



OPERATION MANUAL

Type 40 Main | Type 40 XTD | Type 40 System



Table of Contents

4	Introduction — The Type 40 Concept
5	Part A — The Type 40 Main
5	Main: Product Overview
6	Main: Box Contents
8	Main: Controls & I/O
10	Main: Getting Started
10	Main: Placement & Setup
11	Main: Mounting & Soffit Installation
12	Part B — The Type 40 XTD
12	XTD: Product Overview
14	XTD: Box Contents
15	XTD: Controls & I/O
17	XTD: Getting Started
17	XTD: Placement & Orientation
19	Part C — The Type 40 System
19	System Overview
22	Configurations
23	Configurations at a Glance
23	Setting Up a System Manually
24	Part D — Functions & Features
24	Closed or Ported (CoP)
25	Cardioid Operation
26	HEDD Lineariser®
26	HEDD CTRL
31	Part E — Reference
31	Safety Instructions
32	Maintenance & Care
32	Warranty
33	Troubleshooting
34	Technical Specifications
36	Appendix: XTD Extension Qty & LF Range Settings
37	Stay in Touch

This manual covers the Type 40 Main on its own (Part A), the Type 40 XTD (Part B), the combined Type 40 System (Part C), the features shared across the range (Part D), and reference material including safety, specifications, and configuration tables (Part E).



Introduction — The Type 40 Concept



Congratulations on choosing the HEDD Type 40. You have acquired a main monitoring system built on a simple idea: that a main monitor can be compact, uncompromising, and genuinely complete — all at once.

At its core, the Type 40 Main is a 3-way closed-cabinet monitor. A D'Appolito MTM driver arrangement — two midrange drivers flanking a hand-built Air Motion Transformer (AMT) tweeter — crosses over at 250 Hz, so that everything from the low-mids upward radiates from a single acoustic point at the centre of the AMT. The 10 $\frac{3}{4}$ " woofer, designed for extremely high excursion, works with the fully closed cabinet to deliver controlled, high-precision bass from 20 Hz. Across all of it sits the HEDD Lineariser®, our FIR-based zero-phase filter, which time-aligns the drivers so you hear the audio signal as it was recorded. The result is a full-range compact main monitor that is soffit-mountable and built to perform regardless of the room it ends up in.

That last point — regardless of the room — is where the Type 40 XTD comes in. The XTD is a dedicated subwoofer extension module, and an exceptionally flexible one. Each unit can operate in one of four modes — Frontfire Ported, Frontfire Closed, Cardioid Ported, or Cardioid Closed — selected either in software or on the back panel, and by physically orienting the unit itself. Added to the Main, the XTD brings more SPL headroom, deeper low-frequency control, and a progressively firmer grip on the room.

Together, the Main and the XTD form the Type 40 System, which scales from one to three XTD modules per channel. The system is designed to meet you where you are and grow with you from there: a complete monitor on its own, a Main-plus-subwoofer pairing, or a large-format system that competes with systems much larger than its footprint — all managed seamlessly through HEDD CTRL.

Part A – The Type 40 Main

Main: Product Overview

The Type 40 Main is a complete 3-way main monitoring system in a single compact, closed cabinet. As an active monitor, it has its integrated amplification on board; you connect it directly to a digital interface or an analog source. It can be used entirely on its own, or as the foundation of a larger Type 40 System with one or more XTD subwoofer extension modules (see Part C).

Three things define the Main: its driver arrangement, its closed cabinet, and the on-board HEDD Lineariser®. The D'Appolito MTM array places two 4" midrange drivers symmetrically around the hand-built AMT tweeter, while a dedicated 10¾" Ultra-High Performance Subwoofer handles the low end. Because the cabinet is fully closed, bass reproduction stays controlled and precise down to 20 Hz. The HEDD Lineariser® corrects the phase relationship between the drivers so that transients and stereo imaging are reproduced faithfully.

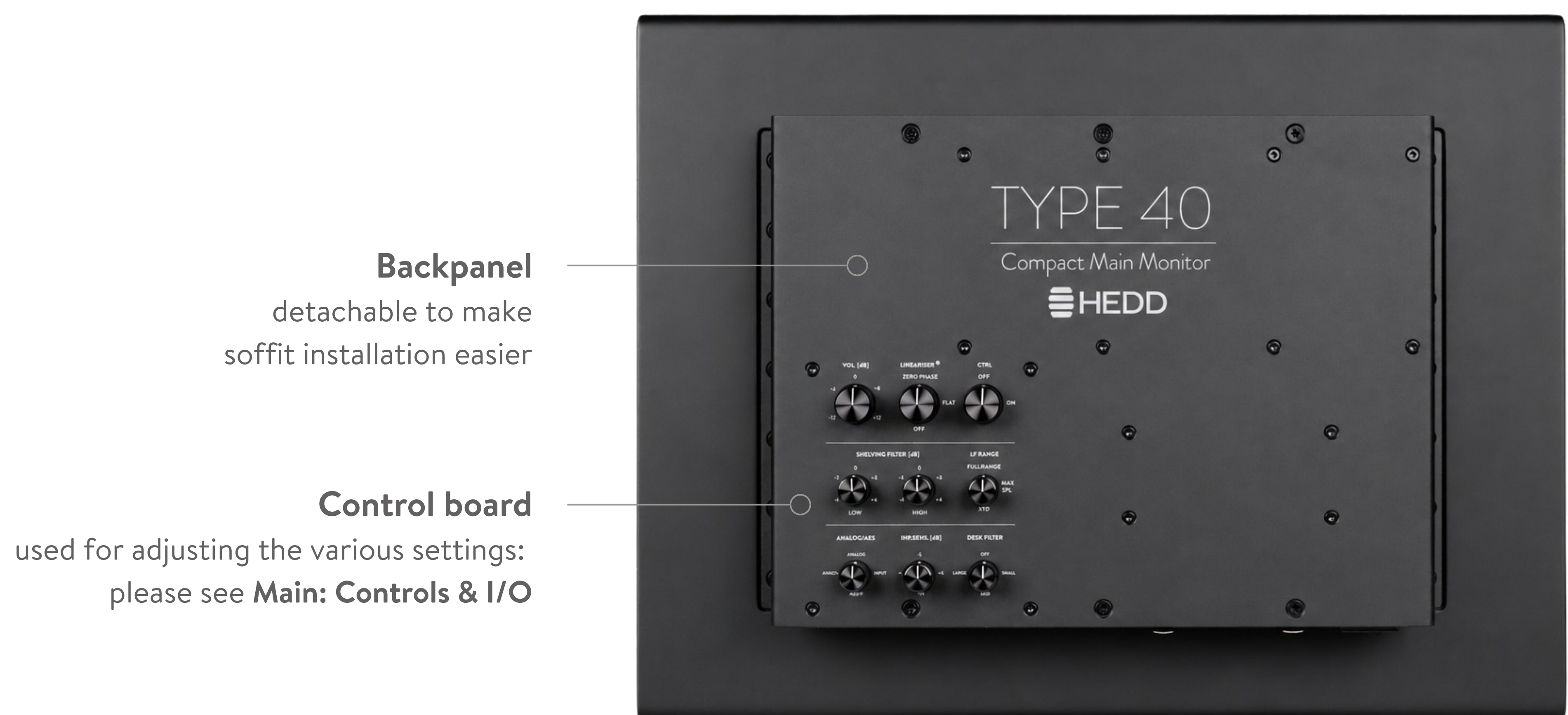
The Main is designed to be soffit-mountable, and its amplifier back panel is detachable to make installation straightforward.

A note on this manual's illustrations: the images in this manual show the Type 40 in representative form. Your unit may differ slightly in colour or detail depending on variant.

Front View



Rear View



Main: Box Contents

The Type 40 Main is supplied as a pair — both the Left and Right units ship together in one box. The complete set includes:

- two active Type 40 Main monitors (Left and Right)
- two power cables compatible with the region of sale

Documentation (Quickstart Guide and this Operation Manual) is not included in printed form and is available online at hedd.audio.

Please make sure your box contents match this listing. If anything is missing or damaged, contact your point of sale.

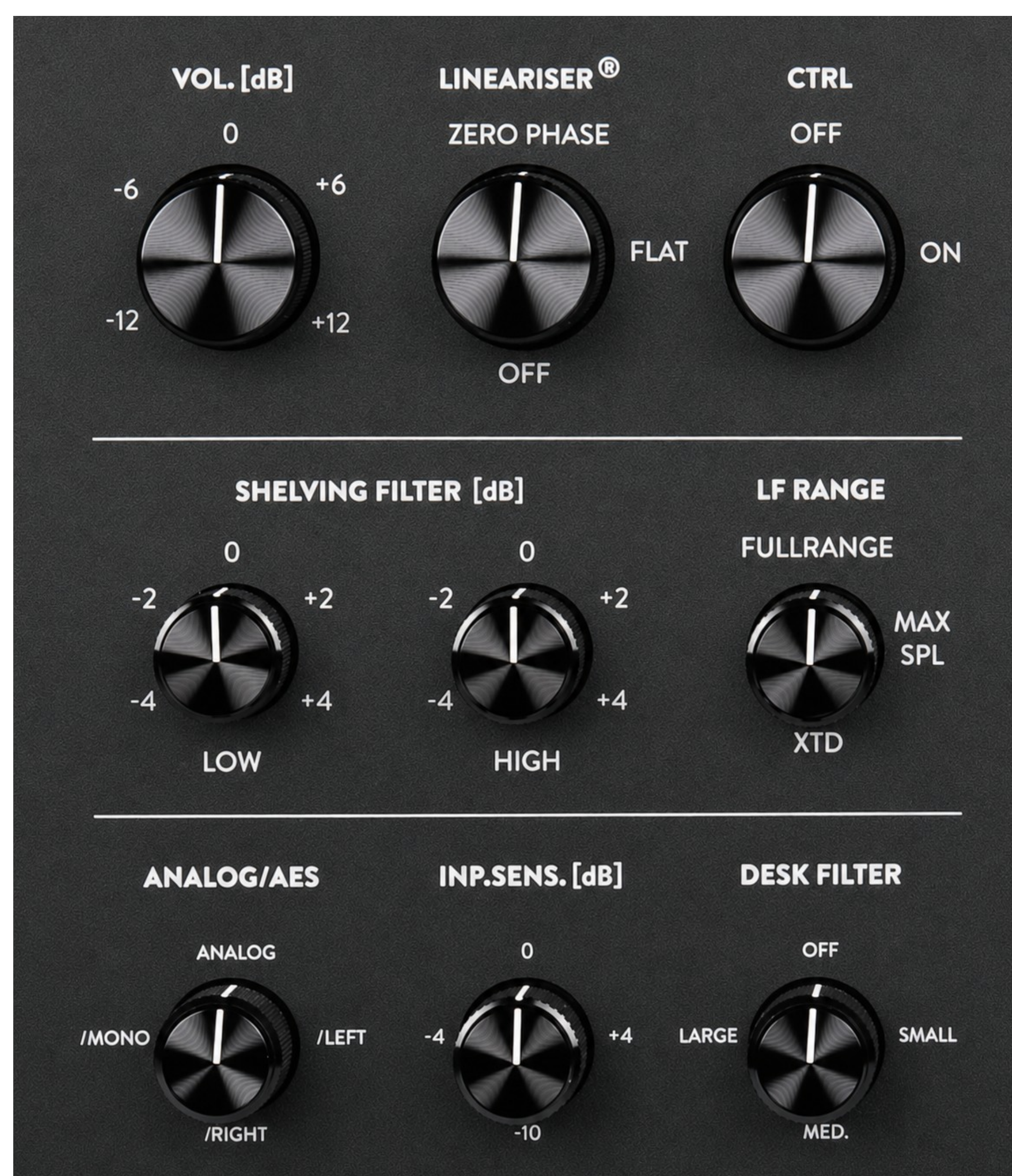
Note — packaging and delivery: The Type 40 Main ships in a wooden crate housing two units per crate (one pair), and is delivered by pallet. Please retain the original packaging — if you ever need to transport the units, it is the safest way to move them. (See Maintenance & Care.)



Main: Controls & I/O

The Type 40 Main has its controls on the rear control plate and its connections on the side input panel. The control plate lets you set up the speaker manually; the side panel carries power and signal.

Rear control plate The control plate has nine rotary controls, arranged in three rows.



Top row

- **VOL. [dB]** – output level, ± 12 dB (centre 0; marked -12, -6, 0, +6, +12). We recommend fine-tuning the overall level at your source and using VOL to match the speaker to your audio chain.
- **LINEARISER®** – ZERO PHASE / FLAT / OFF (phase-correction mode; see HEDD Lineariser®).
- **CTRL** – ON / OFF (selects software or back panel control; see HEDD CTRL).

Middle row

- **SHELVING FILTER [dB] – LOW** – ± 4 dB (marked -4, -2, 0, +2, +4).
- **SHELVING FILTER [dB] – HIGH** – ± 4 dB (marked -4, -2, 0, +2, +4).
- **LF RANGE** – FULLRANGE / MAX SPL / XTD. Sets the Main's low-frequency behaviour:
 - **FULLRANGE** – full low-frequency extension from the Main on its own.
 - **MAX SPL** – applies a 32 Hz high-pass (versus the full 20 Hz extension in FULLRANGE). The Main's maximum SPL in the lowest octave (roughly 20–30 Hz) is inherently limited by driver excursion; by not reproducing that region, MAX SPL lets you drive the speaker louder overall. Use it when the deepest sub-bass is not essential and you want more level.
 - **XTD** – used when Frontfire XTD modules are part of the system (see Part C). In this position the Main applies an 80 Hz high-pass, crossing over to the Frontfire XTD (low-passed at 80 Hz) at 80 Hz. In all-Cardioid configurations the Main runs FULLRANGE instead, and the Cardioid XTD reduces its rear radiation.

