

FUNKTION-ONE

Resolution 1

User Manual EN1.0.0.1



Symbol Description



DANGER! Electrical Hazard



WARNING! Important information.

Publishing Information

Resolution 1 User Manual Version EN1.0.0.1, October 2008.

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Keep this document with its relevant product or in a safe accessible place. When selling or reselling this product please draw the new owner(s) attention to this manual.

Please note:

Every effort has been made to insure up to date accuracy of this manual, in the unlikely event that there is outdated or incorrect information Funktion One Research Limited will not be held responsible for any resulting errors or incidents.

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WARNING

Long term exposure to high Sound Pressure Levels (SPL) will result in permanent hearing damage. Funktion One produces high efficacy loudspeakers that can exceed the daily exposure limits set in the Control of Noise at Work Act 2005 in the United Kingdom.

Only use Funktion One produced or recommended accessories and replacement parts. Other parts may cause damage to the system and may pose as a health and safety risk.

When deploying any Funktion One system please refer to weights and dimensions to determine suitable placement and rigging.

Inspect equipment for excessive wear and tear that might cause a health and safety risk, if in doubt contact the manufacture for advice and support.

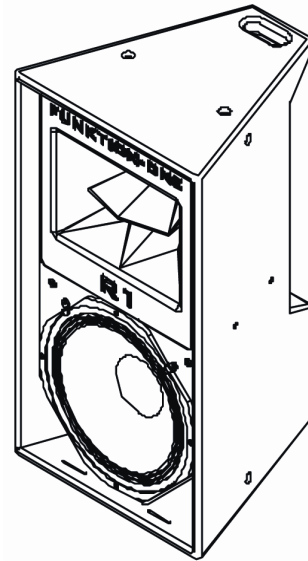
The loudspeaker contains large powerful magnets that can damage any electromagnetically sensitive equipment, such as floppy disks, hard-drives and electronic measuring tools. Please bear this in mind when deploying or transporting.

Contents

Symbol Description	i
Publishing Information.....	i
WARNING.....	ii
Contents.....	ii
Introduction to the Resolution One	3
Options and Accessories.....	4
Wiring and Connections	7
Technical Specifications.....	8

Introduction to the Resolution One

The Resolution 1 is a radical 2-way loudspeaker enclosure resulting from Tony Andrews' 30 years pioneering research and development of high efficiency cone mid-range. This has resulted in a completely new 5 inch loudspeaker which eliminates the need for compression drivers with their inherent harshness and distortion. This device, when used in conjunction with a miniaturised, dedicated Axhead-loaded waveguide, smoothly reproduces both the vital mid range and high frequencies with exceptional



coherency and detail. Further, instead of stretching the response of a compromised compression driver to (almost) meet an equally stretched and indistinct 12" or 15" low frequency driver at 1 to 2 kHz as in traditional 2-way systems, Funktion One's new 5" device smoothly connects with the (outstanding) 12" ported bass driver at 520Hz. The resulting bass is lively and very well defined.

The high efficiency, projection and imaging of the R1 make it hard to imagine that it comes in such a compact and lightweight package. The enclosure shape has a rear recess that can either be used to flush fit a separate passive crossover module or an amplifier module in a future self powered version. The waveguide can be rotated for use in either vertical or horizontal formats.

Notes:

Options and Accessories

The Resolution 1 has a rotational wave guide to allow flexibility in the way it is deployed, horizontally or vertically. See the Resolution One Technical drawing page at the rear of this document for further illustration.



Note: It is not recommend excessively changing the angle of the wave guide, as this may cause the fixing to weaken. If in doubt, contact Funktion One for advice and help.

Finishing and Grills

Standard cabinet finishes are violet or silver. There are two grill options - a half height punched metal grill which protects the 12" loudspeaker and covers the ports whilst leaving the also produce a full height black foam covered metal grill waveguide fully visible. For those preferring a more discrete appearance (particularly for theatre and AV applications) Funktion One.

Connections

The Resolution 1 comes with NL4 as standard.

A Passive crossover module is available. The module is inserted in-between a high power full range signal and the Input connection. The module is mounted to the outer rear of the enclosure.

Notes:

Mountings

The resolution 1 has a variety of mounting options for pole mounts, flying and wall fixing. Below is the information of types available at the time of printing:

Product Code	Description	Notes
WM1-55	Wall Bracket for R1 (short arm – 55mm)	
WM1-160	Wall Bracket for R1 (short arm – 160mm)	
SB1-K1	Squaring Bracket (pair) inc Bolts	
SB1-K2	Squaring Bracket (pair) inc Bolts and Hand Wheels	
YS1	Simple Yoke (top suspension)	Needs a SB1 kit
YT1	Universal 'Theatre' Yoke, allows full rotation	Needs a SB1 kit
YH1-K1	Yoke kit for Horizontal Mounting	
TB1	T-Bar to Fly Two Resolution 1s.	Needs a JP1 kit
JP1-K1	Back Joiner for Pair of R1s inc Bolts	
JP1-K2	Back Joiner for Pair of R1s inc Bolts and Hand Wheels	

Also see the rear of this document for the relevant Technical Drawings. More up to date information and technical drawings can be found at www.funktion-one.com.

