

# 7073A

Data Sheet  
Genelec 7073A  
Active Subwoofer

# GENELEC®



**Main Features:**

- Efficient port/enclosure design
- Highly configurable 6.1 channel Bass Manager
- Unparalleled low frequency performance
- Phase calibration Tone
- RJ11 remote control connection
- SUM out and in for “daisy chaining” units



**System**

The Genelec 7073A active subwoofer is a powerful and precise bass reproduction tool for large Surround Sound or Stereo installations. Its 19 Hz lower cut-off frequency and 124 dB sound pressure output capability are sufficient to handle the most demanding high SPL applications. All electronics are integrated into the subwoofer cabinet: active crossover filters, driver overload protection circuits and power amplifiers. The built-in bass management unit on the 7073A has six signal input and output channels (L/C/R Front and L/C/R Rear), LFE input and summed signal output connectors, providing great flexibility and easy connection. The discrete LFE signal input is equipped with a selectable 85/120 Hz low-pass filter and a 0/+10 dB LFE sensitivity switch. An integrated 85 Hz test tone generator is provided for accurate crossover phase alignment.

The 7073A also features adjustable Sensitivity, Bass Roll-Off and Phase matching controls to tailor the response of the subwoofer to its environment.

**Cabinet construction**

The speaker cabinet of the 7073A is a bass reflex design constructed of MDF and heavily braced to eliminate structural resonances. The black paint finish is rugged and scratch-resistant. The long, straight bass reflex tube runs along the rear wall of the speaker cabinet and opens on the connector panel side.

The crossover electronics are mounted on vibration absorbers to ensure rattle-free operation. The protective cast-aluminium grilles also function as heatsinks for the power amplifiers.

**Drivers**

The 7073A has four 305 mm (12”) cone drivers. The drivers are magnetically shielded

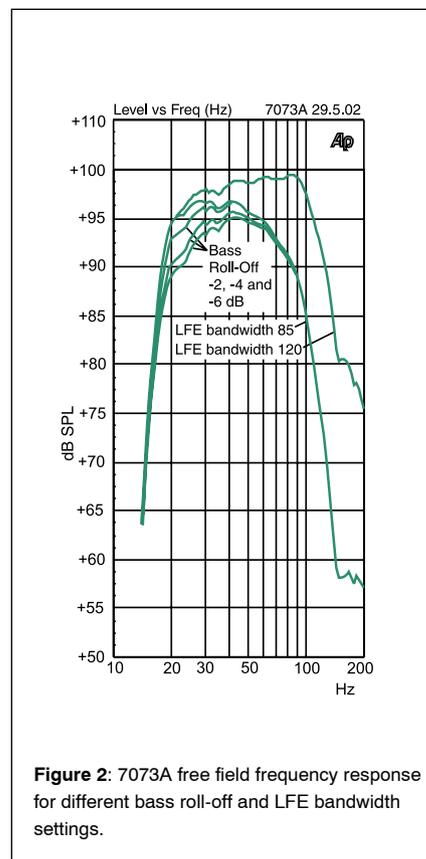
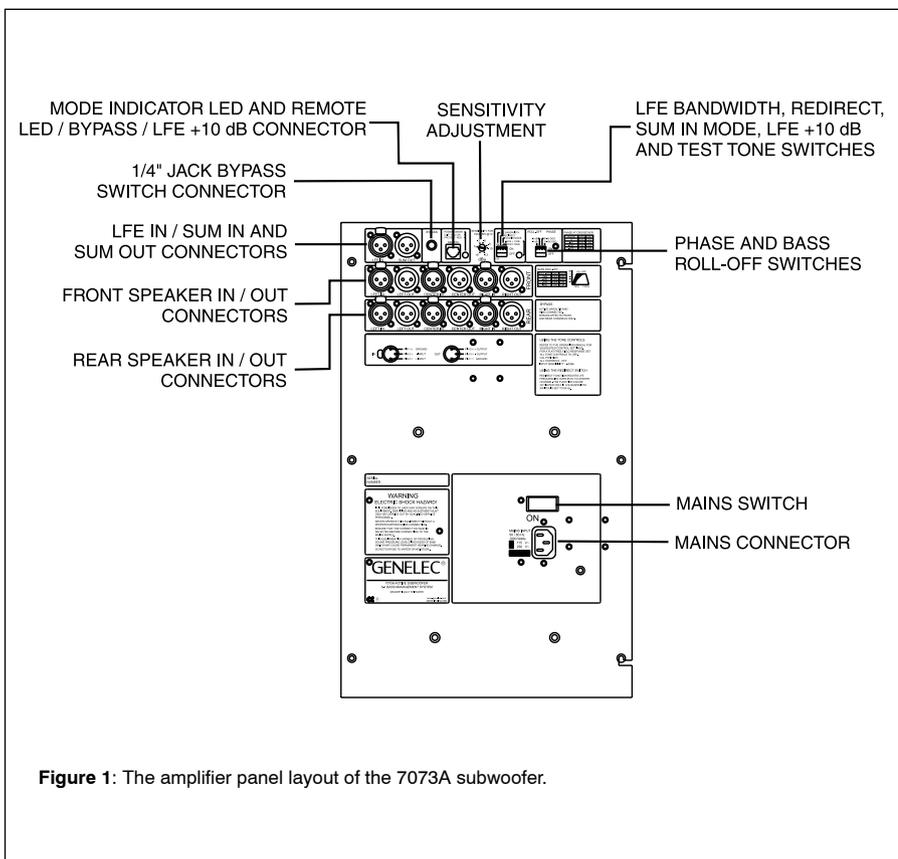
long throw types capable of producing high SPLs.

