



H108

PASSIVE
REFERENCE
MONITOR

OWNER'S MANUAL

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1. INTRODUCTION

Thank you for purchasing this Quested Monitor. At Quested, our ethos is to provide Reference Monitoring, hand constructed using matched components and tested to our high standards. If you take time and care in positioning and aligning the system, you will appreciate why Quested monitors have a reputation for faithful reproduction covering the entire audible spectrum. They are professional monitors, and therefore are not designed to flatter but faithfully reproduce. Please take care to maintain the system and it will give you many years of service. You will also be assured the best possible performance and long term reliability of your system.

The H108 is a compact, passive 2-way design, popular with Mastering Houses and recording studios alike. Designed to significantly out-perform other popular near-field passive monitors, it shares the usual Quested attributes of low distortion, pure and “musical” sonic characteristics and accurate stereo imaging, allowing hours of use without listener fatigue.

As with all Quested passive monitoring, there is a dual emphasis on using custom drive units of the very highest quality, with a crossover circuit design free of unnecessary complexity.

The inert cabinet is constructed from 18mm and 25mm MDF, and an exceptionally flat impedance curve allows the H108 to be successfully powered by virtually any professional power amplifier.

Typical applications: Voice-over, Mastering rooms, Mobile trucks, Broadcast, Editing suites.

Please read this manual, which we have kept as concise as possible, it really will help you and covers important considerations.

2. SAFETY CONSIDERATIONS

2.1. General

CAUTION: THIS UNIT CONTAINS MAGNETIC COMPONENTS WHICH MAY AFFECT ADJACENT SUSCEPTIBLE EQUIPMENT.

2.2. Hearing damage

This equipment can deliver sound pressure levels in excess of 120dB. At this level, permanent hearing damage can occur and exposure to this level of sound, even for relatively short periods (see table below), can be harmful. Of equal importance to the maximum level of sound is the exposure to high levels of sound for extended periods. There are no international agreed limits and different countries have different limits measured in differing ways. **IT IS THEREFORE IMPORTANT THAT THE USER ESTABLISHES THE RECOMMENDED, AND IN SOME TERRITORIES, LEGAL LIMITS, THAT ARE IN PLACE.**

As a guide, the table below shows the levels that are acceptable in the majority of Western Europe and the US & Canada.

dB(A) Listening time per day

90 - 8 hours

95 - 2.4 hours

100 - 40 minutes

105 -15 minutes

110 - 5 minutes

115 and over - Not at all

It is also important to note that the effect of exposure to sound is cumulative. Having listened to sound, for example, for 15 minutes at 105 dB then further exposure to noise levels above 80dB should be avoided until the next day.

3. UNPACKING

The packaging has been thoughtfully designed and tested to offer sufficient protection during transportation, yet remain fully recyclable and should be retained for possible future use.

4. INSTALLATION

4.1. Positioning

The H108 is designed to be mounted vertically, for the best imaging, but could be used horizontally also.

The speaker can be positioned on speaker stands, which should be rigid and must not vibrate when the monitor is driven. If the monitor is not supported solidly, performance will suffer severely, particularly at low frequencies which will sound muddy. Program material will lack definition, and punch.

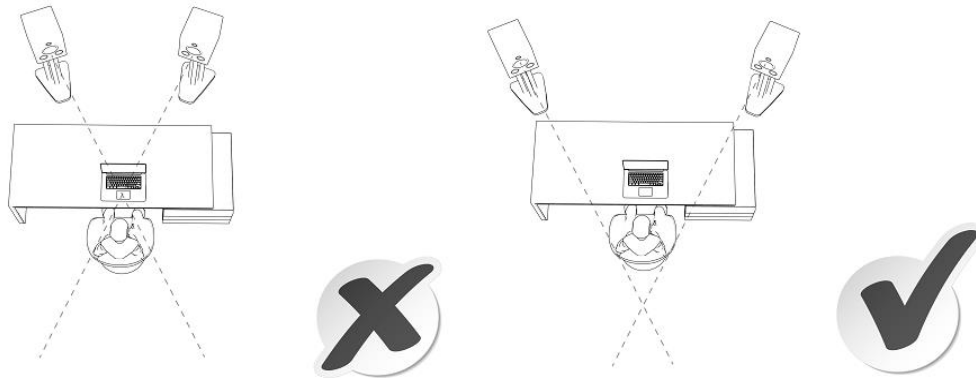
Positioning a speaker close to a wall will give a rise in bass response; this will be accentuated if it is in a corner.

