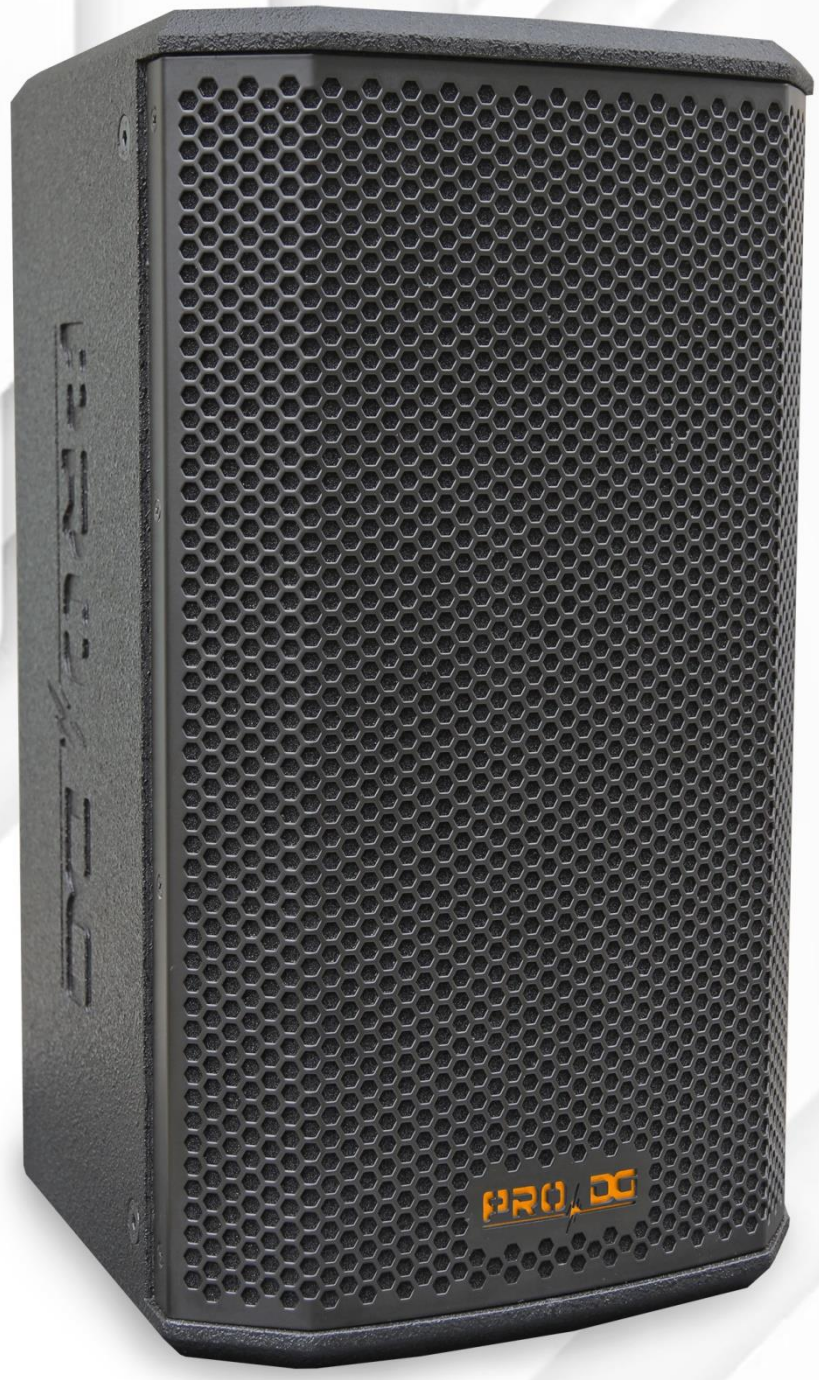
PRO DG
PROFESSIONAL DIGITAL GENERATION
SYSTEMS



"Your point source sound solution"

GX 10A

User manual

This manual has been designed to help GX 10A system users from Pro DG Systems to its correctly use and understand its benefits and versatility.

Before using the product, carefully read "Precautions" section of this manual (pages 3 - 4). Please keep this document in a safe place for future reference.

The information included in this document may be changed without prior notice. To stay up to date with the latest version of this document, we recommend that you periodically consult Pro DG Systems website.

When reselling this product, give this document to the new owner. If you supply Pro DG Systems products, please inform your customers about this document.

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Precautions

Please read, keep and follow all safety and use instructions.

Important Safety Instructions.

1. Heed all warnings.

2. Do not overload the box to avoid damage to the speakers.

3. Do not use this product near water. If the box is used outdoors, make sure that no humidity can enter the box.

4. Clean only with a dry cloth.

5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

6. Do not install near any heat sources such as radiators, heat registers, stoves or similar (including amplifiers).

7. 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 wider blade or third prong is provided for your safety. If the provided plug does not fit in your outlet, consult an electrician for replacement of the obsolete outlet.

8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from this product.

9. Only use attachments/accessories specified by the manufacturer.

10. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the product. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.

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

12. Refer all servicing to qualified personnel. Servicing is required when the product has been damaged in any way such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNINGS / CAUTIONS:

This symbol on the product means there is uninsulated, dangerous voltage within the product enclosure that may present a risk of electrical shock.

This symbol on the product means there are important operating and maintenance instructions in this guide.

This symbol indicates that the product cannot be treated as ordinary household waste, it must be deposited at the corresponding collection point for electrical and electronic equipment.