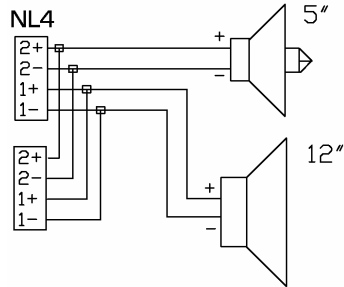


WARNING: Only use Funktion One approved mounting equipment that is specifically designed to be used with the Resolution 1. If in doubt, contact Funktion One for help and Getting Connected

The Following information is recommendations made for sonic quality through over thirty years of experience.

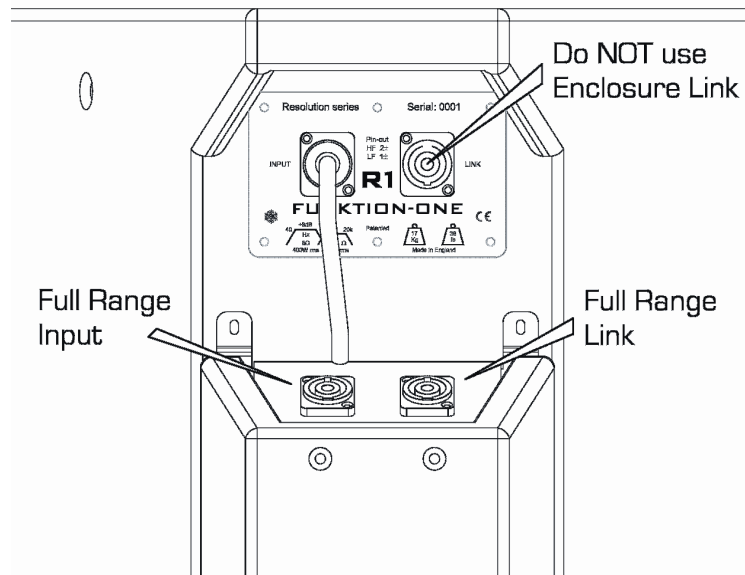
Notes:

Wiring and Connections



The Resolution 1 Loudspeaker utilizes two Speakon NL4 Connections; an Input and a Link. The Resolution 1 follows the standard wiring configuration as shown in left hand-side diagram.

When using the Passive Module the connection configuration should be done accordingly to the diagram show below. In this configuration the full range signal is connected via channel 1 on the NL4 to the Module, while channel 2 is not connected.

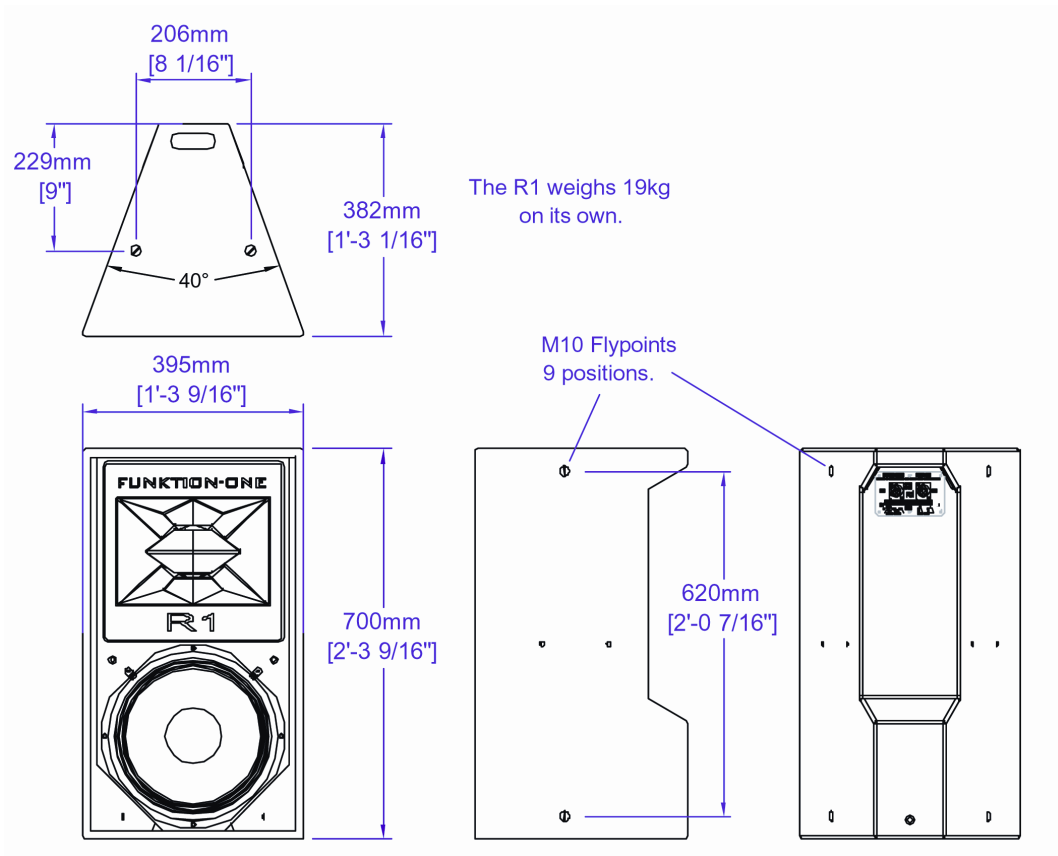


WARNING: The passive module is only designed to drive an individual Resolution One and thus the Link port **MUST NOT BE USED**. When not using the passive module insure it is completely isolated from the signal path.

