# F1-5, F1-8 FYNE ADVICE



ESSENTIAL INFORMATION GUIDE

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# 1 INTRODUCTION

Thank you for choosing Fyne Audio F1 loudspeakers, proudly designed by our experienced team of engineers, and constructed to the highest standards by artisans in our own facility in Scotland. We believe they will give you many years of listening pleasure.

- Before installing these loudspeakers please read this manual in full, both for safety reasons and to ensure you achieve the best performance possible.
- To prevent injury or damage when unpacking the loudspeakers, please do not use the protective bag to lift them in case it tears.
- Please retain packing for possible future use.
- These speakers must always be connected to a suitable amplifier and never to a mains supply.

#### Supplied accessories:

- Self adhesive feet (x8)
- Bi-wire links (x4)- F1-8 only

# <u>2</u> TECHNOLOGY

Our experienced team of acoustic and product design engineers have been in the loudspeaker industry for very many years. Since coming together to form Fyne Audio, they have been augmenting their existing skills and developing new technologies to ensure that we can offer best in class performance through technical innovation and advanced manufacturing techniques.

#### ISOFLARE<sup>™</sup> POINT SOURCE DRIVER

Fyne Audio's IsoFlare™ driver is a point source system whereby the bass / midrange driver shares a common centre with the high frequency unit. Providing outstanding stereo imaging even off axis, energy is radiated isotropically with constant directivity following the flare of the driver cone. Sound is produced emanating from a single point.

To fully optimise the driver performance, every aspect of this meticulous design has been considered. Eliminating unwanted vibrations which would be detrimental to the sound quality, our IsoFlare<sup>™</sup> point source drivers are built around a custom tooled rigid cast aluminium chassis.

A vented rear chamber in the carefully optimised HF magnet assembly places low frequency resonance well below the crossover region. Pushing the break up mode well above the level of human hearing, the highly rigid magnesium high frequency diaphragm delivers a smooth and extended response. The unique geometry of the high frequency unit's waveguide provides a flat frequency response and avoids internal reflections. The HF diaphragm provides a natural and unstressed performance, terminated by a Polyester surround to optimally terminate energy. The HF unit annular waveguide has a computer optimised expansion rate and geometry to provide flat frequency response and avoid internal reflections.

On the low frequency section, FyneFlute<sup>™</sup> surround technology more effectively terminates cone energy, by providing a nonhomogeneous interface, eliminating harmful resonances. The geometry is optimised by advanced computer Finite Element Analysis. A multi-fibre paper cone gives natural sounding midrange and clean transient behaviour, while the high power LF motor system uses a ferrite magnet.

#### CROSSOVER

Although simple in topology, the design is computer optimised, fine tuned subjectively by critical auditioning.

The crossover makes use of high quality precision components, including low loss LF laminated iron core inductors and Claritycap® high grade polypropylene capacitors. High quality gold plated WBT Nextgen™ terminals are used, together with Van den Hul® Matched Crystal OFC copper internal wiring, with high purity silver coating, for transparent signal transfer. The components are hard wired on fibre board panels to minimise vibration, using a special mastic.

Cryogenic treatment of the complete crossover relaxes stresses in materials and solder joints to maximise signal transparency. A grounding terminal is fitted to minimise the effect of radio frequency interference masking fine detail.

#### BASSTRAX<sup>™</sup> TRACTRIX DIFFUSER SYSTEM

The F1-5 and F1-8 employ a downwards firing port arrangement. Below the vent in the base of the loudspeaker, the BassTrax<sup>™</sup> Tractrix profile diffuser is used to convert the plain wave energy to an expanding spherical 360-degree wavefront, dispersing energy uniformly into the room.

This Tractrix profile has been previously applied to horn loudspeakers by Voight in the 1920's, but the application to a diffuser of this type is novel and subject of a patent application.

The BassTrax<sup>™</sup> Tractrix profile is known to maintain a 90 degree angle at each intersection of the expanding wavefront, thus avoiding reflections. This clever arrangement also makes the loudspeaker less critical of room positioning.

