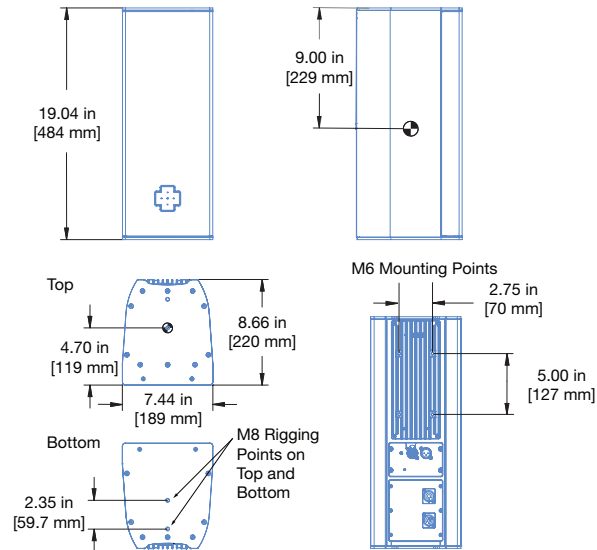
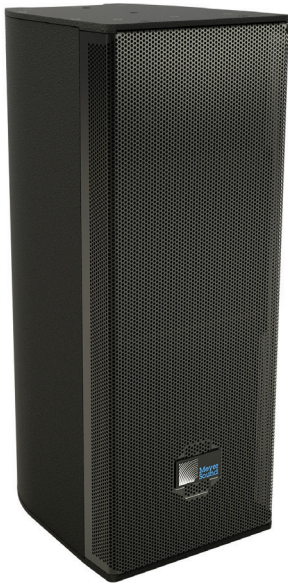


ULTRA-X20™ Compact Wide Coverage Loudspeaker

ULTRA-X22™ Compact Narrow Coverage Loudspeaker

ULTRA-X23™ Compact Broad Coverage Loudspeaker



Meyer Sound's new ULTRA-X20 design extends the award-winning, state-of-the-art ULTRA-X40 point source technology to a smaller version for size- and weight-critical applications.

The ULTRA-X40 evolved from the highly successful UPA loudspeakers—so versatile they have been a universal standard in almost every application for over 35 years. To this legacy, Meyer Sound incorporated technology from the popular and award-winning LEO® Family of loudspeakers to bring multiple enhancements to bear in the ULTRA-X40 design.

Enhancements extending to the smaller Ultra-X20/22/23 versions include:

- An innovative, highly efficient class-D amplifier that reproduces any sound source with linearity over a wide dynamic range.
- A small-size cabinet weighing only 27 lbs (12.3 kg).
- A concentric driver configuration that has all the benefits of a coaxial driver, yet none of the disadvantages. In addition, this configuration supports directional control of frequencies down to 600 Hz.
- A rotatable, extremely well-behaved horn designed for very precise, even coverage. This horn design, in conjunction with the concentric driver configuration, delivers the same pattern regardless of orientation.

With these enhancements, the ULTRA-X20 loudspeaker provides high power output, low distortion, and consistent polar response in a very compact, vented enclosure. The loudspeaker features two 5-inch cone low-frequency drivers and one 2-inch diaphragm compression driver coupled with a rotatable 110° x 50° Constant-Q horn. A more controlled pattern is available on the ULTRA-X22 model, which is fitted with a rotatable 80° x 50° constant-Q horn. A wider coverage version, the ULTRA-X23, offers a 110° x 110° Constant-Q horn.

Because of its proprietary, high-frequency horn, the beamwidth remains consistent within close tolerances in both the horizontal and vertical planes, and across the horn's operating frequency range. Uniformly predictable

polar behavior takes much of the guesswork out of system design and assures optimal system performance.

A proprietary three-channel, class-D digital power amplifier powers the ULTRA-X20 loudspeaker, which has a total peak power output of 860 watts. Audio processing includes electronic crossover, correction filters for phase and frequency response, and driver protection circuitry. Phase-corrected electronics ensure flat acoustical amplitude and phase response, resulting in exceptional impulse response and precise imaging.

The amplifier/processing package incorporates Meyer Sound's Intelligent AC™, which auto-selects the correct operating voltage, suppresses high voltage transients, filters EMI and provides soft-start power-up. The ULTRA-X20 cabinet provides audio XLR and PowerCON 20 input and looping output connectors. The ULTRA-X20XP version with IntelligentDC technology suits applications where AC power distribution is a limiting factor. It receives DC power and balanced audio from a Meyer Sound power supply.

The optional RMS remote monitoring system module provides comprehensive monitoring of loudspeaker parameters from a host computer running Compass® software.

