TANNOY®

ellipse

1 INTRODUCTION

for desk-top or 5.1 surround situations at near and mid field monitoring positions. Unlike discrete systems with separate low frequency and high frequency drive units mounted on the front baffle the Dual Concentric™ single point source

flat phase and amplitude performance across the audible band. A WideBand™ SuperTweeter™ extends the amplitude response of the loudspeaker to beyond 50kHz which results in an extended time and phase response within the

types can be used in a single 5.1 surround monitoring situation. For example the Ellipse 10 Passive can be used as a

mixing and playback both models provide a very accurate soundstage retaining natural voicing to ensure that aural

The Ellipse 8 Passive and 10 Passive are magnetically shielded, permitting use in close proximity to more traditional

providing more technical information about system design and detailed specifications. The goal is to help you get the

2 THE BASICS

The Ellipse 8 Passive and 10 Passive monitors are designed and made by Tannoy, a company with unrivalled experience in studio monitoring. They have an extremely detailed, dynamic sound with a wide, flat frequency response - essential

same axis and positioned to generate an acoustic point source. A titanium dome SuperTweeter™ extends the amplitude response of the acoustic radiation beyond the limit of human hearing to above 50kHz. Extending the amplitude response

network. The drive units are mounted on a baffle of elliptical shape to minimise diffraction and create distinctive styling

2.1 UNPACKING AND VISUAL CHECKS

the speakers from the carton without damage, open the end flaps fully and bend them right back. Turn the package upside-down on the floor and lift the carton vertically upwards to leave the speaker resting on the packing trays.

as this will show evidence of the damage or excessive handling forces. It is also a good idea to keep the packaging if

2.2 PRELIMINARY RECOMMENDATION

not always obvious that the sound level is high while working with them. For continuous exposure we recommend the regular use of a sound level meter capable of integrating the sound level over a period of exposure according to noise

2.3 CONNECTING YOUR SPEAKERS

The types of cable used to connect the speakers to the power amplifier will marginally affect the sound. The

panels offer the option of Bi-Wiring. Bi-Wiring provides the facility for connecting separate feeds from the amplifier to the

specifications. This reduces intermodulation effects at high and low frequencies within the cables.

The lower the resistance of the cable between the amplifier and the speakers, the better the damping factor acting on the

to death here. You don't need to buy speaker cable that costs as much as your speakers. To get the most benefit, select a finely stranded high purity copper speaker cable and dress the cable ends to prevent "hairs" or stray conductors from shorting across the terminals. If your amplifier terminals will not directly accept your chosen size of cable, you can trim down the cable size at the amplifier end. Ensure that the binding post retaining nuts on both the loudspeakers and the amplifier are screwed down firmly without stripping or over tightening them. Ellipse Passive monitors loudspeakers are

conductors together for the left hand cables at the left hand amplifier terminals. Repeat for the right hand loudspeaker and conductors at the right hand amplifier terminals.

2.4 OBSERVING POLARITY

You already know about connecting the positive terminal on the amplifier to the positive terminal on the speakers, and ensuring that both channels are "in phase" by checking to ensure that there's more bass with both speakers on and not less bass. Absolute polarity is a bit trickier to confirm but is nevertheless very important. Absolute polarity is the

towards you. However, you can't trust a conventional recorded source to test this because there is no way to confirm that

thing, especially when you're using a true stereo microphone setup, or trying to accurately place things in your mix. This is something that should be rigorously checked with every microphone and every signal line in a studio; but the first step

set up a little test using a mix you know and flip the polarity of both monitor channels at the same time. The imaging will flip from vague (negative polarity) to strong (positive polarity).Hear-Believe!

2.5 POWER AMPLIFIERS

The power amplifier should be reasonably well matched in power to the power rating of the speakers (see specifications). The use of a more powerful amplifier (i.e. in excess of the recommended figure) provides increased headroom, which

responsible use of more powerful amplifiers should not represent a danger to the speakers as long as the amplifiers are

3 INSTALLING AND POSITIONING

proximity to room boundaries can have a large influence on performance. For best results the monitors should be

mixing position. The engineer and producer should have a clear, uninterrupted view of the monitor loudspeakers.