This product contains magnetic material. Consult your doctor on whether this might affect your implantable medical device.

Contains small parts which may be a choking hazard. Not suitable for children under age 3.

Warranty

All the Pro DG Systems products have a 24-month warranty period, which begins from the invoice date of the first purchase.

Consult everything relevant to the warranty conditions at Pro DG Systems website: https://prodgsystems.com/20-vc-warranty.html

Or via email at: info@prodgsystems.com

Declaration of conformity

Pro DG Systems declares that the product with reference **GX 10A** complies with the objectives expressed in the following **European Directives:**

- Low voltage 2014/35/UE.
- Electromagnetic compatibility 2014/30/UE.
- RoHS 2011/65/UE. About restrictions on the use of certain dangerous substances in electrical and electronic equipment.
- RAEE / WEEE 2012/19/UE. About waste electrical and electronic equipment.
- General Product Safety 2023/988/UE.

And it complies with the following **European Harmonized Standards**:

- EN 60065:2014. Audio, video and analog electronic devices.
- EN 55032:2012. Electromagnetic compatibility of multimedia equipment. Part 1: emission requirements.
- EN 55103-2:2009. Electromagnetic compatibility. Part 2 Immunity.

This declaration is available for request by email: info@prodgsystems.com

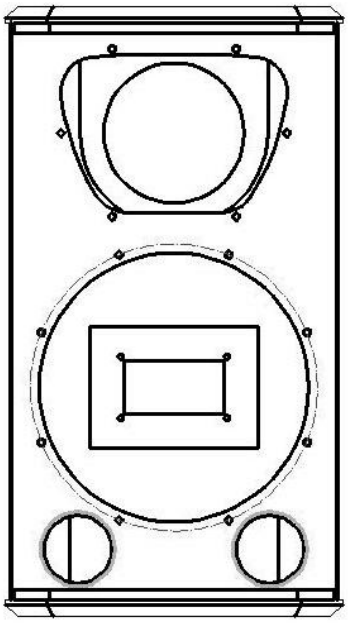
Or to be downloaded from the website: www.prodgsystems.com

Description

GX 10A is one of the point source systems of the new **GX Series**.

The new GX Series from **Pro DG Systems** has been developed with the purpose of offering a wide range of point source systems with the best quality-price ratio on the market. It has a completely modernized appearance, great power and reduced weight thanks to the incorporation of state-of-the-art components.

Designed in Spain, the new GX 10A is the 10" self-powered point source system with the best quality-price ratio on the market.



Equipped with one 10" speaker in a tuned enclosure. The HF section features one 1.5" compression driver from Celestion coupled to a diffuser, offering a dispersion of 90ºx50º (H x V).

It incorporates a state-of-the-art Class-D amplification module and own DSP which is very intuitive and easy to use for an absolute control, ready to plug-in and use.

The construction of GX 10A system is made of birch plywood using CNC machining, with a special water-based paint finish with IP20 protection. Its front part is protected by a robust metal grille and acoustic foam.

GX 10A features a stand socket to attach a tripod or an extendable bar, allowing it to work together with a subwoofer unit in combo format. It has 12 rigging points for wall or ceiling installation. Installation hardware for wall or ceiling installation is available as option.

Easy to transport thanks to its compact, lightweight and ergonomic design, also offering a pleasant visual impact. It incorporates rear handle for easy handling.

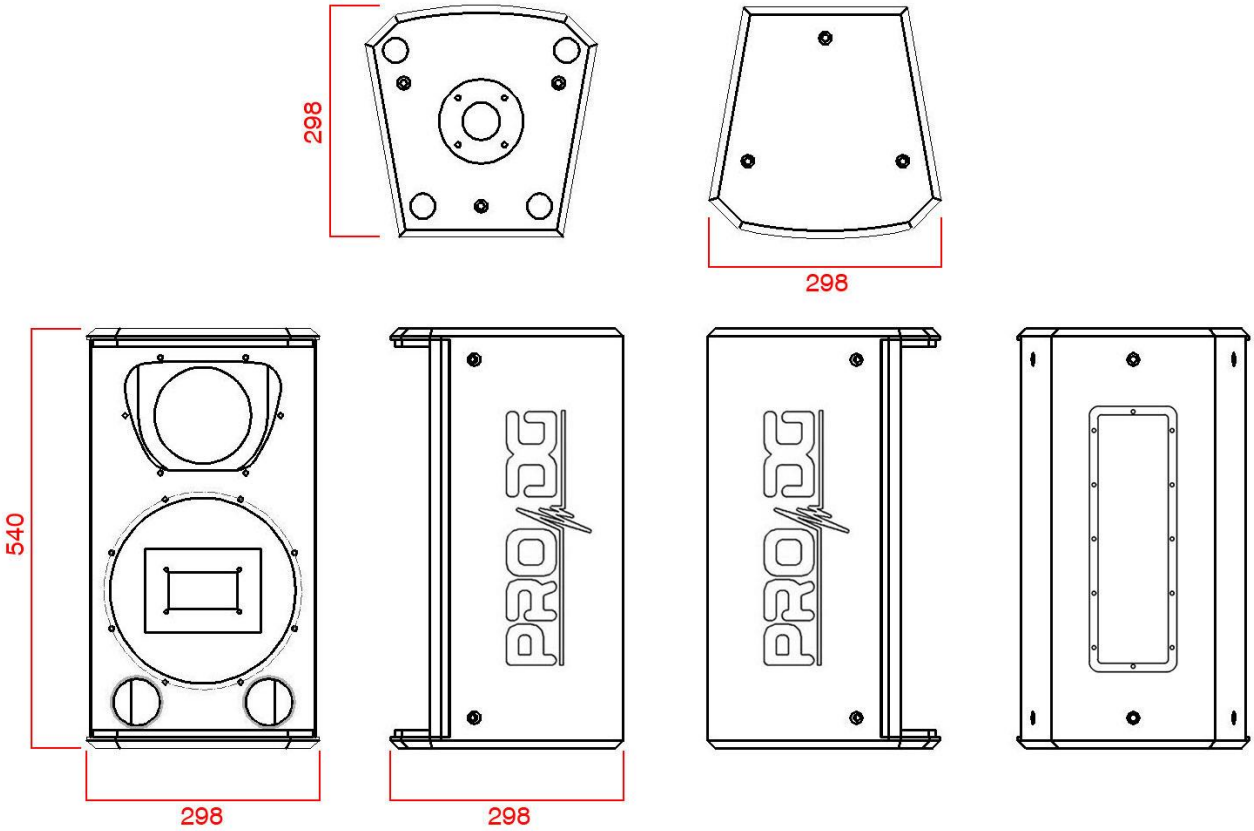
The perfect solution as main PA, frontfill and sidefill at small outdoor events or permanent installation. Ideal as point source system in theaters, coverage under amphitheaters, places of worship, corporate applications and all types of events where high performance and versatility are necessary.

