GEOM1012-I – GEOM1025-I
# 1 CONTENTS

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## EU Conformity declaration

We,  
NEXO SA  
ZA DU PRE DE LA DAME JEANNE  
60128 PLAÏLLY – France  
Loudspeaker  
GEOM10  
On the product  
2006/95/CE (Low Voltage Directive)  
EN ISO 12100, EN 60065  
Joseph CARCOPINO, R&D Director  

Declare under our sole responsibility that the product  
Type  
GEOM10  
Serial number  
On the product  
Is in conformity with the provisions of the following directive including all applicable amendments:  
Applied rules and standards:  
EN ISO 12100, EN 60065  
Plailly, February 07th, 2017
2 WARNINGS

PRECAUTIONS

Do not open the speaker, do not try to disassemble it neither to modify it in any way. The system doesn't include any user-repairable part. If the system seems to be malfunctioning or damaged, stop using it at once and have it repaired by a NEXO qualified technician.

Do not expose the system directly to the sun or to the rain, do not immerse it into fluids, do not place objects filled with liquid on the system. If a liquid gets into the system, please have it inspected by a NEXO qualified technician.

The connection should be performed by qualified technician, by ensuring that power is off.

Operating temperature with temperate climate: 0°C to +40°C (+32°F to +104); -20°C à +60°C (-4°F to +140°F) for storage.

SAFETY INFORMATIONS

Read this manual before using the speaker.

Keep this manual available for further reference.

Observe all warnings and cautions.

Please check the NEXO Web site nexo-sa.com to get the most up-to-date version of this manual.

Ensure you are aware of the safety rules applying to rigging, stacking or installing on tripod or speaker stand. Failure to observe these rules may expose persons to potential wounds or even death.

Only use the system with accessories specified by NEXO.

Please always consult a NEXO-accredited technician if the installation needs architectural works and observe following precautions:

Mounting Precautions:

- Please select screws and mounting location supporting 4 times the system weight.
- Do not expose the system to excessive dust, vibrations, to extreme cold or hot temperatures, to reduce the risk of damaging components.
- Do not place the system in an unstable position: it could fall accidentally.
- For fixed installations wind loading has to be taken into account in accordance to the national standards.
- If the system is used on a tripod, please ensure the tripod’s specifications are adapted and that it’s height does not exceed 1.40m/55”. Do not move the tripod with the system in position.

Connection and Powering Precautions:

- Unplug connected cables before moving the system.
- Power off the system before connecting the system.
- When switching on the installation, the amplifier must be powered last; when switching the installation off, shut off the amplifier first.
- If you work by cold temperatures, progressively raise the level to nominal value during the first minutes of use, to allow the system components to stabilize.

Please check regularly the system condition.

HIGH SOUND PRESSURE LEVELS

Exposure to very high sound pressure levels may cause permanent hearing losses. Degrees of hearing losses may be different from one person to another, but almost everybody will be affected if exposed to high sound pressure levels during a long period of time. The OSHA (Occupational Safety and Health Administration) American Agency specified the following maximal exposures:

<table>
<thead>
<tr>
<th>Number of Hours</th>
<th>Sound Pressure Level (dBA), Slow Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>92</td>
</tr>
<tr>
<td>4</td>
<td>95</td>
</tr>
<tr>
<td>3</td>
<td>97</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>1 ½</td>
<td>102</td>
</tr>
<tr>
<td>1</td>
<td>105</td>
</tr>
<tr>
<td>½</td>
<td>110</td>
</tr>
<tr>
<td>¼ or less</td>
<td>115</td>
</tr>
</tbody>
</table>

WASTE OF ELECTRIC OR ELECTRONIC EQUIPMENT

This symbol on the product or its packaging indicates that this product must not be treated as household waste. Instead, it is your responsibility to hand it over to a designated collection point for the recycling of waste electrical and electronic equipment. By ensuring your waste equipment is recycled, you will help prevent potential negative consequences for the environment and human health, which could appear if this product was not recycled. Recycling helps spare natural resources. For more information about the recycling of this product, please contact your local city office, your household waste disposal service or your reseller.
### 3 GEOM10 RIGGING