Bottom row

- **ANALOG/AES** – ANALOG / MONO / LEFT / RIGHT (input selection).
- **INP. SENS. [dB]** – -10 / -4 / 0 / +4 (input sensitivity). These are input-gain values in dB: +4 applies +4 dB of gain for weak sources, while -4 or -10 applies attenuation for very hot sources to avoid converter overload. They are not reference-level standards – “-10” here does not denote -10 dBV consumer level. No effect on the digital AES input.
- **DESK FILTER** – OFF / SMALL (-1 dB) / MED. (-2 dB) / LARGE (-4 dB), at 180 Hz.

The factory default is all controls in the “0” / neutral position, with CTRL set to OFF.

Side Input plate

Mains inlet & power switch

universal mains, 85 V – 264 V, 50/60 Hz; use the supplied IEC power cord.



AES

IN (female XLR) and THROUGH (male XLR) – digital AES input with passthrough.

ANALOG

IN (female XLR) and THROUGH (male XLR) – analog balanced input with passthrough.

CTRL port (Ethernet / RJ45)

connection for HEDD CTRL.

The THROUGH outputs let you chain units together – for example, feeding the signal on to an XTD module. It does not matter which unit receives the signal first; chain them in whatever order suits your setup.

Main: Getting Started

With the main power switch in the "0" (off) position, connect the supplied power cord to the mains inlet on the side panel. While the unit is still switched off, connect your audio source to the balanced XLR input – ANALOG IN for an analog source, or AES IN for a digital AES source.

Now set the power switch to "1". The status LED turns green immediately, but the speaker may take up to 15 seconds to power up fully and play audio.

Warning — high volume may damage your hearing. Consider lowering the level at your source before you start playback.

With the source connected, select the matching input with the ANALOG/AES switch on the control plate. For a digital AES signal, choose the appropriate channel (LEFT, RIGHT, or MONO).

Choosing how to control the speaker. We recommend running the Type 40 with the HEDD CTRL software from the start — set the **CTRL** switch to **ON** and manage all settings in software (see Part D — HEDD CTRL). If using the software is not possible, set **CTRL** to **OFF**: the control plate then takes over, and you can set the speaker up directly.

For your first listen on the control plate, we recommend starting with all controls in their factory position: all "0" and neutral positions = factory setting. From there you can adjust the controls to suit your room and source.

If you are setting up a full Type 40 System with one or more XTD modules, first get the Main playing on its own as above, then continue with Part C — The Type 40 System.

Status LED

The front status LED indicates the speaker's operational status:

- Green — power on
- White — standby
- Red — overload; decrease the input sensitivity (INP. SENS.) or lower the level at your source

The Main automatically enters standby after 30 minutes of inactivity (factory setting; this can be adjusted in the HEDD CTRL software) and wakes again when audio is detected.

Main: Placement & Setup

Correct placement is essential to get the best from the Type 40 Main. Please follow the guidance below. (For soffit and bracket mounting, see Main: Mounting & Soffit Installation.)

Orientation

The Type 40 Main is designed for **horizontal placement only**. In this orientation the D'Appolito MTM array — the two midrange drivers symmetrically flanking the AMT — forms a vertical column, which keeps the array's characteristic lobing confined to the vertical plane and preserves even dispersion across the horizontal listening window. Standing the cabinet on end turns the MTM column horizontal, moving that lobing into the horizontal plane, where it degrades off-axis response and imaging at the listening position.

The Type 40 Main is an asymmetric design: the left and right cabinets are handed, with the tweeter offset to one side. By default, place the units so the tweeters sit toward the middle (the inner side of each speaker). If you prefer a wider sweet spot, swap the left and right cabinets so the tweeters sit toward the outside — this is done by exchanging the two units, not by rotating a cabinet, which must stay horizontal. The acoustic centre of the speaker is at the centre of the AMT tweeter — use this as your reference point when aligning height and listening angles.

Always place the speaker on a solid, stable surface or a proper stand.

Height

Position the speaker so that the AMT tweeter is at the height of your ears at the listening position. If that is not possible, tilt the speaker so the tweeter aims toward your ears. Avoid placing the tweeter too high or too low, as this can result in a less defined or muffled sound.

Stereo positioning

For the best stereo image, place the two speakers so that they form an equilateral triangle with your listening position — the two speakers and your seat at the three corners, with your position centred between them. Adjust the spacing and your distance until you have an authentic stereo panorama; listening to well-known reference material while you adjust helps.

Surround positioning

For a surround setup, arrange the speakers in a circle around the listening position at the following angles: Centre 0°, Front Right 30°, Rear Right 110°, Rear Left 250°, Front Left 330°. A circle radius between 0.7 m and 2 m works well. Keep surrounding walls at least 40 cm from every speaker to avoid early reflections. Use the same speaker model for every channel where possible (the subwoofer aside), as mixing models can introduce frequency or phase colouration. For a detailed explanation, refer to the ITU-R Recommendation BS.775.

Room considerations

The Type 40 Main is a complete full-range monitor. For greater low-frequency headroom and room control, or for larger or more demanding rooms, add one or more XTD modules to form a Type 40 System (see Part C).

Tip — using the controls to suit your room. If the speaker sits close to a wall or in a corner and the bass sounds heavy, the LOW shelving filter can compensate. In a bright room, the HIGH shelving filter helps balance the top end. For monitors on a desk or meter bridge, the DESK FILTER reduces early reflections from the surface.

Main: Mounting & Soffit Installation

The Type 40 Main is designed to be installed in a number of ways beyond stand or surface placement. Mounting hardware is **sold separately** — it is not included in the box.

Bracket mounting

The Main has **M10 threaded mounting points on its sides** for use with an IsoAcoustics bracket (sold separately; [bracket model / part number — TBD]). This allows the speaker to be mounted to a stand, wall bracket, or other compatible hardware rated for the speaker's weight.

Important — Always use mounting hardware rated for at least the full weight of the speaker, and follow the installation instructions supplied with your bracket. A speaker that falls can cause serious injury and damage.

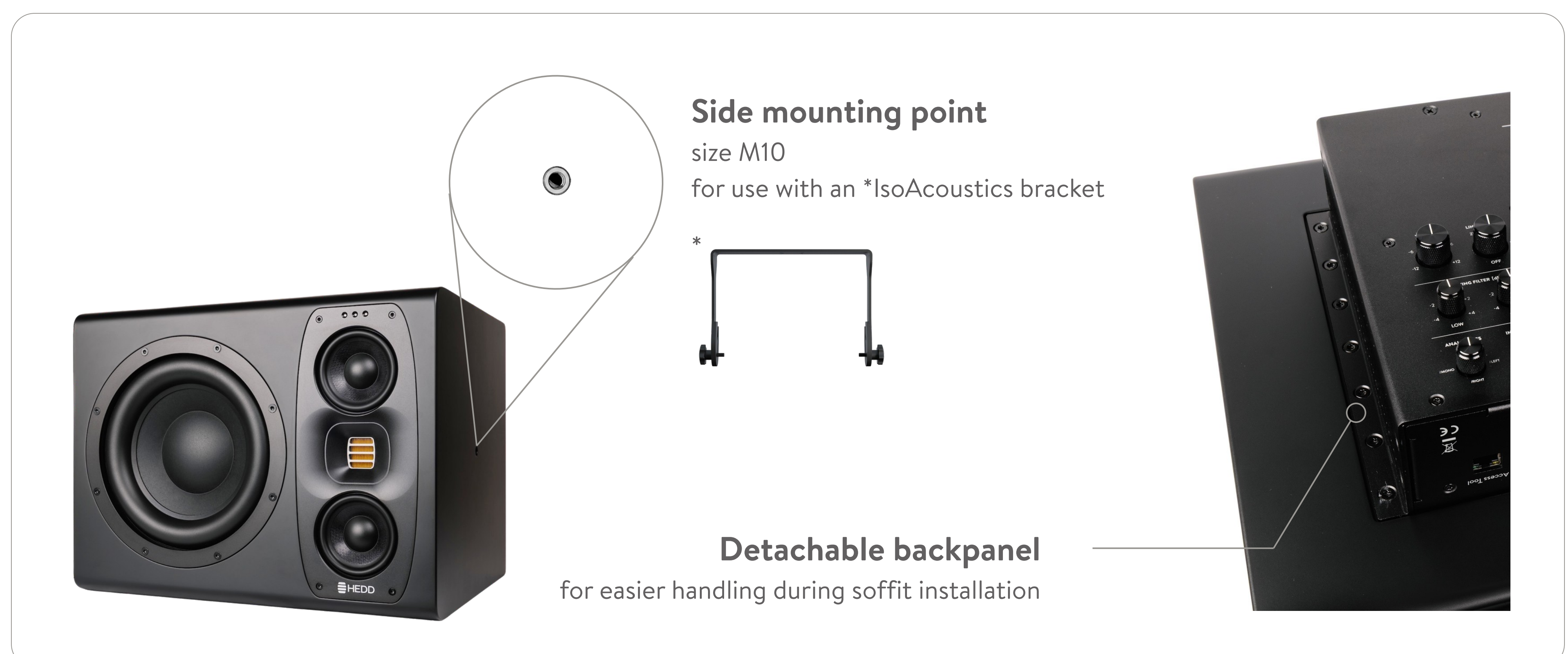
Soffit mounting

The Type 40 Main is soffit-mountable. To make soffit installation easier, the amplifier back panel is detachable, so the electronics can be handled separately from the cabinet during installation.

For detailed guidance on detaching the back panel and soffit-mounting the Type 40, please contact support@hedd.audio. Soffit mounting is an involved installation and is best carried out by an experienced installer or acoustician.

Mounting safety

- Only mount the speaker onto dry, solid, non-conducting surfaces (such as wood or plaster). Other wall materials require an additional isolation panel.
- Make sure the speaker is securely attached in accordance with the installation instructions for your mount or bracket.
- Ensure air can circulate around the amplifier unit, which generates heat in operation and requires sufficient airflow for cooling. Do not enclose or obstruct the amplifier back panel.
- Keep the mains inlet and power switch accessible after installation, so the unit can be disconnected when needed.



Part B — The Type 40 XTD



XTD: Product Overview

The Type 40 XTD is a dedicated subwoofer extension module for the Type 40 Main. It is not a standalone product: the XTD is designed to extend a Type 40 Main, adding low-frequency headroom, deeper extension, and — in its Cardioid modes — directional control over how bass energy radiates into the room. One to three XTD modules can be added per channel to build a Type 40 System (see Part C).

What makes the XTD unusual is its flexibility. Each unit can operate in one of four modes:

- **Frontfire Ported** — maximum output and low-frequency headroom
- **Frontfire Closed** — controlled, sealed-cabinet behaviour
- **Cardioid Ported** — directional bass with rear-radiation reduction for front-firing Ported XTDs
- **Cardioid Closed** — directional bass with rear-radiation reduction for front-firing Closed XTDs & Type 40 Main

The mode is set in two complementary ways that must agree with one another: a setting (the CoP control on the back panel, or the equivalent selection in HEDD CTRL) and the physical orientation of the unit — front-firing for standard Frontfire operation, back-firing for Cardioid. Both the setting and the physical orientation have to be correct for the XTD to behave as intended. This is explained in full in Cardioid Operation (Part D) and XTD: Placement & Orientation.

Switching between Ported and Closed is also a physical change: the XTD ships with separate aluminium panels that seal the bass reflex ports for Closed operation. The full procedure is described in Closed or Ported (Part D).

Like the Main, the XTD is an active module with its amplification on board, the same side input panel, and the same HEDD CTRL integration. It carries a 10 $\frac{3}{4}$ " Ultra-High Performance Subwoofer driver.

Front View



Ultra high excursion subwoofer
size 10³/₄"

Bass reflex port



Status LED

- Green Light - power on
- Red Light - overload: please decrease the input sensitivity
- White Light - stand-by

XTD: Box Contents

The Type 40 XTD is supplied as a pair — both the Left and Right units ship together in one box. The complete set includes:

- two active Type 40 XTD subwoofer extension modules (Left and Right)
- two power cables compatible with the region of sale
- two aluminium sealing panels for Closed-mode operation (one per unit, to seal the bass reflex port)
- four spare screws (M4×10)
- a Torx T20 bit for fitting and removing the port covers and sealing panels

Documentation (quickstart guide and this operation manual) is not included in printed form and is available online at hedd.audio.

Please make sure your box contents match this listing. If anything is missing or damaged, contact your point of sale.

Note — packaging and delivery: Like the Main, the Type 40 XTD ships in a wooden crate housing two units per crate (one pair), and is delivered by pallet. Please retain the original packaging — it is the safest way to transport the units. (See Maintenance & Care.)

XTD: Controls & I/O

Like the Main, the Type 40 XTD has its controls on the rear control plate and its connections on the side input panel. The XTD's control plate differs from the Main's: it adds the CoP mode selector and the Extension Qty control, replaces the Main's twin LOW/HIGH shelving filters with a single frequency-selectable shelf, and omits the Main's LF RANGE and DESK FILTER controls.

Rear control plate



Top row

- **VOL.** — output level, ± 12 dB (centre 0).
- **LINEARISER®** — ZERO PHASE / FLAT / OFF (phase-correction mode; see HEDD Lineariser®).
- **CTRL** — ON / OFF (selects software or back panel control; see HEDD CTRL).

