

## METAL HORN LOUDSPEAKER

# MHS20T/ENC



This weatherproof metal horn loudspeaker is manufactured from heavy-duty die cast aluminium. Being non-corrosive and resistant to salt laden air makes it suitable for both indoor and outdoor use. It includes a mounting bracket manufactured in stainless steel. It combines a re-entrant horn with a high frequency driver. The combination of both delivers a controlled coverage pattern with clear speech and quality background music reproduction. Supplied complete with cable gland, this unit is ideal grey, RAL7035. Its rugged construction and quick and easy installation make it ideally suited for such places as outdoor swimming pools, sports stadiums, leisure centres and railway stations.



### EN54-24:2008 0359-CPD-0150 TYPE B

● <b>Standard</b>	Compliant to EN54-24 Compliant to BS 5839:8
● <b>Electrical</b>	
Rated power, Watts	20
Tappings 100 Volt line, Watts	20/10/5/2.5/1.25
Transformer Impedance, Ohms 100 Volt	500/1k/2k/4k/8k
Tappings 70.7 Volt line, Watts	10/5/2.5/1.25/0.625
Driver impedance, Ohms	8
Effective Frequency Range, Hz (BSEN60268-5)	300-16,500
S.P.L. @ 1 m, 1 Watt, dB, Octave, 100 Hz-10 kHz	105
S.P.L. @ 1 m, Full power, dB, Octave, 100 Hz-10 kHz	118
S.P.L. @ 4 m, 1 Watt, dB, 1/3 Octave, 100 Hz-10 kHz	91
S.P.L. @ 4 m, Full power, dB, 1/3 Octave, 100 Hz-10 kHz	101
Dispersion at 1k/2k Hz, Degrees	143/66
● <b>Environmental</b>	
IP Rating	66
Min/Max Ambient Temp	-25°C to 70°C
Relative Humidity	≤95%
● <b>Mechanical</b>	
Dimensions, Diameter x depth mm	Ø217x297
Net weight, kg	2.5
Colour (Unless Specified)	Grey, RAL7035
Material	Die cast aluminium housing
Mounting	Steel L bracket
Safety	Ceramic Block Thermal Fuse Capacitor for DC Line monitoring

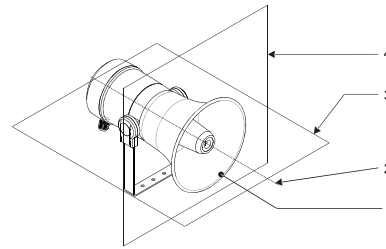
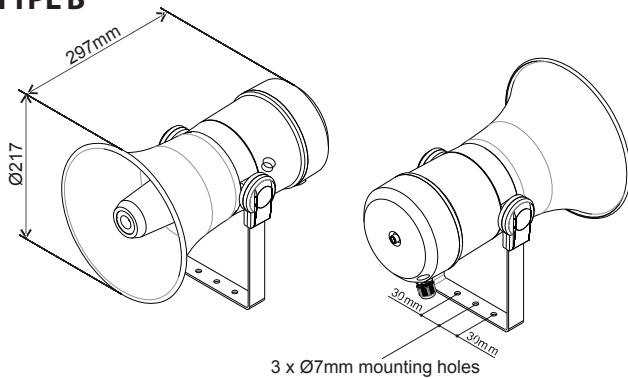




**PENTON**

# INSTALLATION GUIDE MHS20T/ENC

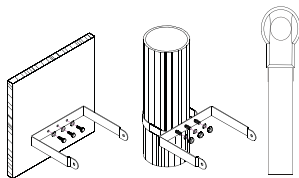
**EN54-24:2008**  
**0359-CPD-0150**  
**TYPE B**



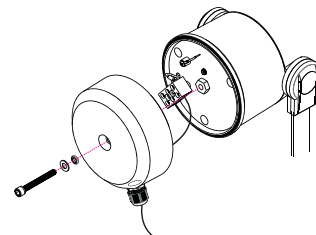
1. Loudspeaker enclosure
2. Reference axis
3. Reference plane
4. Horizontal plane

**With Transformer:**  
**100V/70V line**

	White wire plus tapping					Black
100V	1.25W	2.5W	5W	10W	20W	COM
70V	0.625W	1.25W	2.5W	5W	10W	COM
IMP (Ω)	8K	4K	2K	1K	500K	

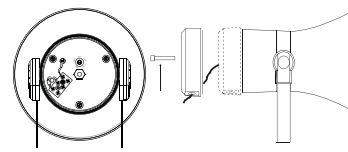


**1)** Remove the "U" bracket from the speaker. The fixing is concealed by a plastic cover which needs to be removed in order to undo the fixing holding the "U" bracket in place. Once removed align the bracket and mark the fixing points. Fix the bracket using suitable fixings (Not supplied).



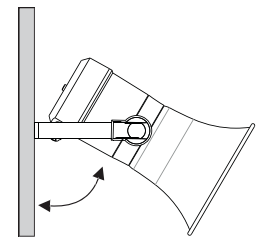
**2)** On removing the back lid of the Horn you will observe a 3 way ceramic terminal block that is connected to the 100v line transformer. To select the required tapping use a flat headed screw driver and rotate the tapping selector located next to the terminal block to your chosen tapping. The tapping values are marked and run from 20 watts to 1.25 watts.

**3)** On selecting the required tapping the installation cable can be fitted via suitably rated glands into the 2 x 20 mm gland entries provided on the back lid.

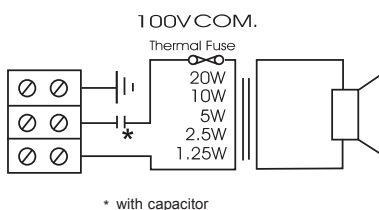


**4)** Around the inner section of the chamber where the back lid was removed a rubber gasket is located; please make sure that it is in place when re-fitting the back lid to avoid water penetration.

**5)** Re-fit the speaker to the "U" bracket. Position the speaker to the desired angle then tighten the fixings to secure in place. Then re-fit the plastic covers to protect the "U" bracket fixings.



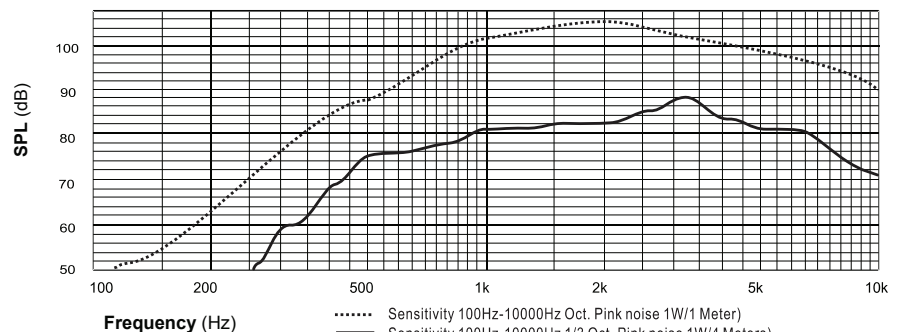
**6)** Before connecting the speaker circuit to the power amplifier we strongly advise that the impedance of the circuit is checked to ensure it is fault free in order to prevent damage to the speaker and or amplification.



\* with capacitor

**Circuit Diagram**

## Frequency response



\*Active Equalizer Applied: To use or not, both can pass by EN54-24 limit

(EQ Setting: +3.5dB@630Hz, +3.5dB@800Hz, -3.5dB@1250Hz, -3.5dB@1600Hz, -2.5dB@4KHz)

Disclaimer: We reserve the right of changes and errors.



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