3.1 SURROUND MONITORING

loudspeaker axis and any acoustic room treatments should be applied symmetrically on either side of the room. Mixed “Live end/Dead end” environments should be avoided. If the effects or surround sound loudspeakers are positioned close

be as close as possible to ear height. If this is not possible the monitor should be tilted towards ear height in the mix position. The centre speaker should be positioned along the centre axis of the picture and the left/right monitors just outside the picture. Ideally the three front effects speakers should be placed with the front baffles in line with the screen

the picture. The surround speakers should be positioned at the same distance from the mix position as the main

in the room. However, from experience, optimum performance will be gained by placing the subwoofer in the same plane as the main front speakers. The LFE channel is set at a level 10dB higher than the other channels when mixing therefore

3.2 BASS PORTS

(12”) away from the nearest wall surface to avoid an overblown bass sound. If you cannot avoid being close to a wall you

supplied as an accessory within the pack. They are a friction fit for a full seal. This will overdamp the bass alignment of the monitors making them more suitable for 2Pi environments such as for example against a wall or mounted on a large flat surface. Ellipse 10 Passive monitors should be equalized electronically in these circumstances

3.3 EQUALISATION

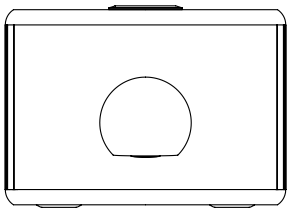
variations in the monitor response should be fixed through room design or speaker placement. But we realise that

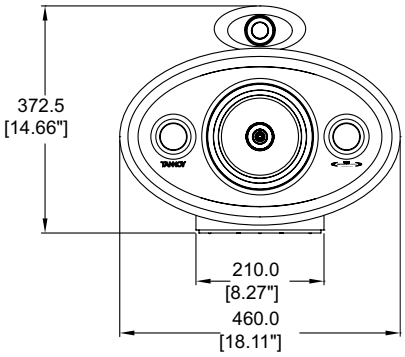
boundaries. We recommend a good quality speaker controller with digital filtering. Any frequency shaping should be low

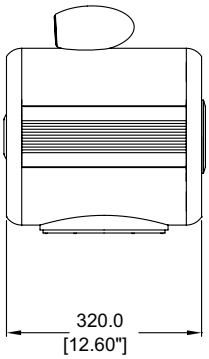
The fewer the number of filters, the better the equaliser will sound. Over equalisation can reduce system headroom,

