

TANNOY®

PRECISION  
NEARFIELD STUDIO MONITORS

TANNOY



## a history of precision

Tannoy's reputation in the professional recording industry borders on legendary. For over six decades as recording history has been made Tannoy studio monitors have been at the forefront. From such emblematic productions as Decca's FFSS recording of Wagner's *Das Rheingold* with the Vienna Philharmonic under Georg Solti in 1957; arguably still one of the finest classical recordings of all time, to the re-birth of Rock and Roll we know as the British Invasion, Tannoy monitors have helped recording engineers and producers create historic music.

Times may have changed, but our engineering values and commitment to perfection have not. Everything we do today is judged against our considerable achievements of the past as we continue to advance the art and science of building the world's premier reference monitors. Constant refinement of our famed Dual Concentric™ driver, pioneering work with WideBand™ technology, advanced Klippel™ analysis and a host of other technologies ensure that with every new product comes another historic chapter.

See and hear our latest accomplishment, the all-new Precision range at an authorised Tannoy dealer near you and judge for yourself the value of our History of Precision.

## accuracy through precision

Tannoy Precision nearfield reference monitors have been created to serve the demanding needs of professionals in recording, broadcast and post-production environments. Engineered to the highest sonic standards and build quality, Precision will impress you whether you're a seasoned Tannoy user or just taking your first step up into a monitor system based on the legendary Dual Concentric™ driver.

With nearly six decades of refinement behind it, the Dual Concentric™ driver represents a near-perfect point source, preserving the tonal character and harmonic structure of program material as no discrete-driver system can. The benefits are immediately obvious with flat response, controlled dispersion and a wider sweet-spot in both the horizontal and vertical planes.

# accuracy

Precision models include Tannoy's WideBand™ technology, extending high-frequency response to above 50 kHz. This extended range not only affords all of the bandwidth required for today's wide bandwidth digital recording formats, but also ensures that phase error is minimised through the entire audible spectrum.

While many designers employ the "cut and paste" development method, Tannoy engineers routinely design their own transducers using the most advanced software and techniques available. Precision's drivers are all new designs developed using Klippel™ symmetry and non-linear distortion analysis, laser scanning interferometry and advanced acoustic CAD simulation.

Active models incorporate digital amplification with sophisticated electronic signal correction circuitry to take full advantage of the drivers' capabilities and deliver higher output, greater dynamic range and low-frequency extension as well as enhanced reliability. Incorporating both analogue and digital SPDIF inputs, Precision D models can fit right in to your production environment, be it a classic analogue console or the latest DAW.

Precision D models also include Tannoy's breakthrough Activ-Assist™ signal correction electronics, allowing the monitor to be tuned precisely for the acoustic environment while compensating for speaker placement and boundary effect. Packing the power of a dual-channel FFT measurement system with the simplicity of a wizard-driven interface, Activ-Assist™ ensures that Precision D models sound as good in your studio as they did in our laboratory.



through precision

### Tannoy Dual Concentric™

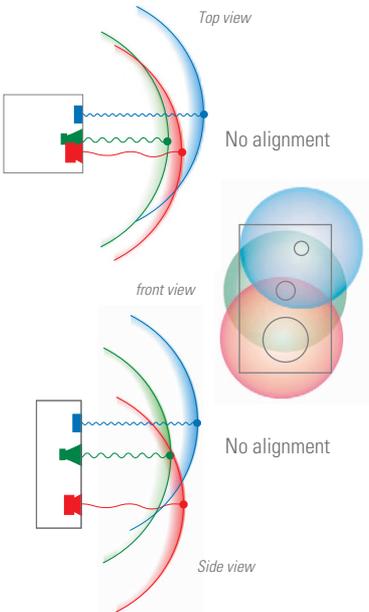
First developed in 1947 and refined relentlessly ever since, the Dual Concentric™ driver is actually two drivers properly merged into one. The high-frequency driver is positioned on the back of the low frequency magnet and fires through the centre of the cone. The result is that the acoustic apex of the high and low frequency drivers is aligned in three axes; a true point source.