Technical datasheet

GX 10A	
Power handling	235 W RMS / 470 W program / 940 W peak
Maximum SPL Calculation	1m / 118 dB continuous / 121 dB program / 124 dB peak.
Nominal impedance	8 Ohm
Frequency range	65 - 18000 Hz
Dispersion angle	90ºx50º (HxV) diffuser
MF and LF component	One Pro DG Systems 10” speaker. Ferrite. 200 W RMS
HF component	One Celestion 1.5" compression driver. Ferrite. 35 W RMS
Amplifier	State-of-the-art Class-D and own DSP
DSP	5 factory presets with selection button. Control software interface through USB connection in the panel
Frequency cut-off for MF *	65 Hz Linkwitz-riley 24 filter - 2000 Hz Linkwitz-riley 24 filter
Frequency cut-off for HF *	2000 Hz Linkwitz-riley 24 filter - 18 kHz Linkwitz-riley 24 filter.
Frequency cut-off for subwoofer *	Up to 90 Hz. Linkwitz-riley 24 filter
Connectors	1 x XLR female (input signal), 1x XLR male (output link). PowerCON NAC3FCB (current supply)
Construction	Birch plywood using CNC machining. 2mm thick perforated steel front grille, with oven-dried black electrostatic powder paint finish. Includes acoustic foam. Includes stand socket to attach extendable bar
Rigging points	12 x M8
Paint	Water-based paint finish with IP20 protection. Black color (standard)
Dimensions (height x width x depth)	540 x 298 x 298mm (21,26 x 11,73 x 11,73in)
Weight	16,1 Kg (35,49 lbs) net / 17,5 Kg (38,58 lbs) with packaging

***** Disrespect the suggested frequency cuts-off on the different ways may cause components breakage.

Architectural specifications



All measures expressed in millimeters (mm).

UserUser guide. Troubleshooting

Turning On / Off

Turning on any sound system must be done from back to front. Turn on sources such as CD players first, then the mixer, then the processors, and finally the self-powered loudspeakers. If you have several self-powered loudspeakers, it is advisable to turn them on sequentially one by one.

When turning off the sound system, follow the reverse process, turning off the self-powered loudspeakers before any other element of the system.

Disconnect the device using the mains plug. Both the power connector and the plug must always be accessible and must never be covered or blocked.

To disconnect the power, remove the Powercom type cable from the power connector located on the equipment amplifier, perform this operation on all loudspeakers.

Important: do not unplug the computer when music is playing.

Limiter

GX 10A amplifier has a limiter system to protect the equipment.

An excessive level makes the equipment sound bad, causing hearing fatigue, with consequent damage to your health.

Equalization

This system does not need additional equalizers. In any case, values higher than +3dB are not recommended.

Remote control and processing are carried out through its own system interface.

Overheating

The amplifier has a cooling system by incorporating an aluminum heatsink plate and forced ventilation. In case of overheating the amplifier will mute to protect itself. In most cases it will be enough to let the unit cool down for it to work properly again.

You must ensure that the ventilation grilles are free of dust and dirt, as well as preventing their obstruction.

User guide. Troubleshooting

Problem	Cause	Solution
The unit does not sound.	1. The signal source is not sending a signal over the cable. 2. Defective cable.	1. Check the mixer output indicator to see if the signal is being sent. 2. Make sure the cables are connected correctly. If so; use another cable.
The unit does not sound at its maximum level.	1. The mixer or signal source has insufficient output. 2. Possible overheating of the unit.	1. If you use a mixer, be sure to use balanced output if it has one. Use a mixer or signal source with a higher output level. 2. Lower the master level of the table.
Distorted sound signal.	The mixer or other signal is distorting.	Lower the overall mixer output level or channel gain. Check that the signal source is ok.
Distorted and very loud sound signal.	The system is being overloaded with too much input signal and has reached maximum power.	Lower the mixer output level.
Noise when the unit is connected to a mixer.	1. Probably the output has unbalanced output. Poorly constructed unbalanced to balanced cables are being used. 2. The connections to the electrical network are not correct. 3. The signal cable is too long or too close to the AC line.	1. Check output and replace wiring. 2. Plug the mixer and powered box into the same outlet. 3. Use a signal cable as short as possible and avoid it being too close to the AC power cable.