#### Front

<table>
<thead>
<tr>
<th>Positioning 2x GEOM10-1..</th>
<th>Connect both cabinets by inserting the axis through front holes and secure axis with brake nuts.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Positioning 2x GEOM10-1.." /></td>
<td><img src="image2" alt="Connect both cabinets by inserting the axis through front holes and secure axis with brake nuts." /></td>
</tr>
</tbody>
</table>

#### Back

Adjust the appropriate inter-angle value with the Linkbar and secure with the provided screws.

Screws: 1 shouder screw (D8x20), 2 washers (M8), 1 brake nut (M6).

![Adjust the appropriate inter-angle value with the Linkbar and secure with the provided screws.](image3)

SAFETY: You can replace one of the four screws with an eyebolt (M8), and use a sling (apply thread lock on the eyebolt).

![SAFETY: You can replace one of the four screws with an eyebolt (M8), and use a sling (apply thread lock on the eyebolt.).](image4)
4 GEOM10 – ACCESSORIES

Warnings

All GEOM10 accessories are specifically rated in agreement with structural computations. Never use other accessories – including push-pins – when assembling GEOM10 cabinets than the ones provided by NEXO: NEXO will decline responsibility over the entire GEOM10 accessory range if any component is purchased from a different supplier.

All GEOM10 accessories have been designed so that cabinet are arrayed vertically. GEOM10 horizontal assemblies as shown in figure below are UNSAFE and STRICTLY PROHIBITED.

VNT-BUMPM10

- Rated for a maximum of 12 GEOM10 or 8 MSUB15.
- Maximum quantity for flown vertical cluster is:
  \[ N_{GEOM10} + 1.5N_{MSUB15} \leq 12 \]
- 2 rigging points 2 points with retractable rings.
- Usable with VNT-EXBARM10 for a one rigging point.
- Ground stack assembly alone, or with VNT-GSTKM10S / VNT-GSTKM10L.
- 2 locations for laser/clinometer.
  On each side, an arrow indicates the front.

VNT-EXBARM10

<table>
<thead>
<tr>
<th>Negative tilt</th>
<th>Positive tilt</th>
</tr>
</thead>
</table>

| Diagram of VNT-EXBARM10 showing negative and positive tilt. | Diagram of VNT-BUMPM10 showing its components and usage. |
VNT-GSTKM10S – VNT-GSTKM10L

- Rated for a maximum of 3 GEOM10 on the top of MSUB15.

VNT-MNSTKM10

- Rated for a maximum of 12 GEOM10.
- Usable with GMT-EXBARM10L for a one rigging point.

GMT-LBUMP10M

- Rated for a maximum of 12 GEOM10.
- Usable with GMT-EXBARM10L for a one rigging point.

GMT-EXBARM10L

- Pair of flanges for 120° horizontal directivity.
- No tools, magnetic clamp.

GMT-FLGM10
5 DESCRIPTION

- GEOM1012-I and GEOM1025-I are a compact high-technology line array, 2 ways passive, with a 10” LF and a 1.4” HF.
  You can change the HF horizontal directivity by adding a pair of magnetic flanges.
- GEOM1012-I : 12° vertical dispersion
- GEOM1025-I : 25° vertical dispersion
- Versions :
  - GEOM1012-I: fix installations; Black
  - GEOM1012-I-PW: fix installations; White
  - GEOM1025-I: fix installations; Black
  - GEOM1025-I-PW: fix installations; White
  - For Touring applications, see manual GEOM1012 / GEOM1025
- Connectors:
  - GEOM1012-I/1025-I: two cable-glands, two fast connectors behind the plate.
    - Remove the connecting plate.
    - Pass the cables through the cable-gland.
    - Prepare cable as below:
      - Stripping length 10mm + trimming
      - Stripping length 35mm
      - Connect to the fast connectors (+): Brown (or Red) / (-): Blue (or Black).
      - Remount the connecting plate.
      - Tight the cable-gland and adjust the length.
      - Seal the cabinet with the provided blind plug on the unused cable gland.