Meyer Sound builds the elegant, slightly curved enclosure out of aluminum with a slightly textured black finish. A powder-coated, round-perforated steel grille provides protection to the front of the loudspeaker.

The ULTRA-X20 includes two integral M8 rigging points on each end to enable a variety of configurations including those requiring pole mounting, hanging individually from a single point, wall mounting or ceiling mounting. In addition, the ULTRA-X20 includes four M6 threaded holes with 5-inch by 2.75-inch (127 mm by 70 mm) hole pattern on the rear for use with third-party wall mounts.

Optional rigging accessories include a 35 mm to M8 pole adapter, U-bracket, yoke, and a pinnable link on a channel that allows the hanging of one or two units from a single pick-up point. Other options include weather protection and custom color finishes.

FEATURES AND BENEFITS

- A compact, elegant and light aluminum enclosure encases exceptional fidelity and surprising power capability
- Extraordinarily flat amplitude and phase response ensures tonal accuracy and precise imaging
- Wide pattern covers broad listening areas
- Rotatable horn provides installation flexibility
- Integral stand mount and QuickFly® mounting options facilitate rigging

APPLICATIONS

- Multi-purpose Audio/Visual
- Corporate rental
- Houses of worship
- Conference rooms
- High-end private installations
- Retail spaces
- Theater

ACCESSORIES AND ASSOCIATED PRODUCTS

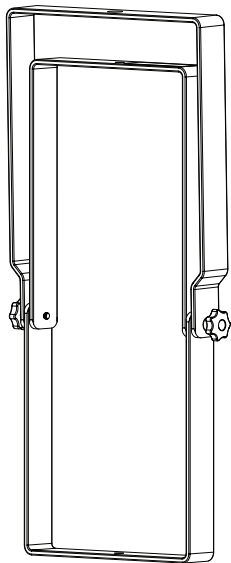
MYA-X20 Yoke Kit (PN 40.297.450.01): The MYA-X20 Yoke suspends a single ULTRA-X20/22/23 loudspeaker and supports a wide range of horizontal and vertical adjustments. The yoke attaches to the top and bottom of the loudspeaker using two included M8 bolts/washers. The kit also includes two M8 knobs/washers. The yoke may also be mounted on a 35 mm pole to facilitate easy panning and tilting by using the optional PAS-M8 Adapter Sleeve.

MTC-X20 Top Channel Kit (PN 40.297.430.01): The MTC-X20 Top Channel kit includes a pinnable link in a channel that mounts directly to the top of the ULTRA-X20/22/23 rig nuts and supports pick-up of up to two ULTRA-X20/22/23 loudspeakers from a single point using the two included lock pins and 3/8-inch shackle. The kit includes two M8 socket head screws for attaching the channel to the loudspeaker.

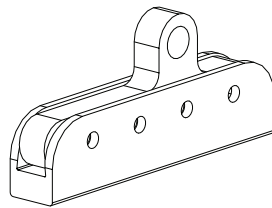
PAS-M8 Adapter Sleeve M8 (35 MM Pole) (PN 40.010.975.01): The PAS-M8 Adapter Sleeve allows the user to connect a 35 mm pole to the ULTRA-X20 M8 rig nuts on the top/bottom of the loudspeaker. It can also be used with the MYA-X20 to pole-mount the yoke (a nut and washer are required for this application).

MUB-X20 U-Bracket Kit (40.297.454.01): The MUB-X20 U-Bracket allows a single ULTRA-X20/22/23 loudspeaker to be mounted to a wall (in either vertical or horizontal orientations), to the ceiling or onto the floor. The kit includes two M8 bolts/washers and two M8 knobs/washers.

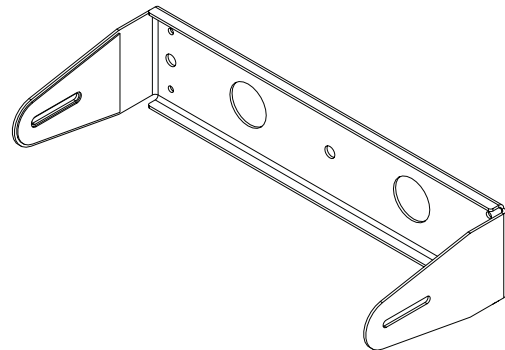
MPK-POLE 35MM/M20 Adjustable Pole Kit (PN 40.010.973.01): Adjustable length 927–1524 mm (36.5–60 in) pole with assisted lift. Lower shaft fits 35 mm cups or use the removable M20 threaded lug for added stability in pole mount cups. Additional 35 mm to 38 mm (1.5 in) adapter included. Upper shaft includes **PAS-M8 Adapter Sleeve** to fit loudspeakers with M8 rig nuts onto a 35 mm speaker stand. The PAS-M20 and 750-LFC/900-LFC Subwoofer Internal Pole Mount Cup (35 mm/M20) are also included.