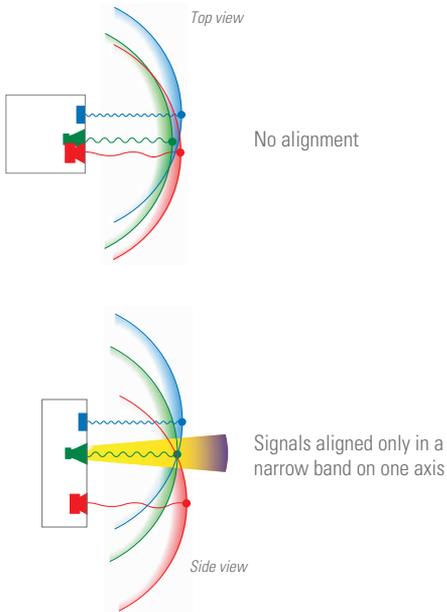
DUAL CONCENTRIC™ POINT SOURCE, CONSTANT DIRECTIVITY DRIVER

In a Dual Concentric™ driver all signals emanate from the same place in space and therefore in time, arriving at the listener precisely as they were when they were recorded. Discrete drivers are displaced in space and therefore their signals arrive at the listener at different times, causing uneven response and imaging smear. As a Dual Concentric™ is aligned on all three axes the listening field is wider in both the horizontal and vertical planes. Discrete systems suffer from a narrow sweet spot, even when they use signal delay as an attempt to align the transducers.

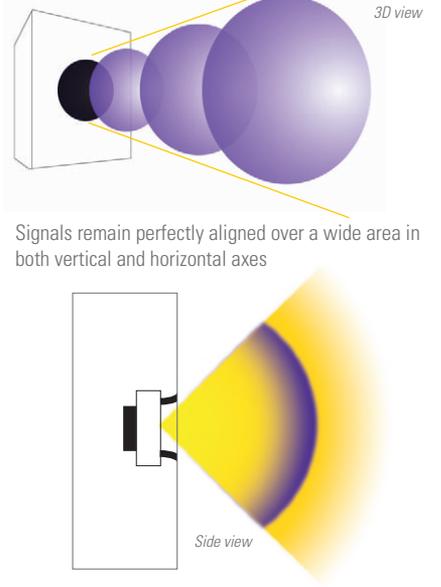
Discrete-driver speaker systems cannot reproduce signals accurately because their sources are displaced in space.



Even when delays are applied to compensate for driver alignment, signals can only be aligned along a narrow listening plane on one axis.



In a Dual Concentric driver the signal sources are perfectly aligned, resulting in smooth response and a wide listening area in both horizontal and vertical axes.

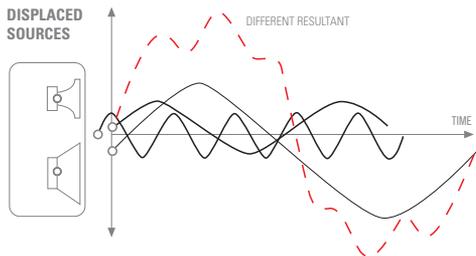


■ High Frequency   ■ Mid Frequency   ■ Low Frequency

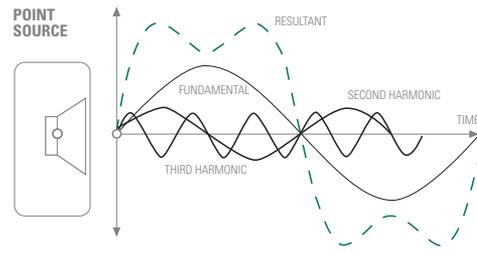
■ Signal Sources Aligned

A Dual Concentric™ exhibits constant directivity. The controlled even dispersion gives greater intelligibility even in difficult acoustic spaces, where the sound from the speaker can be more accurately targeted to where it is needed.

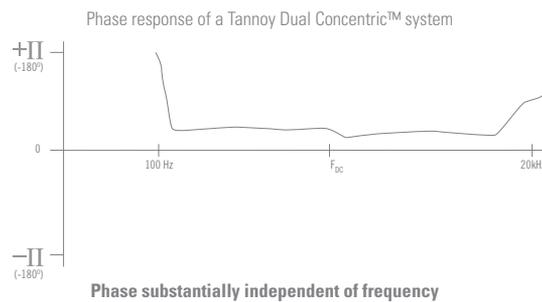
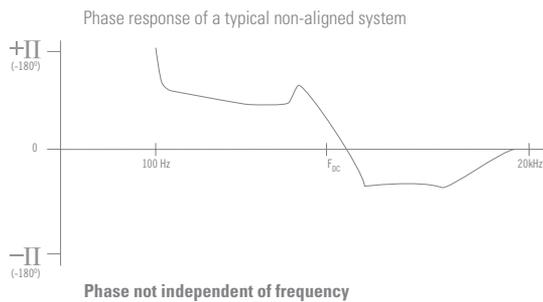
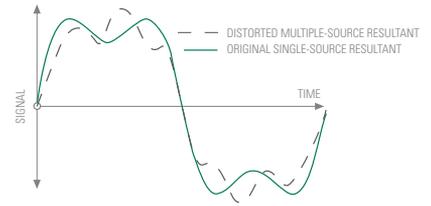
HARMONIC RELATIONSHIPS USING MULTIPLE SOURCES