- Amplification:
  - The GEOM10 cabinets MUST be used with a NEXO processor to handle EQ, phase alignment, crossover and excursion/thermal protection for the system loudspeakers. There are two NEXO processor series supporting the GEOM10 cabinet: NXAMP (4-channel) amplified processors and DTD processors (stereo + sub).
  - The following table shows the number of GEOM10 usable with each solution.

<table>
<thead>
<tr>
<th>NXAMP4x1mk2</th>
<th>NXAMP4x1mk2 (bridged)</th>
<th>NXAMP4x2mk2</th>
<th>NXAMP4x4</th>
<th>DTD + DTDAMP4x1.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOM10</td>
<td>1 per channel</td>
<td>Up to 2 per channel</td>
<td>Up to 3 per channel</td>
<td>Up to 4 per channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Recommended</td>
</tr>
</tbody>
</table>
6 PRESET GEOM10

Please consult nexo-sa.com for NEXO TD Controllers firmware information.

For the GEOM1012, with or without directivity flanges, the following setups are available:

- Setup for one stand-alone box, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for arrays from 2 to 3 boxes, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for arrays from 4 to 6 boxes, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for arrays from 7 to 12 boxes, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for Stack Monitor, with high-pass at 63, 75 or 85 Hz.

For the GEOM1025, with or without directivity flanges, the following setups are available:

- Setup for one stand-alone box, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for 2 to 3 boxes, with high-pass at 63, 75, 85, 95 or 120 Hz.
- Setup for Stack Monitor, with high-pass at 63, 75 or 85 Hz.

➢ 1 Box

- Default Cross over on one box 63 Hz Front Fill, multi-diff, sound reinforcement all short throw application;
- High SPL Small system using 2x GEOM10 and 2x MSUB15 in 85 Hz;

➢ 2 - 3 Boxes

- For small flying configuration, mid throw application used at 63 Hz without MSUB15 and default 85 Hz with MSUB15 at 85 Hz too.
Possibilities to use 2-3Box setup in stack configuration using MSUB15 in OMNI or CARDIO mode with 1 Back and 2 front and 3 GEOM10 on top of them, application venue up to 15 meters, default cross over 85 Hz but small overlap could have impact if needed, for example (MSUB15 120 Hz and GEOM10 75 Hz).

4-6 Boxes

For long throw flying application used in GEOM10 at 63 Hz without Sub and GEOM10 at 85 Hz with flying MSUB15 in cardio mode at 95 Hz.
- For long throw stacking application on floor or on MSUB15, up to 6 boxes used at 63 Hz without Sub and 85 Hz with MSUB15 at 85 Hz.

➢ 7 - 12 Boxes
- For very long throw application used with Sub either ground stack or flying, recommended MSUB15 cardioid mode, cross over MSUB15 95 Hz and 12 GEOM10 cross over 75 Hz for maximum impact. Don't forget to put HF Waveguide either to the exterior or the interior of the venue.
Ground Stack Sub design is:

- GEOM10 MON and MSUB15 MON
  - Minimum phase setup not compatible with others.
  - Used for high power stage Monitor, DJ Monitor, Drum Fill, Stack side.
  - Always use same cross over between GEOM10 and MSUB15, no overlap possible without doing phase adjustment by yourself.
  - Very high LF headroom.
  - Clarity adjustment using \(-3\text{dB}\) on ArrayEQ – 75 Hz crossover default.

2 to 3 GEOM10i

D: 6.3°
E: 9.5°
S: 0°

4 to 6m

2x MSUB15i OMNI
7 ARRAY EQ

The ArrayEQ allows to adjust the system frequency response in its lower range (see curves below, with different ArrayEq values):

- GEOM10

- GEOM10 STACK MON
8 MAINTENANCE

8.1 Front panel disassembly

Remove the 4 screws (Tx25) to remove the grille.