**Amplifier**

The amplifiers on the 7073A produce a total of 1000 W of short term RMS power with very low THD and IM distortion. Driver overload protection and power-on signal muting are included in the amplifier circuitry.

**Bass management unit**

The built-in bass management unit of the 7073A splits the six main channel input signals into low and high frequency components, accurately dividing the input signal between the subwoofer and the main speakers. The crossover frequency is fixed at 85 Hz. The low pass section has an adjustable sensitivity, to allow easy level matching with the main speakers. The six high pass sections have 0 dB passband gain. The high pass filters can be bypassed using an optional bypass switch



so that the effect of the subwoofer on the whole monitoring system can be determined. Balanced XLR connectors are used for the system inputs and outputs.

A dedicated "LFE IN" input connector allows easy set-up and accurate monitoring of the LFE channel in 5.1 and 6.1 channel surround sound systems. The LFE channel on the 7073A can be set to two bandwidths: 19 to 85 Hz or 19 to 120 Hz. If the LFE signal includes higher frequencies than 120 Hz, they can be monitored by using the "redirect" function. In this case, frequencies above 85 Hz in the LFE signal are redirected to the center channel output to be reproduced by the center channel monitor. The sensitivity of the LFE channel can easily be set to 0 or +10 dB according to the monitoring needs.

Two or more subwoofers can be coupled together via the "SUM OUT" connector if a higher maximum SPL is required.

To provide a flat bass response in many different acoustic environments, two 'Bass Roll-Off' switches are included allowing adjustments to the subwoofer response in three 2 dB steps. Two phase alignment switches in the crossover allow compensation for the phase delay which occurs if the subwoofer is placed away from the main speakers or for other phase changes in the loudspeaker system. Four settings are provided between 0° and -270°.

