

## HD-MH Datasheet



Designed with Arena, Stadia and Outdoor concert touring in mind, the HD series offers all the system components you would require to really "move" your audience.

HDMH high definition, long-throw arena system. Incorporating a horn loaded 3-way design with pin-point 20° x 40° dispersion achieved through the multi chamber horn flare enhances the long throw characteristics boasting measurements of 100 dB SPL at 68 meters.

Ohm's definitive point-source solution to large format touring and installed stadium systems.

Using 2 x 10" high power drivers and a 2" & 1" neodymium coaxial mid high compression drivers. These components are mounted on a proprietary multi-cell horn flare with dual phase plug design. This creates extreme sound pressure levels of 142 dB SPL (peak) per cabinet.

The tri-amp concentric design with 16 ohm impedance ensures easy daisy-chaining from the minimum quantity of amplifiers. Integrated Aeroquip flying strip system ensure an easy to rig and reliable mounting system. Multiple combinations of up to 9 HD-MH can be flown in a cluster creating a wall of sound capable of extreme sound pressure levels of 152 dB SPL.

The exposed horn and phase plug designed gives the enclosure a unique look ideal for nightclubs and festivals. A foam front steel grill is available when discreet applications are required, which easily attaches to the HDMH.

The enclosure has hardwearing paint that has a triple undercoat and an extra thick splatter finish which is long lasting and easy to touch up after years of use. An array of integrated heavy duty steel carry handles have been carefully positioned for the best ergonomic handling, with 4 handles located on each side and 1 handle on the top and on the bottom. Integrated wooden skids are located on the top and bottom of the HDMH for locking multiple units together. The skids located on the under-side also serve as a wear protection plate that prevents the enclosure from getting damaged.

Mounting options include two 1 meter long integrated aluminium Aeroquip flying track (for use with CFEK flying eyes) located on each side and two smaller flying tracks on the rear of the enclosure, designed to give ultimate angle and loading flexibility. The HDMH may be partially or fully flown as required, via either the fully integrated flying tracks or using custom flying frames for multiple HD enclosures to a maximum of 3x3 per frame.

The rear cast aluminium heat sink plate has two integrated NL-8 connectors fitted as standard. One input and one link.

#### **The speakON® connectors are wired:**

- Pass through on pins +1-1,
- 2x 10" low mid drivers on pins +2-2,
- 3.75" Mid on pins +3-3,
- 1.75" High on pins +4-4

#### **Key features:**

- 40 x 20 degree narrow dispersion
- Large format long throw horn
- Point source array or single use
- 16 ohm tri-amp design
- 145 dB SPL
- Aerospace grade 7075-T6511 aluminium flying points
- 10 x Heavy duty recessed steel handles

# Technical Specifications

## Design

3 way Mid High Cabinet, horn loaded Tri-amp

## Impedance

16 ohm HF / 16 ohm MF / 16 ohm LF

## Power Handling (AES)

80 W HF / 180 W MF / 500 W LMF  
(continuous)

## Max. Power Handling (AES)

160 W HF / 360 W MF / 1000 W LF (program)  
320 W HF / 720 W MF / 2000 W LF (peak 10  
ms)

## Sensitivity 2.83V / 1m

118 dB HF / 118 dB MF / 109 dB LF

## Max. SPL

136 dB cont.  
142 dB peak

## Frequency Response (±3 dB)

90 Hz – 23 kHz

## Dispersion

40° x 20°

## SYSTEM OPERATION

### Recommended Amplification

500W - 1000 Watts

### System Controller

Ohm DSP Solutions

### Speaker Cables

Min - 4 x 2.5 mm<sup>2</sup>  
Preferred - 4 x 4 mm<sup>2</sup>

## PRODUCT FEATURES

### Components

2 x 10" + Coax 2" + 1" CD

### Crossover

Passive -

Active - \*      LPF : - Hz HF / 6.3 kHz MF  
630 Hz LF  
HPF : 6.3 kHz HF / 630 Hz MF  
110 Hz LF

## Connectors

2 x 8 pole speakON® connectors

## Dimensions (H x W x D mm)

1156 x 577 x 855

## Weight (kg)

109

## Shipping Weight (kg)

111 (1 cabinet per carton)

## Colour

Black

## Options

Available in white or RAL colours on request

## Rigging

2 x Flying Strip Hardware on sides for hanging

## HARDWARE

### Fitted as Standard

Flying Strip

### Optional

HD Flying Frame, HD TD Dolly-board

### Additional Descriptive Data

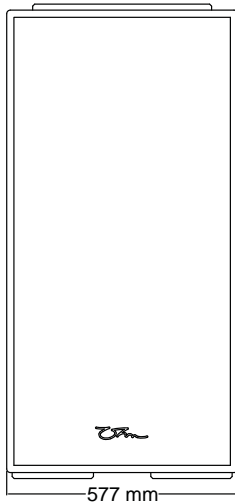
Birch plywood construction, with durable  
scratch resistant black polyurea paint finish  
kickproof steel grill, external reticulated foam  
and steel Ohm logo.

### Recommended filter settings are available on the website [ohm.co.uk/downloads](http://ohm.co.uk/downloads)

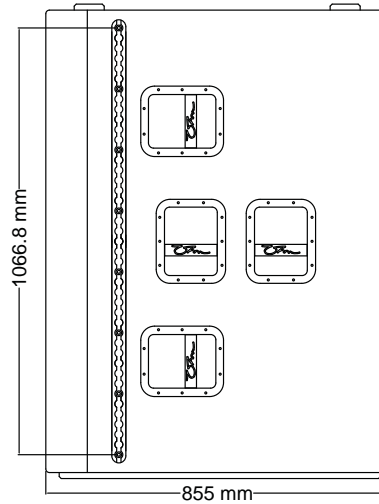
\* All presets from the OHM library.

