P12-I

User manual
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EU Conformity declaration

We, NEXO SA
ZA DU PRE DE LA DAME JEANNE
60128 PLAILLY – France

Declare under our sole responsibility that the product

Type Loudspeaker
Serial number P12

On the product

Is in conformity with the provisions of the following directive including all applicable amendments:

2014/35/UE (Low Voltage Directive)

Applied rules and standards: EN 13155, EN 62368

Plailly, June 12th, 2019

Joseph CARCOPINO, R&D Director
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.
- If the system is used on a tripod, please ensure the tripod’s specifications are adapted and that its 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 locations for hanging, 1 on the back and on both sides.

WARNING: The depth of the M10 thread is 13mm (0.5 inch).

Assembly on distance rod or speaker stand

Place distance rod on the connector plate (M20) of the Sub.
Place PLADAPT on P12-I.
Put the assembly on the distance rod / monitor stand (diameter of 35mm).

IMPORTANT
Speaker stand must be rated for P12 weight.
Speaker stand must always be installed on a horizontal surface.
Stand height and footprint must be defined to prevent assembly from collapsing.
Ensure that audience is not allowed within a safety area which radius is equal or higher than assembly height.
Test steadiness of the assembly by pushing in all directions.
The P12-I is a compact full-range coaxial speaker

- P12 HF Dispersion:
  - 60° - 60° with standard horn
  - 90° – 40° with PNU-P12FLG9040
  - PS with PNU-P12FLGPS (Asymmetrical Dispersion)

- P12 can be used alone or with L15 subwoofer

- The speaker is equipped with a cable gland (clamping range, Ø 5 to 12 mm), supplied with a fixed cable (HO7ZZ-F), 2 x 1.5mm² section, length 4m, outside diameter 8mm ±1mm.

- (+) Red / (-) Black

Amplification
- The P12 speakers must be used with a NEXO processor to handle EQ, phase alignment, crossover and excursion/thermal protection for the system loudspeaker. There are two NEXO processor series supporting the P12 speakers: NXAMP (4 channels) amplified processors and DTD processors (stereo + sub). DTD processors ensure optimal performances when used with DTDAMP power amplifiers.
- The following table shows the number of P12 speakers and L15 subwoofers usable with each solution.

<table>
<thead>
<tr>
<th>NXAMP4X1mk2(BRIDGED)</th>
<th>NXAMP4X2mk2</th>
<th>NXAMP4X4mk2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P12</td>
<td>Up to 2 per channel</td>
<td>Up to 2 per channel</td>
</tr>
<tr>
<td>L15</td>
<td>1 per channel</td>
<td>Up to 2 per channel</td>
</tr>
</tbody>
</table>
Please consult nexo-sa.com for NEXO TD Controllers firmware information.

For the P12, the following setups are available:

→ MAIN is the recommended setup for most FOH application, similar to previous firmware setup.

→ MONITOR is recommended for monitor applications. Warning: this setup is a low latency setup and therefore its phase is not compatible with other NEXO cabinets, including subs.
  - P12 MON PA 6060, with high-pass at 60 or 85 Hz.
  - P12 MON PA 9040, with high-pass at 60 or 85 Hz.
  - P12 MON PA PSguide, with high-pass at 60 or 85 Hz.
  
  - P12 MAIN PA 6060, with high-pass at 60, 85 or 120 Hz.
  - P12 MAIN PA 9040, with high-pass at 60, 85 or 120 Hz.
  - P12 MAIN PA PSguide, with high-pass at 60, 85 or 120 Hz.
Stage monitor applications with Subs (OMNI or CARDIO modes)

Front of house applications with Subs (OMNI or CARDIO modes)
HF DIRECTIVITY

The P12 speaker can be used in horizontal or vertical position.

The standard horn is a 60° - 60° HF dispersion. It’s easy to change the HF dispersion by adding a specific flange. Different mounting possibilities and flange rotation allow to deal with every request.

Loosen the 2 screws, Remove the grille. Remove the 4 HF Cap.

Place the flange, if necessary rotate it. Magnets keep the flange in place.

When replacing the grille, ensure it is well positioned in the top blade before fasten the hooks with the screws.

CROSSOVER FREQUENCY

60 Hz: Full range application.
85 Hz: Use as «front fill» on stage, complementing a main system. Use with a NEXO subwoofer, e.g. L15.
120 Hz: Long throw application.
**WARNINGS**

All P12 accessories are specifically rated in agreement with structural computations. Never use other accessories – including push-pins – when assembling P12 cabinets than the ones provided by NEXO. NEXO will decline responsibility over the entire P12 accessory range if any component is purchased from different supplier.

**PROHIBITED:** P12 below P12 or P12 below L15 without dedicated accessory.

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**VNU-BUMP (PNT-BUMP)**

LiftBar, use with P12, LIFTADAPT, WMADAPT.