### Options

Order code	Description
1092-400	1/4" jack bypass switch
7000-415	RJ 11 remote Power/ Overload LED
7000-416	RJ 11 remote control for bypass and +10 dB LFE functions

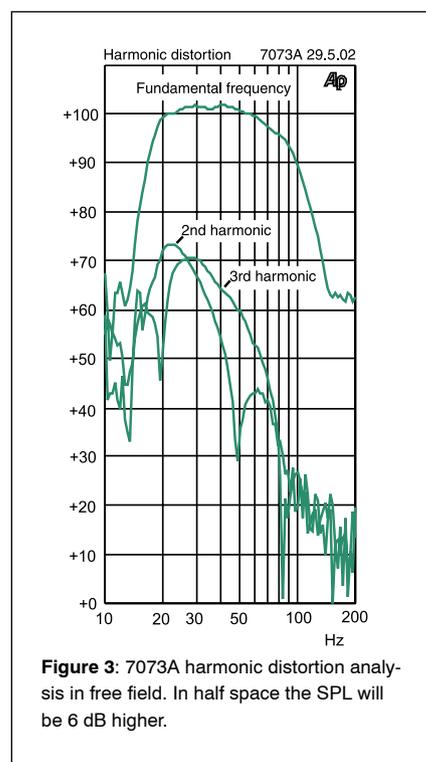


Figure 3: 7073A harmonic distortion analysis in free field. In half space the SPL will be 6 dB higher.

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## SYSTEM SPECIFICATIONS

	7073A
Free field frequency response (+/- 3 dB)	19 Hz .. 85 Hz LFE 85/120 Hz
Maximum short term sine wave SPL output averaged from 30 to 85 Hz, measured in half space at 1 meter	≥ 124 dB SPL
Maximum peak SPL output with random pink noise, measured in half space at 1 meter	≥ 129 dB SPL
Self generated noise level in free field @ 1 m on axis (A-weighted)	≤ 20 dB
Harmonic distortion at @ 1 m on axis in half space 2nd 3rd	@ 105 dB SPL 30 ... 85 Hz ≤ 2 % ≤ 2 %
Drivers	4 x 305 mm (12")
Weight	120 kg (265 lbs)
Dimensions Height Width Depth	524 mm (20 5/8") 1440 mm (56 11/16")* 558 mm (22")
	* If the subwoofer is flush mounted into a wall or a cabinet, the recess must be 20 cm (8") wider than the subwoofer to allow sufficient clearance for the reflex port situated at the end of the subwoofer enclosure.

## CROSSOVER SECTION

	7073A
Subsonic filter (18 dB/octave) below	19 Hz
Upper bandwidth/LFE cutoff	85 Hz/120 Hz selectable
Crossover frequency, (sub/main channels)	85 Hz
Crossover slopes Lowpass Highpass	36 dB/octave 12 dB/octave
Midband rejection >400 Hz	≥ 50 dB
Bass roll-off control operating range in 2 dB steps	From 0 to -6 dB @ 20 Hz
Phase matching control in 90° steps	From 0 to 270° @ 85 Hz

## AMPLIFIER SECTION

	7073A
Short term amplifier output power (Long term output power is limited by driver unit protection circuitry)	1000 W
Amplifier system distortion at nominal output THD	≤ 0.05%
Mains voltage	100/200V or 115/230V
Power consumption (average) Idle Full output	60 VA 1000 VA

## INPUT SECTION

	7073A
Input connector XLR female pin 1 pin 2 pin 3	gnd + -
Input impedance	10 kOhm balanced
Input level for 100 dB SPL output @ 1 m	Variable from +6 to -12 dBu

## OUTPUT SECTION

	7073A
Output connector XLR male pin 1 pin 2 pin 3	gnd + -
Remote LED connector (RJ11)	Remote LED for Power/Overload+Bypass
Main monitor Out gain	0 dB
Sum/Link Out gain	0 dB

## CONTROLS

	7073A
Input sensitivity	+6 to -12 dBu
Bass roll-off	0/-2 dB/ -4 dB/ -6 dB @ 20 Hz
Phase	0/90/180/270°
LFE/upper bandwidth limit	85 / 120 Hz selectable
Bypass	Bypasses the bass management for the main channels
LFE sensitivity	0 / +10 dB
Redirect	Redirects LFE channel signal above 85 Hz to center channel
Sum in	Changes subwoofer to Sum in mode
Test tone for phase adjustment	85 Hz

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