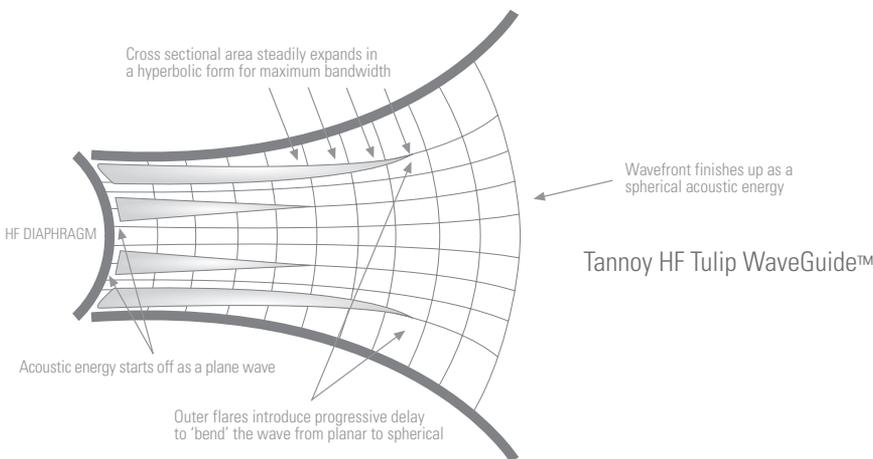
HARMONIC RELATIONSHIPS PRESERVED USING A SINGLE POINT SOURCE



ORIGINAL VERSUS DISTORTED RESULTANT



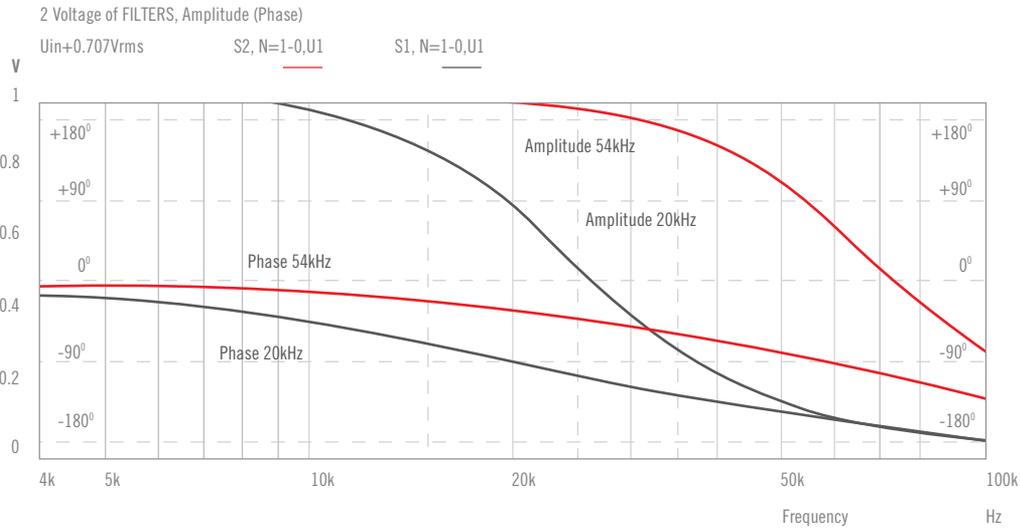
The latest version of the "Dual" features a new Waveguide™, fitted directly in front of the HF diaphragm. With this device the energy from the HF diaphragm is delayed and "bent" from a plane wave into a spherical wave that provides this driver with its superb constant directivity performance. As can be seen from the diagram, the flares in the WaveGuide™ create the optimum acoustic condition, which is a spherical wave pattern that may be best represented as an expanding sphere. The shape of the main bass cone continues the flare ratio that is essential to sustain the spherical wave front as it is projected from the speaker. The crucial benefit to the listener, whether in near field conditions or otherwise, is that the monitor delivers consistent performance in both the horizontal and vertical planes; something simply not achievable with displaced (discrete) systems.



Tannoy has long held to a philosophical stand on crossover points, understanding the anomalous effects of any crossover network with respect to phase. Our monitor designs have consequently always strived to minimise the number of crossover points that fall inside the critical response band. This band of frequencies between 125Hz and 8kHz is the most susceptible to human perception of phase shift, and Tannoy engineers design systems with no more than one crossover point through this entire band. Reducing the number of crossover points reduces potential phase errors and creates a more natural and accurate device. Crossover points added above and / or below this range are less likely to introduce any negative effects to what the listener hears