Technical Specifications

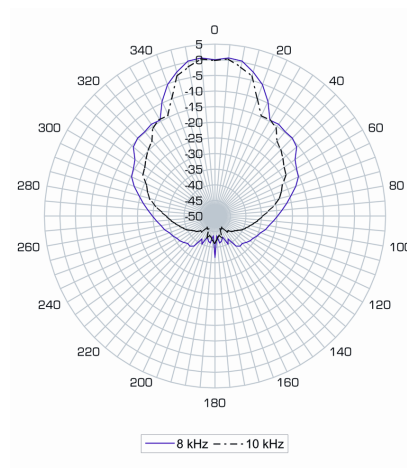
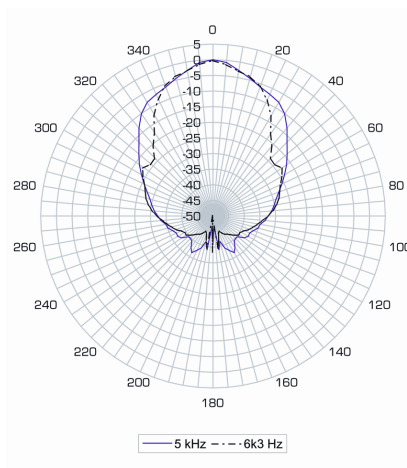
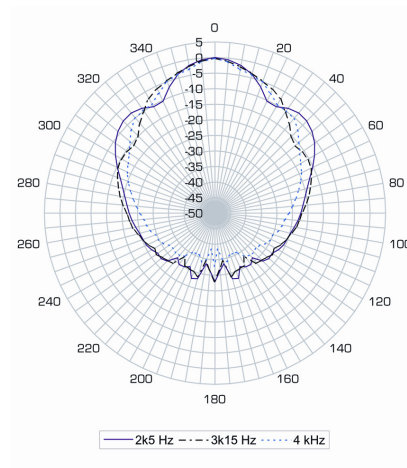
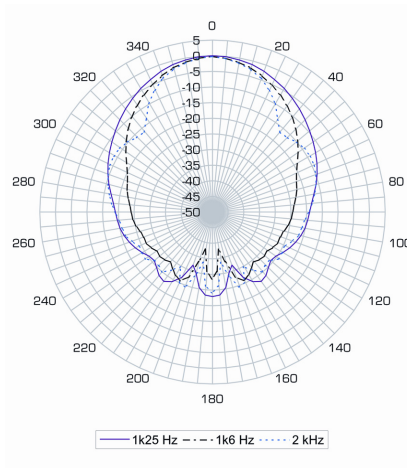
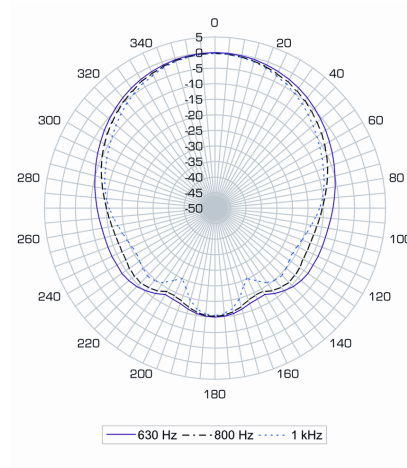
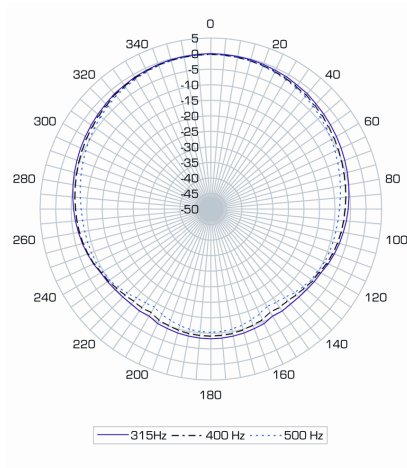
Frequency Response \pm 4dB:	65Hz – 15 kHz
Weight:	19 Kg [42 lbs]
Nominal Dispersion:	50° Horizontal 25° Vertical
Connectors:	2 x Speakon 4 Pole [NL4]

		Sensitivity	Power	Nominal
Driver	Freq. Band	[1W at 1M]	[RMS]	Impedance
12"	65-520 Hz	102dB	350W	8 Ω
5"	520-15kHz	112dB	75W	12 Ω