Middle row

- **SHELIVING FILTER — Level (dB)** — sets the amount of boost or cut for the shelving filter.
- **SHELIVING FILTER — Frequency (Hz)** — sets the corner frequency of the shelf, selectable in steps of 40 / 80 / 120 / 160 / 200 Hz.
- **Extension Qty** — 1 / 2 / 3 (configures the unit for its role in the bass array; the correct setting depends on how the system is configured — see Setting Up a System Manually and the Appendix).

Bottom row

- **ANALOG/AES** — ANALOG / MONO / LEFT / RIGHT (input selection).
- **INP. SENS. [dB]** — -10 / -4 / 0 / $+4$ (input sensitivity). These are input-gain values in dB: $+4$ applies $+4$ dB of gain for weak sources, while -4 or -10 applies attenuation for very hot sources. They are not reference-level standards — “ -10 ” here does not denote -10 dBV consumer level. No effect on the digital AES input.
- **CoP** — the mode selector, with four positions: Frontfire Ported, Frontfire Closed, Cardioid Ported, Cardioid Closed.

The CoP setting selects the XTD's operating mode electrically, but for the Cardioid modes the unit must also be physically oriented to backfire. The CoP setting and the physical orientation must agree. See Cardioid Operation and Closed or Ported (Part D).

Side Input plate

Mains inlet & power switch

universal mains, 85 V – 264 V, 50/60 Hz; use the supplied IEC power cord.



AES

IN (female XLR) and THROUGH (male XLR) – digital AES input with passthrough..

ANALOG

IN (female XLR) and THROUGH (male XLR) – analog balanced input with passthrough.

CTRL port (Ethernet / RJ45)

connection for HEDD CTRL.

Because the Main and XTD share the same connection panel, you can chain signal between units using the THROUGH outputs in whatever order suits your setup. See The Type 40 System (Part C) for wiring a complete system.

XTD: Getting Started

The Type 40 XTD is an extension module — it is always used together with a Type 40 Main as part of a Type 40 System. Before configuring an XTD, we recommend first getting your Main monitors playing on their own (see Main: Getting Started).

With the main power switch in the "0" (off) position, connect the supplied power cord and the audio signal to the side panel before switching the unit on.

Now set the power switch to "1". As with the Main, the status LED turns green immediately, but the module may take up to 15 seconds to power up fully.

Warning — high volume may damage your hearing. Adding an XTD increases the system's low-frequency output. Consider lowering the level at your source before playback, and note that headroom and behaviour change with the XTD's mode and the system configuration.

Connect the audio signal to the XTD's side input panel. The Main and XTD share the same connectors, and the THROUGH outputs let you chain units in whatever order suits your setup — see The Type 40 System (Part C) for complete wiring and configuration.

Choosing how to control the module. As with the Main, we recommend running the system with the HEDD CTRL software from the start — set **CTRL** to **ON** and let the software manage the XTD's mode, Extension Qty, and level. If using the software is not possible, set **CTRL** to **OFF** and configure the module on its control plate, following Setting Up a System Manually (Part C) and the Appendix.

Important — mode and orientation must match. Before listening, make sure the XTD's CoP setting and its physical orientation agree (frontfire for Frontfire modes, backfire for Cardioid modes), and that any Closed mode has the aluminium sealing panel fitted. See Cardioid Operation and Closed or Ported (Part D).

Status LED

The XTD's front status LED uses the same scheme as the Main:

- **Green** — power on
- **White** — standby
- **Red** — overload; decrease the input sensitivity (INP. SENS.) or lower the level at your source

Like the Main, the XTD automatically enters standby after 30 minutes of inactivity (factory setting; adjustable in HEDD CTRL) and wakes again when audio is detected.

XTD: Placement & Orientation

The physical orientation of an XTD is part of how it operates. Each XTD is placed either front-firing or back-firing, depending on the mode you have chosen for it:

- Frontfire modes — the XTD faces forward, its baffle (front face) aligned with the front of the system, flush with the Main.
- Cardioid modes — the XTD is turned around to backfire, so that its back panel is aligned with the front baffle of the Main.

The orientation must match the unit's CoP setting (see Cardioid Operation and Closed or Ported). Both have to agree for the mode to perform correctly.

XTD modules are typically placed on a stand together with the Main — see The Type 40 System for the recommended Sound Anchors stand and for system wiring. As with the Main, XTD mounting hardware is sold separately.

XTD frontfire vs. backfire (Cardioid) orientation



Part C — The Type 40 System

System Overview

Type 40 System is a Type 40 Main paired with one or more Type 40 XTD subwoofer extension modules. The Main provides the full-range monitoring; the XTD modules extend the low end, add SPL headroom, and — in Cardioid modes — bring directional control over how bass radiates into the room.



Type 40 Main

Type 40 Main
+ 1 XTD

Type 40 Main
+ 2 XTD

Type 40 Main
+ 3 XTD

The system is built per channel. Each side (Left and Right) consists of one Main plus one, two, or three XTD modules. As you add modules, the system gains low-frequency headroom and finer control over the room, while the way you operate it stays the same — everything is managed through HEDD CTRL, and the control logic does not get more complicated as the system grows.

The idea is that the system meets you where you are and grows with you:

- **Type 40 Solo** — the Main on its own, a complete full-range monitor.
- **Main + 1 XTD** — added low-frequency headroom or directional control.
- **Main + 2 XTD** — deeper extension and more potent Cardioid control.
- **Main + 3 XTD** — large-format performance and the fullest combination of output and room control.

The specific behaviour of each step — how much SPL you gain, and what rear-radiation reduction Cardioid modes achieve — is set out in Configurations and Configurations at a Glance. How to set the system up by hand, when not using HEDD CTRL, is covered in Setting Up a System Manually.

Stands and physical alignment

The Type 40 System has been voiced and tuned on a Sound Anchors stand, available separately as the HEDD Type 40 System Stand (one pair of ADJ2-56 stands with 13.5" R-stalks and four to eight 12" × 16" platforms, depending on the number of XTD modules — 4 platforms for a 1-XTD-per-side system, up to 8 for a 3-XTD-per-side system). This stand holds the Main and its XTD modules in the alignment the system was tuned for and is the recommended option.

Any other stand or support can be used, provided it allows the units to be positioned with the correct alignment for the chosen mode:

- **Frontfire modes** — the unit baffles (front faces) are aligned at the front, flush with one another.
- **Cardioid modes** — the XTD is oriented to backfire, so its back panel is aligned with the front baffle of the Main.

Correct physical alignment is part of how each mode achieves its intended response — see Cardioid Operation and XTD: Placement & Orientation.

Connecting a system

Each unit in the system — the Main and every XTD — is an active module with its own power and its own signal input.

Audio. Signal is distributed using the THROUGH outputs on the side panels: you feed the channel's audio into one unit and chain on to the next using a THROUGH output. Every unit receives the same full-range signal; each unit's own settings (the Main's LF RANGE, the XTD's mode and filtering) determine how it reproduces that signal. It does not matter which unit in a channel receives the signal first; chain them in whatever order is most convenient for your physical layout. If you prefer, you can skip the THROUGH chaining altogether and feed each unit from its own separate output, so every unit is driven independently.

Control. The CTRL connection is not daisy-chained. Each unit connects by its CTRL port (Ethernet / RJ45) to a network switch or router, which is in turn connected to your Mac or PC running HEDD CTRL. Full details are in HEDD CTRL (Part D).

One channel per side. Keep the Left channel's units fed from the Left signal and the Right channel's units fed from the Right signal. Each unit's input selection (ANALOG/AES and LEFT/RIGHT/MONO) is set the same way as on the Main.

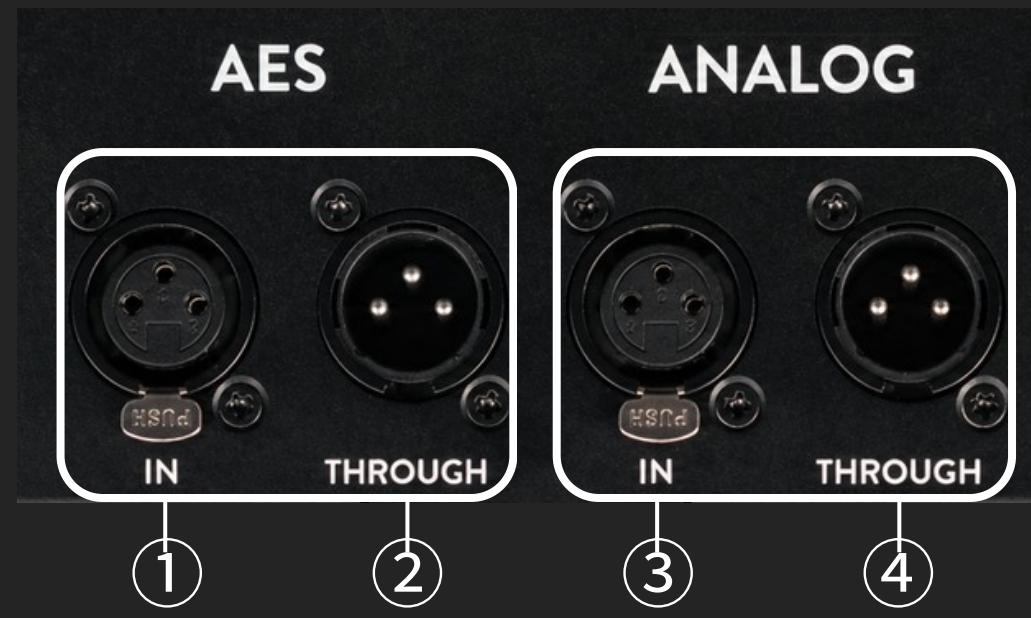
Type 40 System signal path/wiring diagram

Connection Reference

All units provide both analog and digital (AES) signal paths.

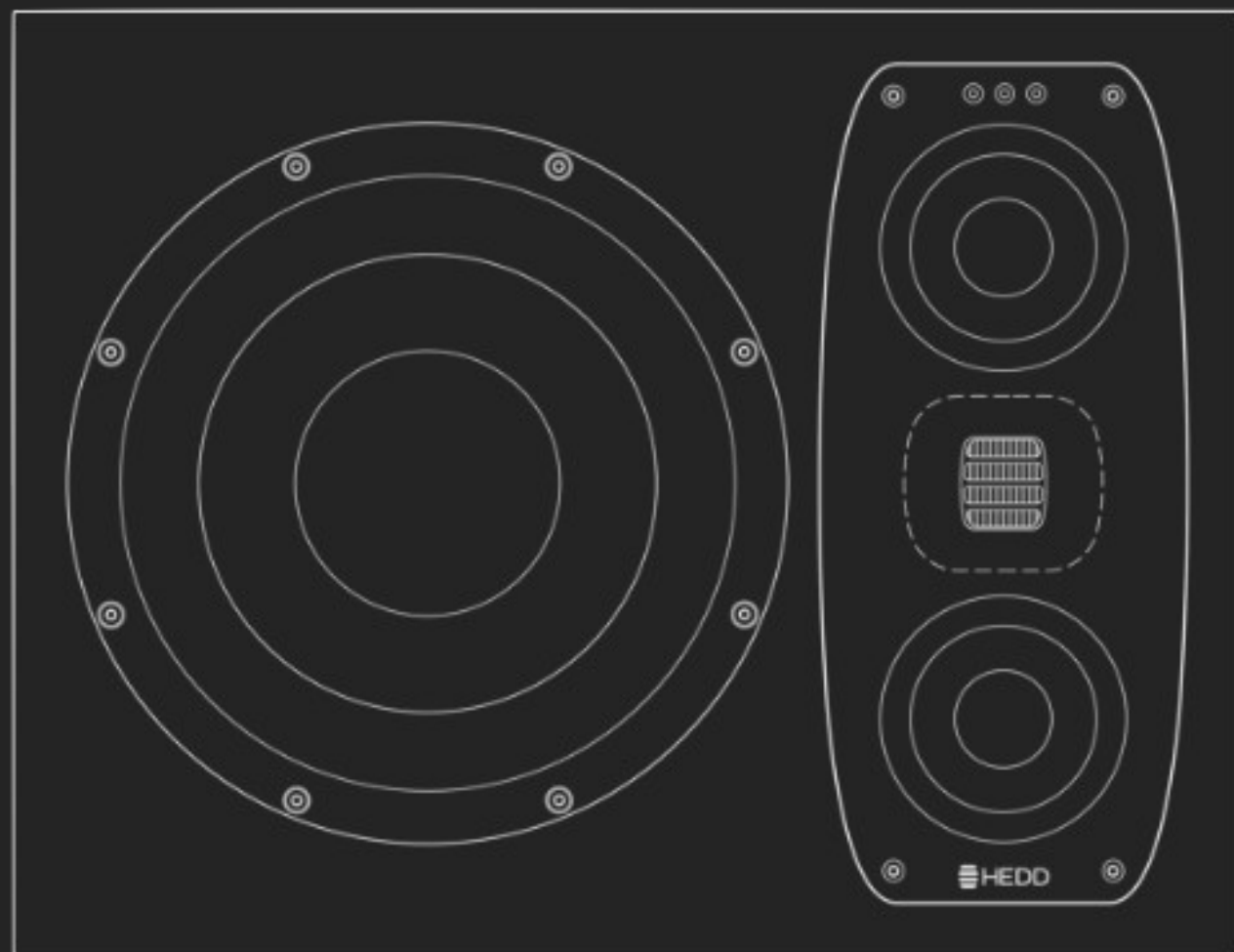
Use the same signal type, analog or AES, throughout the entire system.