## Extended frequency response

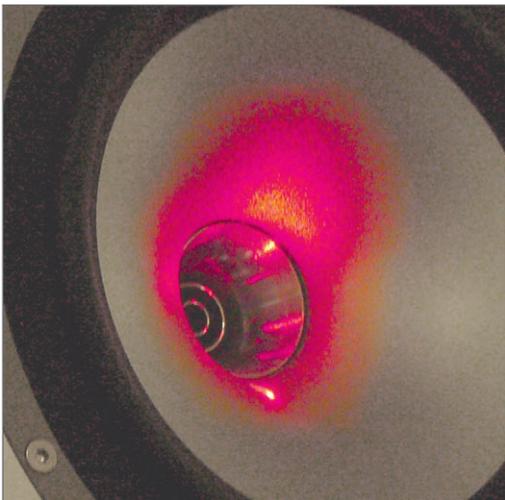
Tannoy has always been an innovator where quality sound reproduction is concerned. Over recent years Tannoy has been at the forefront of developing loudspeakers with WideBand™ performance. In the case of the Precision monitor, this entails the addition of a baffle mounted, acoustically time-aligned, proprietary SuperTweeter™; extending frequency response to 51kHz. In fact the SuperTweeter™ only starts working at 21kHz so it is entirely outside of what is generally considered to be the audible frequency band. Extending the high frequency roll-off out to 51kHz corrects the time or phase response at the upper end of audibility, resulting in enhanced accuracy and 'spaciousness', improved clarity within the essential mid band area, and even enhancing definition of low frequencies. This benefit is heard clearly with any source material, regardless of bandwidth. Tannoy WideBand™ Technology is an essential component of the Precision monitor design in that it delivers increased tonal accuracy of the individual instruments in the recording process - a mix critical factor in that it allows for the best EQ and placement decisions to be made.



This plot shows the actual measured phase error for two different loudspeaker systems. One system has an upper end roll off at 20kHz while the other extends on out to a 54kHz roll off. There is clearly less phase error in the latter case, not just at high frequencies, but also well within the accepted range of human hearing where harmonic recognition starts as low as 5kHz.

## Obsessive about Precision

Clearly, to build the best studio monitors you must start with the very best drivers. At Tannoy our reputation for excellence is built on the quality and performance of the speaker systems we build, and that is why we continue to design and manufacture our own drivers. Taking a chance on third-party drivers would simply defeat the purpose of the Precision range.



Tannoy engineers are among the first to embrace Klippel™ modeling and measurement systems in driver development. An integrated suite of hardware and software tools, Klippel™ allows engineers to predict and refine the large-signal behaviour of a driver long before it is ever physically prototyped.

Traditional linear models assume that transient response is independent of input signal amplitudes. The fact is that nonlinear mechanisms such as suspension systems and voice coils do not behave in a linear fashion at all power levels. Compounding the problem are the detrimental effects of varying thermal conditions which often lead to power compression.

Tannoy engineers employed Klippel™ analysis extensively in the development of the latest generation of drivers used in all Precision models. The end result is dramatically lower distortion and amazing consistency at all power levels.

*Klippel™ laser measurement system enables large signal linearity of a driver to be optimised.*

## Automated speaker measurement system for Precision D studio monitors

Tannoy engineers have been meticulously crafting the most accurate reference monitors for over six decades. In all that time one variable that has eluded their obsessive control has been the acoustic effect of the listening space. Even the world's most accurate reference monitors are affected by placement and the acoustic properties of the room. The goal with the Precision D range was not only to make a reference monitor that sounds great in the lab, but to ensure that it sounds great where it matters; at the mix position.

Introducing Activ-Assist™; a fully automated acoustic measurement and calibration system that optimizes any Precision D model to sound great where it matters most. A fully integrated hardware/software solution, Activ-Assist™ software runs on your PC or MAC, performing sophisticated dual-channel FFT measurements through its wizard interface. The software even interprets the measurements and makes correction recommendations from a database of over 2,000 possibilities.

Applying the recommended correction is as simple as setting the calibration switches on the Precision D to match the graphic in the software. In doing so you are applying several bands of response correction designed to work harmoniously together, compensating for acoustic loading, listening distance and even the room's absorption characteristics. The end result is often a pronounced improvement in performance at the mix position.

Activ-Assist™ software is available free of charge with all Precision D models. A calibrated measurement microphone is available as an accessory and is recommended for optimum results. For further information on Activ-Assist™ see your authorized Tannoy dealer or visit [www.tannoy.com](http://www.tannoy.com).