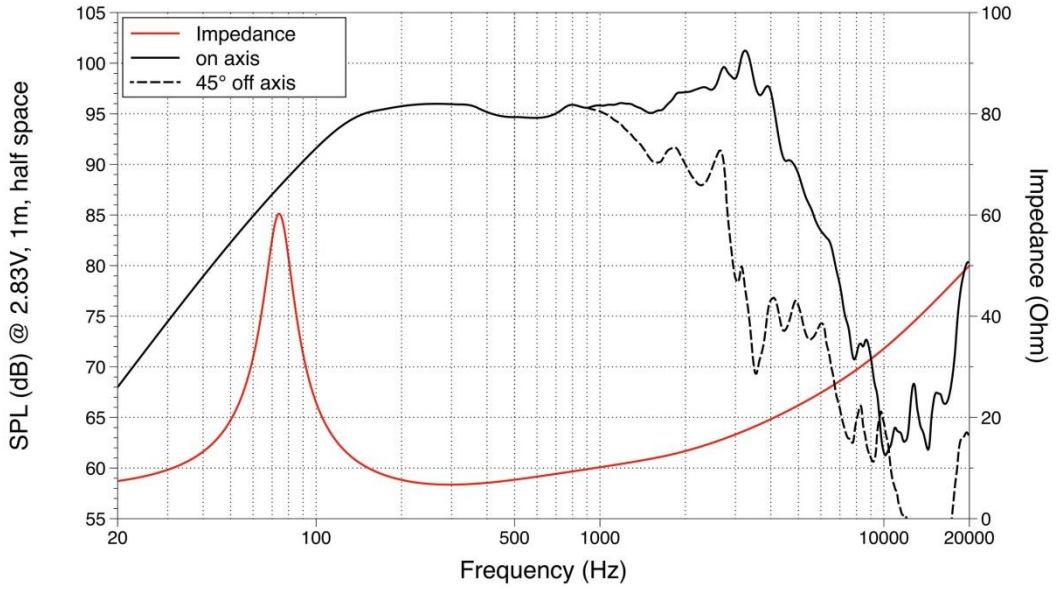
Noise or buzz when light controls are used in the same environment.	1. The sound system is connected to the same phase than the lights. 2. The sound cables are too close to the light cables.	1. Connect the sound system and lighting system to different phases. Request the help of an electrician. 2. Aleje los cables de audio de los cables de luces.
The system does not turn on even though the power cable is correctly connected, both to the network and to the box.	1. Defective cable. 2. Internal fuse blown.	1. Check the cables, connectors and power outlet with a tester or multimeter. 3. Contact your Pro DG Systems distributor or authorized professional to perform the repair.

If you have any technical problem or questions about Pro DG Systems products; contact our technical support department at: sat@prodgsystems.com

Speaker

GX 10A includes one 10” speaker with ferrite magnet, in charge of reproducing low and medium frequencies.

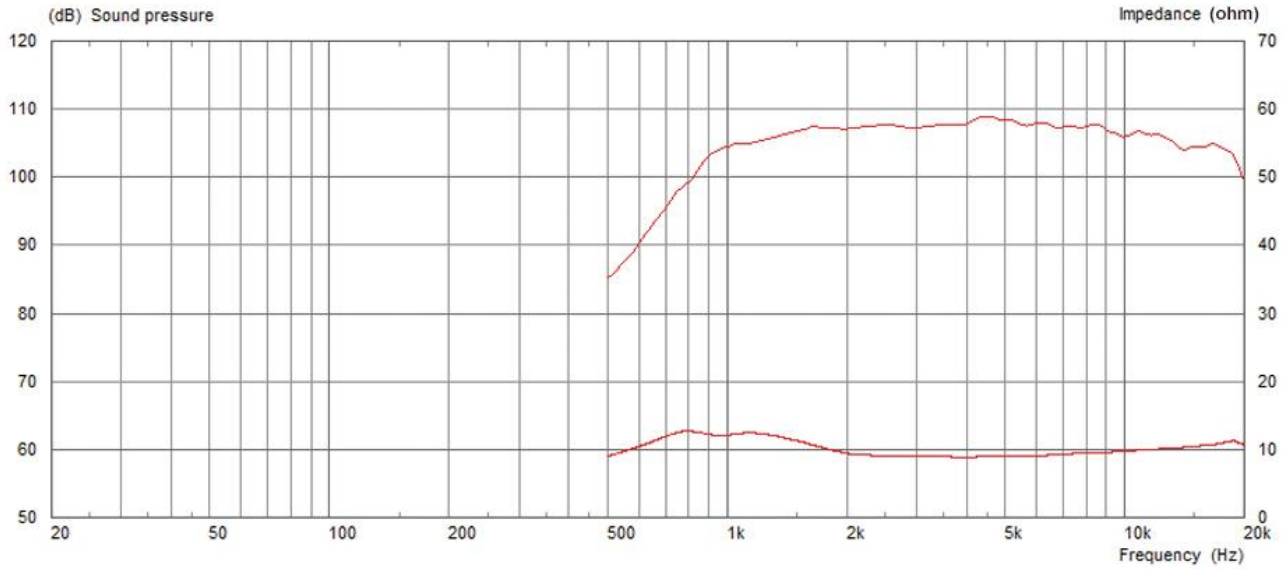
Main characteristics
Power handling of 200 W RMS / 500 W program
2.5 inch CCAW voice coil
FEM optimized motor and suspensions
Optimized cooling system
4 Kg weight
Aluminum basket driver



Compression driver

The HF section of the GX 10A has one 1.5” Celestion compression driver with ferrite magnet, in charge of reproducing high frequencies.