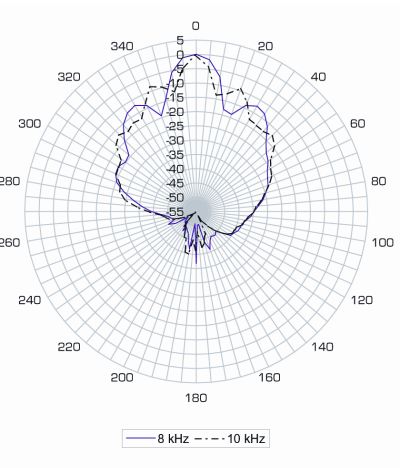
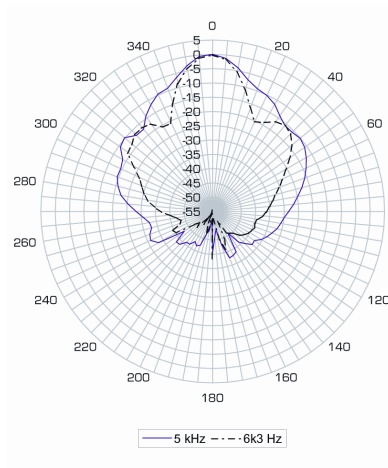
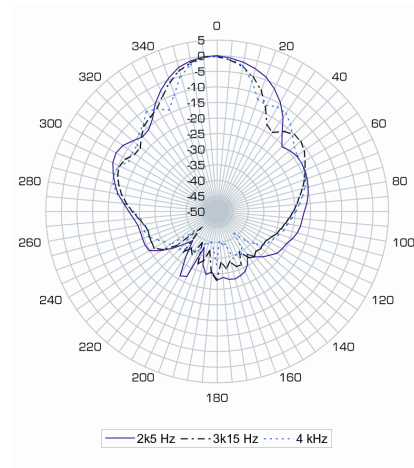
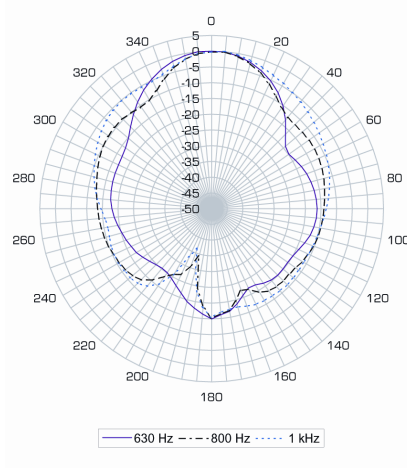
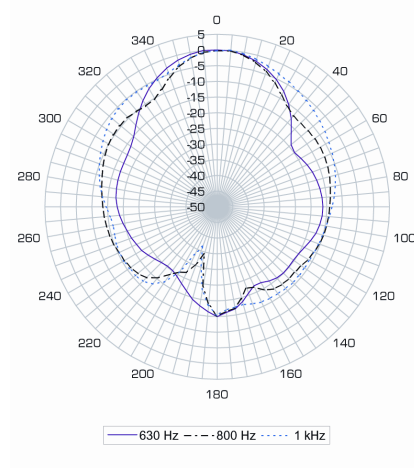
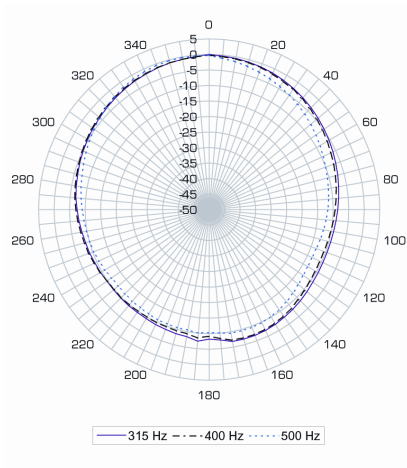


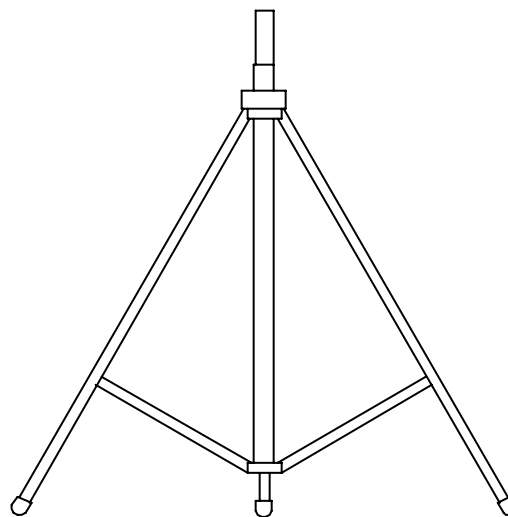
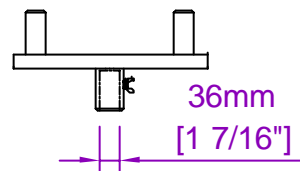
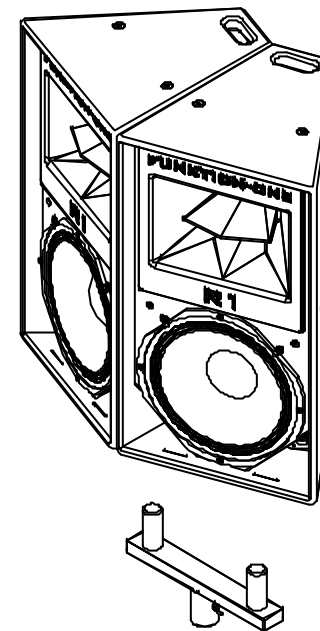
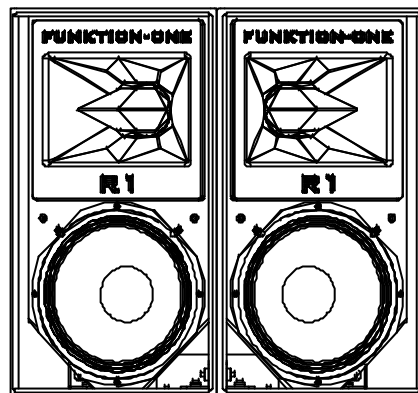
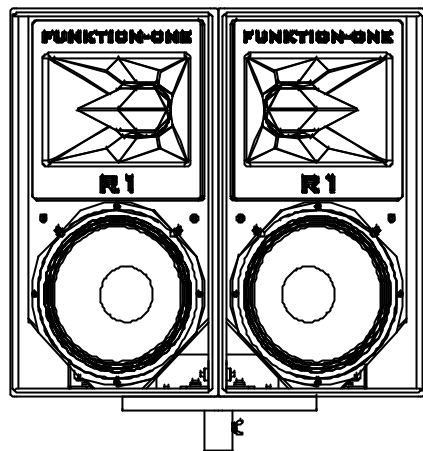
Notes:

Horizontal Polar Response



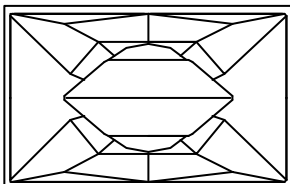
Vertical Polar Response





All dimensions in mm and inches

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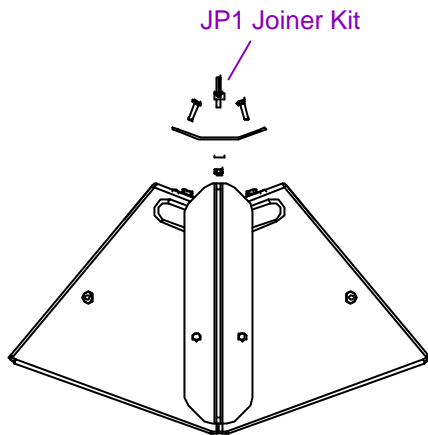


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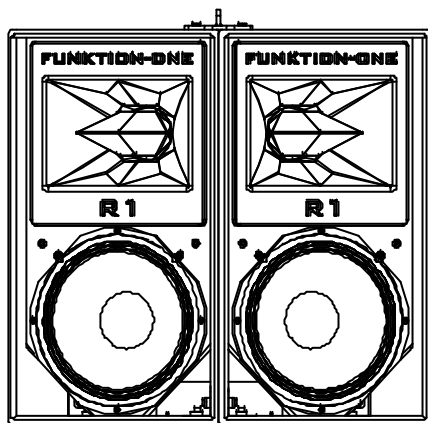
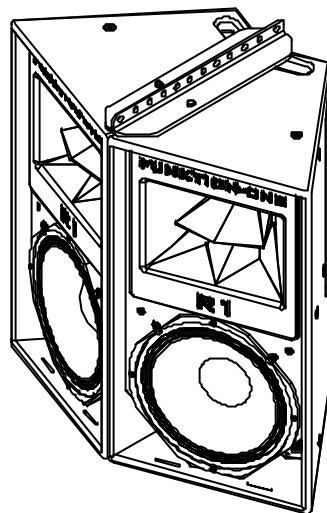
www.funktion-one.com

Accessories for: Resolution 1

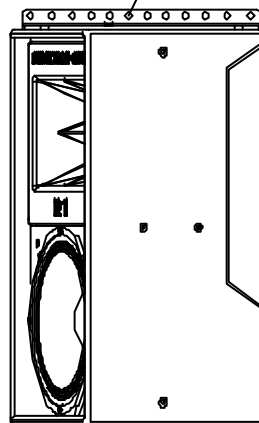
DM1 - Double pole mount to array two R1s



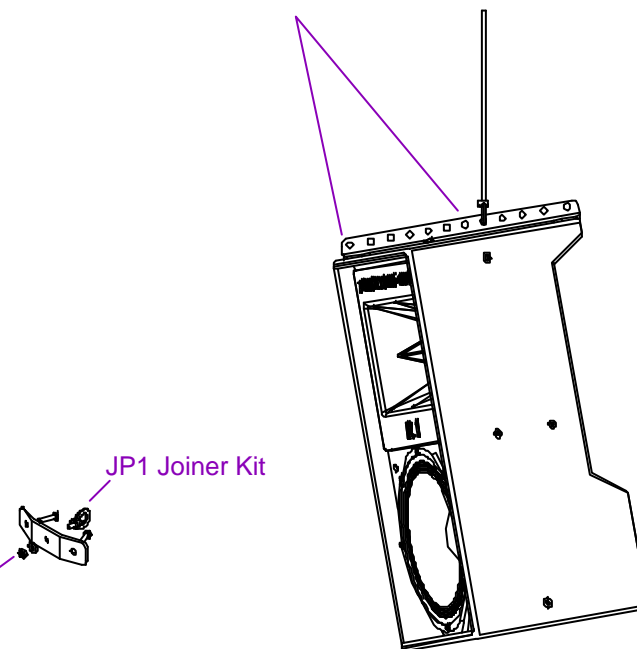
JP1 Joiner Kit



Centre Of Gravity



Tilt holes are at 10° increments

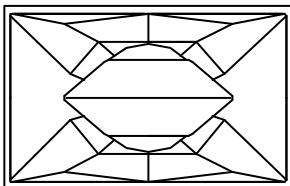


JP1 Joiner Kit



All dimensions in mm and inches

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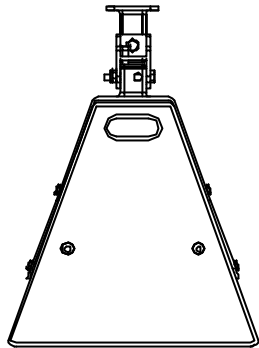
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Accessories for: Resolution 1

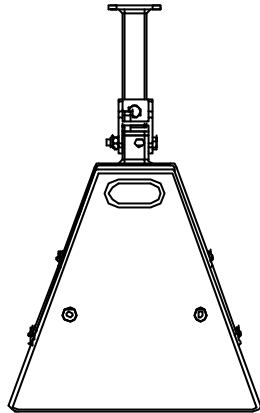
TB1 - T-Bar to fly two R1s (bar only) - needs JP1 joiner kit