- Automated, wizard-driven acoustic measurement system for Precision D models
- Performs sophisticated dual-channel FFT measurements of great precision
- Recommends acoustic correction from database of 2,000 options
- Software is available at no charge for all Precision D users
- Inexpensive calibrated measurement microphone available from your dealer



## TANNOY TS10 & TS12 PROFESSIONAL ACTIVE SUBWOOFERS

PERFORMANCE	TS10	TS12
Output power	300W RMS	500W RMS
Low frequency response	29Hz (-6dB)	26Hz (-6dB)
Limit for usable output	16Hz	15Hz
Inputs	2 x line level phone 2 x XLR balanced	2 x line level phone 2 x XLR balanced
Outputs	2 x XLR balanced (direct or 80Hz high pass)	2 x XLR balanced (direct or 80Hz high pass)
Input filter	2nd order low pass, 50Hz - 150Hz, -6dB	2nd order low pass, 50Hz - 150Hz, -6dB
Auto mute	After approximately 12 mins. in absence of input signal	After approximately 12 mins. in absence of input signal
Driver type	250mm (10")	300mm (12")
Enclosure type	Closed box	Closed box
Enclosure volume	16.75 litre / 0.6cu.ft	22 litre / 0.78cu.ft
Additional features	Phase control Crossover defeat switch for LFE operation Soft limiting to avoid overload LF extension control	Phase control Crossover defeat switch for LFE operation Soft limiting to avoid overload LF extension control
Enclosure (HxWxD) - including feet	323 x 286 x 286mm 12 <sup>7</sup> / <sub>16</sub> x 11 <sup>5</sup> / <sub>16</sub> x 11 <sup>5</sup> / <sub>16</sub> "	372 x 335 x 335mm 14 <sup>5</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>8</sub> "
Enclosure weight	9.5kg / 21 lbs	12.5kg / 27.5 lbs
Mains voltage	120V nominal AC-60Hz 230V nominal AC-50Hz	120V nominal AC-60Hz 230V nominal AC-50Hz
Mains fuse	120V - T3. 15AL / 250V 230V - T1.6AL / 250V	120V - T5AL / 250V 230V - T2.5AL / 250V
Maximum power consumption	416VA	600VA



# PRECISION 6

PERFORMANCE	Precision 6
Frequency response (1)	62Hz-51kHz
Recommended Amplifier Power	60 to 120W @ 8Ω
Power Handling Average RMS	60W
Power Handling Programme RMS	120W
Nominal Impedance	6Ω
Sensitivity (2)	91dB for 1W at 1m
Distortion	<0.7%
Crossover Frequency	2.5kHz
Dispersion (@-6dB)	90 degrees
Dual Concentric™ LF/MID section	165mm (6½") Dual Concentric™ constant directivity driver with multi fibre paper pulp cone
Dual Concentric™ HF section	25mm (1") titanium dome neodymium magnet system
SuperTweeter™	25mm (1") titanium dome neodymium magnet system
Shielded	Yes
<b>Cabinet</b>	
Type	Optimised bass-reflex loaded
Construction	MDF cabinet and front baffle. Tongue and groove front and back
Finish	Black cabinet Grey painted baffle with brushed aluminium inlay

The Precision 6 passive reference monitor is designed to fit into any studio whether as a stereo pair or in multi-channel configurations. Its compact dimensions and fully shielded Dual Concentric™ driver make it a perfect fit for video production suites, mobile broadcast trucks or anywhere else space is at a premium. But don't let its diminutive dimensions deceive you; this is one potent monitor ready to take on your most dynamic projects.

The all-new 165mm (6½") Dual Concentric™ driver employs a multi-fibre paper pulp cone optimised through Klippel™ analysis, in combination with a 25mm (1") titanium low-compression-ratio high frequency driver. In addition Tannoy's exclusive SuperTweeter™ extends bandwidth and reduces phase error making the Precision 6 effortless to mix on, while delivering stunning accuracy and fidelity.

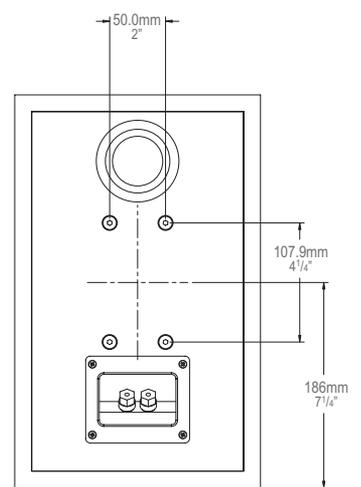
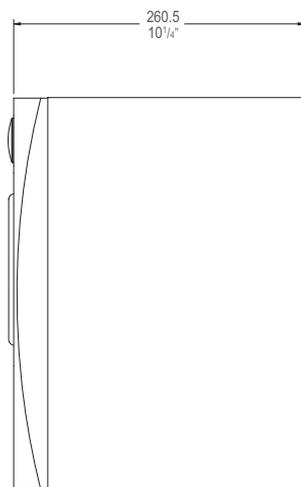
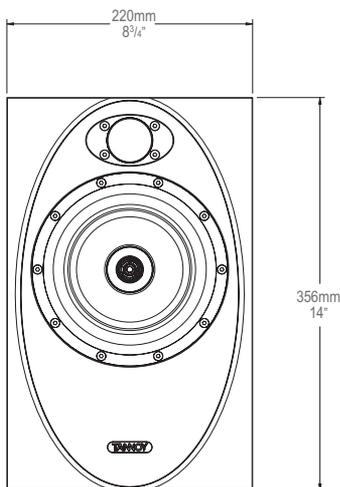


## NOTES :

(1) +/- 3 dB , measured at 1m in an anechoic chamber.