Type 40 Main/XTD (rear panel)



- ① AES IN
- ② AES THROUGH
- ③ ANALOG IN
- ④ ANALOG THROUGH

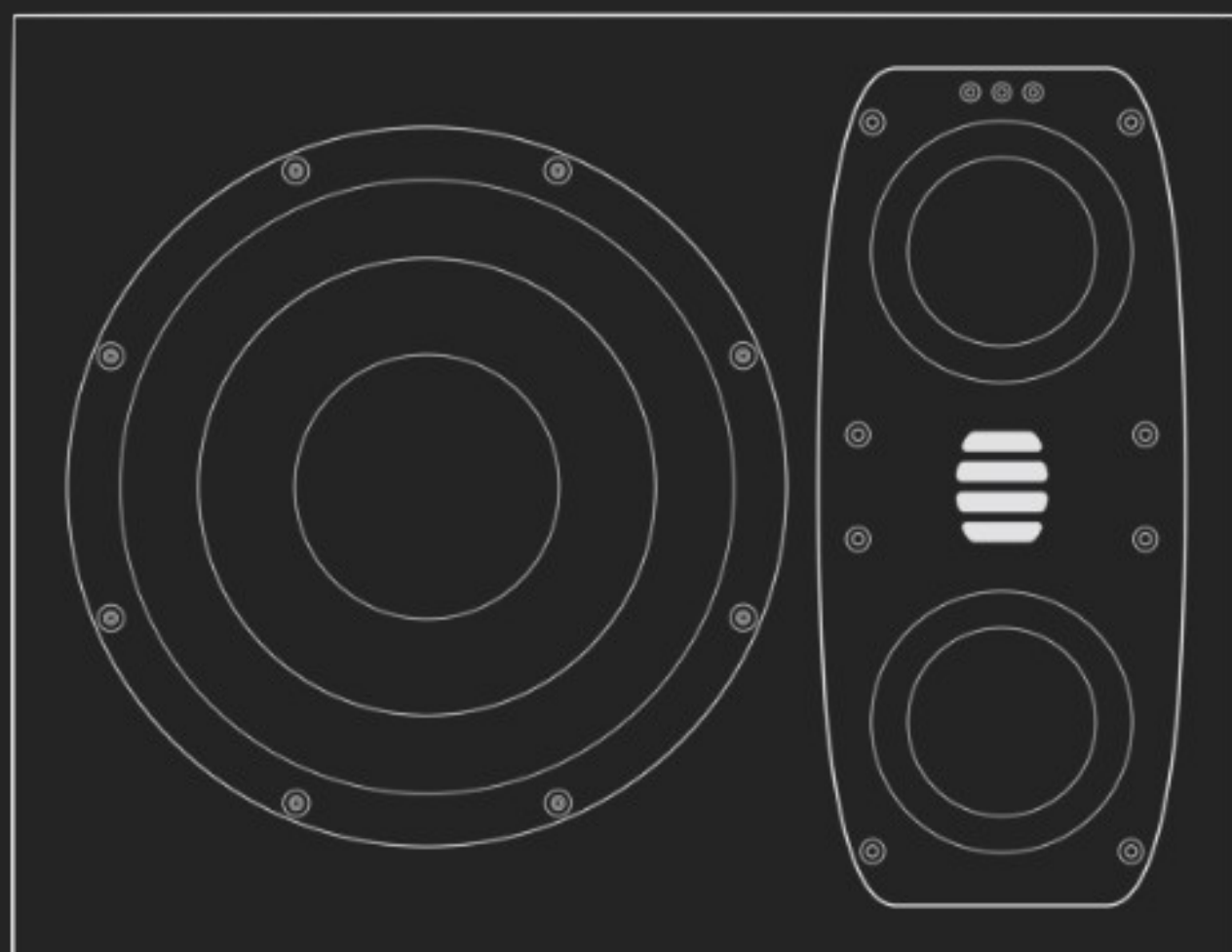
Type 40 Main



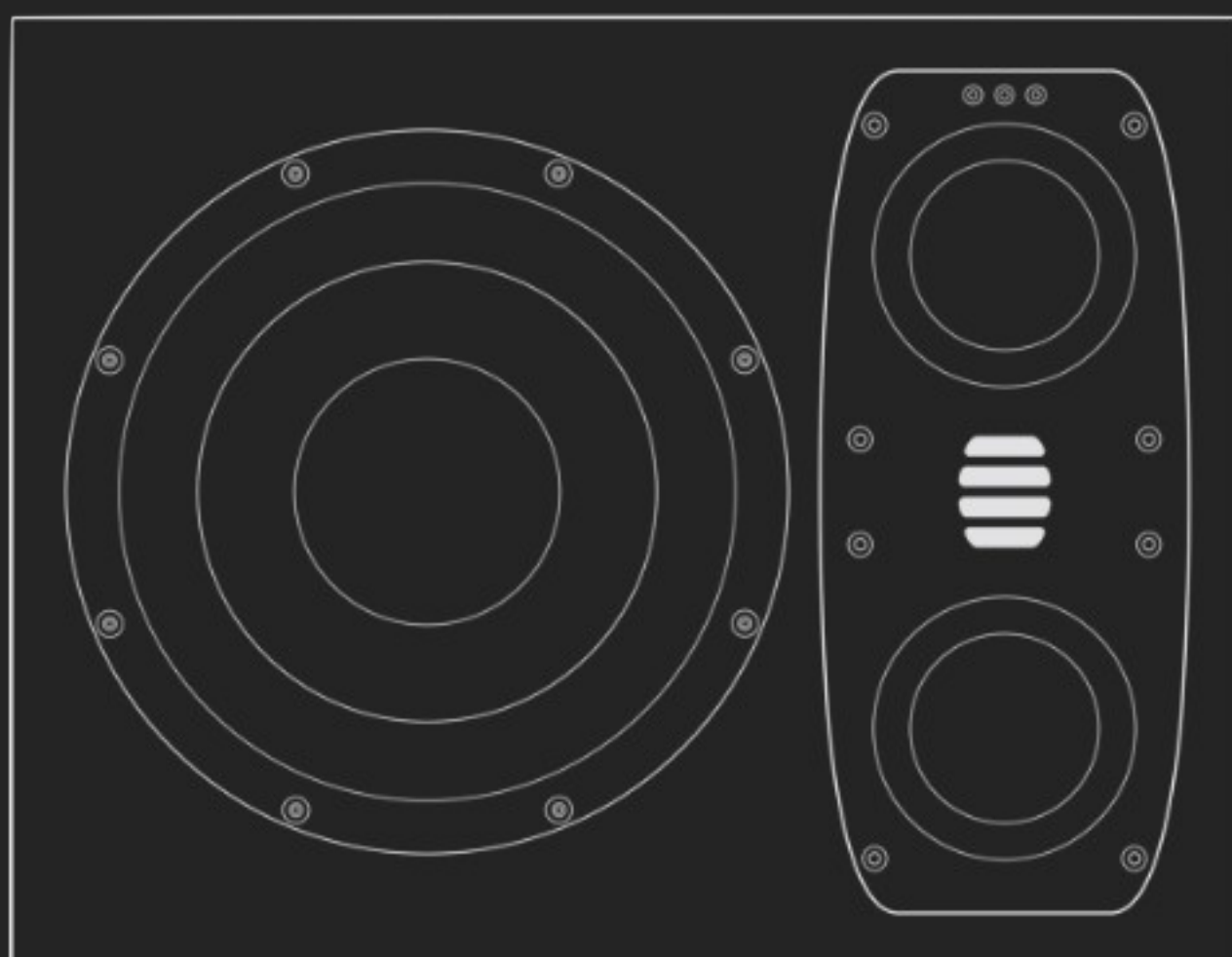
AES signal path

ANALOG signal path

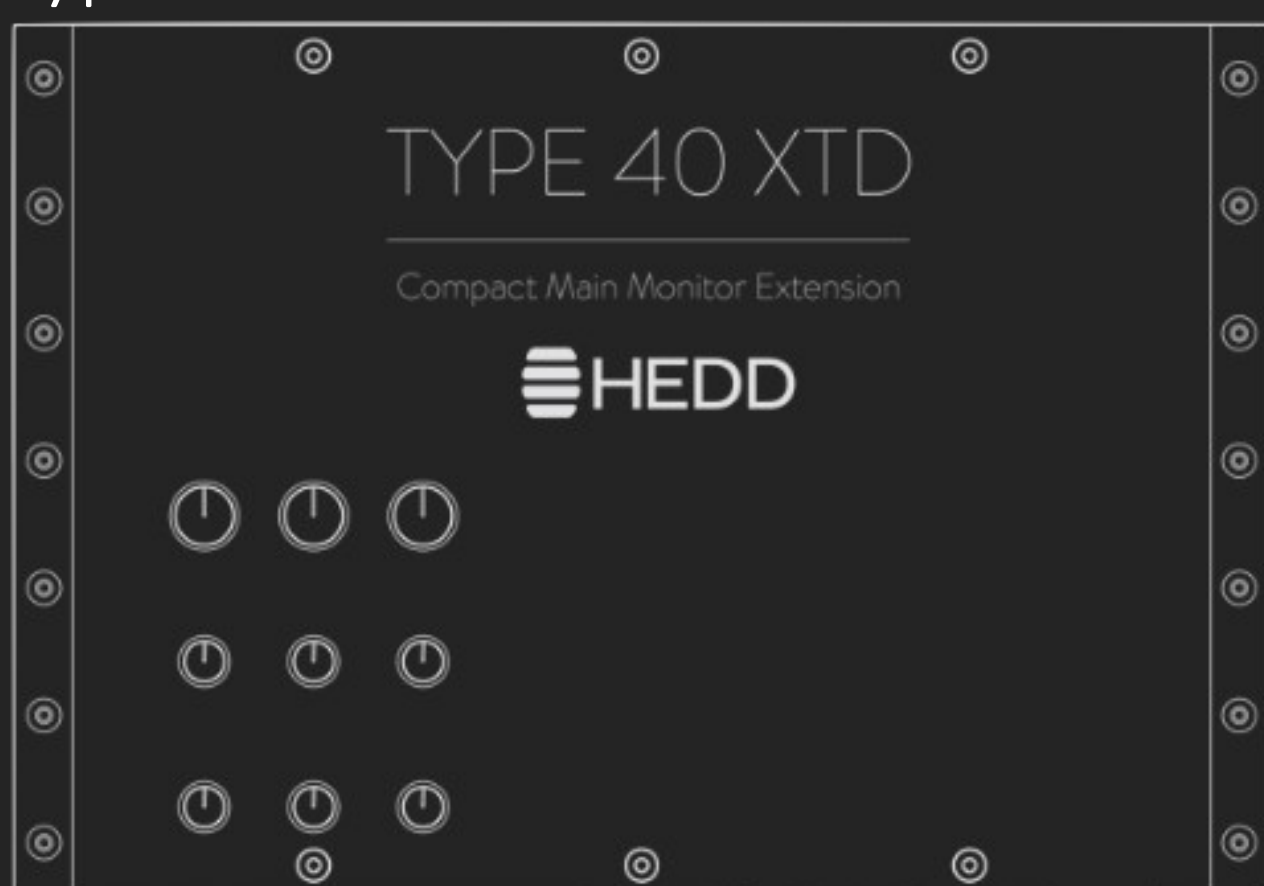
Type 40 XTD / Frontfire Ported



Type 40 XTD / Frontfire Ported



Type 40 XTD / Cardioid Ported



AES IN
↑
AES THROUGH

AES IN
↑
AES THROUGH

AES IN
↑
AES THROUGH

ANALOG IN
↑
ANALOG THROUGH

ANALOG IN
↑
ANALOG THROUGH

ANALOG IN
↑
ANALOG THROUGH

Audio source

Audio IN
Analog: **ANALOG IN**
Digital: **AES IN**

We recommend starting the signal path at the bottom unit, though starting from the top is equally possible.

Configurations

Each step in the Type 40 System opens up new performance possibilities — more SPL headroom, deeper low-frequency control, and a progressively firmer grip on the room. The figures below are explained mode by mode, and summarised in Configurations at a Glance.

Type 40 Solo

The Type 40 Main is a complete full-range main monitoring system in its own right — no subwoofer required for home studios, post-production suites, or dedicated listening rooms. On its own it delivers 108 dB maximum SPL at 50 Hz.

Type 40 + 1 XTD

Adding the first XTD unlocks a choice about how you want the system to behave in your room:

- **Frontfire Ported** — 6 dB more maximum SPL at 50 Hz: more punch, more headroom, more room to push.
- **Frontfire Closed** — keeps the SPL ceiling of the solo Main (no increase), but lets you place the XTD wherever works best in the space, free of port-boundary restrictions.
- **Cardioid Closed** — reduces rear-hemisphere radiation by up to 10 dB from 200 Hz down to 20 Hz — a genuine help in untreated or partially treated rooms.

Type 40 + 2 XTD

The second XTD digs deeper, in both extension and options. The second XTD adds a further +6 dB at 50 Hz, and Cardioid control becomes more potent:

- **Frontfire Ported** — +12 dB maximum SPL at 50 Hz total (relative to the Main alone).
- **Frontfire Closed** — +6 dB maximum SPL at 50 Hz total.
- **Cardioid Closed** or **Cardioid Ported** (with the other XTD in Frontfire) — up to 10 dB rear reduction up to 100 Hz.
- **Mixed** — one XTD set to Frontfire, the other to Cardioid, combining SPL gain and directivity control in a single system.

