the subwoofer due to shipping. In case of damage, please contact the selling dealer immediately.

When unpacking the subwoofer, verify that the voltage switch is positioned according to the required voltage.

# Contents

<b>ABOUT THIS PRODUCT</b>	<b>6</b>
<b>OPERATION AND LOCATION OF CONTROLS</b>	<b>7</b>
<b>Level</b>	<b>8</b>
<b>Crossover frequency</b>	<b>8</b>
<b>Phase / Phase switch</b>	<b>8</b>
<b>Input terminal Right and Left / Input terminal Mono</b>	<b>9</b>
<b>Output switch / Output terminal Right and Left</b>	<b>9</b>
<b>Utility Link terminal Input/Output</b>	<b>10</b>
<b>Standby</b>	<b>10</b>
<b>Subsonic filter</b>	<b>10</b>
<b>Protection circuit</b>	<b>11</b>
<b>Power switch</b>	<b>11</b>
<b>AC inlet</b>	<b>11</b>
<b>Voltage switch</b>	<b>11</b>
<b>Fuse-drawer</b>	<b>11</b>
<b>INSTALLATION</b>	<b>12</b>
<b>Multi-channel sound system</b>	<b>13</b>
<b>POSITIONING</b>	<b>14</b>
<b>TROUBLESHOOTING</b>	<b>15</b>
<b>No sound</b>	<b>15</b>
<b>Distorted sound</b>	<b>15</b>
<b>SPECIFICATIONS</b>	<b>16</b>

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# About This Product

The Dynaudio subwoofer provides quality low frequency output to extend the frequency range of the speaker system, and offers enhanced low bass when used as a dedicated subwoofer in an A/V or surround system.

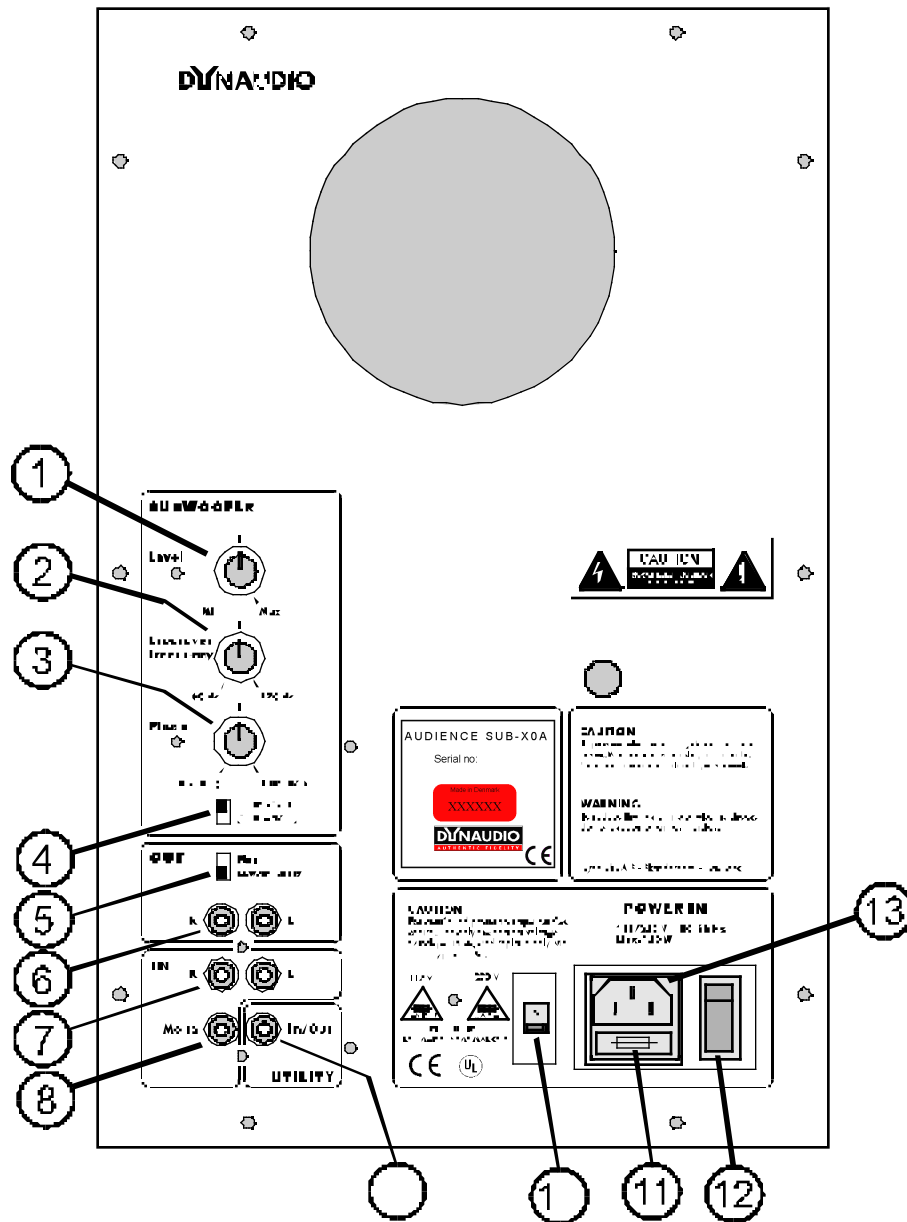
The SUB-20A is fitted with a 24 cm (9.5 inch) woofer, and the SUB-30A is fitted with a 30 cm (12 inch) woofer. To achieve maximum sound output, both models' woofer is mounted in a port tuned enclosure.