(2) Average over specified bandwidth for half space environment

# PRECISION



# PRECISION 8

TANNOY®

## PERFORMANCE

## Precision 8

Frequency response (1)	54Hz-51kHz
Recommended Amplifier Power	80 to 160W @ 8Ω
Power Handling Average RMS	80W
Power Handling Programme RMS	160W
Normal Impedance	6Ω
Sensitivity (2)	93dB for 1W at 1m
Distortion	<0.5%
Crossover Frequency	2.2kHz
Dispersion (@-6dB)	90 degrees
Dual Concentric™ LF/MID section	200mm (8") Dual Concentric™ constant directivity driver with multi fibre paper pulp cone
Dual Concentric™ HF section	25mm (1") titanium dome neodymium magnet system
SuperTweeter™	25mm (1") titanium dome neodymium magnet system
Shielded	Yes
<b>Cabinet</b>	
Type	Optimised bass-reflex loaded
Construction	MDF cabinet and front baffle. Tongue and groove front and back
Finish	Black cabinet Grey painted baffle with brushed aluminium inlay

Precision 8 combines the benefits of the all-new 200mm (8") Dual Concentric™ driver with Tannoy's SuperTweeter™ to deliver a new standard for passive reference monitors. With response that extends beyond 50kHz and distortion that is significantly below that of lesser competitors, Precision 8 allows you to monitor with unprecedented accuracy and minimal fatigue.

Equally suited to demanding applications in music or film production, the Precision 8 delivers exceptional articulation over an ultra-wide 90 degrees of dispersion. Tongue and groove construction and Tannoy's classic massive MDF front baffle combine to minimise cabinet resonance and further contribute to the monitor's neutrality at all power levels.

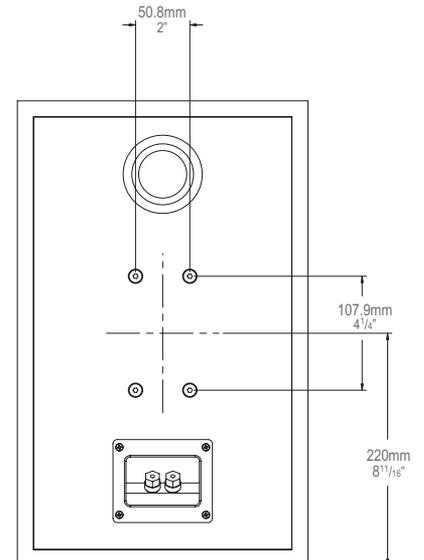
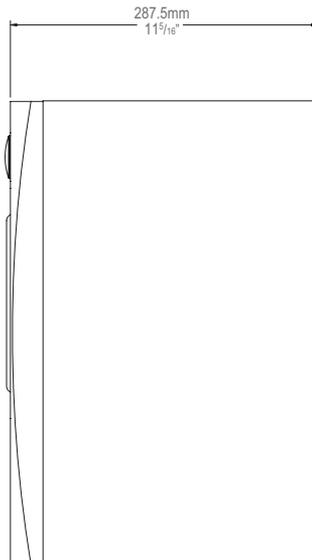
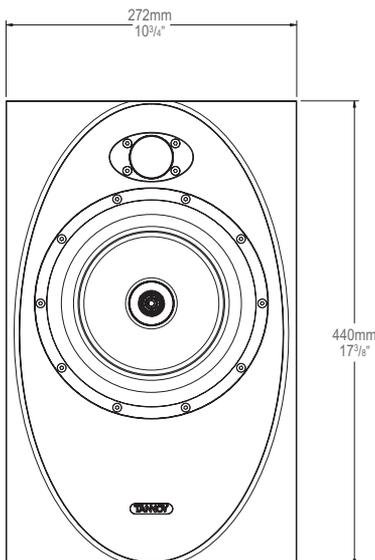


## NOTES :

(1) +/- 3 dB , measured at 1m in an anechoic chamber.