Type 40 + 3 XTD

Three XTDs per channel. This is where the Type 40 System operates at a level that puts it in conversation with systems much larger than its footprint. The third XTD adds a further +3 dB at 50 Hz:

- **Frontfire Ported** — +15 dB maximum SPL at 50 Hz total (relative to the Main alone).
- **Frontfire Closed** — +9 dB maximum SPL at 50 Hz total.
- **Cardioid** — rear reduction maintained at up to 10 dB up to 100 Hz, with two XTDs Frontfire and one Cardioid for the best balance of output and room control.

All configurations are managed seamlessly through HEDD CTRL — the system scales, but the control does not get complicated.

Configurations at a Glance

The table below summarises every configuration. SPL and rear-reduction figures are cumulative per configuration step. Each XTD mode is set both in HEDD CTRL (or on the back panel) and by physically orienting the unit – front-firing for standard operation, back-firing for Cardioid.

Configuration	Mode	SPL at 50 Hz	Rear Reduction
TYPE 40 Solo	—	108 dB (reference)	—
+ 1 XTD	Frontfire Ported	+6 dB	—
	Frontfire Closed	No increase	—
	Cardioid Closed	—	Up to -10 dB, 20–200 Hz
+ 2 XTD	All Frontfire Ported	+12 dB	—
	All Frontfire Closed	+6 dB	—
	Mixed (1× FF + 1× C)†	+6 dB Ported / No increase Closed	Up to -10 dB, 20–100 Hz
+ 3 XTD	All Frontfire Ported	+15 dB	—
	All Frontfire Closed	+9 dB	—
	Mixed (2× FF + 1× C)†	+12 dB Ported / +6 dB Closed	Up to -10 dB, 20–100 Hz

† In a Mixed configuration, all XTDs in the channel must use the same cabinet design – either all Closed or all Ported – otherwise the Cardioid function will not work correctly.

The SPL figures are cumulative relative to the Type 40 Main alone. Cardioid modes trade the additional SPL increase of the Frontfire modes for directional control (rear-radiation reduction), which is why their SPL column shows no increase. Forward (on-axis) output is preserved – engaging Cardioid does not reduce the maximum SPL at the listening position; it only reduces the energy radiated to the rear.

Setting Up a System Manually

When you run a Type 40 System with the HEDD CTRL software, the system configures itself: once you tell the software which modes you want, it automatically sets each unit's Extension Qty and the Main's LF RANGE for you. This is the recommended way to set up a system, and you can skip this chapter.

If you are setting the system up without the software – with each unit's CTRL switch set to OFF and configured from its control plate – you need to set two things by hand so the units work together correctly:

- On each XTD, the Extension Qty control (1 / 2 / 3).
- On each Main, the LF RANGE control (FULLRANGE / XTD).

These settings are not simply "the number of XTDs." The correct values depend on how many XTDs are in the channel and on the mix of Frontfire and Cardioid modes you have chosen. Because of this, the settings are given as a set of defined scenarios.

Find your configuration in the Appendix: XTD Extension Qty & LF Range Settings. Locate the scenario that matches your channel – the number of XTDs and how many are Frontfire versus Cardioid – and set each unit exactly as the table specifies.

About LF RANGE. In a system, the Main's LF RANGE is set to XTD whenever a Frontfire XTD is present, or FULLRANGE when the channel is all-Cardioid (follow the Appendix table). The MAX SPL position is not used in XTD system configurations – see Main: Controls & I/O.

A few points to keep in mind when configuring manually:

- Set the same configuration on both channels (Left and Right) so the two sides match.
- Make sure each XTD's CoP setting and its physical orientation agree (frontfire for Frontfire modes, backfire for Cardioid), and that Closed modes have the aluminium sealing panel fitted. See Cardioid Operation and Closed or Ported.
- The Extension Qty value can differ between the Frontfire and Cardioid units in the same channel – follow the scenario table exactly rather than assuming a single value for all units.

Tip – Even if you intend to run the system without always being connected to HEDD CTRL, connecting once to HEDD CTRL is the easiest way to confirm you have set the right values for your configuration.

Part D — Functions & Features

Closed or Ported (CoP)

The Type 40 XTD can operate as either a Ported or a Closed subwoofer. These are two fundamentally different acoustic systems, and the choice is yours to make for your room and listening habits. There is no universal "better" between them — it all comes down to how you need the system to perform. We recommend comparing both in your space.

Note that Closed or Ported applies to the XTD. The Type 40 Main is a permanently closed-cabinet design and has no port to seal.

Ported mode

In Ported mode the bass reflex port is open. This allows for higher efficiency and greater low-frequency output — more headroom and punch in the low end. In the system configurations, the Ported Frontfire modes are the ones that deliver the SPL gains shown in Configurations at a Glance.

Beyond output, Ported operation tends to be a better representation of how your mix will translate to typical playback systems. Most loudspeakers — consumer and professional alike — include some form of additional resonant element, whether a bass reflex port or passive radiators. A ported XTD reproduces low frequencies with that same kind of resonant low-end behaviour, giving you a closer impression of how your material will sound out in the world.

Closed mode

In Closed mode the port is sealed, and the XTD behaves as a sealed (closed-box) system. This results in a cleaner, more controlled low-frequency reproduction with increased resolution, at the cost of some maximum SPL compared with Ported. Closed modes also offer the widest-band Cardioid rear reduction (see Cardioid Operation).

Where Ported reflects how your mix will translate elsewhere, Closed reproduces the low end closer to how it is at the source — as it was recorded, or as the signal was synthesized — with less of the added contribution of a resonant element. Note that a closed cabinet still has its own transfer function and rising group delay toward its cutoff, so this is a closer, not a perfect, representation of the source. It is the more literal representation of your material.

Switching between Ported and Closed

Ported and Closed are set in two parts that must agree: the CoP setting (on the back panel, or in HEDD CTRL) and the physical state of the port.

Caution — the Torx T20 bit is ferromagnetic. Use it only on the XTD, never near the Type 40 Main. The Main's strong magnetic field can attract the bit, and contact can damage the AMT tweeter.

To seal the port for Closed mode, fit the supplied aluminium sealing panel:

1. Remove the port cover. The cover over the port is held by 8 × M4×10 screws. Using the supplied Torx T20 bit, unscrew and remove them, then lift off the cover.
2. Fit the aluminium sealing panel in its place, making sure it is aligned correctly so that the LED recess is at the top, and secure it with the same screws. (Spare screws are included.)
3. Set the CoP control to the corresponding Closed mode — Frontfire Closed or Cardioid Closed — on the back panel, or select it in HEDD CTRL.

To return to Ported mode, reverse the process: remove the sealing panel, refit the port cover, and set the CoP control to a Ported mode.

Important — The physical state of the port and the CoP setting must always match. A Closed CoP setting with an open port — or a Ported setting with the panel fitted — will not give the intended response. The headroom in Closed mode is lower than in Ported; we recommend lowering the volume before switching.

Cardioid Operation

Cardioid operation gives the XTD directional control over its low-frequency output — reducing the bass energy radiated toward the rear of the system. This is especially valuable in untreated or partially treated rooms, where reflections from the wall behind the speakers would otherwise build up and blur the low end. By radiating less energy backward, a Cardioid XTD interacts less with the room behind it, giving you a tighter, more defined bass response at the listening position.

How much it reduces

The amount of rear-radiation reduction, and the frequency range over which it applies, depends on the mode and the system configuration:

- **Cardioid Closed** offers the widest frequency range of rear reduction.
- **Cardioid Ported** offers rear reduction over a slightly narrower range, while retaining the efficiency of a ported system. Use Cardioid Ported when the front-firing XTD in the channel is also set to Ported.

Exact figures for each configuration are given in Configurations at a Glance.

The upper limit of the rear reduction depends on what the Cardioid unit is cancelling. With a single Cardioid XTD it works against the full-range Main and reaches up to ~200 Hz, whereas in multi-XTD configurations the Main is high-passed (LF RANGE = XTD) and the Cardioid unit works against the low-passed Frontfire XTDs — so the effective band reaches up to ~100 Hz, with the Main's own rear radiation above that region left uncorrected.

Setting Cardioid mode — two steps that must agree

Cardioid is the one mode that requires both a setting change and a physical change to the unit. Both must be done, and they must match, or the XTD will not perform as a Cardioid:

1. **Physically orient the XTD to backfire.** Where a Frontfire XTD faces forward (its baffle aligned with the front of the system), a Cardioid XTD is turned around so that it backfires — its back panel aligned with the front baffle of the Main (see The Type 40 System and XTD: Placement & Orientation).
2. **Set the mode to Cardioid.** Set the CoP control to Cardioid Ported or Cardioid Closed (matching the port's physical state), either on the back panel or in HEDD CTRL.

Both are required. Rotating the unit without setting Cardioid mode — or setting Cardioid mode without rotating the unit — will not produce correct Cardioid behaviour. If you are using HEDD CTRL, the software sets the mode for you, but you must still physically orient the unit yourself.

Cardioid in a system

Cardioid can be used with a single XTD or combined with Frontfire units in larger channels.

With a single XTD set to Cardioid (and the Main on FULLRANGE), the Cardioid XTD works to reduce the rearward low-frequency radiation of the Type 40 Main itself — tightening the system's bass interaction with the room behind it. This is why the all-Cardioid scenarios set the Main's LF RANGE to FULLRANGE (see Setting Up a System Manually and the Appendix).

In multi-XTD channels, Cardioid is typically combined with Frontfire units — for example, two XTDs Frontfire for output and one Cardioid for room control (see Configurations). The rear-reduction figures in the matrix assume the remaining XTD(s) in the channel are set to Frontfire in the same cabinet design (Ported or Closed) as the Cardioid unit.

In all cases, all XTDs in a channel must use the same cabinet design — either all Closed or all Ported — otherwise the Cardioid function will not work correctly.

HEDD Lineariser®

Every loudspeaker introduces a frequency-dependent phase shift, or group delay, as the signal passes through its drivers and crossover filters. This is true of any loudspeaker, active or passive: broadly, low frequencies are delayed more than midrange frequencies, which are in turn delayed more than the highs. The result is a phase difference between the drivers that smears transients and blurs imaging.

The HEDD Lineariser® is a FIR-based filter that corrects this. Depending on the setting, it corrects the system's amplitude (frequency) response and, in its fullest mode, also time-aligns the drivers so the system is always "right in time" — improving transient reproduction and stereo imaging, and letting you hear the audio signal as it was actually recorded.

On the Type 40, the Lineariser offers three settings, selected with the LINEARISER® control:

- **ZERO PHASE** — full correction: FIR-based amplitude correction and phase linearisation, applied down to 40 Hz. This is the most complete setting and gives the best transient and imaging performance. It also introduces the most latency.
- **FLAT** — amplitude (frequency-response) correction only, with no phase correction. A lighter setting with lower latency than ZERO PHASE.
- **OFF** — the Lineariser is bypassed entirely (no amplitude or phase correction), for the lowest possible latency.

Latency and when to switch

Phase correction necessarily introduces some latency, and the three settings trade phase accuracy against delay:

Setting	Latency
OFF	2.3 ms
FLAT	3.3 ms
ZERO PHASE	11.3 ms

For mixing, mastering, and critical listening, ZERO PHASE is the natural choice. When latency matters — tracking live musicians, playing an instrument in real time, or monitoring during recording — FLAT or OFF reduces the delay. You can switch freely depending on the task.

Important — All units in the system — the Main and every XTD — must be set to the same Lineariser setting. Mismatched Lineariser settings between units in a channel will cause time-alignment errors between them. When using HEDD CTRL, the setting is applied consistently across the system in software.

HEDD CTRL

HEDD CTRL is HEDD's free software application for controlling and configuring your monitoring system over a network. From one interface you can manage anything from a single speaker to a large multichannel system — adjusting level, filters, the Lineariser, input and sensitivity, standby behaviour, and a 12-band parametric EQ, as well as saving and recalling presets and managing firmware updates. For the Type 40, CTRL is the recommended way to operate the system: it presents every unit in one place and configures the system's mode-dependent settings for you.

This chapter covers the Type 40-specific workflow. For full, general documentation of the CTRL software — installation, network setup, groups, PEQ, presets, and firmware updates — see the complete CTRL manual at <https://hedd.audio/pages/ctrl>.

The CTRL switch: software or back panel

Every Type 40 unit — Main and XTD — has a CTRL switch on its control plate with two positions:

- **ON** — the unit is controlled by HEDD CTRL software. The unit follows the settings made in software and stores the last settings applied this way. While CTRL is ON, the physical back panel controls are bypassed.
- **OFF** — the physical back panel controls take over, and the unit is set up directly from its control plate.