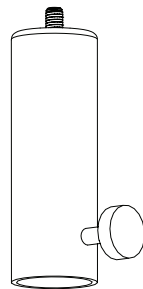
MYA-X20 Yoke
(PN 40.297.450.01)



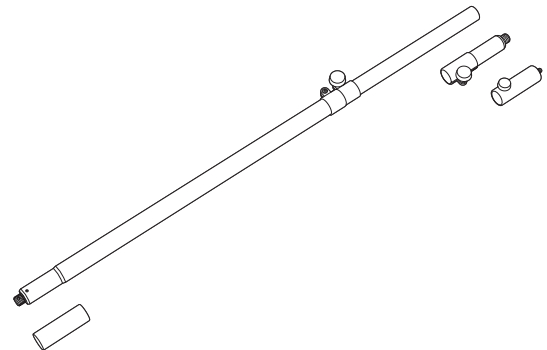
MTC-X20 Top Channel
(PN 40.297.430.01)



MUB-X20 U-Bracket (PN 40.297.454.01)



PAS-M8 Adapter Sleeve
M8 (35 MM Pole)
(PN 40.010.975.01)



MPK-POLE Pole Kit (PN 40.010.973.01)

SPECIFICATIONS

| ACOUSTICAL ¹ | ULTRA-X20 | ULTRA-X22 | ULTRA-X23 |
|--|--|--|--|
| Operating Frequency Range ² | 60 Hz – 18 kHz | 60 Hz – 18 kHz | 60 Hz – 18 kHz |
| Frequency Response ³ | 65 Hz – 17.5 kHz ± 4 dB | 65 Hz – 17.5 kHz ± 4 dB | 65 Hz – 17.5 kHz ± 4 dB |
| Phase Response | 95 Hz – 18 kHz ±45° | 95 Hz – 18 kHz ±45° | 95 Hz – 18 kHz ±45° |
| Linear Peak SPL ⁴ | 127 dB with 20 dB crest factor (M-noise), 123.5 dB (Pink Noise), 125.5 dB (B-noise) | 128.5 dB with 20 dB crest factor (M-noise), 123.5 dB (Pink Noise), 125 dB (B-noise) | 127.5 dB with 20 dB crest factor (M-noise), 124 dB (Pink Noise), 125.5 dB (B-noise) |
| COVERAGE | | | |
| | Rotatable horn: 110° x 50° | Rotatable horn: 80° x 50° | 110° x 110° |
| TRANSDUCERS | | | |
| Low Frequency | Two 5-inch cone drivers; 6 Ω nominal impedance | | |
| High Frequency | One 2-inch diaphragm compression driver connected to a rotatable horn; 8 Ω nominal impedance | | |
| AUDIO INPUT | | | |
| Type | Differential, electronically balanced | | |
| Maximum Common Mode Range | ±15 V DC, clamped to earth for voltage transient protection | | |
| Connectors | XLR 3-pin female input with male loop output; optional XLR 5-pin connector to accommodate both balanced audio and RMS signals; XLR TOP connectors on weather-protected units only. | | |
| Input Impedance | 10 kΩ differential between pins 2 and 3 | | |
| Wiring ⁵ | Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal – Pin 4: RMS (polarity insensitive) Pin 5: RMS (polarity insensitive) Case: Earth ground and chassis | | |
| Nominal Input Sensitivity | 0 dBV (1.0 V rms) continuous is typically the onset of limiting for noise and music | | |
| Input Level | Audio source must be capable of producing of +20 dBV (10 V rms) into 600 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker. | | |
| AMPLIFIER | | | |
| Type | Three-channel, Class-D | | |
| Total Output Power ⁶ | 860 W peak | | |
| THD, IM, TIM | <0.02% | | |
| Cooling | Convection | | |
| AC POWER | | | |
| Connector | powerCON 20 input with loop output; powerCON TRUE1 TOP with loop output on weather-protected units only. | | |
| Automatic Voltage Selection | 90–265 V AC, 50–60 Hz | | |
| Safety Rated Voltage Range | 100–240 V AC, 50–60 Hz | | |
| Turn-on and Turn-off Points | 90 V AC turn-on, no turn-off; internal fuse protection above 265 V AC | | |
| CURRENT DRAW | | | |
| Idle Current | 0.15 A rms (115 V AC); 0.13 A rms (230 V AC); 0.16 A rms (100 V AC) | | |
| Maximum Long-Term Continuous Current (>10 sec) | 0.9 A rms (115 V AC); 0.5 A rms (230 V AC); 1.1 A rms (100 V AC) | | |
| Burst Current (<1 sec) ⁷ | 1.6 A rms (115 V AC); 0.8 A rms (230 V AC); 1.8 A rms (100 V AC) | | |
| Maximum Instantaneous Peak Current | 3.5 A peak (115 V AC); 1.8 A peak (230 V AC); 4.1 A peak (100 V AC) | | |
| Inrush Current | < 20 A peak | | |