4 DIMENSIONS

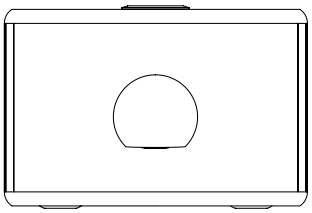
ELLIPSE 8 PASSIVE

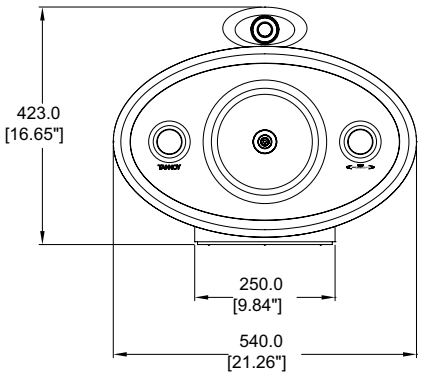


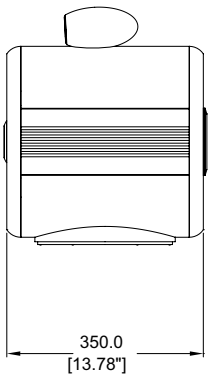




ELLIPSE 10 PASSIVE



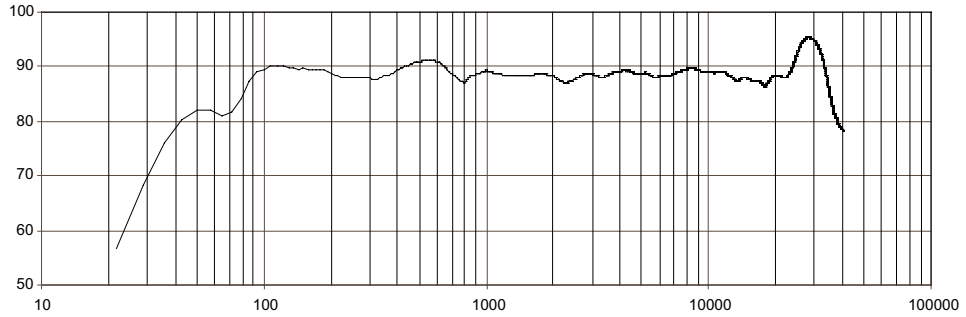


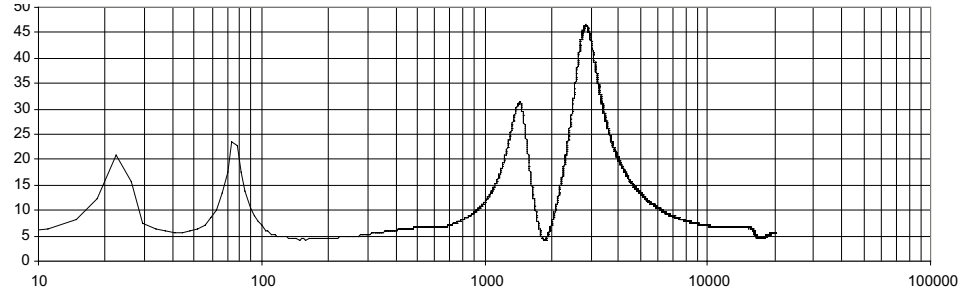


5 PERFORMANCE DATA

ELLIPSE 8 PASSIVE

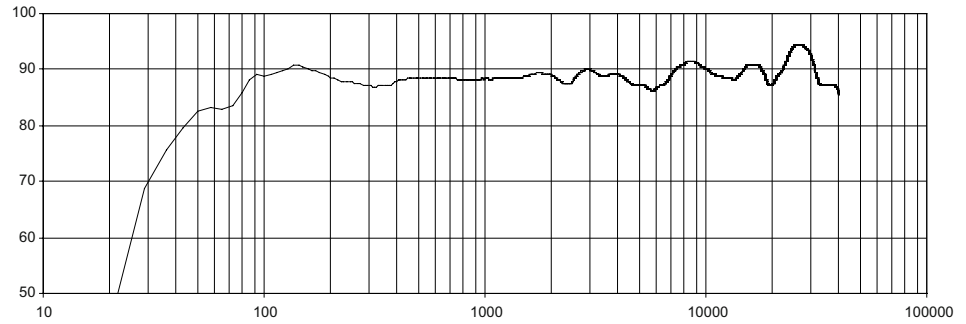
1m on-axis frequency response

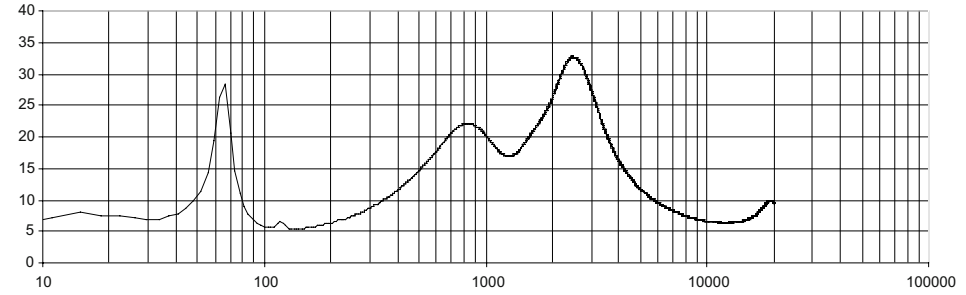




ELLIPSE 10 PASSIVE

1m on-axis frequency response





6 TECHNICAL SPECIFICATIONS

	Ellipse 8 Passive	Ellipse 10 Passive
Frequency Response (-3dB) [1]		
Frequency Range (-10dB) [1]		
System Sensitivity (1W @1m) [2]		
Dispersion (-6dB)	90 degrees fully axi-symmetrical	90 degrees fully axi-symmetrical
Driver Complement	200mm (8”) Tannoy Dual Concentric™ 25mm (1”) Wideband SuperTweeter™	250mm (10”) Tannoy Dual Concentric™ 25mm (1”) Wideband
Crossover		
Rated Maximum SPL [2]		
Power Handling		
Recommended Amplifier Power		
Nominal Impedance		
Distortion		
CONSTRUCTION		
Cabinet volume / LF alignment	19.5 litre/ reflex ported	32.6 litre/ reflex ported. Integral
Cabinet construction	Laminated birch/MDF baffle, internal	Laminated birch/MDF baffle, internal
Finish	Textured black paint.	Textured black paint.
Connectors	4 x 4mm gold plated binding	4 x 4mm gold plated binding
Control		
Dimensions (H x W x D)	373 x 460 x 350 mm 14.68 x 18.11 x 13.78”	423 x 540 x 380 mm 16.65 x 21.26 x 14.96”
Weight		

1. Average over stated bandwidth. Measured at 1 metre on axis.

7 SERVICING

7.1 CABINET FINISH

7.2 DRIVER REMOVAL

Lay the cabinet on its back. Remove the front mounted port tubes which are a friction fit in the cabinet. Remove the front trim panel using a suitable plastic tool starting aound the port tube holes. Remove the ten hexagonal screws holding

the LF driver. To refit the driver, connect the cables from the crossover to the LF and HF terminals. Fit the driver into the

screws finger tight and then progressively tighten them down with the appropriate Allen key. Refit the front trim and

remove the fixing nut to release the SuperTweeter™ housing and disconnect the cable. Dismantle the housing to release the SuperTweeter™ capsule which must be replaced completely if faulty. Refit all parts in reverse order ensuring cables

7.3 CROSSOVER

The crossover is mounted on the rear of the terminal panel. To inspect it, remove the panel by releasing the hexagonal

8 WARRANTY

All components are guaranteed for a period of five years from the date of manufacture, subject to the absence of, or

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9 DECLARATION OF CONFORMITY

disturbances generated do not exceed levels allowing radio and telecommunications equipment and other apparatus to enable operation as specified and intended.

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