With Dynaudio's *Utility Link*, it is possible to combine two subwoofers in a multi-channel audio system. With three inputs on each subwoofer, up to six channels may be summed into one (mono) subwoofer channel.

The dimensions of the Audience SUB-30A will make it possible to use it as a CTV-stand. An optional Audience Center speaker fits perfectly on top of the Audience SUB-30A, thereby minimizing the space normally taken by a subwoofer in a living room.

Both subwoofers are selfpowered designs (actively amplified). The amplifiers power supply can be used with various voltages, 115/230 V ~, and frequencies, 60/50 Hz. A voltage selector switch on the back panel of the subwoofer may be positioned according to the required voltage in your area. The setting is pre-set by the manufacturer prior to shipping. Do not try to alter the voltage setting, as doing so will result in a blown fuse. Wrong settings may result in damaged electronics.

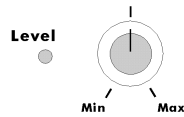
# Operation and Location of Controls



- 1 Level
- 2 Crossover frequency
- 3 Phase
- 4 Phase switch
- 5 Output filter switch
- 6 Output terminal Right and Left
- 7 Input terminal Right and Left
- 8 Input terminal Mono
- 9 Utility IN/OUT terminal (bi-directional)
- 10 Voltage selector switch
- 11 Fuse-drawer
- 12 Power switch
- 13 AC inlet

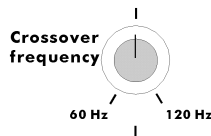
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## Level



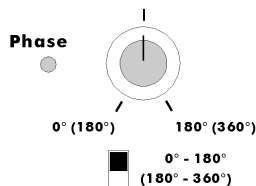
The level control knob allows for subwoofer output matching to the system. To obtain a neutral sound balance it is important that the subwoofer level is set correctly. To do this, adjust the control up and down until a natural sounding bass level is obtained in the system. Readjustment is recommended if any crossover and/or phase settings are changed on the subwoofer.

## Crossover frequency



With the variable low-pass filter, it is possible to adjust the subwoofer to accurately compliment the main speakers and obtain optimum performance. Adjusting the frequency between 60 Hz and 120 Hz allows for the best transition from the subwoofer to the point where the main speakers roll-off.

## Phase / Phase switch



The Audience SUB is equipped with advanced phase adjustment circuit, enabling for proper phase alignment with the audio system.

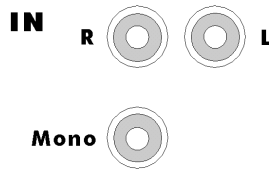
The phase control knob enables variable phase settings between 0° to 180° or 180° to 360° depending on the slide switch position.

Using the control knob and slide switch, adjust the phase until the most coherent and quantitative bass is heard at the normal listening position.

