Mercury Mk II – The New Star from Tannoy®

Quality has been Tannoy's prime consideration throughout the Company's 60 years of manufacturing audio equipment. It is this dedication to excellence which continues to keep the name of Tannoy at the forefront of all aspects of music reproduction. Musicians rely on Tannoy loudspeakers for sound reinforcement just as studio engineers rely on them for accurate monitoring.

The final link in the music chain, home high fidelity, is equally demanding and critical, and the quality of today's digital and analogue playback systems will only be appreciated fully if used with loudspeakers capable of honestly revealing the recorded programme material.

Tannoy's acoustic engineers have met this demand with the Planet Series of loudspeakers. One of the planets is the Mercury — introduced in 1982, it quickly became Tannoy's best selling small loudspeaker and was awarded the "Best Buy" status from Hi-Fi Choice magazine in 1983, 1984 and 1985 — no mean feat!

However, as soon as any product is released, research must begin on its eventual successor and there is no denying that the more successful the Mercury became, the better its replacement had to be. Tannoy believe that they have now found this replacement and that it is superior to even the Mercury Mk I. It is with great pleasure, therefore, that they launch the Mercury Mk II which offers the following improvements on its predecessor:

- The cabinet has a narrower front profile and is braced at antinodal points to minimise cabinet colouration. A new more absorbant material is used to fully line the cabinet.
- The crossover is hard wired using low loss components and heavy duty terminals which will accept 4mm banana plugs and the majority of specialist high quality audio cables.
- The mid/bass unit is more robust with a new construction technique for the cone apex configuration giving better mid range performance.
- A new roll surround material on the bass unit and lower cabinet tuning combine to give tighter more detailed bass reproduction.
- The ferrofluid cooled polyamide dome high frequency unit, designed and manufactured by Tannoy, uses an asymetrical mounting plate with sculptured surface and has a very smooth response and improved dispersion.

The result is a loudspeaker with a more detailed, dynamic sound, tighter bass and smoother overall frequency response.

The Mercury Mk II is available in either a walnut or black ash effect. Visit your nearest Tannoy stockist to hear the Mercury Mk II's outstanding natural performance.

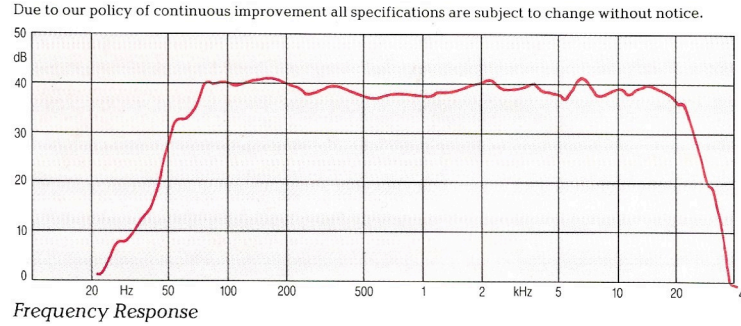
BEST BUY HI-FI CHOICE
Simply a better way of buying hi-fi
1986-1987

Technical Specification

Recommended Amplifier Power* (RMS per channel into 8 ohms)	10 – 120 watts
Peak Power Handling	120 watts
Impedance (nominal)	8 ohms
Sensitivity (for 1W @ 1m) Domestic	93dB
Sensitivity (for 1W @ 1m) Anechoic	90dB
Frequency Response ± 3dB Nominal	52Hz – 23kHZ
Phase Response	Better than ± 45° between 120Hz – 10kHz
Crossover Frequency	3kHz
Crossover Type	First order low pass Second order high pass Hard wired low loss
Apparent Acoustic Source	59mm behind front surface of baffle
Bass/mid-range Unit	200mm (8") 2088G
Treble Unit	28mm (1.1") 0248G Polyamide
Horizontal Dispersion	Greater than 150° up to 12kHz
Cabinet Volume	19.5 litres (0.72 cu.ft)
Cabinet Construction	12/15mm high density particle with 12mm shelf brace
Bass Loading	Overdamped offset ducted port
Cabinet Damping	Specialist acoustic product
Grille Construction	Acoustically transparent cloth over wooden frame
Cabinet Dimensions (external)	498mmx249mmx232mm (19.6"x9.8"x9.1")
Shipping Dimensions	Double pack 548mmx584mmx300mm (21.5"x23"x11.8")
System Weight	7.1kg (15.6lb) each
Shipping Weight	16kg (35.2lb)

* The peak power capability of all Tannoy loudspeakers will allow higher amplification powers to be used with wide dynamic range material. Care must be taken, however, to avoid conditions such as switch on surges and amplifier overloading or 'clipping' which may result in momentary peaks of power greatly in excess of the specified ratings.

Due to our policy of continuous improvement all specifications are subject to change without notice.