<table>
<thead>
<tr>
<th>MARK</th>
<th>QUANTITY</th>
<th>REFERENCE</th>
<th>DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>05LEXM1012</td>
<td>Lexan GEOM1012 black</td>
</tr>
<tr>
<td>2</td>
<td>05LEXM1012-PW</td>
<td>Lexan GEOM1012 white</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>05LEXM1025</td>
<td>Lexan GEOM1025 black</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>05LEXM1025-PW</td>
<td>Lexan GEOM1025 white</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05LEXWAR</td>
<td>Lexan Warning</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05LEXRIG-EXP</td>
<td>Lexan Rigging Explain</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05LEXRIG-ANG</td>
<td>Lexan Rigging Angles</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05HPADE68-16</td>
<td>HF Driver complete</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05HPH68-16R/K</td>
<td>HF Diaphragm</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05HPB10N</td>
<td>10'' Driver (with screws)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05HPB10NR/K</td>
<td>Recone Kit HPB10N (with screws)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05GEOM10UA-I</td>
<td>Complete grille Installation Black</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>05GEOM10UA-IPW</td>
<td>Complete grille Installation White</td>
<td></td>
</tr>
</tbody>
</table>

Remove the front panel (8 screws Tx25)
Tightening torque: 3.5 Nm

To remove the HF Driver, unscrew the 4 nuts, and remove it from the wave guide.

To remove the 10'' driver, remove the 4 screws (Tx25), Angle it to get out the driver.
Tightening torque for the 10'': 2Nm

8.2 Spare parts
## 9 TECHNICAL SPECIFICATIONS

### GEOM10 WITH NEXO ELECTRONICS

<table>
<thead>
<tr>
<th>Model</th>
<th>GEOM10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency range (±6dB)</td>
<td>59Hz – 20kHz</td>
</tr>
<tr>
<td>Sensibility (1W / 1m)</td>
<td>100dB SPL Nominal</td>
</tr>
<tr>
<td>Peak SPL Level (1m)</td>
<td>136dB Peak</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>30 Vrms (180 Vpeak)</td>
</tr>
<tr>
<td>Vertical Dispersion</td>
<td>12° pour GEOM1012</td>
</tr>
<tr>
<td></td>
<td>25° pour GEOM1025</td>
</tr>
<tr>
<td>Horizontal Dispersion</td>
<td>80° or 120° (with magnetic flanges GMT-FLGM10)</td>
</tr>
<tr>
<td>Crossover Frequency</td>
<td>LF-HF : 1.3kHz Passive</td>
</tr>
<tr>
<td>Nominal Impedance</td>
<td>8Ω</td>
</tr>
<tr>
<td>Recommended Amplification</td>
<td>750 W per cabinet</td>
</tr>
</tbody>
</table>

### CARACTÉRISTIQUES

<table>
<thead>
<tr>
<th>Model</th>
<th>GEOM10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>LF: 1x 10” - 8Ω - Long excursion – Neodymium driver with PDD™</td>
</tr>
<tr>
<td></td>
<td>HF: 1.4” throat driver on a BEA/FEA optimized HRW™</td>
</tr>
<tr>
<td>Material</td>
<td>Lightweight polyurethane composite</td>
</tr>
<tr>
<td>Finish</td>
<td>Black or white structural paint</td>
</tr>
<tr>
<td>Front finish</td>
<td>Black or white acoustic fabric fitted front steel grille</td>
</tr>
<tr>
<td>Fittings</td>
<td>2 horizontal handles</td>
</tr>
<tr>
<td></td>
<td>2 vertical handles</td>
</tr>
<tr>
<td></td>
<td>Back grip</td>
</tr>
<tr>
<td>Weight</td>
<td>21 kg – 46.3 lb</td>
</tr>
<tr>
<td>Dimensions [Inches] / mm</td>
<td>![Dimensions Diagram]</td>
</tr>
</tbody>
</table>
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