HORN SPEAKER

Certificate No.: 1438/CPD/XXXX







The Apart-Audio EN-H10-G is a powerful horn speaker made of UV and impact resistant ABS (RAL 7035 equivalent), (UL94V0), equipped with a compression driver and a multitap 100 volt transformer, all certified according EN 54-24. Ip66 makes it the ideal choice for industrial applications.

The unit is equipped with a ceramic speaker line connector block, junction box, thermal fuse and stainless installation bracket. The unit can be used as a low impedance speaker by setting the power selector switch to the 20 ohms position. Lo-Z impedance and power: 20 ohms, 10 watt. The highlights are: Ip66, weather resistant ABS, junction box, lo-Z and 100 volt.

Not included: cable gland for the cable from the power amplifier to the junction box.

Mounting instructions

- 1. Install the bracket and junction box on a wall or ceiling.
- 2. Connect the speaker cable to the power amplifier.
- 3. Set the power selector switch at the rear of the speaker as required.



Safety precautions

- Keep this manual for future reference.
 When making the hole in your mounting panel to mount the Apart speaker, make sure there is sufficient clearance behind the panel (no obstructions like A/C channels, power lines etc, ...).
- Take care of your speaker wires, they should be free of damage. Damaged speaker wires may result in poor sound quality and can damage amplifiers.
- Only use accessories specified by the manufacturer.
- Make sure the mounting panel can support the speaker's weight.
- Use a sufficient amount of speakers to avoid dead spots.
- No main power shall be connected to the loudspeakers, doing so will damage the speaker.
- This apparatus should only be serviced by qualified personnel. If not serviced by qualified personnel, warranty may be void.
- Use cable of the right gauge, certainly for long runs.
- Use cables with clear color indication and maintain polarity throughout the whole system.
- Avoid loud feedback from microphones, this can damage your speaker.
- Please check the unit's condition after unpacking. If the outside of the carton box has been damaged, inform your shipper immediately.

Apart Audio warrants this product to be free of defects in material and workmanship for a period of one year for parts and for a period of one year for labor from the date of original end-user purchase. This warranty is valid only for the original end-user and cannot be transferred.

During the warranty period Apart Audio or one of its authorized service partners shall either repair or replace any product, free of charge, that proves to be defective on inspection by Apart Audio or its authorized service representative. This warranty does not include, damages or product faults due to abuse, misuse or faulty installation.

Legal info

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Please note: to obtain the frequency response requested in EN54-24, an equalizer has to be integrated into the signal path.

Technical specifications		
Speaker type	compression driver	
Dimensions (Ø x d)	142 x 210 mm	
Colour	RAL 7035	
100 volt transformer power taps	10/5/2.5/1,25 watts	
Lo-Z impedance	20 ohms	
Lo-Z power	10 watt	
Frequency response (-10 dB, IEC268-5)	418 - 12400 Hz	
Frequency range	370 - 13000 Hz	
Dispersion angle -6 db, 500 Hz / 1 kHz / 2 kHz / 4 kHz	360° / 235° / 90° / 46°	
SPL 1W / 1m (IEC268-5)	98.0 dB	
SPL 1W / 4m (IEC268-5)	86.0 dB	
SPL Pmax / 4m (IEC268-5)	96.0 dB	
SPL Pmax / 1m (IEC268-5)	108 dB	
Sensitivity EN54-24, 1W / 4m	74.5 dB	
IP classification	66	
Chassis material	ABS plastic	



To operate the product according to the EN 54-24 standard, an equalizer has to be inserted into the signal path, which has a frequency response as specified in the following table.

Since horn type speakers should not be driven with full power below their low end response, adding a high-pass filter 200 Hz/-3 dB with a 6 dB/octave slope is recommended (shelving filter).

Frequency	Relative Level to 1 kHz for EN-H10-G	Tolerance
[Hz]	[dB]	[dB]
100	-12.9	+2/-10
125	-12	+2/-10
160	-12.2	+2/-10
200	-9.2	+2/-10
250	-3.2	+2/-10
315	+5.0	+2/-10
400	+6.6	+2/-10
500	+6.0	+2/-4
630	+4.6	+2/-2
800	+8.5	+2/-2
1k	0	+2/-2
1.25k	-2.4	+2/-2
1.6k	+0.4	+2/-2
2k	+0.9	+2/-2
2.5k	+2.3	+2/-2
3.15k	+4.0	+2/-2
4k	+6.2	+2/-2
5k	+10.0	+2/-2
6.3k	+12.1	+2/-2
8k	+13.8	+2/-4
10k	+13.7	+2/-6