JP1-K1 - Back joiner for pair of R1s, including eyebolt and bolts to attach to R1

JP1-K2 - Back joiner for pair of R1s, including eyebolt and handwheel bolts to attach to R1



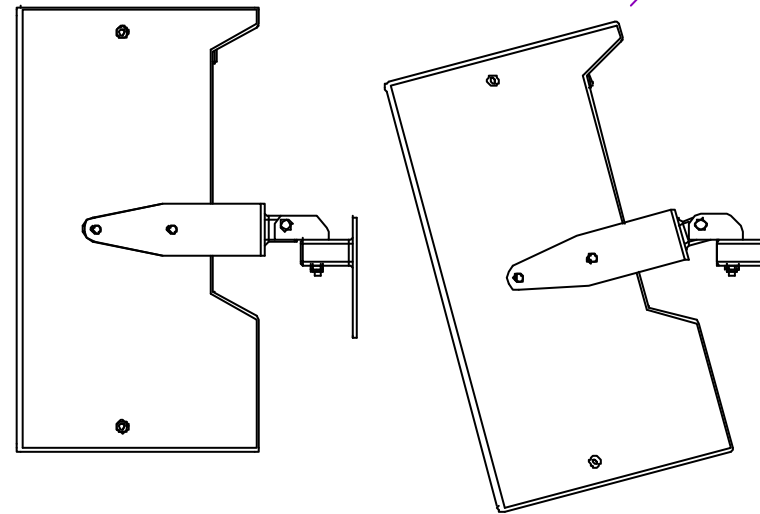
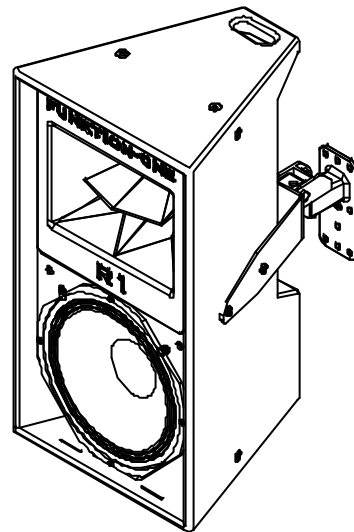
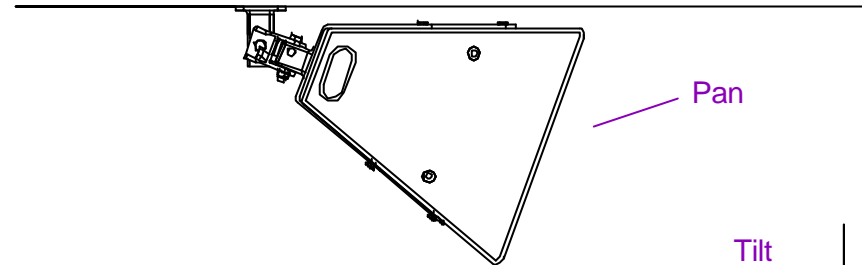
WM1-55



WM1-160

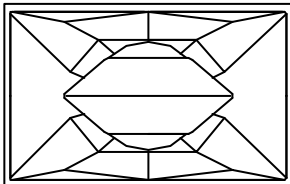
WM1-55 allows the cabinet to be rotated horizontally until the cabinet's side is parallel with the mounting wall