Main characteristics
Power handling of 35 W RMS / 70 W program
Single piece polyimide diaphragm and surround
Integrated diaphragm and rear cover for ease replacement
1.4 inch voice coil diameter
1 Kg weight



Architectural specifications	
Width	90mm / 3.5in
Depth	46.5mm / 1.8in
Fitting	Bolt (4 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	1.0kg / 2.2lb

Horn

The compression driver of the GX 10A is coupled to a diffuser (horn) to offer a dispersion of 90ºx50º (H x V), specifically designed to achieve maximum performance and acoustic quality in high frequencies.

Made of ABS material to offer a low weight. Specially designed to achieve a perfect blend between medium and high frequencies.

Rear panel functions

1. POWER SWITCH:

Controls the power On/Off of the amplifier. Press down to turn on, release to turn off.

2. AC LINK:

The AC INPUT can be cascaded to the power input of the next module, enabling multi-unit cascading for simultaneous operation.

3. AC LINE:

Power Input attention should be paid to whether the module is designed for 220V or 110V voltage before connection.

4. POW:

Power Indicator Light. The LED indicator glows green when the module is powered on; the LED remains off if the module is unpowered or malfunctioning.

4. SIG:

Signal Indicator Light. The LED indicator glows yellowish-green when a signal is input; the LED remains off when there is no signal input.

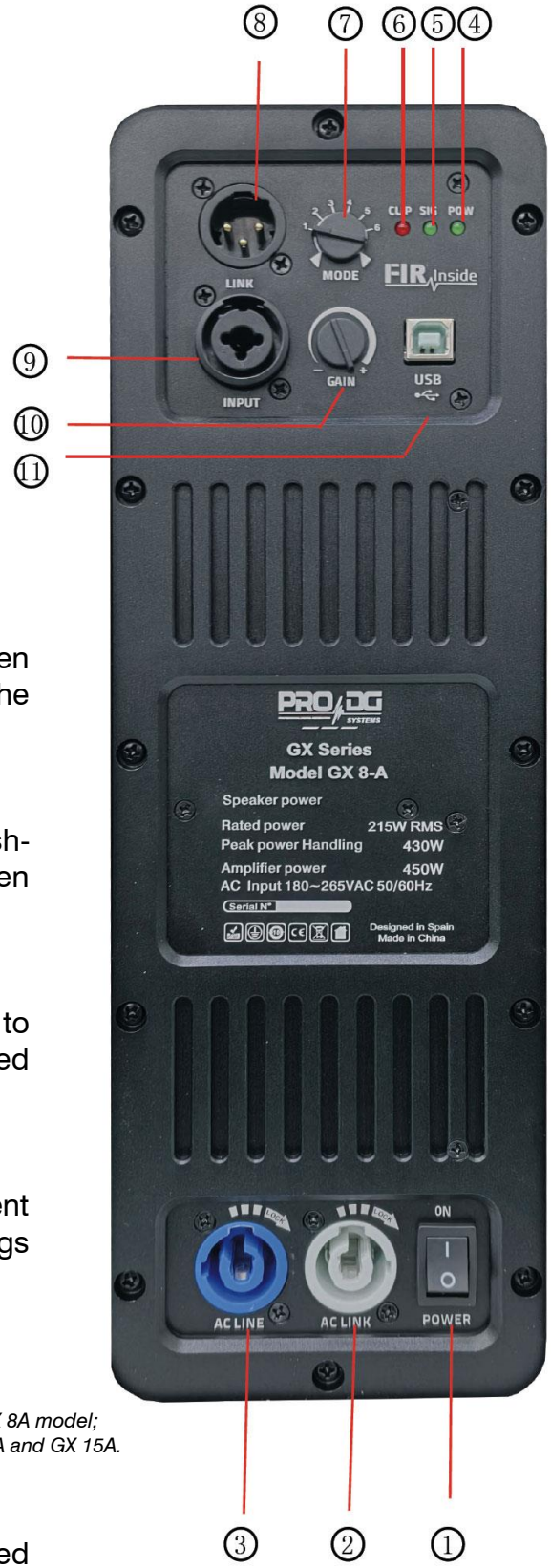
5. CLIP:

Peak Indicator Light. The red LED indicator illuminates to issue a warning when the input signal exceeds the rated level.

6. MODE:

Mode Selection & Recall Users can cave modes for different application scenarios and flexibility recall them via Settings 1-6 during operation.

1: Indoor use. 2: Outdoor use. 3: KTV
4: Conference. 5: School.



Example shown of the GX 8A model; same for GX 10A, GX 12A and GX 15A.

8. LINK:

Input Signal Cascading. The input signal can be cascaded to the INPUT port of the next module, supporting multi-unit cascading for system expansion.

9. INPUT:

Audio Signal Input. Both balanced and unbalanced signals are supported for input. The input impedance is 20k for balanced connection and 10k for unbalanced connection. For signal connection, the balanced connection is highly recommended since it can maximize the suppression of noise introduced during signal transmissions, especially when long cables are used.