Optimum adjustment can be checked by temporarily sliding the switch to the opposite position. If correct phase adjustments are achieved, this will create a perceived reduction in output level.

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## Input terminal Right and Left / Input terminal Mono

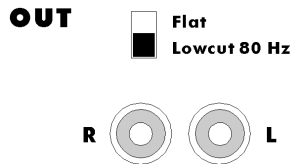


This subwoofer provides 3 low level inputs: Left, Right, and Mono. These inputs can be used in any combination. Signals from all 3 inputs are summed and fed to the subwoofer.

Do **not** connect any of these inputs to high level signals such as power amplifier speaker outputs!

If a *SUB OUT* terminal (or equivalent) is not present on the pre-amp/processor, then connect the subwoofer via *PRE OUT* to <IN R> and <IN L>.

## Output switch / Output terminal Right and Left



The output terminals are intended for use when a separate power amplifier or integrated amplifier with separate inputs is available.

Using this output enables the removal of frequencies below 80 Hz from the main speakers by setting the switch to <Lowcut 80 Hz>.

With the output switch in the <Flat> position, the input terminals are connected directly to the output terminals. With the output switch in the <Lowcut 80 Hz> position, the signal passes through an active second order (12 dB/octave,  $f_{-3dB} = 80$  Hz) high-pass filter. This selection cuts frequencies below 80 Hz to the main speakers, thereby reducing potential distortion.

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## Utility Link terminal Input/Output

If two Dynaudio subwoofers are to be used, they may be connected via the Utility Link. With this link a total of six input terminals is possible. This feature is intended for use with a multi-channel surround sound system.

In discreet surround sound systems such as AC-3, MPEG- 2, and DTS, all 5 channels can be full range. With the Dynaudio Utility Link, the two subwoofers sum all these channels into one mono subwoofer channel, reproduced by the two subwoofers.

Connect the two subwoofers via the <UTILITY In/Out>.

Connect all outputs from the surround sound system to <IN Mono>, <IN R> and <IN L> on both subwoofers arbitrarily. It is not necessary to use all inputs. More on this setup is mentioned later in the manual.

## Standby

The subwoofer has an internal standby function. The standby will be activated when there is no input signal to the subwoofer for 10 minutes.

When powering on and off, the mute circuit will mute both the subwoofer itself and the output terminals. This ensures that no noise can be heard in the subwoofer and in the main speakers (if using the outputs).

Due to a very low standby power consumption, the subwoofer power switch may be left on continuously. If unused for several days, it is recommended to switch off the main power or disconnect the device from the main outlet.

When using the 80 Hz low frequency cut-off for the main speakers, do not switch off the power for the subwoofer while the sound system is playing. If this is done, the signal to the output terminal will be muted. After a few minutes music should become present in the main speakers, but very attenuated. This is not a fault, but merely a result of signal passing through the electronics when no power is supplied. If listening is desired while the subwoofer is switched off, set the output switch to position <Flat>.

## Subsonic filter

The subwoofer has an active second order (12 dB/octave below 20 Hz) subsonic filter to prevent rumble, speaker distortion, or overload situations caused by signals that cannot be heard.

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## Protection circuit

To prevent thermal overload, the mute circuit will be activated at 65°C (149° F) and will be automatically deactivated when the temperature drops to 50°C (122° F). Under normal conditions this should rarely occur.

## Power switch

Switches the power on and off. When the subwoofer is on, the power switch lights up.

## AC inlet

This is a grounding-type plug.

If the sound system has an AC convenient outlet, connect the power supply cord from the subwoofer to this device. Otherwise connect it to an AC wall outlet.

## Voltage switch

The voltage switch is positioned according to area voltage requirements. It has been pre-set prior to shipping from the factory.

### **CAUTION**

Do not try to alter the voltage setting, as doing so will result in a blown fuse. A wrong setting may result in damaged electronics.

## Fuse-drawer

The main fuse for the subwoofer is located in the Fuse-drawer.