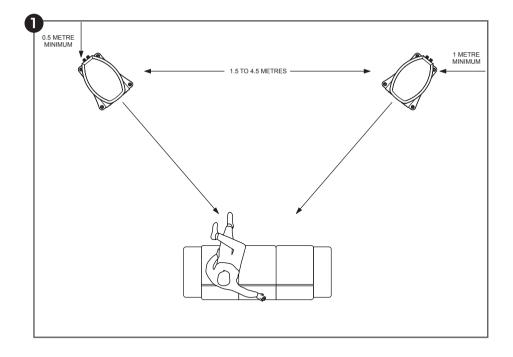
#### ENCLOSURE

The high density birch ply construction is pressed to ensure an extremely rigid structure to ensure low colouration. The drive unit is coupled to internal bracing panels through damping material to absorb energy in the case of the F1-8.

The machined aluminium platform provides exceptional stability for precise low frequency performance and resolution of fine detail, also being an integral part of the BassTrax<sup>™</sup> diffuser system.

# <u>3</u> POSITIONING

The loudspeakers should be positioned approximately 1.5 – 4.5m apart (5 – 15 feet), ideally no closer than 0.5m (20 inches) from the rear wall and no closer than 1m (3 feet) from the side walls (Fig 1). Some degree of experimentation will provide the best results, especially with toe in towards the listener, to give the best stereo imaging.



# **<u>4</u> STAND MOUNTING**

For optimum performance, we strongly recommend the use of Fyne Audio's dedicated loudspeaker stand with the F1-8. Instructions on how to affix the loudspeaker to the stand are included with the stand and should be followed carefully, both for reasons of safety and to ensure you achieve the best sound possible.

If you decide however to make use of a third party stand design, it should be rigid and well damped. The centre of the drive unit should be approximately at ear height when seated. The F1-5 should similarly be mounted on an appropriate stand. However, bookshelf placement may be preferred, although there will be a degree of compromise in terms of stereo imaging and bass performance.

### To prevent both personal injury and damage to the loudspeaker, ensure the stand is stable and capable of supporting the weight of the loudspeaker.

To prevent slipping and to avoid scratching the underneath of the loudspeaker, 4 self adhesive feet are provided for each one.

### <u>5</u> AMPLIFIER CHOICE

The advisable range of amplifier powers is detailed in the Specification. Responsible use with higher powered amplifiers is possible, due to the robust design of these loudspeakers.

We do not advocate any specific amplifier technology, i.e. transistor versus valve (tube). As with any high resolution loudspeaker system, it is the quality of the amplification that is paramount in extracting maximum performance from your loudspeakers. Some customers may wish to use valve (tube) amplifies such as single ended triodes, with output powers less than the minimum recommendation. This will not cause damage to the loudspeakers, but will restrict the maximum volume and dynamic range, especially in large rooms.

If you are considering the purchase of a new amplifier, your dealer will be able to give you recommendations that work well.

### <u>6</u> CABLE CHOICE

It is important to use cables of appropriate quality for such a high performance loudspeaker. While from a technical perspective, low electrical resistance is necessary to minimise losses and maximise amplifier damping, the physical construction of the cable including conductor type and purity, together with insulation characteristics have considerable influence on the sound quality. The optimum cable is both subjective and system dependent; your dealer will be able to give advice.

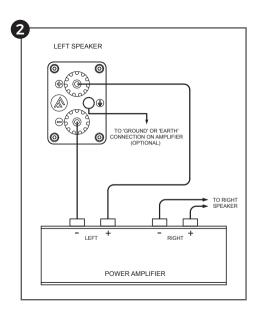
Cables should be terminated in high quality connectors, either 4mm banana or spade. We would recommend the use of WBT Nextgen™ connectors.

### <u>7</u> CONNECTING SPEAKER CABLES

#### Ensure the amplifier is switched off before connecting cables, to avoid damage.

#### F1-5

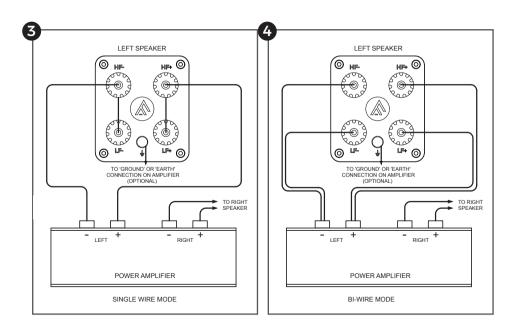
The F1-5 is provided with one set of speaker terminals. Ensure connections are made positive to positive and negative to negative between the loudspeaker and the amplifier (Fig 2).