(2) Average over specified bandwidth for half space environment

# PRECISION



# PRECISION 6D

PERFORMANCE	Precision 6D
Frequency response (1)	59Hz-51kHz
Max SPL (2)	116dB
Distortion	< 0.5%
Dispersion (@-6dB)	90 degrees
Drive Units - LF/MID section	165mm (6 1/2") Dual Concentric™ constant directivity driver with multi fibre paper pulp cone
Dual Concentric™ HF section	25mm (1") titanium dome neodymium magnet system
SuperTweeter™	25mm (1") titanium dome neodymium magnet system
Shielded	Yes

## Electronic System

Inputs	600Ω balanced XLR/1/4" jack combination, SPDIF RCA
SPDIF Sample Rate	44.1 – 96kHz
Input Sensitivity (0dBu = 0.775mV)	-10dBu to +4dBu for a max SPL of 116dB
Crossover Frequency	2.5kHz
Amplifier Output Power	LF – 75W HF – 35W ST - passive feed from HF
Outputs SPDIF	Slave out RCA SPDIF
User Controls	Front panel mounted on/standby/mute switch, multi-function LED, Rear panel mounted trim +6/-12dB, 80Hz high pass switch for AV use, 16-way Activ-Assist™ switch array
Power Supply	Fixed mains voltage - region specific (to order) 110/220/230v

## Cabinet

Type	Optimised bass-reflex loaded
Construction	MDF cabinet and front baffle, tongue and groove front and back
Finish	Black cabinet, grey painted baffle with brushed aluminium inlay
Accessories	Activ-Assist™ PC/MAC based software-measuring system to assist with the setting of the DIP switches to reach a substantially linear and flat response at the monitoring position.

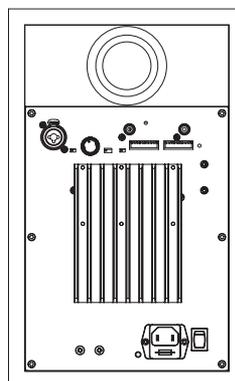
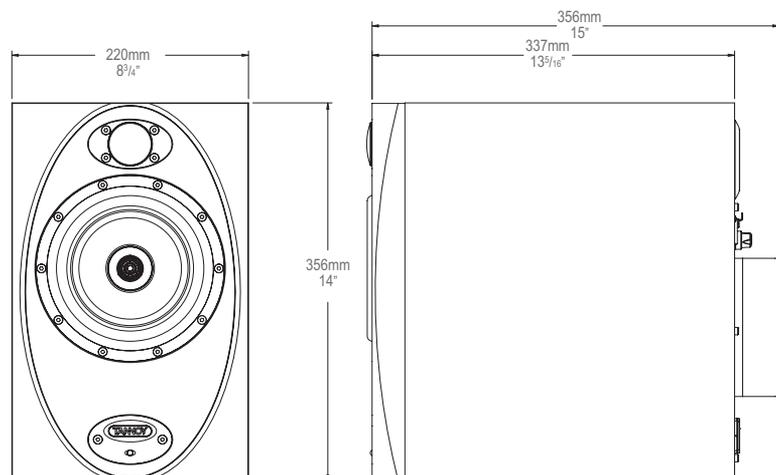
The Precision 6D combines the all-new multi fibre pulp paper cone 165mm (6 1/2") Dual Concentric™ driver with a purpose-built digital amplifier to render a complete system of unrivaled accuracy. Much more than merely a powered version of the Precision 6 passive, the 6D extracts the greatest performance possible from the fitted drivers through sophisticated electronics.

An SPDIF digital input is provided to interface the 6D directly to your production environment in the digital domain. In addition the 6D incorporates Tannoy's breakthrough Activ-Assist™ technology to effortlessly tune the monitor correctly for the acoustic environment while compensating for speaker placement and boundary loading.

**ACTIV-ASSIST™**



- (1) +/- 3 dB , measured at 1m in an anechoic chamber.
- (2) Peak SPL at mix position for 1 pair driven
- (3) Average over specified bandwidth for half space environment



# PRECISION 8D

# TANNOY®

PERFORMANCE	Precision 8D
Frequency response (1)	44Hz-51kHz
Max SPL (2)	119dB
Distortion	< 0.4%
Dispersion (@-6dB)	90 degrees
Drive Units- LF/MID section	200mm (8") Dual Concentric™ constant directivity driver with multi fibre paper pulp cone
Dual Concentric™ HF section	25mm (1") titanium dome neodymium magnet system
SuperTweeter™	25mm (1") titanium dome neodymium magnet system
Shielded	Yes