WM1-160 allows a greater tilt angle



All dimensions in mm and inches

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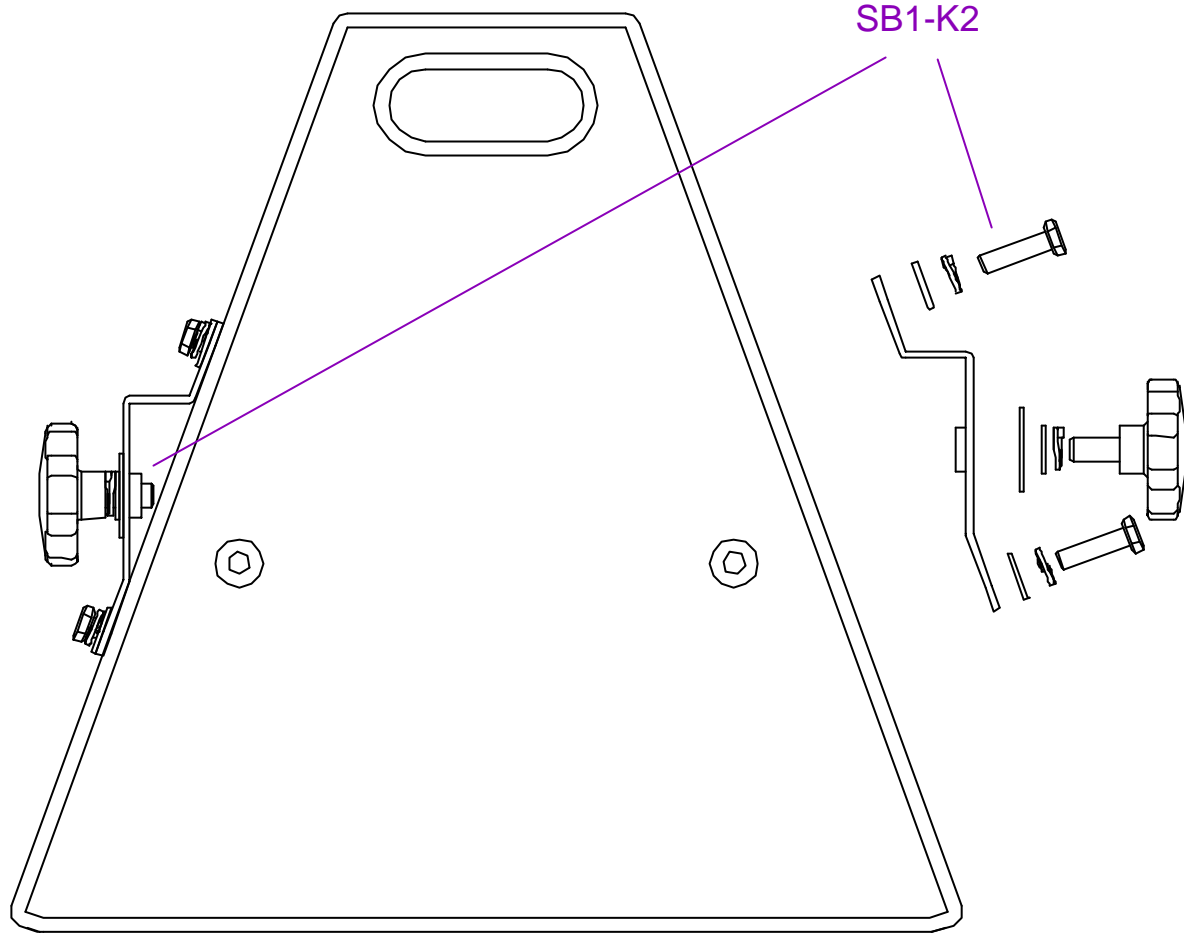
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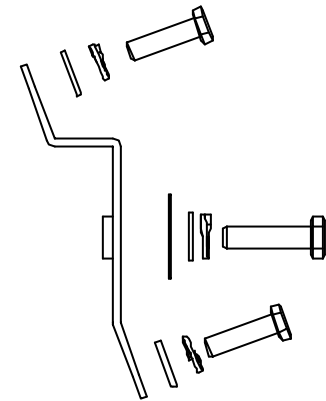
Accessories for: Resolution 1

WM1-55 - Wall Bracket for R1 (short arm - 55mm) - allows pan and tilt

WM1-160 - Wall Bracket for R1 (short arm - 160mm) - allows pan and tilt

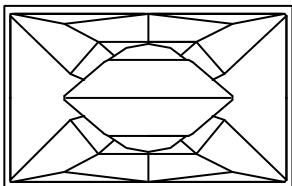


SB1-K1



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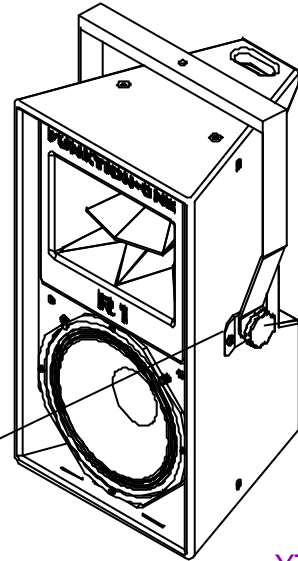
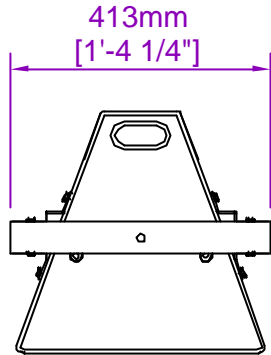
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Accessories for: Resolution 1

SB1-K1 - Squaring Bracket (pair), including bolts to attach to R1 and yoke

SB1-K2 - Squaring Bracket (pair), including bolts to attach to R1 and handwheels for yoke

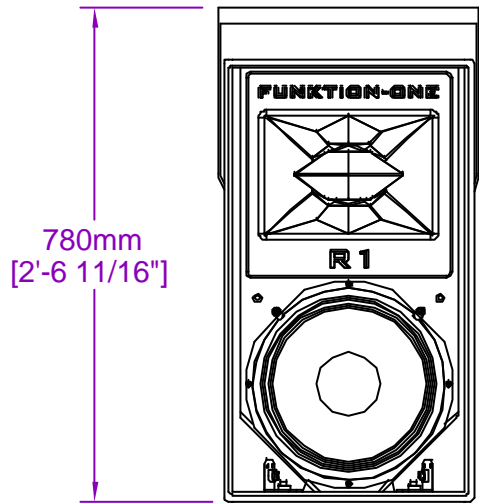


Handwheels included in SB1-K2 kit

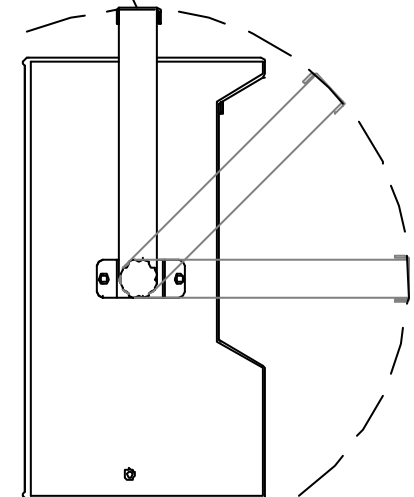
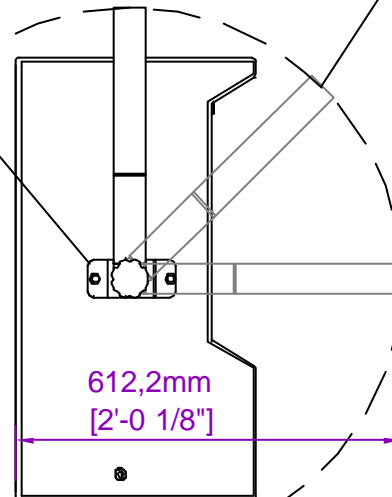
Squaring Brackets (SB1)