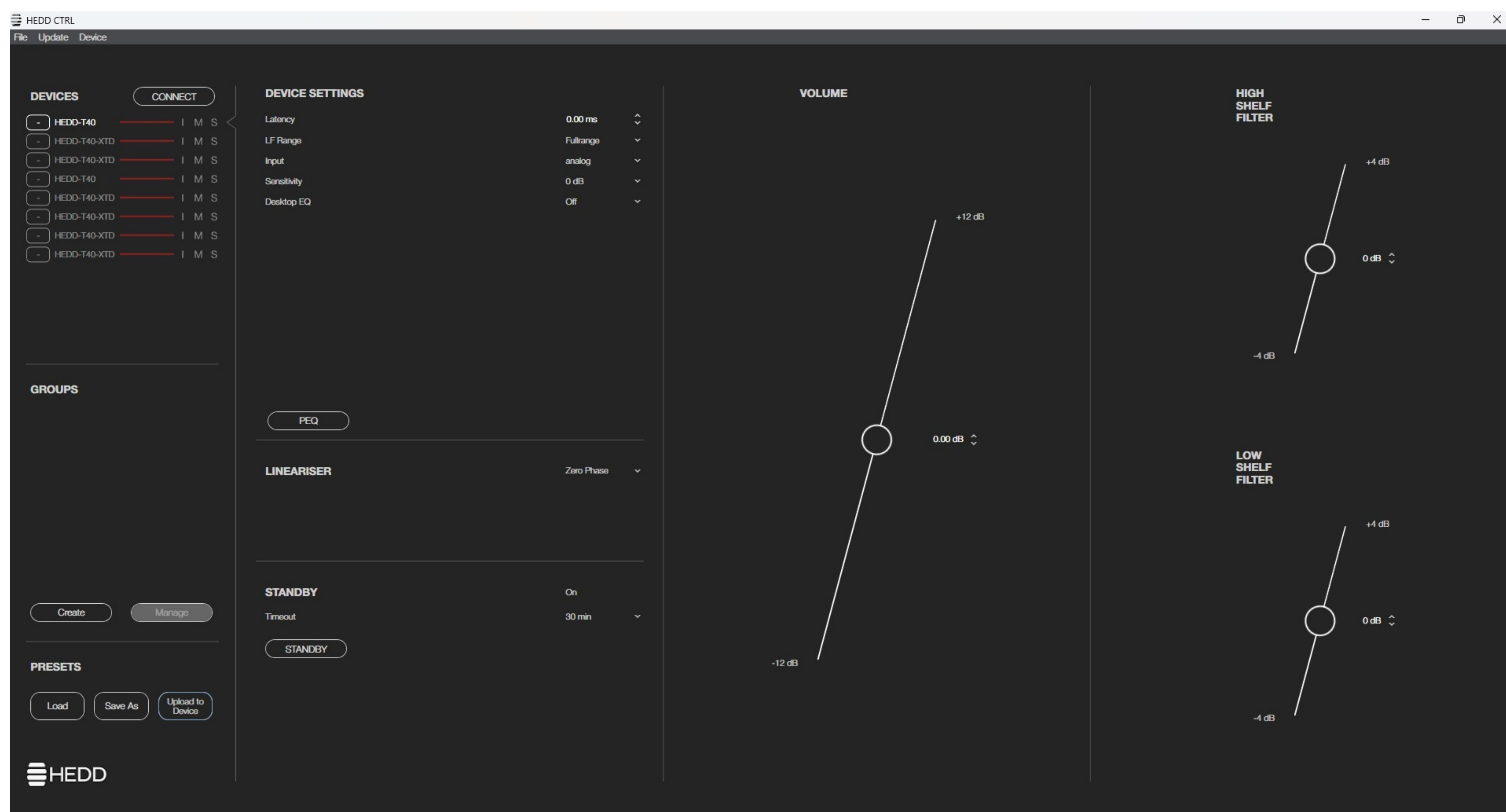
Set CTRL to ON for software control, or OFF to configure a unit by hand (see Setting Up a System Manually).

Connecting the system

The control connection is separate from the audio connection and is not daisy-chained. Each unit connects by its CTRL port (Ethernet / RJ45) to a network switch or router, which is connected to the Mac or PC running HEDD CTRL. The computer may join the same network by Ethernet or Wi-Fi. Once connected, press Connect in the software and wait for all units to appear in the Devices list. (First-time use may prompt a firmware update per unit; follow the CTRL manual.)

Setting up a Type 40 System in CTRL — step by step

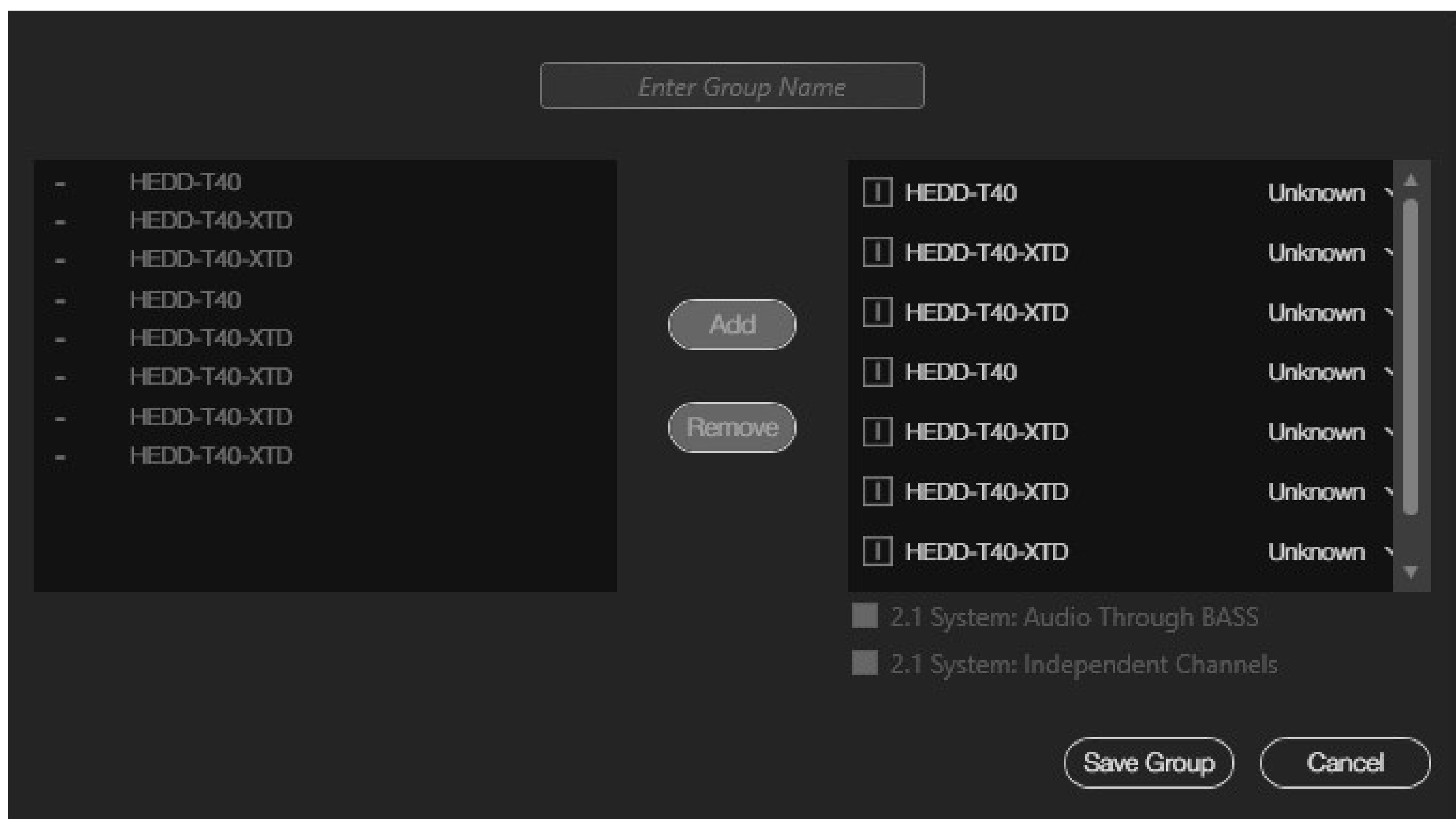
1. Connect all units. With every Main and XTD on the network and their CTRL switches set to ON, press Connect and confirm that all units are visible in the Devices list.



2. **Group** the system by pressing **Create**. Put all units of the system into a single group (see Groups in the CTRL manual). This lets you control and view the whole system together.
3. **Identify and assign each unit.** Use the I (Identify) button to flash a unit's LEDs so you can tell which physical speaker is which, and assign each one to its correct position:

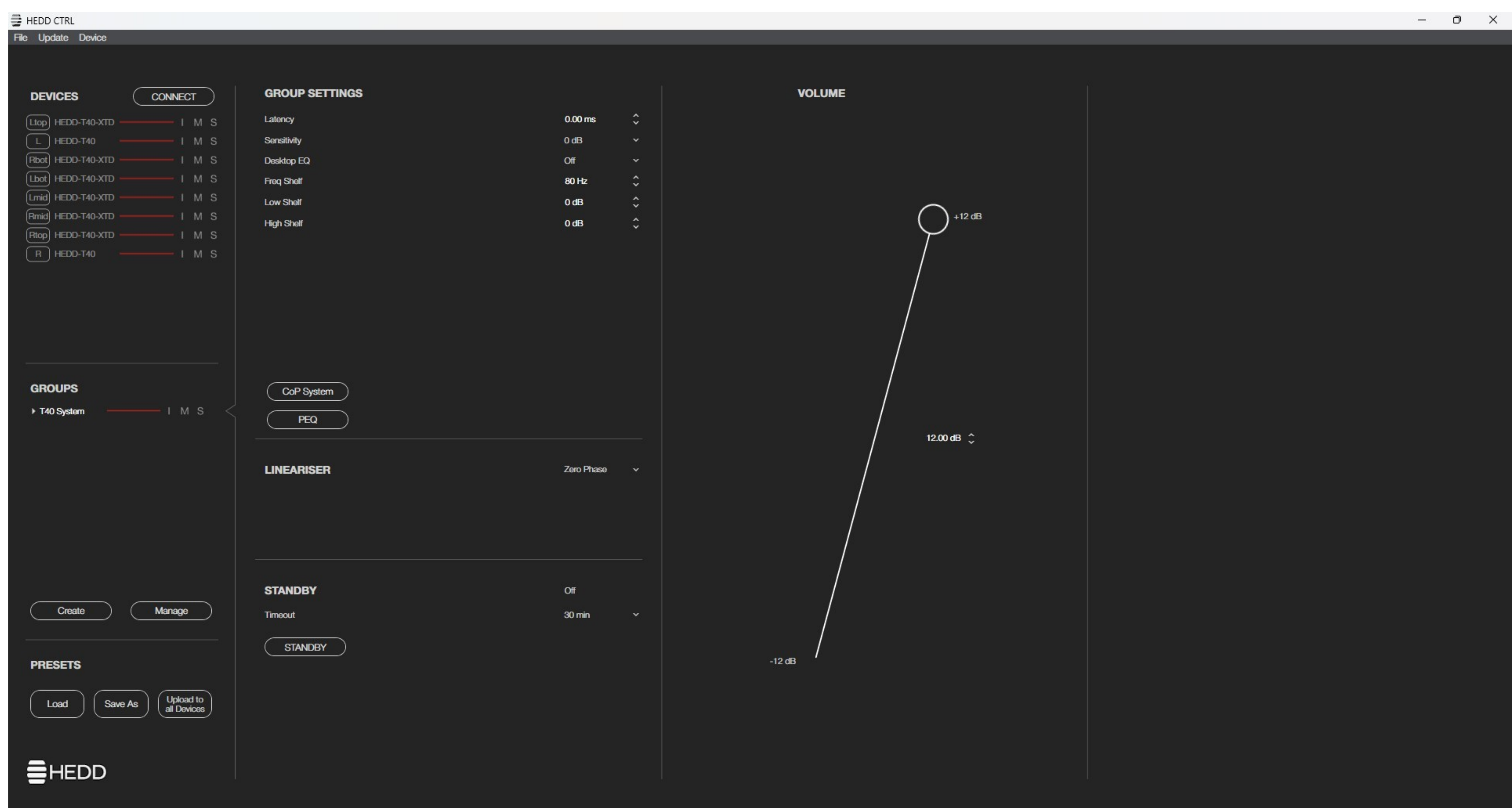
- Type 40 Main Left
- Type 40 XTD Top Left
- Type 40 XTD Middle Left
- Type 40 XTD Bottom Left
- Type 40 Main Right
- Type 40 XTD Top Right
- Type 40 XTD Middle Right
- Type 40 XTD Bottom Right

Top, Middle, and Bottom refer to the XTDs' stacked positions on the stand (for example, on the Sound Anchors HEDD Type 40 System Stand). Assign as many XTD positions as your system has (one, two, or three per side). Correct assignment matters: it is how CTRL applies the right configuration to the right unit.