## Electronic System

Inputs	600Ω balanced XLR/1/4" jack combination, SPDIF RCA
SPDIF Sample Rate	44.1 – 96kHz
Input Sensitivity (0dBu = 0.775mV)	-10dBu to +4dBu for a max SPL of 119dB
Crossover Frequency	2.2kHz
Amplifier Output Power	LF – 120W HF – 60W ST - passive feed from HF
Outputs SPDIF	Slave out RCA
User Controls	Front panel mounted on/standby/mute switch, multi-function LED, Rear panel mounted trim +6/-12dB, 80Hz high pass switch for AV use, 16-way Activ-Assist™ switch array
Power Supply	Fixed mains voltage - region specific (to order) 110/220/230v

## Cabinet

Type	Optimised bass-reflex loaded
Construction	MDF cabinet and front baffle, tongue and groove front and back
Finish	Black cabinet, grey painted baffle with brushed aluminium inlay
Accessories	Activ-Assist™ PC/MAC based software-measuring system to assist with the setting of the DIP switches to reach a substantially linear and flat response at the monitoring position.

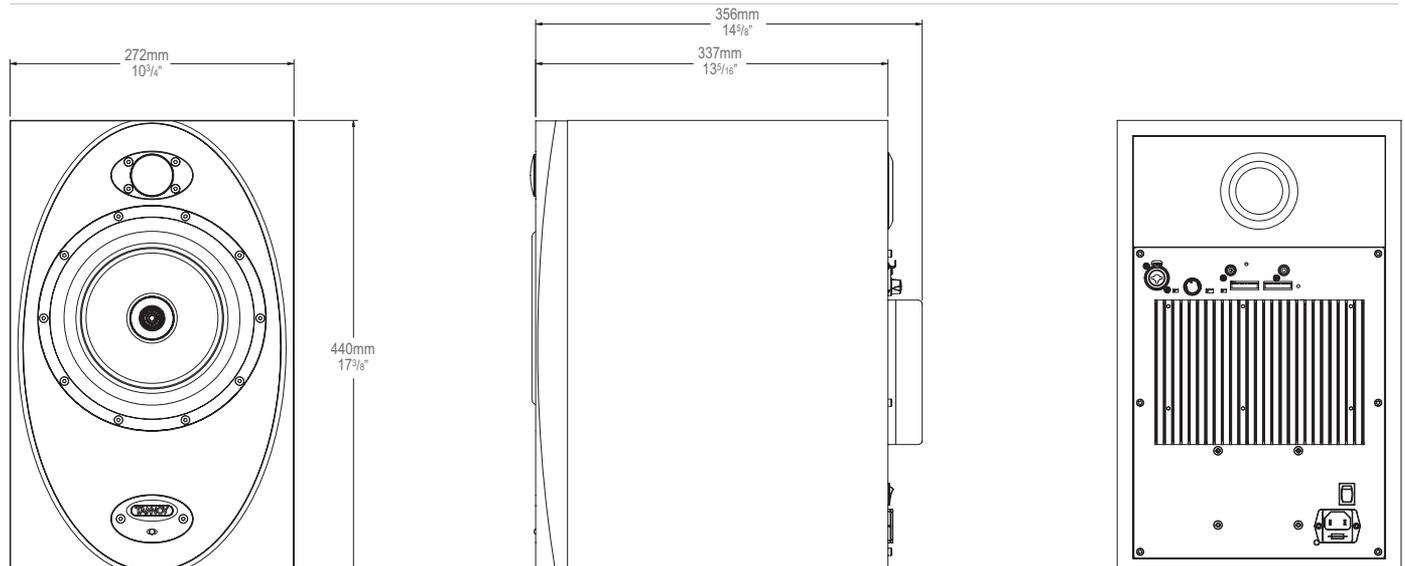
Building on the benefits of the Precision 8 passive, the 8D represents the pinnacle of active nearfield reference designs. Greater low frequency extension, higher output and enhanced reliability are only part of the story with the 8D. This is a monitor that is sure to become a classic because it does everything well; from dynamic music content, to dialogue and everything in between, the 8D will become your most trusted reference for every project.

Designed to run cool even under heavy use the 8D is ready to take on any challenge. Integrated Activ-Assist™ electronics allow you to tune the speaker to your room with all of the sophistication of a skilled acoustician, without breaking a sweat. Fully automated software makes the process as painless as it is effective, ensuring that the 8D will sound as good in your studio as it did in Tannoy's development laboratory.

**ACTIV-ASSIST™**



- (1) +/- 3 dB, measured at 1m in an anechoic chamber.
- (2) Peak SPL at mix position for 1 pair driven
- (3) Average over specified bandwidth for half space environment





accuracy through precision



**PRECISION**  
STUDIO MONITOR

**DUAL**<sup>TM</sup>  
CONCENTRIC

**WIDEBAND**<sup>TM</sup>  
TECHNOLOGY

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Tannoy adopts a policy of continuous improvement and product specification is subject to change.

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