

Meyer Sound ULTRA-X40 Powered Loudspeaker

By George Petersen

These days, when a new speaker design coming to market grabs a lot of attention, it's most likely a large-format line array, but when that product is a dual-8" point-source box, then there's something special going on. And as it turns out, that seems to be the case with Meyer Sound's new ULTRA-X40, which was unveiled earlier this year at ISE in Amsterdam and is now shipping at a list price of \$5,600.

Drawing on the lineage of the popular UPA-1P point-source enclosures and the LEO family of line arrays, the ULTRA-X40 shares some of the technologies of both, yet adds a few tricks of its own along the way.

» What's Inside

The ULTRA-X40 is a trapezoidal enclosure based on a concentric driver configuration its two 8-inch neodymium magnet cone drivers canted inward and coupled to a low-mid waveguide that surrounds the single 3-inch diaphragm HF compression driver. The dispersion is 110° x 50° (HxV); an otherwise-identical, but tighter-throw (70° x 50°) ULTRA-X42 model is also offered. Directionality is maintained down to 400 Hz. Both versions feature a Constant-Q horn that is easily field-rotatable using only a screwdriver. Internal three-channel (1,950W peak) Class-D power amplifiers provide the punch. The ULTRA-X40 frequency response is stated as 56 Hz to 19 kHz (±4 dB) and the peak SPL rating is 132.5 dB (fed from M-noise).

Physically, the ULTRA-X40 is constructed of premium multi-ply birch with a slightly textured black finish. The enclosure is 22.3 x 12.5 x 15.4 inches (HxWxD, with rear handles). It weighs in at 52 pounds and is shorter and slightly narrower than the 77-pound UPA-1P. The ULTRA-X40 includes 11 integral M8 rigging points. It also has an integral 35mm stand mount receptacle with M20 threads for added stability. A wide variety of rigging accessories — U-brackets, yokes, pick-up plates — are offered for mounting or hanging single (or multiple clustered) units in horizontal or vertical orientations. Other options include custom color finishes and attachable rain hoods to protect the I/O panel from moisture and inclement weather.

» I/O

Looking at the rear panel, the "standard" base model of the ULTRA-X40 is pretty Spartan from an I/O perspective, with an electronically balanced analog female XLR line input and a male XLR loop output. There are also status LEDs to indicate power on, signal present and the onboard peak limiters that protect the unit from driver over-excitation.

The AC input is via a locking Neutrik powerCON 20 jack with an AC loop output for daisy-chaining another ULTRA-X40 from the same power feed. The unit operates at any voltage from 100 to 240 VAC, 50/60 Hz. Besides a heavy-duty power cable, each speaker also includes an extra powerCON 20 plug, a useful touch should you wish to make a custom-length AC or power loop-thru cable. The connector's twist lock design makes for secure AC connections, as opposed to IEC plugs, which can possibly wiggle free in high-vibration situations.

The ULTRA-X40 has no AC power switch or network connector and the speaker omits some features commonly found on other pole-mount speakers for portable applications, such as line/mic input switching, gain controls, input mixing and onboard DSP settings. However, an optional alternative input panel offers input/loop connectors on 5-pin XLRs, along with a remote mute switching function and two network connectors that support Meyer's Compass RMS (Remote Monitoring System). Compass RMS lets users keep track of system status and performance data for each loudspeaker in real-time, including amplifier voltage, limiting activity, power output, fan and driver status, as well as adding remote mute and solo capability to all speakers in the network.

» On The Road

One of my first gigs with the ULTRA-X40 was to provide sound for an American Cancer Society "Relay for Life" benefit, which combines supplying background audio for a 24-hour walkathon, live music acts, an evening video tribute to cancer victims and voice announcements and speeches throughout the day. The venue was on a baseball field, with most of the audience in a wide arc about 120 feet back from the stage, around the edges of the outfield. This gave me an opportunity to evaluate the ULTRA-X40 under a variety of applications — spoken word, recorded and live performance. After putting the speakers through a pre-gig trial, I was confident that two ULTRA-X40s could handle it. In past years, in a different location, I'd run the mains with a couple single-18 subs. This time out, I had concerns about spilling into a residential area just off the extreme stage left side, and after making some quick on-site checks, the two ULTRA-X40s proved ideal for the job, with enough punch at 120 feet and just enough off-axis drop-off to avoid angering the neighboring houses and a nearby church.