Frequency Response

Tannoy Ltd, The Bilton Centre, Coronation Road, Cressex Industrial Estate, High Wycombe, Bucks. HP12 3SB
Telephone: 0494 450606 Telex: 83251 TANNOY G

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TANNOY®

THE PLANET SERIES

Mercury Mk II

TANNOY®

The Name for Loudspeakers

Founded in 1926, Tannoy have been among the leaders in acoustic engineering ever since. Tannoy, a British company with a modern factory in Scotland, designs and manufactures specialised audio products and loudspeakers for domestic Hi-Fi, professional recording, broadcast and high quality sound reinforcement.

Tannoy is dedicated to producing loudspeakers which offer you the greatest possible listening pleasure at a realistic price. We are able to do this because we design and manufacture all of our loudspeaker systems in our own factory. In this way we can exercise full control over the production of the loudspeakers from initial design to final production.

The advantage to you, the user, is that every Tannoy Loudspeaker is a totally integrated system, with every component designed to compliment each other, enabling the loudspeaker to reproduce accurately the audio signal generated by your audio system.

The Mercury MkII loudspeakers share the advantage of high power handling and sensitivity with low distortion and smooth frequency response – qualities which have been the hallmark of Tannoy high fidelity loudspeaker systems for over 40 years.

To gain the maximum satisfaction and listening enjoyment from your new Tannoy Loudspeaker, please take a few minutes to study the information in this manual.

Loudspeaker Enclosures

To provide optimum performance a loudspeaker cabinet must be rigidly constructed and acoustically treated. The Mercury MKII is constructed from high density particle board lined with an acoustic material to absorb internal reflections and eliminate standing waves. The cabinet is internally braced at antinodal points to minimise cabinet resonance and colouration and the narrow front profile ensures good horizontal dispersion. Low frequency loading of the system is provided by a carefully designed ducted port which reduces distortion and extends the bass response. Each loudspeaker is fitted with a detachable grille of acoustically transparent cloth stretched over a wooden frame.

Drive Units

High frequencies are produced by a polyamide dome treble unit which combines a very smooth response with low distortion and wide dispersion and gives a finely detailed sound. A magnetic cooling Ferrofluid is incorporated and combines high power handling capacity with reliability and protection against sudden overload transients. The asymmetrical front plate is sculptured to improve reproduction by reducing diffraction effects.

Low and midrange frequencies are reproduced by a 200mm polyolefin cone unit. This cone material gives a very smooth frequency response with negligible colouration. A newly developed cone/coil apex configuration provides a very rigid construction at the point where the cone is driven by the 4 layer high temperature voice coil.

Crossover Network

The crossover network receives the electrical signal containing the full frequency spectrum from the amplifier and divides it between the bass/midrange unit and the soft dome treble unit. We use only high quality components, including low loss solid dielectric capacitors and generously rated resistors and inductors. All components are hard wired and internal wiring is by heavy duty cable to minimise signal loss. All components are securely mounted to ensure maximum reliability and freedom from resonance.

Amplifier Power

In our loudspeaker specifications we recommend a suitable range of amplifier powers. The peak power handling capability of all Tannoy Loudspeakers will allow higher amplifier powers to be used with wide dynamic range material. Care must be taken with all amplifiers, irrespective of power output, to avoid abnormal conditions such as switch on surges or amplifier overloading (clipping and distortion) which may result in peaks of power greatly in excess of the specified ratings, and possible subsequent damage to the loudspeaker. Such damage will invalidate the warranty.

Connecting Cable

Always aim to put the amplifier as close to the loudspeakers as possible to ensure the shortest lead length and minimum signal loss. Use the heaviest gauge of cable that can be accommodated to reduce resistance and maintain damping. The total lead resistance (i.e. from amplifier to loudspeaker and back again) should not exceed 0.4 ohms. Use the following table to find out the minimum gauge for a given length of connecting cable.

Max. length in metres (feet)	Wire total cross sectional area in square mm.	USA Zipcord (AWG)	Electrical Specification Europe
25 (82)	2.50	10	50/0.25mm
15 (50)	1.50	12	30/0.25mm
12 (40)	1.25	14	40/0.20mm
10 (33)	1.00	16	32/0.20mm
7 (23)	0.75	18	24/0.20mm

If you are in any doubt consult your dealer. We do not recommend the use of certain "plaited" or "coaxial" cables since the high capacitance can lead to instability and oscillation in some amplifiers together with loss of high frequency definition. We do recommend the use of popular 79/0.2mm cables or equivalents.

The polarity of the cable should be easily identifiable either by colour coding or "ribbing" in the insulation material. Where this is not the case trace each conductor from one end of the cable to the other and mark at each corresponding end to identify the polarity.

Important

Care must be taken to ensure that the amplifier is switched off when connecting or disconnecting the loudspeakers. Failure to observe this simple rule may cause serious damage to the loudspeakers and invalidate the warranty.

Connecting the Loudspeakers

These loudspeakers will accommodate connection by 4mm Banana or Space connectors or directly with bared wire. When using connectors be careful to maintain polarity. Standard practice is to use red terminals with marked or ribbed cable for positive (+) and black terminals with unmarked or smooth cable for negative (−). Connect the loudspeakers to the amplifier maintaining polarity; positive to positive and negative to negative, for both loudspeakers and ensure that all connections are fully tightened to minimise contact resistance.