10. VOLUME:

Volume potentiometer used to adjust the volume level of the corresponding channel. Rotate the knob clockwise to increase volume and counterclockwise to decrease volume. The numbers and scales around the knob indicate the corresponding attenuation level.

11. USB:

This port is used for connection with PC software, enabling used control and system debugging.

PC interface

1. Launch the PC control software, the software will automatically detect the USB connection and establish communication with the device.

   Once connected, the Connection Button in the upper right corner will turn green and display “Online”, indicating that the software and the device have been successfully paired, you can then operate the processor via the control software.

To exit, click the “Online” button first and then close the software interface window.

Menu Bar.

File: Open and save preset parameters, as well as upload the entire device data to the PC and download data from the PC to the device.

Link: Input and output channels can be combined arbitrarily to adjust all parameters in a linked manner.

Copy: Input and output channels can be copied freely.

Lock: used to set the panel lock password to ensure the safe operation of the device. This function is not currently in use.

Lock Mode: set the device to permanent lock mode or one-time lock mode. This function is not currently in use.

Setting ID: the ID code is used for cascading. This function is not currently in use.

Test Tone: also referred to a signal generator, supports selection of pink noise and white noise.

Channel Name: modify channel names, customizable by the user.

Language: switch between English and Chinese versions, selectable by the user.

About: display the version number and release date.

Save Mode: (see number 3 in the first picture on this page): parameters configured by the user can be directly saved in the device, with support for up to 10 different modes.

Recall Mode: (see number 4 in the first picture on this page): users can directly retrieve the saved parameters, with access to up to 10 different saved modes.

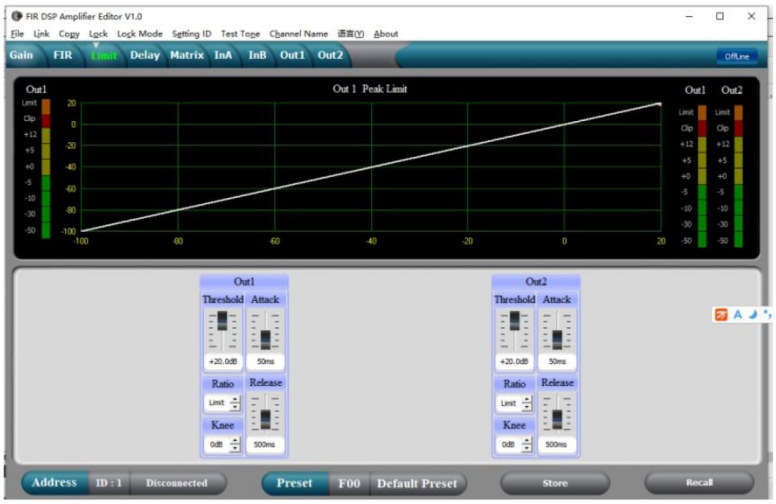
FIR interface.

FIR File (see number 1 in the second picture on the previous page): import files from third-party applications, supporting CSV and TXT file formats.

Bypass (see number 2 in the second picture on the previous page): enable or disable the FIR function.

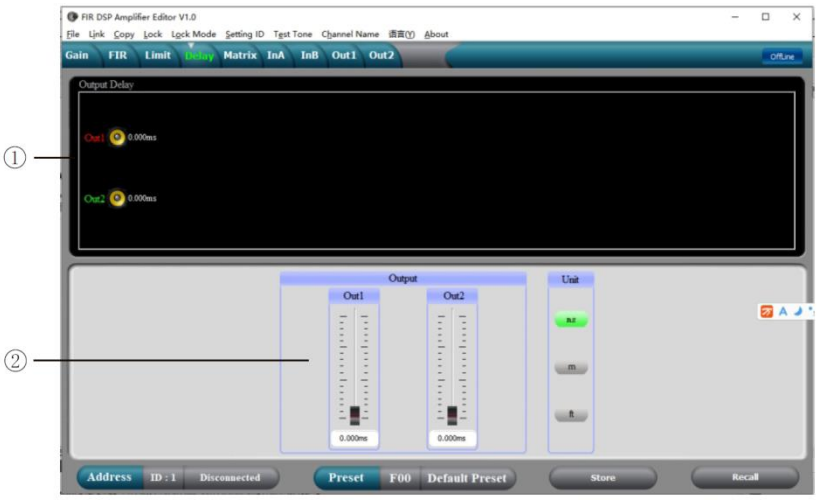
Limiter interface: displays the compression status curve, as well as the level indicators and compression status indicators for all output channels.