The H108 positioning close to or away from the rear wall and proximity to any room corners is best determined by experimenting and placing the speaker in different positions. The shape of the room, normal listening position and room treatment will all have an effect on determining the speakers positioning. Placing the cabinet against a wall will reinforce the bass performance of the speaker and up to an additional 3dB may be obtained. Placing the monitors in a corner will further reinforce the bass performance and gains of up to 6dB may be achieved, but be very careful about sitting the monitors in a room corner because it can excite standing waves and create an unpleasant boominess.

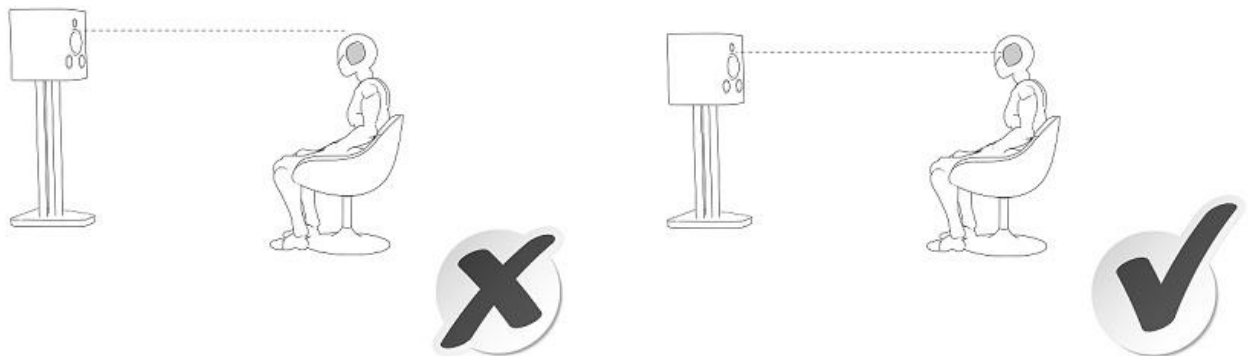
4.2. Aligning speakers

The speakers should be positioned so that the axis (an imaginary line drawn from the acoustic centre, the mid-range driver, of the left and right monitor) should cross between 1/2 and 1 meter behind the engineer's position, for the following reasons:-

- a) To obtain the most accurate imaging, both front to rear and side to side, and to obtain as large as possible listening area so that the engineer can move and operate his equipment with the minimum change in character of the monitoring.
- b) To enable listening for long periods of time without suffering strain or fatigue.



The height of mounting the speaker is equally as important. The correct height should result in the acoustic axis being at ear level when the engineer is sitting in their normal position.



5. AUDIO CONNECTIONS

The connection to the H108 is through a single pair terminal tray which accepts either bare end cables or 4mm banana plugs. One amplifier channel is used for both the monitor drive units. An internal passive crossover separates the programme frequencies and directs them to the appropriate drive units.

PASSIVE

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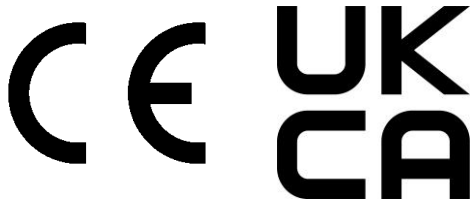
CABLE

When running speaker cables it is important that good quality oxygen free cable (OFC) is used. If the connection is with a single pair of cables, 4mm 2 speaker cable should be used, with bi-wired connections, 2.5mm 2 cable should be run.

6. TECHNICAL SPECIFICATION

Size (WxHxD)	240(w) x 404(h) x 244(d) mm
Weight	12 kgs
Drivers	Bass cone - 1 x 200 mm (8") High Frequency soft dome - 1 x 28mm (1 1/8")
Maximum SPL	110 dB.
Sensitivity	90.5 dB at 1W at 1m.
Frequency Response	65Hz -20kHz +/-2 dB.
Input	Connector Single pair gold plated binding posts.
Nominal Impedance	8 ohms.
Crossovers	Multi-pole network utilizing polypropylene capacitors and air cored inductors throughout.
Power requirements	Amplifier rated at 8 ohms delivering between 100 and 425W RMS per channel.
Options	Cloth covered grill and magnetic shielding.