SPECIFICATIONS, CONT'D.

| RMS NETWORK (OPTIONAL) | |
|------------------------|---|
| | Two-conductor twisted-pair network that reports all operating parameters of amplifiers to system operator's host computer. |
| PHYSICAL | |
| Dimensions | W: 7.44 in (189 mm) x H: 19.04 in (484 mm) x D: 8.66 in (220 mm) |
| Weight | 27 lb (12.3 kg) |
| Enclosure | Aluminum with slightly textured black finish |
| Protective Grille | Powder-coated, round-perforated steel |
| Rigging | Two integrated M8 threaded points on each end; optional accessories for various rigging options (see accessories section); four M6 threaded holes with 5-inch by 2.75-inch (127 mm by 70 mm) hole pattern on the rear for use with third-party wall mounts. |

NOTES

- Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free-field, measured with 1/3 octave frequency resolution at 4 m.
- Linear Peak SPL** is measured in free-field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50 °C ambient temperature is < 2 dB.
M-noise is a full bandwidth (10 Hz–22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB.
Pinknoise is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.
B-noise is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.
- Pins 4 and 5 (RMS) only included with XLR 5-pin connector that accommodates both balanced audio and RMS signals.
- Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system. The transducers shall consist of two 5-inch cone drivers and one 2-inch diaphragm compression driver connected to horns with different coverage depending on the model: the wide coverage model shall have a 110° x 50° rotatable horn, the narrow coverage model shall have a 80° x 50° rotatable horn, and the broad coverage shall have a 110° x 110° horn.

The loudspeaker system shall incorporate internal processing electronics and a three-channel, class-D amplifier. Processing functions shall include equalization, phase correction, signal division and protection for the high and low-frequency sections. Peak output power shall be 860 W total with 8 Ω nominal impedance for the high-frequency channel and 6 Ω nominal impedance for the low-frequency channels. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows: operating frequency range shall be 60 Hz – 18 kHz; phase response shall be 95 Hz – 18 kHz ±45°. Linear peak SPL for the wide coverage version shall be 127 dB with 20 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m, and its coverage pattern (–6 dB points) shall be 110° by 50°, horizontal or vertical dependent on horn orientation. Linear peak SPL for the narrow coverage version shall be 128.5 dB with 20 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m, and its coverage pattern (–6 dB points) shall be 80° by 50°, horizontal or vertical dependent on horn orientation. Linear peak SPL for the broad coverage version shall be 127.5 dB with 20 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m, and its coverage pattern (–6 dB points) shall be 110° by 110°.

The audio input shall be electronically balanced with a 10 kΩ impedance and shall accept a nominal 0 dBV (1 V rms) signal. The connector shall be a XLR 3-pin female with male loop.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100, 115 or 230 V AC line current at 50 or 60 Hz. UL and CE operating voltage range shall be 100–240 V AC. Maximum peak current draw during burst shall be 1.6 A rms (115 V AC); 0.8 A rms (230 V AC); 1.8 A rms (100 V AC). Current inrush during soft turn-on shall not exceed 20 A at 115 V AC. The AC power connector shall be powerCON.

The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS remote monitoring system.

All loudspeaker components shall be mounted in an acoustically vented trapezoidal enclosure constructed of aluminum with a slightly textured black finish with two integrated M8 threaded points on each end and four M6 threaded holes with 5-inch by 2.75-inch (127 mm by 70 mm) hole pattern on the rear. The front protective grille shall be powder-coated, round-perforated steel. Dimensions shall be W: 7.44 in (189 mm) x H: 19.04 in (484 mm) x D: 8.66 in (220 mm).

Weight shall be 27 lb (12.3 kg).

The wide coverage loudspeaker model shall be the Meyer Sound ULTRA-X20, the narrow coverage loudspeaker model shall be the Meyer Sound ULTRA-X22, and the broad coverage loudspeaker model shall be the Meyer Sound ULTRA-X23.