Allows configuration of compressor parameters for all output channels: compression level adjustable from -60 dB to + 20 dB; compression ratio selectable as 1:1, 1:20, LIMIT; attack time adjustable from 1-999 ms release time adjustable from 10-3000 ms; knee adjustable from 0-12 dN

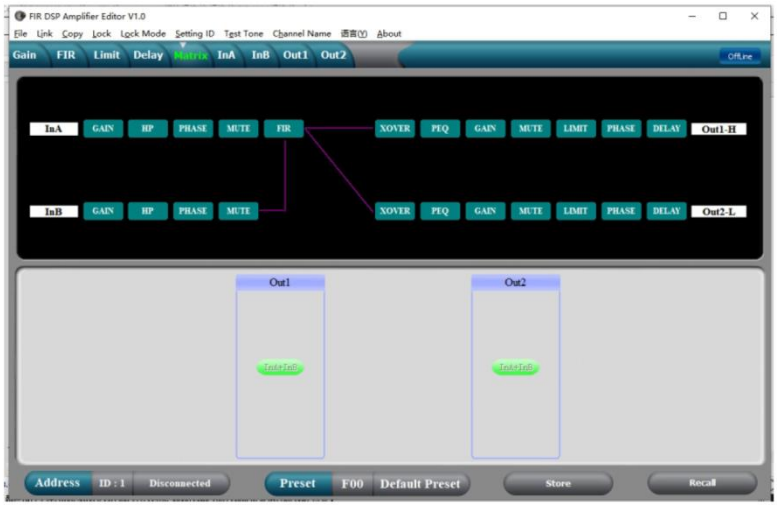


Delay interface.

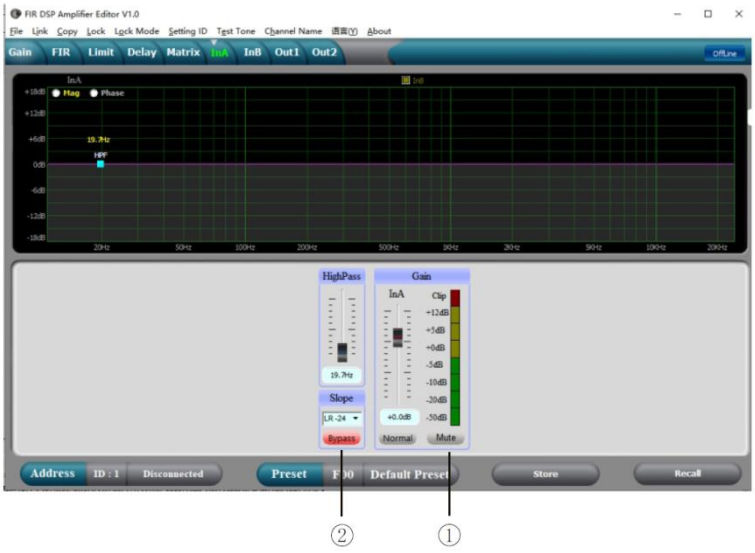
1. Intuitively displays the delay parameter status graphs for all channels.
2. Allows adjustment of delay parameters for all channels with an adjustable range of 0-680 ms. Unit switching is supported between milliseconds (ms), meters (m) and inches (in) for display.



Matrix interface: intuitively displays the electrical connection diagram of the entire device. The routing of all input and output channels is fixed and cannot be configured by the user.

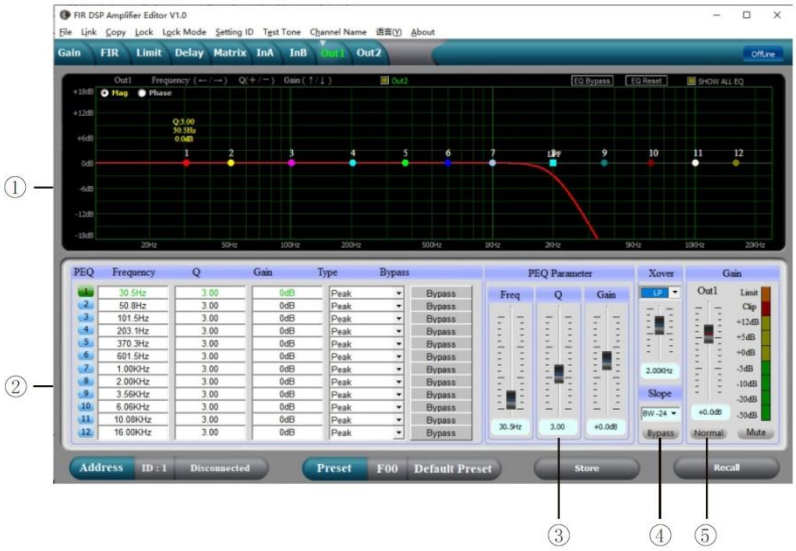


INA/INB input interface:



1. Gain, mute and phase of the output channels are independently controllable, with level indicator lights for each channel provided.
2. High-pass Filter (HPF) Function: adjustable via the slider or the up/down/left/right arrow keys on the key board. The cutoff frequency is adjustable within the range of 20 Hz - 20 kHz. The filter slope is selectable from Butterworth and Linkwitz-Riley, with an adjustable range of -6 dB to -24 dB.

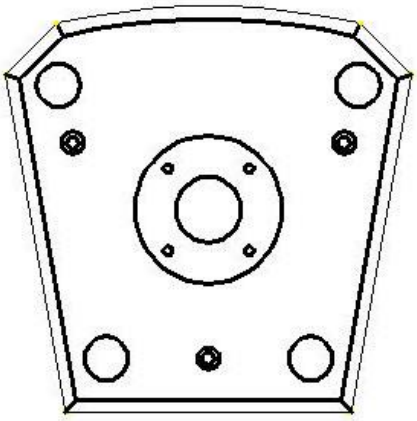
OUT1 / OUT2 interface:



1. Select the Mag interface to adjust the parametric equalization and high-pass/low-pass filter curves of the output channel; select the Phase interface to adjust the phase curve of the current channel, you can also check the option to synchronously display the parametric equalization and phase curves of non-current channels.
2. All parametric equalization parameters including gain, Q-factor, frequency and type are adjustable, with a bypass button available for selection, PEQ types include: Parametric EQ, Low Shelf, High Shelf, High-Pass-Filter, Low-Pass Filter, 180 Phase Shift, 360 Phase Shift.
3. The gain, Q-factor and frequency of parametric equalization can be adjusted via the slider, or controlled using the up/down/left/right arrow keys on the keyboard.
4. Switchable application between high-pass filter (HPF) and low-pass filter (LPF) is supported. The cutoff frequency is adjustable within the range of 20 Hz - 20 kHz. The filter slope is selectable from Butterworth, Bessel and Linkwitz-Riley, with an adjustable range of -6 dB to -48 dB.
5. The gain, mute and phase of the output channel are independently controllable, with level indicator lights provided for the channel.