### **CAUTION**

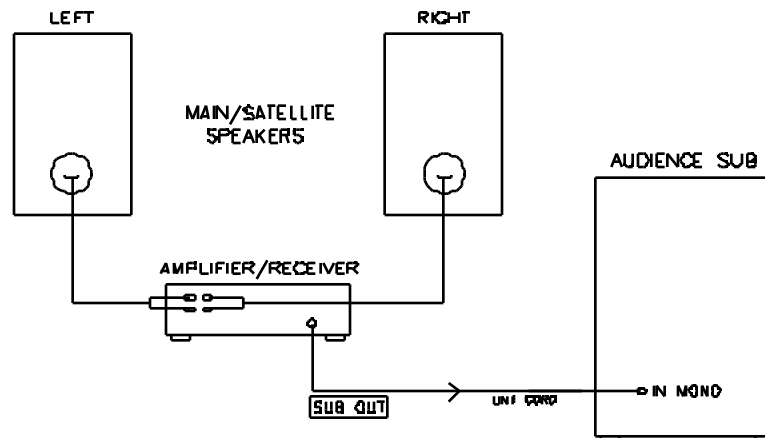
For continued protection against risk of fire, replace only with same type of fuse.

Fuse rating:   115 V:   1.6 A / 125 V Slow-blow  
                  230 V:   0.8 A / 250 V Slow-blow

# Installation

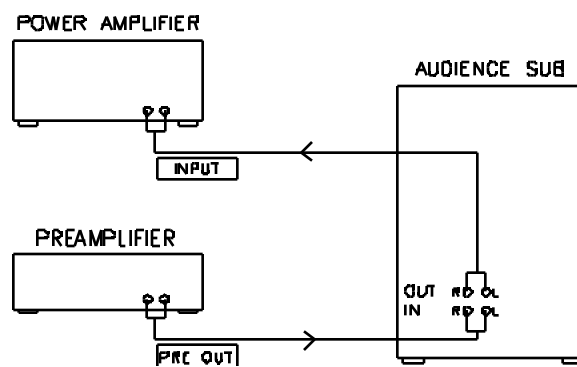
**CAUTION** Switch off all equipment before any installation!

If the sound system has a *SUB OUT* terminal (or equivalent), connect the subwoofer to this terminal.



(Fig. A)

If the system does not have a *SUB OUT* terminal (or equivalent), connect the subwoofer input to the *PRE OUT* terminal on the equipment (Fig. B).



(Fig. B)

The subwoofer can also be used together with small main speakers, as in subwoofer/satellite systems.

When used in a subwoofer/satellite system together with a preamplifier and a power amplifier (Fig. B), the signal from the output terminals of the subwoofer should be connected to the amplifier input. Using the output terminals on the subwoofer enables the removal of low

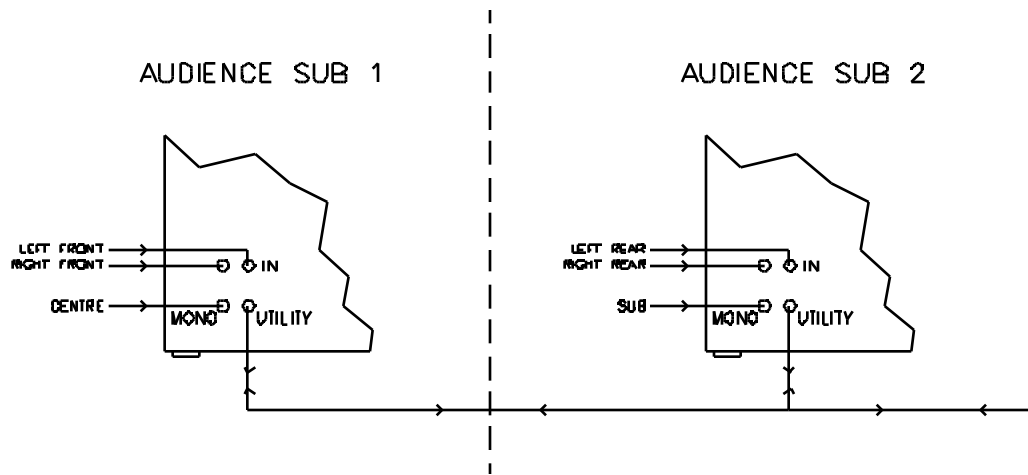
frequency content from the main speakers. This is accomplished by changing the *Output Filter* switch from <Flat> to <Lowcut 80 Hz>.