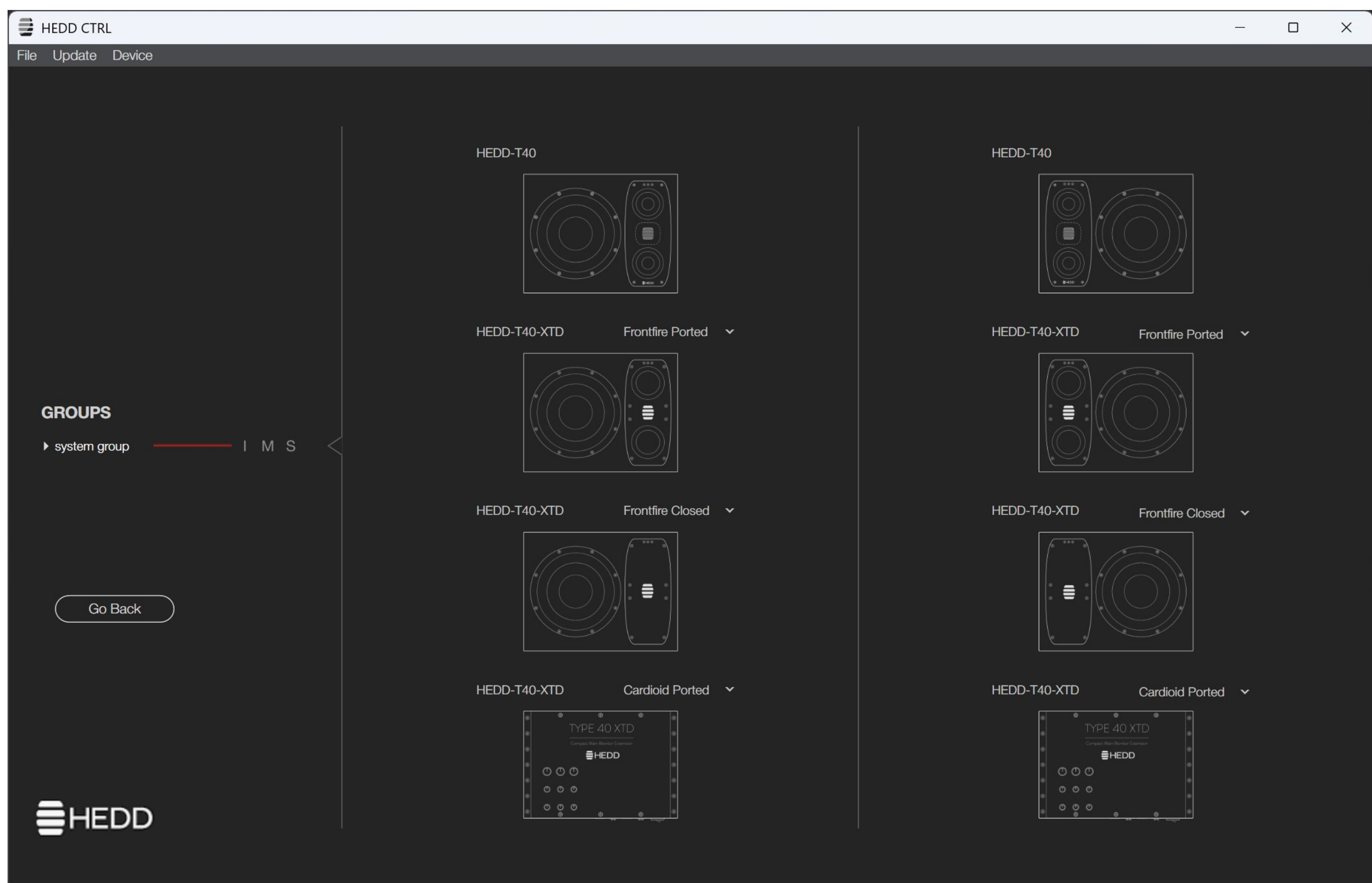


Note – Make sure to add the group name to save the group.

4. **Open the group settings.** With the group selected, all of the system's functions are presented together at a glance. The Type 40 group adds a dedicated CoP button.

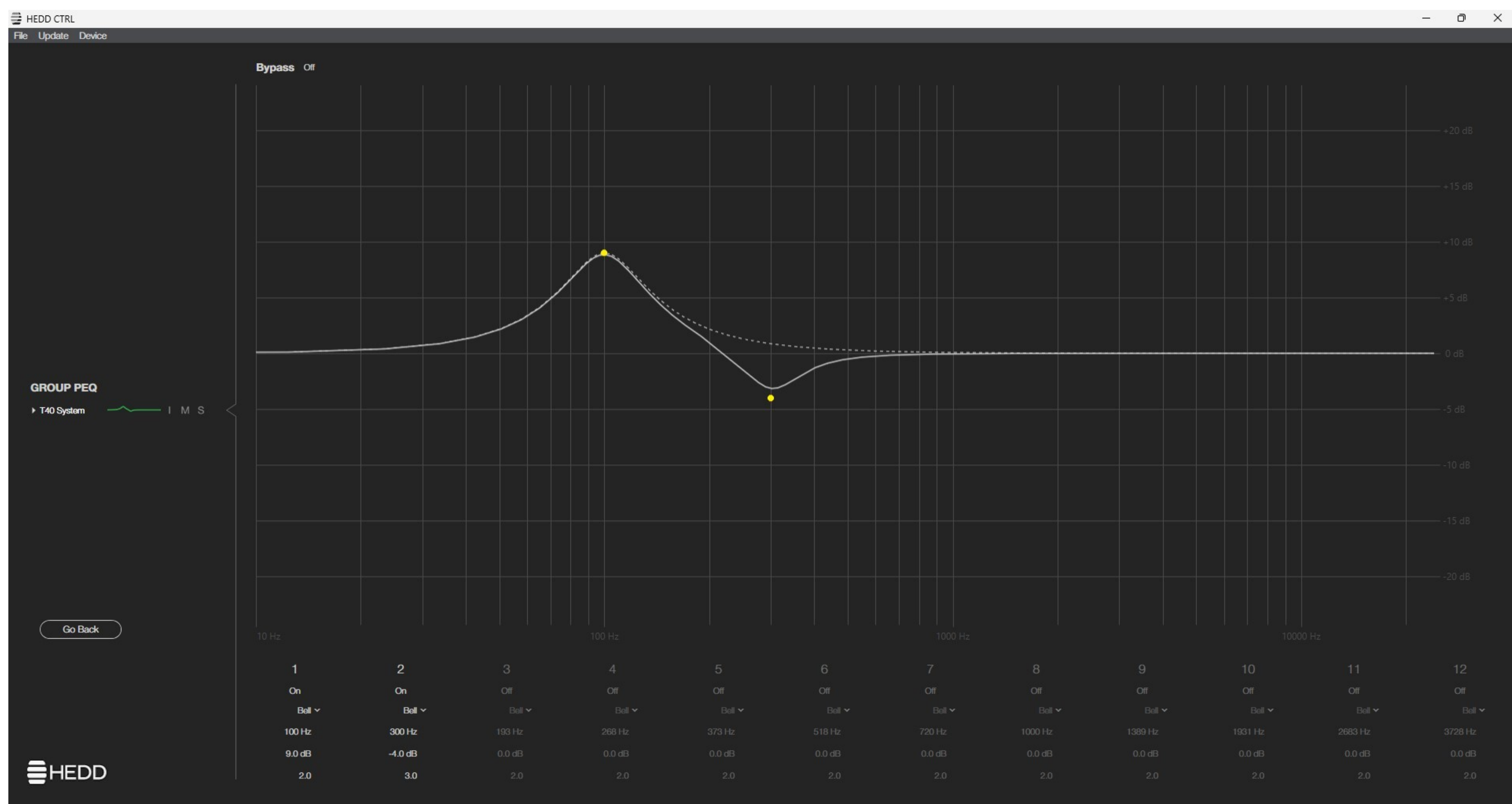


5. **Set each unit's CoP mode.** Press CoP to open the CoP overview. Here you select each unit's mode – Frontfire or Cardioid, Ported or Closed – according to how you have physically placed that unit in front of you. Once set, CTRL automatically configures all the remaining settings correctly for the chosen configuration (including each XTD's Extension Qty and the Main's LF Range).

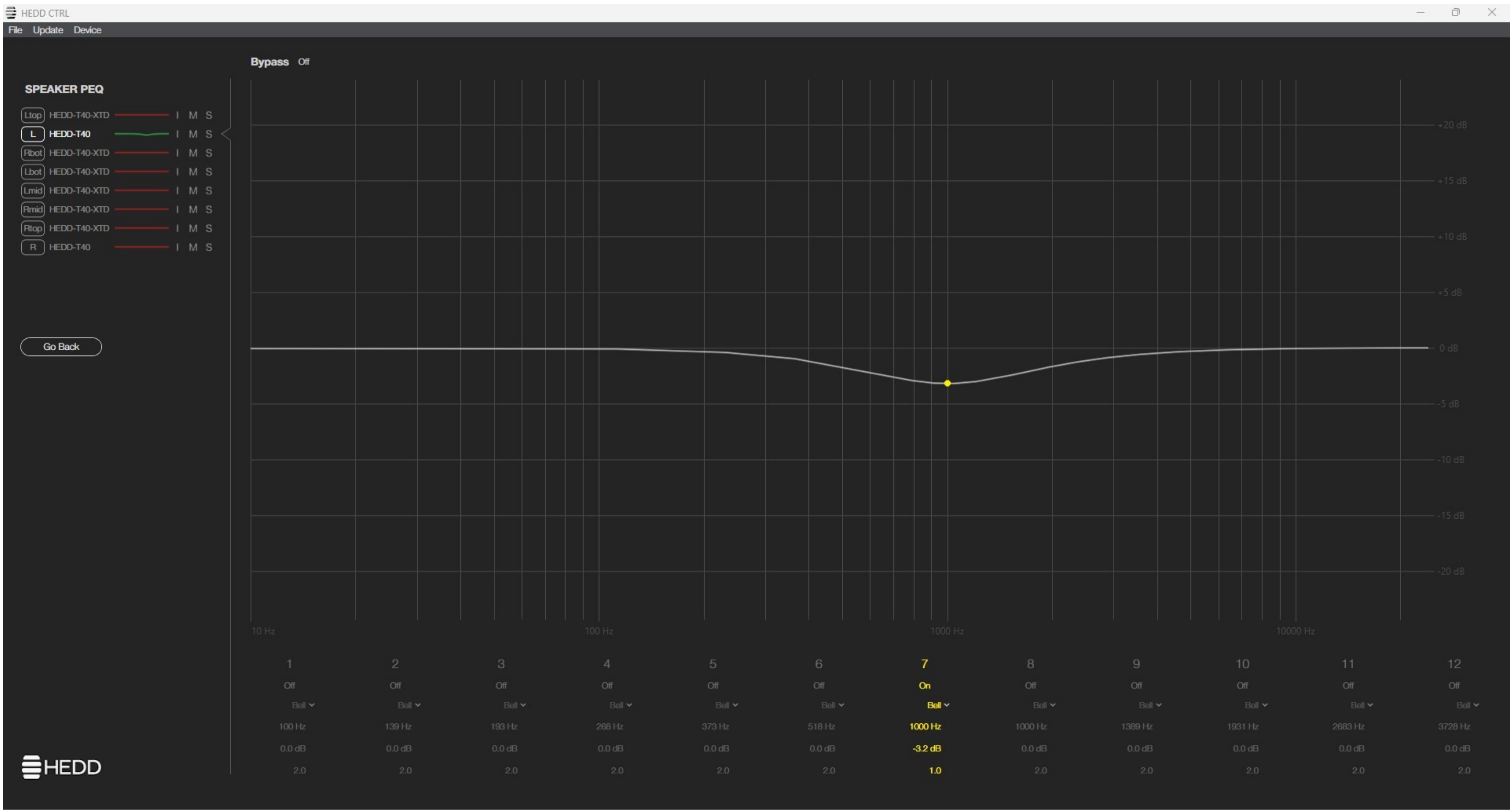


CTRL sets the mode electrically; you set it physically. Selecting a unit's CoP mode in software tells the system how that unit is configured – but the physical orientation of each XTD (frontfire or backfire) and the port state (Ported cover or Closed sealing panel) are mechanical and must match what you select. See Cardioid Operation and Closed or Ported.

6. **Fine-tune** your setup using the 12-band **Group PEQ** to optimise your listening experience.



Additionally, you can adjust each individual speaker's PEQ to address any asymmetries in your room layout.



Part E — Reference

Safety Instructions

Please read these safety instructions carefully before setting up your system, and keep them for future reference.

- To reduce the risk of electric shock, do not open the loudspeaker. Refer all servicing to qualified service personnel.
- These are active loudspeakers. Each must be connected using an IEC 60320 AC mains power cord like the one supplied.
- The Type 40 units accept a universal mains voltage range of 85–264 V, 50/60 Hz, so no voltage switch is required.
- Switch off your audio system before connecting or disconnecting any cables, and before cleaning. Never use flammable or combustible chemicals for cleaning.
- The unit should be installed near the mains outlet, and the means of disconnection (the mains inlet/switch) should remain easily accessible. To disconnect the unit completely from the mains, physically unplug the power cord.
- Do not place a unit on an unstable cart, stand, tripod, bracket, or table. It may fall and cause serious injury or damage. When mounting, use hardware rated for the unit's full weight and follow the bracket's installation instructions (see Main: Mounting & Soffit Installation).
- Make sure air can circulate around the amplifier unit, which generates heat in operation and requires sufficient airflow for cooling. Do not enclose or obstruct the amplifier back panel.
- Do not expose the unit to rain or moisture, and never use it outdoors. Keep the amplifier back panel out of direct sunlight, and do not operate the unit in an explosive atmosphere or at extreme temperatures.
- Power cords and audio cables should never be stepped on. Defective cables can damage your speakers or cause humming, crackling, and similar noise.
- Always unplug sensitive electronic equipment during lightning storms.
- The loudspeaker diaphragms sit in strong magnetic fields. Keep magnetic objects away from the units, and avoid touching the diaphragms. Do not obstruct the amplifier's cooling vents, and allow air to circulate around the amplifier unit.
- The XTD's bass-reflex port is an acoustic opening, not a cooling vent. In Ported mode leave it open; in Closed mode seal it only with the supplied aluminium panels. Do not block the port with any other material.
- Only mount the unit onto dry, non-conducting surfaces (such as wood or plaster). Other wall materials require an additional isolation panel. The unit must be securely attached in accordance with your mount's installation instructions.
- Keep electrical equipment out of the reach of children.

Warning: High sound pressure levels

These loudspeakers can produce sound pressure levels in excess of 85 dB(A), and considerably higher with XTD modules added. Sustained high levels can cause permanent hearing damage. Take care when working at high levels.

Weight and handling.

The Type 40 Main and XTD are heavy, and ship two units per wooden crate on a pallet. Use appropriate help and lifting practice when moving or installing them, and ensure stands and mounts are rated for the load.