Place VNU-BUMP on P12 (only use the provided screws).
Tight properly.

Refer to the Product Data Sheet.

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**VNU-HBRK535 (PNT-HBRK12)**

Horizontal Cradle, use with P12, CLADAPT, PLADAPT.

Place HBRK535 on P12, use only fasteners provided.
Tight properly.

Refer to the Product Data Sheet.
**ACCESSORIES**

**VNU-PLADAPT (PNT-PLADAPT)**

Pole adapter, use with P12, HBRK535, VBRK12.

Place VNU-PLADAPT, use only fasteners provided.

Tight properly.

Refer to the Product Data Sheet.

---

**PNU-VBRK12 (PNT-VBRK12)**

Vertical Cradle, use with CLADAPT, PLADAPT.

Place VBRK12 on P12, use only fasteners provided.

Tight properly.

Refer to the Product Data Sheet.
**VNI-WMADAPT (PNT-WMADAPT)**

Adapter, use with VNU-BUMP, VNI-WM330.

Refer to the Product Data Sheet.

---

**VNI-CLADAPT (PNI-CLADAPT)**

Ceiling adapter, use with VNU-HBRK535, PNU-VBRK12.

Screw CLADAPT to the ceiling (fasteners not provided).

Place the assembly on CLADAPT, use the 2 guides. Tight with the fasteners provided with CLADAPT.

Refer to the Product Data Sheet.
ACCESSORIES

PNI-P12TOL15
PNI-P12TO2L15

P12 Under L15
P12 under 2x L15 (Omni or Cardio)

Refer to the Product Data Sheet.

VNI-WM330 (PNI-WM330)
Wallmount for P12, use with WMADAPT.

Mount the wall plate. Place the arm in the wall plate.
Lock with the provided screw.

Refer to the Product Data Sheet.
PNU-P12FLGPS
(PNT-P12FLGPS)
HF Dispersion Horn ‘PS’

Remove the grille, remove the flange to place the PNU-P12FLGPS.
If it necessary, rotate it. Magnets keep the horn in place.

Refer to the Product Data Sheet.

PNU-P12FLG9040
(PNT-P12FLG9040)
HF Dispersion Horn 90° - 40°

Remove the grille, remove the flange to place the PNU-P12FLG9040.
If it necessary, rotate it. Magnets keep the horn in place.

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

Driver access

Loosen the 2 screws, Remove the grille.

Remove 8 screws.
Tightening torque: 3.5 Nm (Thread Locker: Loctite 242)

Remove the stickers.

Remove the 2 screws.
Tightening torque: 2.5 Nm (Thread Locker: Loctite 222)

Remove the horn.

To access to the HF diaphragm, remove 4 screws.
Tightening torque: 2 Nm
## MAINTENANCE
### Spare parts

<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>05RUBGRD01</td>
<td>Plastic Pad Black</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>05CAPB01</td>
<td>HF cap black</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>05HPC12</td>
<td>P12 driver complete (with screws)</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>05NHPC12R/K</td>
<td>Recone Kit 12&quot; (with screws)</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>05P12UA-I</td>
<td>Complete grille Instal Black (with fasteners)</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>05P12UA-IPW</td>
<td>Complete grille Instal White (with fasteners)</td>
</tr>
</tbody>
</table>

NOTE:
Speakers and Grills can be sent back to NEXO for recycling.
## TECHNICAL SPECIFICATIONS

### P12-I WITH NEXO ELECTRONICS

<table>
<thead>
<tr>
<th>Model</th>
<th>P12-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency range (±6dB)</td>
<td>60 Hz – 20 kHz</td>
</tr>
<tr>
<td>Peak SPL Level (1m)</td>
<td>138dB Peak (Passive mode) / 140dB Peak (Active mode)</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>55Vrms (180Vpeak)</td>
</tr>
<tr>
<td>HF dispersion (according to horns)</td>
<td>60°x60° - 90°x40° - Asymmetrical Dispersion 60° to 100°x40°</td>
</tr>
<tr>
<td>Crossover Frequency</td>
<td>60Hz – 85 Hz – 120 Hz</td>
</tr>
<tr>
<td>Nominal Impedance</td>
<td>8Ω</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>P12-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>LF: 1x12” - 8Ω; HF: 1x 3” - 8Ω - Neodymium driver</td>
</tr>
<tr>
<td>Material</td>
<td>Baltic birch / Poplar plywood</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 Magnelis® grille</td>
</tr>
<tr>
<td>Fittings</td>
<td>Threaded inserts on the back and on both sides for connection of mounting accessories</td>
</tr>
<tr>
<td>Connector</td>
<td>Cable gland, supplied with a fixed cable 2 x 1.5mm² section, length 4m.</td>
</tr>
<tr>
<td>Weight</td>
<td>20 kg / 44 lb</td>
</tr>
</tbody>
</table>

### Dimensions

![Dimensions Diagram]
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