YT1 Yoke

YS1 Yoke

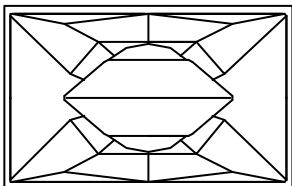


360° rotation



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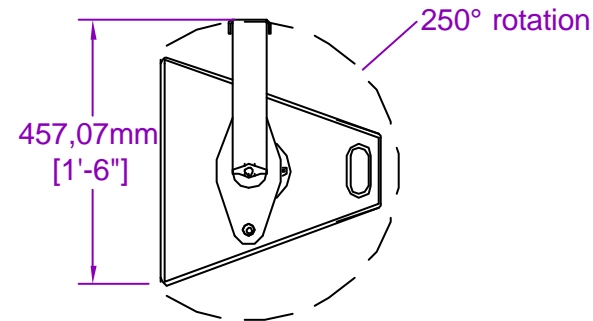
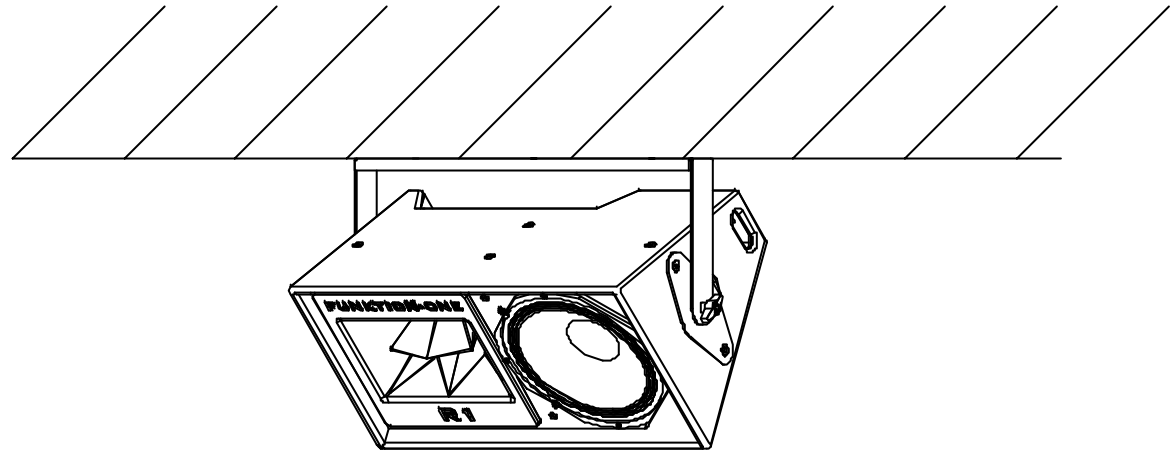
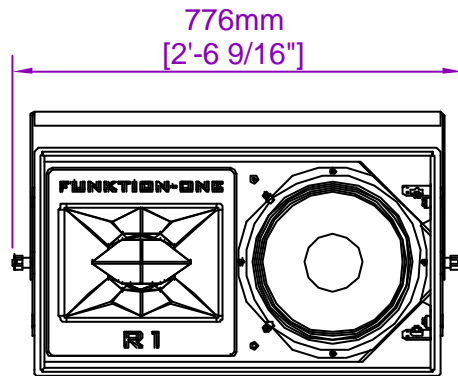
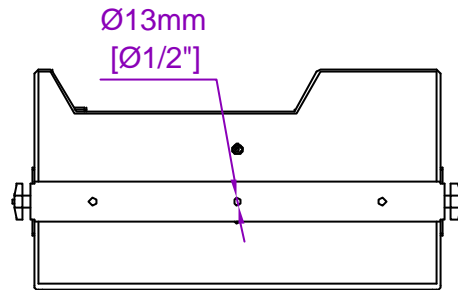
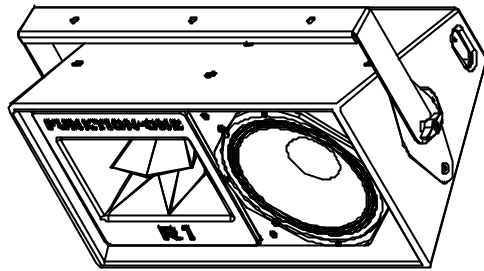
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Accessories for: Resolution 1

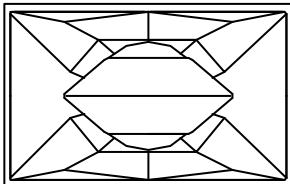
YS1 - Simple yoke for R1 (top suspension), needs SB1 kit

YT1 - Universal 'Theatre' yoke for allowing full cabinet rotation, needs SB1 kit



All dimensions in mm and inches

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Accessories for: Resolution 1

YH1-K1 - Yoke kit for mounting Horizontal R1, includes two pivot plates and bolts to attach to R1