7. GUARANTEE



The H108 is guaranteed for 12 months from its date of purchase. If you look after the monitor, as outlined in this manual, you will get many years of great service, and hopefully great mixes. If any part of the product is found defective due to faulty manufacture though, within 12 months from the date of purchase, Quested, through its authorised distribution network, will effect repair or replacement, at its discretion, free of charge providing:-

- a) The fault is reported to the authorised distributor.
- b) Proof of purchase is provided.
- c) The fault is not caused by, misuse, neglect, or faulty operation by the user.
- d) The fault is not a result of fair wear & tear
- e) The equipment has not been modified in any way.
- f) The equipment has not been taken apart or tampered with in any way other than described in the service manual for the adjustment and replacement of user accessible items.

The guarantee does not cover

- a) Damage during transit
- b) Damage to diaphragms, cones and other speaker parts as a result of the over-driving of the monitors or by faulty installation or connection.
- c) Damage caused by incorrect installation or during installation caused by incorrect handling.
- d) The cost of carriage to or from the authorised repairer.

If you have any concerns about the performance of the H108, please contact your local Quested Distributor and get some advice.

8. APPENDIX

8.1. Accessories

Stands – please contact your local distributor for advice and pricing on Quested stands.

8.2. Spares

Spare Part Description & Part Number

TW30 -	28mm (11/8") soft dome replacement tweeter
RD30 -	28mm (11/8") soft dome replacement diaphragm
LS2227 -	Replacement 8" drive unit

9 Driver replacement procedures

9.1 Tweeter and tweeter diaphragm

The tweeter is secured by 3x M4 machine screws. Remove these with a 2.5mm hex driver no. Take out the tweeter and disconnect the two wires, noting which colour goes to which terminal.

If it is necessary to replace the diaphragm

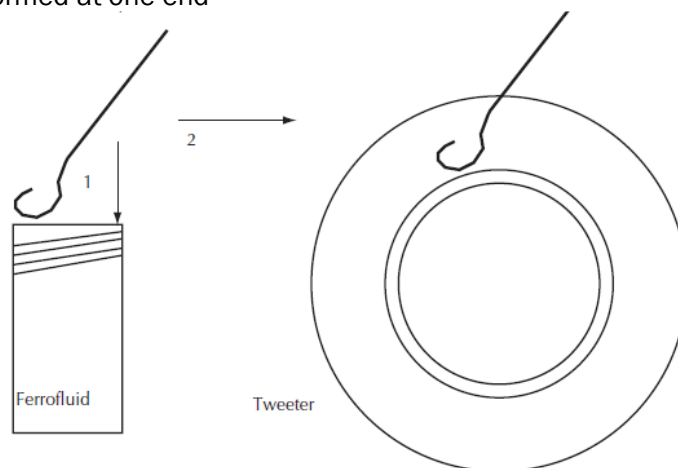
- a) Remove the 3 machine screws on the front plate of the tweeter using a 2mm hex driver.
- b) De-solder and unwind wires from the terminal tags
- c) Remove diaphragm assembly and replace with the new diaphragm. The Ferrofluid has the appearance of oil and is dark brown in colour and should cover about 1/3 of the coil. If there is less than this then additional Ferrofluid should be added. This can be obtained from your dealer/distributor or directly from Quested.

It should be noted that ferrofluid is best added as shown in the diagram below. The fluid should never cover more than 1/2 the coil.

- d) Wrap the wires from the diaphragm around the corresponding tags
- e) Keep the wire slightly taught, but do not strain
- f) Re-solder the wires and re-assemble.

Ferrofluid

Wire with curved loop formed at one end



Dip wire in ferrofluid, a small amount will be retained on the wire. Hold wire over the tweeter gap and the magnet will attract the fluid from the wire into the gap. Do this 3 or 4 times in different positions on the tweeter, then check by inserting the new diaphragm to see the amount of fluid in the tweeter.

9.2 Bass driver and bass driver recone

The bass driver is held in by four M5 machine screws. Remove the screws using a 4mm hex driver. The driver is heavy so hold the driver by the frame when removing the last screw. Remove the bass driver, using a screwdriver in one of the screw holes to gently lever out the driver if there is any difficulty in removing the unit. Do not force a blade between the cabinet and driver. Disconnect the two wires, noting which colour goes to which terminal. Replace with the new driver and re-assemble in the reverse order. A recone unit is available for the bass driver. Instruction for reconing is included with the recone kit. However, unless you are familiar with the practice of reconing it is better to have the speaker reconed by someone who is experienced.

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