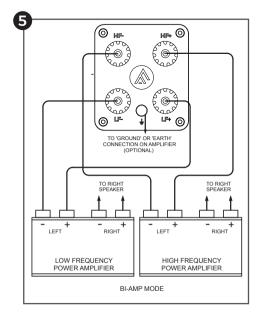
#### F1-8

The F1-8 is provided with two sets of terminals, one for the HF and one for the LF section. Wiring may be done in either single wire mode or bi-wire mode. The latter will provide optimum performance.

When using a single cable, wire as shown (Fig. 3), fitting the link cables provided. The best sound quality is generally achieved when connecting to the HF terminals. For bi-wire operation, ensure the link wires are not fitted, and wire with two sets of cable, or a dedicated bi-wire cable (Fig 4). This will ensure the best possible sound quality.



A further option is bi-amping, where the LF and HF sections of the loudspeaker are each driven from their own amplifier, for further enhancement in sound quality. Either two stereo power amplifiers or four monoblock amplifiers may be used. If using two stereo amplifiers, it is recommended that one is used as the LF channel to both loudspeakers and the other HF (Fig 5). **To avoid amplifier damage, the link cables must not be in place.** 



## **8 EARTH CONNECTION**

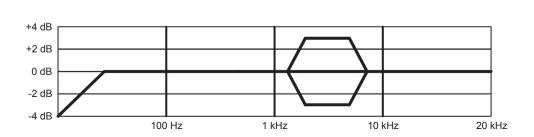
The loudspeaker is provided with an earth or ground connection, connected to the drive unit chassis. The purpose of this is to ground any radio frequency interference that may get back to the amplifier, reducing fine detail and resolution. A separate earth wire may be used for this purpose, but best results will be obtained by using a dedicated screened loudspeaker cable.

### **9 PRESENCE CONTROL**

6 PRESENCE ADJUSTMENT

The F1-5 and F1-8 are provided with an adjustment control on the front panel, to achieve optimal performance in terms of both the listening environment and listener preference.

This 'Presence' control only affects the lower treble region of 2.5- 5.0kHz, and influences articulation and vocal clarity and has an effect on image depth (Fig 6).



Start with the control in the central (level) position and make small adjustments with well recorded programme material that you are familiar with. Achieving the correct presentation is similar to focusing the lens on a camera, to achieve the most realistic sound.

### <u>10</u> CARE OF CABINET

The cabinet may be cleaned with a microfiber cloth. Occasionally use a high quality non-silicone furniture polish on the high gloss wooden areas. As wood is a natural material, avoid exposure to extremes of heat, humidity and direct sunlight for extended periods of time. If unused for long periods of time, you may wish to cover the loudspeakers with the cloth bags they were packaged in, to provide protection.

On no account use solvents or abrasive materials, as this will cause damage and invalidate the warranty.

# 11 WARRANTY

No maintenance of the loudspeaker is necessary.

Please register your FYNE AUDIO LIMITED product online at www.fyne audio.com. All of our products have been produced and tested with care and precision to give firstclass service.

All passive loudspeakers are guaranteed for a period of 7 years from the date of purchase from an authorised FYNE AUDIO LIMITED dealer. This warranty is subject to the absence or evidence of misuse, overload, or accidental damage, applies only to the registered owner, and covers only genuine FYNE AUDIO LIMITED products with the original undamaged serial number. All active and electronic components are guaranteed for a period of 2 years from the date of purchase from an authorised FYNE AUDIO LIMITED dealer subject to the absence of, or evidence of, misuse, overload or accidental damage.