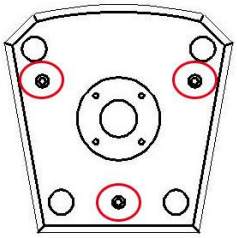
Hardware

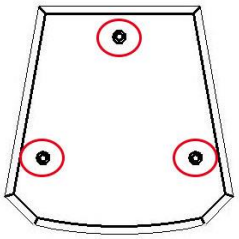
GX 10A features a stand socket to attach a tripod or an extendable bar, allowing it to work together with a subwoofer unit in combo format.

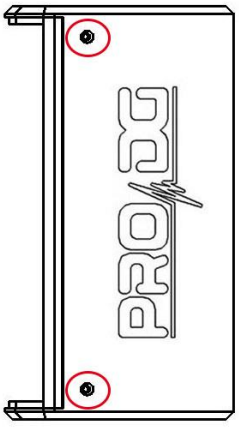


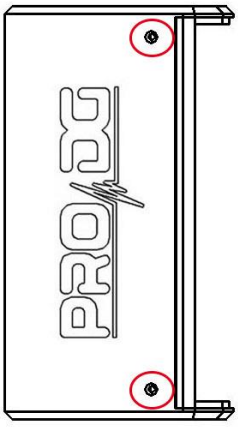
Tripod and extendable bar are not included, possibility of being supplied by Pro DG Systems as optional equipment.

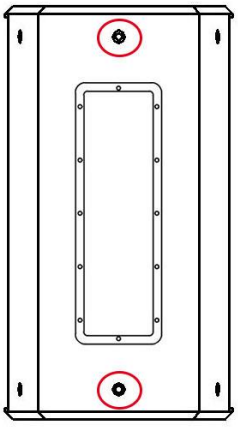
GX 10A has 12 M8 rigging points for fixing bolts, allowing a wide variety of installation possibilities on wall or ceiling.

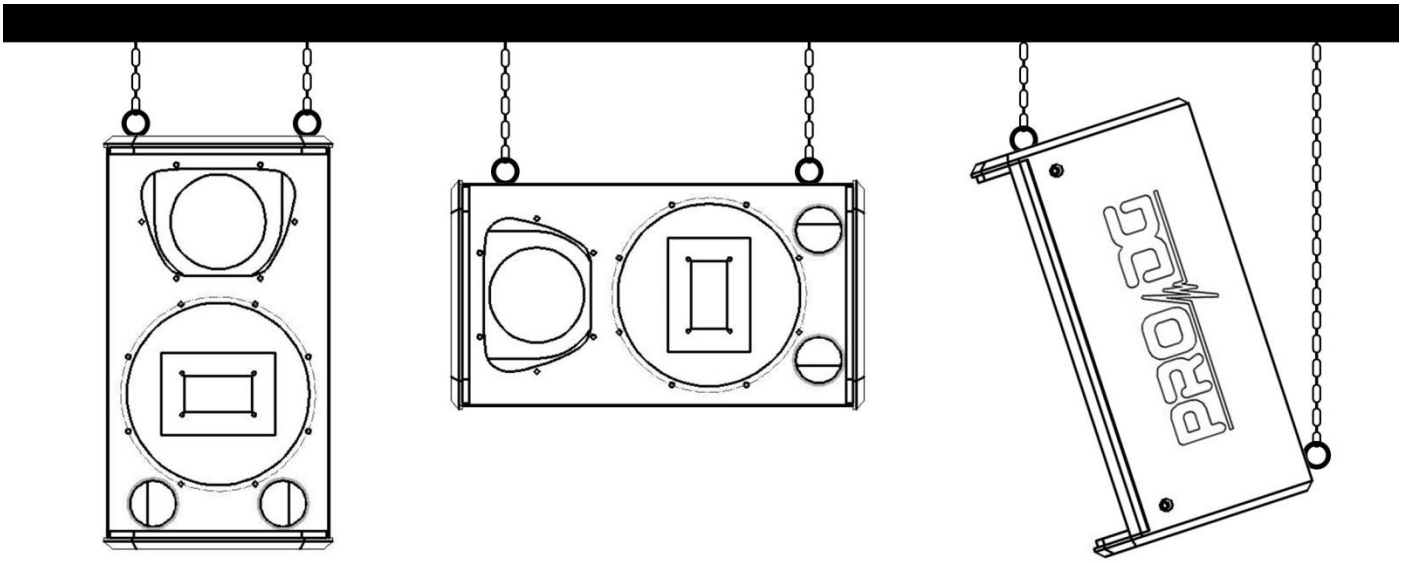












Wall mount bracket is not included, possibility of being supplied by Pro DG Systems as optional equipment.

Accessories

Complete system wiring ready to work.

GX 10A

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