## Multi-channel sound system

In multi-channel sound systems such as AC-3, AMPEG-2, and DTS, the dedicated subwoofer (LFE; Low Frequency Effects) output from the surround decoder should be used (Fig. A).

If small loudspeakers are used throughout the surround setup, it is preferable to feed bass signals from all five surround channels, and the subwoofer channel, to the subwoofer(s). If multiple Dynaudio subwoofers are to be used, connect them with the Utility Link <Utility In/Out>. Connect the Utility Link between two subwoofers as shown below. Example: two subwoofers will act as one big subwoofer with a total of six inputs, three on each. It is very important that **all** controls and switches are set in the same position on both subwoofers.

Use the three inputs <Left>, <Right>, and <Mono> on the first subwoofer for the respective *Left Front*, *Right Front*, and *Center* channels. On the second subwoofer use the *Left*, *Right*, and *Mono* input for the *Left Rear*, *Right Rear*, and *Subwoofer* channels (Fig. C).



(Fig. C)

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# Positioning

Useful hints:

Best results are usually achieved with the subwoofer aimed towards the listening area, positioned between the main loudspeakers and near the wall. Both the floor and the walls will enhance the sound output. If the subwoofer is placed in a corner, maximum sound output will be achieved, but the quality of the stereo image may be sacrificed. If center placement is impossible, position the subwoofer towards the right, as the drums in an orchestra are usually located at the right rear of the sound stage.

Do not cover the back plate, otherwise the subwoofer amplifier will become too hot and the protection circuit will activate. Do not place the subwoofer with the back plate in direct sunlight.

Since the port is placed on the back side of the subwoofer, we recommend a clearance of at least 5 centimeters (2 inches) to the wall; preferably more.

The subwoofer may be positioned anywhere in the listening room, and with a little patience, some time, and a broad variety of music material or movie soundtracks, an optimum location will be found.

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# Troubleshooting

## No sound

If there is no sound from the subwoofer, please check the following:

- Is the <Power switch> on?
- Is the <Level> positioned at minimum?
- Is your cable connected to output instead of input?
- Is the back plate very hot? Wait until it cools off.
- Is the audio system connected correctly? If there is any doubt, turn the power off. Connect a CD-player or tuner directly to the subwoofer <IN R> and <IN L>. Before doing so, make sure to turn down the level on the subwoofer. When all is connected and the power is turned on, slowly turn up the level. If the subwoofer is playing with a direct source, the fault will most likely be elsewhere in the audio system.

## Distorted sound

If the sound from the subwoofer is distorted, or if other problems exist, please consult the dealer that sold the product. Do **not** try to repair the subwoofer yourself. Any unauthorized tampering will invalidate the manufacturer's warranty.

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# Specifications

## Audience SUB-20A

Frequency response	25 Hz-150 Hz (room depending)
Crossover frequency	
Variable low-pass	60 Hz-120 Hz
High-pass output	80 Hz, 12 dB per octave
Sensitivity	50 mV
Max. amplifier power output	90 W
Max. SPL	110 dB (typical in-room)
Nominal impedance	
Mono, Left, Right input	47 K ohms
Driver	24 cm (9.5 inch)
Dimensions H, W, D	430 mm, 276 mm, 455 mm (16.9", 10.9", 17.9")
Weight	14 kilograms (30.8 lbs.)
Power consumption	
Standby	10 W
Max.	150 W

## Audience SUB-30A

Frequency response	23 Hz-150 Hz (room depending)
Crossover frequency	
Variable low-pass	60 Hz-120 Hz
High-pass output	80 Hz, 12 dB per octave
Sensitivity	50 mV
Max. amplifier power output	90 W
Max. SPL	115 dB (typical in-room)
Nominal impedance	
Mono, Left, Right input	47 K ohms
Driver	30 cm (12 inch)
Dimensions H, W, D	430 mm, 570 mm, 400 mm (16.9", 22.4", 15.7")
Weight	24 kilograms (52.8 lbs.)
Power consumption	
Standby	10 W
Max.	150 W



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