If at any time during this warranty period the equipment proves to be defective for any reason other than accident, misuse, neglect, unauthorised modification, incorrect installation or connection, matched with improper equipment or fair wear and tear. we will repair any such manufacturing defect or, at our option, replace it without charge for labour, parts or return carriage. If you suspect a problem with a FYNE AUDIO LIMITED product, in the first instance, discuss it with your FYNE AUDIO LIMITED dealer. If you require further assistance then we ask that you deal directly with your local FYNE AUDIO LIMITED distributor. If you cannot locate your distributor please contact EYNE AUDIO LIMITED Customer Services via our website listed above or at

the e-mail enquiries@fyneaudio.com Do not ship any product to FYNE AUDIO LIMITED without previous authorisation.

#### LIABILITY

Other than the warranty and services set out in this warranty, to the fullest extent permitted by law, FYNF AUDIO I IMITED and its Authorised Distributors shall not be liable to you and/or any third party or entity whatsoever for:- any loss, damages and/ or malfunction caused to any product(s) which is/are connected to any of the FYNE AUDIO LIMITED products any damages, loss and liability (except for any personal injuries or death), whether direct, indirect, incidental, consequential special, punitive or otherwise, howsoever caused by, arising out of, or otherwise in relation to the installation, delivery, use, service, repair, replacement and/or maintenance of the FYNF AUDIO I IMITED product: or any damages, loss and liability (except for any personal injuries or death) under this warranty in respect of any act, omission, or negligence of any of their technicians, employees, agents, representatives or independent contractors relating to the actual or purported performance of any of the obligations under this warranty.

Without limiting the above, the maximum liability of the FYNE AUDIO LIMITED and its Authorised Distributors under this warranty shall not in any event or under any circumstances exceed the actual purchase price paid for the FYNE AUDIO LIMITED product(s).

# **<u>12</u>** SPECIFICATIONS

System type	<b>F1-5</b> 2 way, downwards firing port, with BassTrax <sup>™</sup> Tractrix diffuser*
Recommended amplifier power (Watt RMS)	30 - 100
Peak power handling (Watt peak)	200
Continuous power	50
handling (Watt RMS)	
Sensitivity (2.83 Volt @ 1m)	87dB
Nominal impedance	8 Ohm
Frequency response	48Hz - 38kHz
(-6dB typical in room)	
Drive unit complement	1 x 125mm IsoFlareTM point source driver,
	multi-fibre bass/ midrange cone,
	FyneFlute™ surround with 19mm magnesium
	dome compression tweeter, neodymium
	magnet system
Crossover frequency	1.9kHz
Crossover type	Single wired passive low loss, 2nd order low pass,
	1st order high pass. Deep Cryogenically Treated
System adjustments	Presence (2.5kHz - 5.0kHz) +/- 3dB
Dimensions - HxWxD	321 x 186 x 289mm
	(12.6 x 7.3 x 11.4")
Cabinet construction	Pressed high density birch ply

\* Patent applied for

System type	<b>F1-8</b> 2 way, downwards firing port, with BassTrax <sup>™</sup> Tractrix diffuser*
Recommended amplifier power (Watt RMS)	30 - 180
Peak power handling (Watt peak)	360
Continuous power	90
handling (Watt RMS)	
Sensitivity (2.83 Volt @ 1m)	91dB
Nominal impedance	8 Ohm
Frequency response	33Hz - 34kHz
(-6dB typical in room)	
Drive unit complement	1 x 200mm IsoFlare <sup>™</sup> point source driver, multi-fibre bass/ midrange cone, FyneFlute <sup>™</sup> surround with 25mm magnesium dome compression tweeter, ferrite magnet system
Crossover frequency	1.8kHz
Crossover type	Bi-wired passive low loss, 2nd order low pass, 1st order high pass. Deep Cryogenically Treated
System adjustments	Presence (2.5kHz - 5.0kHz) +/- 3dB
Dimensions - HxWxD	470 x 280 x 441mm
	(18.5 x 11.0 x 17.4")
Cabinet construction	Pressed high density birch ply, internally braced

\* Patent applied for

### ENJOY.

Thank you for choosing Fyne Audio loudspeakers, proudly designed by our experienced team of engineers in Scotland, and constructed to the highest standards.

### WWW.FYNEAUDIO.COM