## HD-MH Dimensions

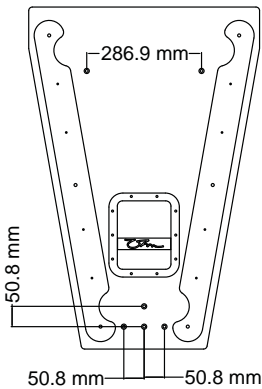
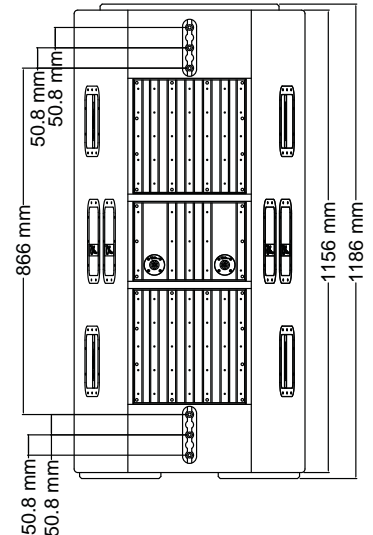
Front



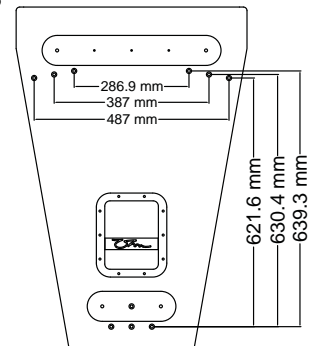
Side



Back



Top



Bottom

Further technical drawings for architectural requirements are available in DXF and DWG format for download on the website.

## Accessories and Spare Parts

- Aluminium Flying Strip
- Large bar handles
- HD-MH Skids
- HD-MH steel grill assembly
- HD-MH Crossover & backplate
- 2 x 10" low frequency driver
- 1 x Coax 2" mid frequency
- 1x 1" Compression driver
- Steel OHM logo

## Architects' & Engineers' specifications:

3 Way Mid High Cabinet, horn loaded Tri-amp cabinet design. with 2 x 10" cast chassis drivers, internally and externally ventilated double-sided high temperature voice coils, with a 2" plus 1" Neodymium coaxial compression exit driver all mounted on a proprietary horn flare. Constructed from birch plywood, with integral metal hardware fixings, finished in a durable scratch resistant black textured paint, 10 x ergonomic carry handles, kick-proof steel grill finished with black reticulated foam and a stainless steel OHM logo.

## Technical Data:

Frequency Response: 90 Hz - 23 kHz ( $\pm 3$  dB), Maximum SPL: 136 cont. / 139 prog. / 142 peak. dB/1m, Maximum Power Handling: 80 HF / 180 MF / 500 LMF Watt cont. 160 HF / 360 MF / 1000 LMF Watt prog. / 320 HF / 720 MF / 2000 LMF Watt peak, Impedance Nominal: 16 ohm HF / 16 ohm MF 16 ohm LMF, Dispersion Nominal: 40° x 20° (hor. x vert.), Connectors: 2 x speakON® connectors NL8MP (LMF: 2+/2-, MF: 3+/3-, HF: 4+/4-), Dimensions (H x W x D): 1186 x 577 x 855mm, Weight: 109 Kg, Options: Aluminium Castor Trolley, Durable scratch resistant black textured paint finish. RAL colours available to order.

## Safety Instructions

Professional speaker systems are able to produce sound pressure levels that could harm your health.

Never stand directly in front of loudspeakers for long periods. Whilst not immediately apparent to the listener, sound pressure levels in excess of 90dB@1m can be hazardous to the hearing.

Please refer to the following advice when setting up or dismantling OHM speaker systems.

1. Be sure to leave adequate distance between speakers and the public. Refer to your local authority for Health and Safety guidance when using loudspeaker systems.
2. Be sure to have safe and stable ground for your speakers, particularly when using speaker stands.
3. When stacking speaker systems, ensure they are secured to prevent individual speakers from falling down or moving around.
4. Only use OHM mounting hardware, as this has been specified and approved by AURAL LTD, OHM (UK) LTD for use with OHM speakers.
5. When flying speakers, appropriate materials and techniques must be employed in order to safely suspend enclosures, taking care to allow for specified enclosure weight.

## Safety Instructions Cont.

6. Please observe any special instructions that appear on specific loudspeaker data-sheets.
7. Check your speaker hardware and flying material regularly for any visual or mechanical failure. Replace damaged or suspect items when necessary.
8. Only use OHM DSP Solutions. Only technicians authorised by AURAL LTD, OHM (UK) LTD are qualified to program digital controllers. Take note of recommended controllers as specified on the datasheets. Do not use OHM loudspeaker systems without the correct controller. If a system fails due to incorrect controller use, warranty is void.
9. Protect your speakers and electronics from freezing and do not expose them to humidity, water or rain without protection.

OHM loudspeakers and electronics are covered against defects in workmanship or materials for a period of two (2) years from original date of purchase. At the discretion of AURAL LTD, OHM (UK) LTD, the defective item will be repaired/replaced with no charge for materials or labour. The item is to be adequately packed and dispatched, pre-paid, to an OHM authorised distributor/service centre. Unauthorised repair shall void the warranty. The OHM warranty does not cover cosmetics or finish and does not apply to any item which in OHM's opinion has failed due to user abuse, accident, modifications or any type of misuse.

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