Maintenance & Care

Your Type 40 monitors require no internal maintenance — there is no lubrication, mechanical adjustment, or other internal servicing to perform, and no reason to open the cabinet. If servicing is ever necessary, refer it to qualified service personnel, or contact support@hedd.audio.

Cleaning

- Clean the cabinet surface with a microfibre cloth and warm water only. Do not use aggressive detergents, as they will damage the finish.
- Remove dust from the diaphragms with a very soft brush.
- Always switch the unit off before cleaning.
- Make sure no liquid gets inside the cabinet.
- Do not use flammable or acidic chemicals.

Keeping the CoP parts

When you switch an XTD between Ported and Closed, keep the parts you are not currently using in a safe place — the port cover or the aluminium sealing panel, the screws (including the spares), and the supplied Torx T20 bit. Storing them with the unit means they are on hand whenever you change modes.

Caution — the Torx T20 bit is ferromagnetic. Use it only on the XTD. Keep it away from the Type 40 Main: its strong magnetic field can attract the bit, and contact can damage the AMT tweeter. Never bring the bit or other magnetic objects near the Main's drivers.

Shipping and packaging

If you need to transport your units, use the original packaging — the wooden crate it shipped in is the safest way to move them. The Type 40 ships two units per crate, on a pallet; retain this packaging for any future transport. HEDD Audio GmbH cannot be held responsible for damage resulting from improper packaging.

Environmental information

All HEDD products comply with RoHS and WEEE. If a unit is seriously damaged and beyond use, consult your local authorities for information on proper disposal.

Warranty

HEDD warrants that its products are free from defects in material and workmanship for twenty-four (24) months from the date of original purchase. This warranty can be extended to thirty-six (36) months if the product is registered with us within the first 6 months after purchase, at hedd.link/registration.

Accessories and any parts subject to wear and tear are covered for six (6) months.

The latest version of our warranty terms is available online at hedd.audio/warranty/.

Before making a claim, please contact your point of sale first. You can find our list of authorised resellers at hedd.audio/store-locator/.

Limitations. Please note that inappropriate use voids the warranty and any associated claims.

Troubleshooting

If none of the advice below resolves the problem, the unit may be faulty. For further assistance, contact support@hedd.audio.

Problem	Things to check
Green power LED is on, but there is no audio output	1. Check that all cables are connected correctly. 2. Check that the correct input is selected with the ANALOG/AES switch (or in HEDD CTRL). 3. Swap the signal cables between two units to rule out a faulty cable. 4. Connect a source directly to the unit (mind the volume) – if you now have audio, the fault is in your signal path. 5. If the amplifier back panel is very hot, the thermal protection may have shut down output; switch off, let it cool, and power up again.
No output and the LED is white	The unit is in standby, not faulty. It enters standby after 30 minutes of inactivity (factory setting; adjustable in HEDD CTRL) and wakes automatically when audio is detected. Start playback to wake it. The wake circuit responds to roughly a 0.05 V sine signal (about –23.8 dBu); because the crest factor of music is much higher than that of a sine tone, a relatively high musical level is sometimes needed to wake the unit.
Hum or buzz in the output	1. Disconnect all signal cables. If the noise stops, check your cables and signal-path equipment. On the balanced XLR input, try engaging Ground Lift at the source. 2. If the noise remains, move any high-RFI devices (phones, switching power supplies, radio equipment) away from the units.
Red overload LED lights up constantly	Reduce the input level at the source, or lower the INP. SENS. (input sensitivity) on the unit.
The two speakers differ in output level	Use VOL (or HEDD CTRL) to compensate for level differences between units.
An XTD produces no output, or seems inactive	1. Confirm the XTD is powered and its status LED is green. 2. Confirm signal reaches it – check the THROUGH chaining, or feed it directly. 3. Confirm its input selection (ANALOG/AES and channel) matches the channel it serves.
Cardioid mode isn't reducing rear output as expected	1. Confirm the XTD is physically oriented to backfire. 2. Confirm the CoP setting is a Cardioid mode and matches the port state (cover vs. sealing panel). 3. Confirm the other XTD(s) in the channel are set to Frontfire in the same cabinet design (Ported/Closed). Both the physical orientation and the setting must agree.
Closed mode sounds wrong, or output is unexpectedly low/boomy	Confirm the port's physical state matches the CoP setting – the aluminium sealing panel fitted for Closed, the port cover fitted for Ported. A mismatch between the panel and the setting gives an incorrect response.
The system doesn't sound time-aligned / imaging is smeared	Confirm every unit in the system uses the same LINEARISER setting. Mismatched Lineariser settings cause time-alignment errors between units.
A unit doesn't appear in HEDD CTRL	1. Confirm the unit's CTRL switch is set to ON. 2. Confirm its CTRL (Ethernet/RJ45) port is connected to the switch/router and the computer is on the same network. 3. Re-press Connect; for first-time use, a firmware update may be required (see the CTRL manual).
Back panel controls have no effect	The unit's CTRL switch is probably set to ON, which bypasses the back panel. Set CTRL to OFF to use the physical controls, or make your changes in HEDD CTRL.

Technical Specifications | Type 40 Main

System	Active 3-way closed-cabinet main monitor
Driver arrangement	D'Appolito MTM (two midrange drivers flanking the AMT)
Tweeter	Hand-built Air Motion Transformer (AMT)
Midrange	2 × 4"
Woofers	10¾" Ultra-High Performance Subwoofer
Free-field frequency response (–3 dB)	20 – 40 000 Hz
Self-noise (at 10 cm)	< 20 dB SPL (A-weighted)
Max SPL @ 50 Hz (1 m)	108 dB SPL
Max SPL, sine, THD < 0.5 % at 1 m	96 dB SPL
Max SPL (peak)	123 dB SPL
Low-frequency extension	From 20 Hz (controlled, closed cabinet)
Crossover frequencies	250 Hz and 2.8 kHz
Recommended listening distance	2 m or above
Acoustical principle	Closed (sealed) cabinet
Analog input	Balanced XLR
Analog input impedance	> 20 kOhm
Max input level	+14.77 dBu (at input sensitivity –4 dB)
Digital input	AES/EBU XLR, with Through
Accepted sample rates	44.1 – 192 kHz (internal processing at 96 kHz)
Lineariser delay	2.3 ms (OFF) / 2.3 ms (FLAT) / 11.3 ms (ZERO PHASE)
Input gain / sensitivity	–10 / –4 / 0 / +4 dB
Shelving filters (LOW / HIGH)	±4 dB in 2 dB steps (80 Hz / 4 kHz)
LF Range	FULLRANGE / MAX SPL / XTD
Desk filter	OFF / SMALL (–1 dB) / MED. (–2 dB) / LARGE (–4 dB) at 180 Hz
Control / management	HEDD CTRL (Ethernet / RJ45)
Amplifier type	Class D
Output power – LF	700 W
Output power – MF	300 W
Output power – HF	300 W
Power supply	85 V – 264 V, 50/60 Hz
Power consumption – idle	20 W
Power consumption – full output	588 W
Standby power	< 0.5 W
Cabinet material	MDF
Finish	Satin black matte paint
Operating conditions	+10 °C to +40 °C, < 75 % RH, non-condensing
Transport / storage	–25 °C to +60 °C, < 90 % RH, non-condensing
Mounting	Side M10 points (IsoAcoustics bracket, sold separately); soffit-mountable; detachable amp back panel
Dimensions (H × W × D)	37 × 47 × 45 cm
Weight	29.5 kg
Packaging dimensions (L × W × H)	115 × 60 × 48 cm
Packaging weight (gross)	80 kg
Delivery	Two units (L&R) per wooden crate, on pallet

Amplifier power figures are peak per-channel ratings. Power-consumption figures are mains draw; the power supply operates at 84% efficiency.

Technical Specifications | Type 40 XTD & System

Type	Dedicated subwoofer extension module, reversible orientation (frontfire / backfire)
Driver	10¾" Ultra-High Performance Subwoofer
Operating modes	Frontfire Ported / Frontfire Closed / Cardioid Ported / Cardioid Closed
Mode selection	CoP control or HEDD CTRL, plus physical orientation
Acoustical principle	Ported or Closed (selectable; aluminium sealing panels supplied)
Frequency response (–3 dB)	20 – 80 Hz (extends to 20 – 250 Hz in Cardioid with the Type 40 Main)
Self-noise (at 10 cm)	< 20 dB SPL (A-weighted)
Cardioid rear reduction	Up to –10 dB rear-hemisphere (range varies by mode/configuration – see Configurations at a Glance)
Max SPL gain @ 50 Hz (Frontfire Ported)	+6 dB (1×) / +12 dB (2×) / +15 dB (3×)
Max SPL gain @ 50 Hz (Frontfire Closed)	No increase (1×) / +6 dB (2×) / +9 dB (3×)
Shelving filter	Level (dB) + corner frequency 40 / 80 / 120 / 160 / 200 Hz
Extension Qty	1 / 2 / 3
Analog input	Balanced XLR
Digital input	AES/EBU XLR, with Through
Analog input impedance	> 20 kOhm
Max input level	+14.77 dBu (at input sensitivity –4 dB)
Accepted sample rates	44.1 – 192 kHz (internal processing at 96 kHz)
Input gain / sensitivity	–10 / –4 / 0 / +4 dB
Lineariser delay	2.3 ms (OFF) / 2.3 ms (FLAT) / 11.3 ms (ZERO PHASE)
Amplifier type	Class D
Amplifier power	700 W
Power supply	85 V – 264 V, 50/60 Hz
Power consumption – idle	20 W
Power consumption – full output	588 W
Standby power	< 0.5 W
Control / management	HEDD CTRL (Ethernet / RJ45)
Cabinet material	MDF
Finish	Satin black matte paint
Operating conditions	+10 °C to +40 °C, < 75 % RH, non-condensing
Transport / storage	–25 °C to +60 °C, < 90 % RH, non-condensing
Mounting	Side M10 points (IsoAcoustics bracket, sold separately)
Dimensions (H × W × D)	37 × 47 × 45 cm (same as Main)
Weight	27.5 kg + 1.5 kg (aluminium panel)
Packaging dimensions (L × W × H)	115 × 60 × 48 cm
Packaging weight (gross)	79 kg
Delivery	Two units (L&R) per wooden crate, on pallet

Amplifier power figures are peak per-channel ratings. Power-consumption figures are mains draw; the power supply operates at 84% efficiency.

Type 40 System

Configuration	One Type 40 Main + 1–3 Type 40 XTD per channel
Max SPL gain @ 50 Hz	Up to +15 dB (Frontfire Ported, 3 × XTD) relative to the Main alone
Cardioid rear reduction	Up to –10 dB rear-hemisphere (see Configurations at a Glance)
Control / management	HEDD CTRL
Recommended stand	Sound Anchors HEDD Type 40 System Stand (sold separately)

Appendix: XTD Extension Qty & LF Range Settings

This appendix is for setting up a Type 40 System manually — that is, with each unit's CTRL switch set to OFF and configured from its control plate. When you use HEDD CTRL, these settings are applied automatically once you select each unit's CoP mode, and you do not need this table.

For each scenario below, find the one that matches your channel — the number of XTDs and how many are Frontfire versus Cardioid — and set each unit exactly as shown. Apply the same scenario to both the Left and Right channels.

As a reminder: the Extension Qty value is an encoding of the unit's role in the bass array, not simply the number of XTDs present. Set it precisely as the table specifies, even where the value may seem unexpected. The LF Range column refers to the setting on the Type 40 Main.

Scenario	XTDs	Mode of XTD unit(s)	Main: LF Range	XTD: Ext. Qty
1.1	1 × XTD	Frontfire (Ported / Closed)	XTD	1
1.2	1 × XTD	Cardioid (Closed)	Fullrange	1
2.1	2 × XTD	1 × Frontfire (Ported / Closed)	XTD	1
		1 × Cardioid (Ported / Closed)		2
2.2	2 × XTD	Frontfire (Ported / Closed) — both	XTD	2
3.1	3 × XTD	2 × Frontfire (Ported / Closed)	XTD	2
		1 × Cardioid (Ported / Closed)		2
3.2	3 × XTD	1 × Frontfire (Ported / Closed)	XTD	1
		2 × Cardioid (Ported / Closed)		3
3.3	3 × XTD	Frontfire (Ported / Closed) — all three	XTD	3

How to read a scenario. Each scenario describes one channel (one side of your system). Where a scenario lists two rows — a Frontfire row and a Cardioid row — it means the channel contains a mix of units: set the Frontfire unit(s) to the Extension Qty shown on the Frontfire row, and the Cardioid unit(s) to the Extension Qty shown on the Cardioid row. Where a scenario has a single row, all XTDs in that channel use the same setting.

Please remember: Setting Extension Qty and LF Range is only the electrical part of the configuration. Each XTD must also be physically oriented (frontfire or backfire) and have its port in the correct state (cover for Ported, aluminium sealing panel for Closed) to match its mode. See Cardioid Operation and Closed or Ported.

Keep in Touch

Please visit our website to stay up to date and consider subscribing to our newsletter: <https://hedd.audio>

Follow us:

- Instagram: [@heddaudio](#)
- YouTube: [HEDD Audio GmbH](#)
- Facebook: [@HEDDaudio](#)
- LinkedIn: [HEDD | Heinz Electrodynamic Designs](#)

Contact us: info@hedd.audio · Technical support: support@hedd.audio

HEDD | Heinz Electrodynamic Designs is a high-end audio manufacturer. Drawing on a rich history in audio creation and reproduction, the company has built handcrafted professional studio monitors, subwoofers, and headphones in Berlin since 2016. HEDD's signature advantage is its in-house developed and built Air Motion Transformer driver.