IMPORTANT: Do not switch on your sound system unless all connections are completed and secure. Never switch on the amplifier unless the loudspeakers are connected. Always switch the system off before connecting or disconnecting any cables.

Phasing and Polarity

When using two loudspeakers for stereo reproduction it is essential that consistent polarity is observed for each channel. This can be checked aurally by placing the loudspeakers side by side and preferably listening to a 'mono' signal with a good bass content, through both channels (pressing the 'mono' switch on your amplifier will produce a monophonic signal). If the polarity and phase are correct the bass will be full and rich whereas if incorrect very little bass will be heard due to cancellation effects. Incorrect phasing can be remedied by reversing the connecting leads to just one of the loudspeakers. If the phasing is incorrect re-check the polarity of cables, and any connectors used, between the source and the amplifier and the amplifier and the loudspeakers.

Loudspeaker Positioning

To obtain the best results from your loudspeakers with accurate stereo imaging, the location of the loudspeakers in your room is very important. Good reproduction, accurate stereo images and lack of colouration are all influenced by the position of the loudspeakers relative to the walls, floor and items of furniture. Acoustic reflections from walls behind and adjacent to the loudspeakers are detrimental to the stereo image and will increase colouration. Placing loudspeakers directly into corners will upset the low frequency balance.

Wherever possible you should place each loudspeaker at least 300mm (12") from the back wall and 1 metre (40") from the nearest side wall. For optimum performance the Mercury MkII should be mounted upright on rigid stands with a minimum height of 300mm (12"). If the top of the cabinet is below the ear level of the normal listening position then audible benefit will occur if the cabinet is tilted backwards slightly (5 to 7 degrees). If the loudspeaker is located at a higher level this should not be necessary. For best results make sure that the loudspeakers have the maximum amount of free space around them.

The distance between the two loudspeakers should be between 2 to 4 metres (6 to 12 feet) depending on the room size. The distance between the listening position and each loudspeaker should be slightly greater than the distance between the loudspeakers. If the loudspeakers are placed too close together then the full stereo image may not be developed. If placed too far apart then an audible "hole in the middle" effect may occur.

Care of Cabinet Finish

The loudspeakers should be wiped over with a damp cloth to remove dust and stains.

Grille Removal

The front grille is removable for cleaning and to gain access to the speakers. The grill cloth may be cleaned with a soft brush periodically.

To remove the grille pull firmly but carefully away from the cabinet, holding the sides only. To replace, align the dowels in the cabinet with the holes in the grille and push firmly so that the grille lies flat against the front panel.

Warranty

Every Tannoy Loudspeaker is guaranteed against manufacturing defects in parts or craftsmanship for a period of five years. This warranty does not cover any defects or failures caused by abuse or improper operation—such determination to be made at the sole discretion of Tannoy, or their appointed Distributor or Service Agent, on the basis of physical inspection. This warranty applies in the original country of purchase only.

Service/Faultfinding

Loudspeakers are generally very reliable and will operate for many years without trouble. When a fault occurs in a sound system it will be generally heard through one or both loudspeakers and therefore it is essential to isolate the cause of the problem more accurately. A fault which is present on one source (i.e. disc, tuner, cassette or CD) but not another is unlikely to be attributable to the loudspeakers. Similarly loudspeakers cannot generate hiss or hum problems, although a high quality loudspeaker may emphasise these fault conditions. If you suspect trouble then in the first instance discuss it with your dealer who can best handle any claim and has knowledge and expertise to assess the situation. In case of continued difficulty contact your Tannoy distributor or Tannoy directly.

Technical Specification

Recommended Amplifer Power* (RMS per channel into 8 ohms)		10–120 watts
Peak Power Handling		120 watts
Impedance (nominal)		8 ohms
Sensitivity (for 1W @ 1m)	Domestic Anechoic	93dB 90dB
Frequency Response ± 3dB Nominal		52Hz–23kHz
Phase Response		Better than ± 45° between 120Hz–10kHz
Crossover Frequency		3kHz
Crossover Type		First order low pass Second order high pass Hard wired low loss
Apparent Acoustic Source		59mm behind front surface of baffle
Bass/mid-range Unit		200mm (8") 2088G
Treble Unit		28mm (1.1") 0248G Polyamide
Horizontal Dispersion		Greater than 150° up to 12kHz
Cabinet Volume		19.5 litres (0.72 cu.ft)
Cabinet Construction		12/15mm high density particle with 12mm shelf brace
Bass Loading		Overdamped offset ducted port
Cabinet Damping		Specialist acoustic product
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Tannoy Loudspeakers are manufactured in Great Britain by:

Tannoy Limited
Rosehall Industrial Estate
Coatbridge
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TANNOY®

MERCURY MKII

Owners Manual