Unlike the UPA-1P's left/right side handles, the ULTRA-X40s are equipped with two backside handles, which can make placing them on a tall pole mount somewhat awkward. Of course, the lavish use of 11 M8 rigging points (plus 35mm pole mount with M20 thread) on the ULTRA-X40s is a big step up from the UPA-1P's four ring and pan fittings. The speakers' rear handles can be removed for installations, if desired.

The ULTRA-X40s use fan-less, convection cooling. Even running the speakers hard, outdoors in 90-degree weather, the heat sinks remained fairly cool to the touch. And the lack of fan noise will be surely be appreciated by users in quiet house of worship or theater settings.

I was immediately impressed by the ULTRA-X40's LF output. I'm quite familiar with the sound of the single-12 UPA-1P, and a dual-8" design has slightly less piston area than a 12" driver. Yet the ULTRA-X40's highly optimized cabinet tuning/porting and high-driver/amplifier efficiencies easily make



Meyer Sound ULTRA-X40

up the difference. With their compact (and much lighter) enclosures, the ULTRA-X40s proved to be impressive little powerhouses. Of course, if I was mixing bass-heavy sources (hip-hop, hard rock, metal, rap, etc.) on this gig, additional LF reinforcement would be essential.

One of the first acts I mixed with the ULTRA-X40s was an Americana band, with 6- and 12-string guitars, mandolin and bass — plus vocals. This really spotlighted the speakers ability to handle complex harmonics and with a clean, upper-end that had plenty of air and detail, with no harshness, even when listening well off-axis. I also mixed the East Bay Gay Men's Chorus — in this case performing as a 15-voice vocal ensemble plus piano. Here again, the ULTRA-X40s shined in the vocal range; the crossover point was undetectable and the vocals were clear, rich and smooth.

The ULTRA-X40's ability to rotate its 110° x 50° horn for horizontal use is a major plus, particularly in low-profile downfill, under-balcony or front-fill applications. Rotating the horn is a simple matter of removing the recessed screws that secure the front grill; taking out four screws that keep the horn in place; then pivoting the horn flare itself and re-attaching it. The process takes less than three minutes, but be careful not to drop the screws down into the horn flare. The grill's Meyer Sound logo is rotatable for a clean look.

» Yay or Nay?

In creating the ULTRA-X40, company chief loudspeaker designer Pablo Espinosa and the Meyer Sound team have clearly hit one out of the park, creating an improved loudspeaker speaker that lives up to — and surpasses — the legacy of the industry standard UPA-1P. And in this quest, offering a replacement for installations or portable use that sounds better, yet in a more powerful, lighter and smaller package was no easy task. Long live the ULTRA-X40! **F&H**

At a Glance

Compact Powerhouses

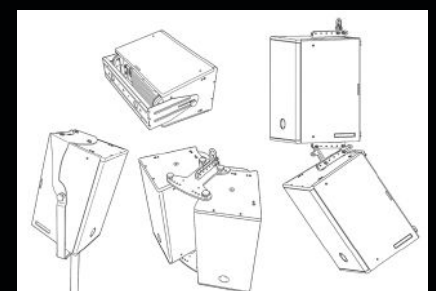
Meyer updates its venerable UPA-1P loudspeakers with a new classic in the making, the ULTRA-X40. The company has succeeded in its mission to provide a state-of-the-art replacement for installations or portable applications that promise even better sound quality, with a component that is at once more powerful, lighter and more compact.

Meyer ULTRA-X40 Speakers

- PROS**
- Compact, lightweight
 - Smooth, wide response
 - Rotatable horn
 - Wide range of rigging options
- CONS**
- No power switch
 - Handle placement awkward for pole placement

STATS

Drivers	(2) 8" neodymium woofers; 3" diaphragm HF driver
Enclosure	Birch
Peak Amplifier Power	1,950W peak
Frequency Response (±4dB)	56 to 19k Hz
Dispersion	ULTRA-X40, 110°x50°; ULTRA-X42, 70°x50°
Max SPL	132.5 dB (M-noise)
Dimensions (HxWxD)	22.3 x 12.5 x 15.4"
Mounting	35mm (with M20) pole socket; 11 M8 inserts
Weight	52 pounds
Price	\$5,600
Manufacturer	Meyer Sound



A few of the many available rigging options