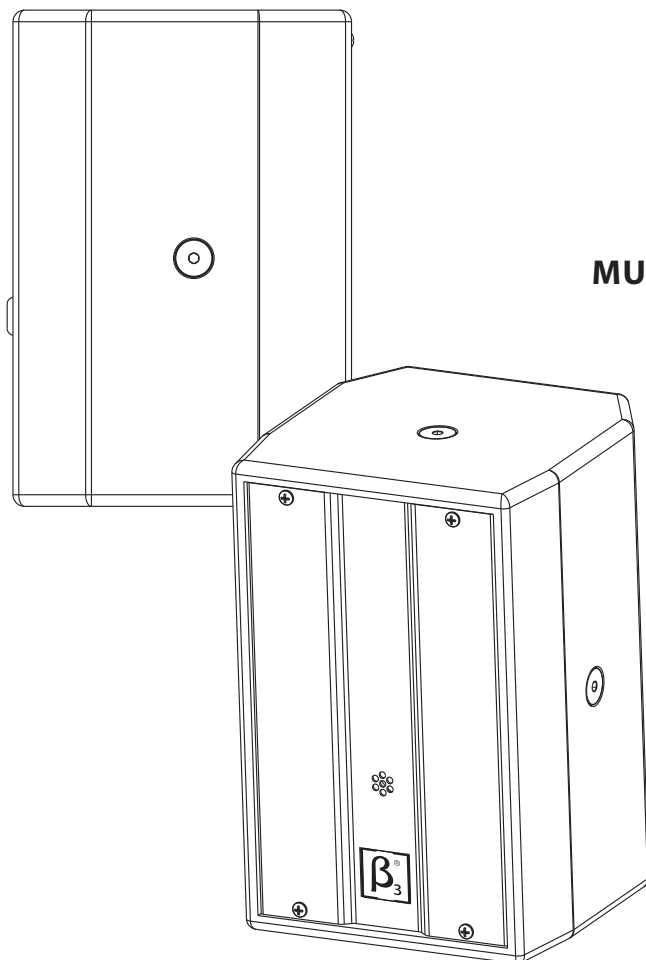




Beta Three



# MU401

4" Two Way Full Range Speaker

MU Series Pro Loudspeaker System

User Manual





UM-MU401-20120731 verA



# SAFETY INSTRUCTIONS

## PLEASE READ THIS MANUAL FIRST

Thank you for a buying  $\beta_3$  product. Read this manual first as it will help you operate the system properly. Please keep this manual for future reference.

**⚠ WARNING:** *This product must be installed by professionals. When using hanging brackets or rigging other than those supplied with the product, please ensure they comply with the local safety codes.*

	<b>CAUTION</b> RISK OF ELECTRICAL SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		

	<b>AVIS</b> RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR	
ATTENTION : POUR RÉDUIRE LE RISQUE DE DÉCHARGE ÉLECTRIQUE, NE RETIREZ PAS LE COUVERCLE (OU L'ARRIÈRE). IL NE SE TROUVE À L'INTÉRIEUR AUCUNE PIÈCE POUVANT ÊTRE RÉPARÉE PAR L'USAGER. S'ADRESSER À UN RÉPARATEUR COMPÉTENT.		

**⚠** *The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.*

**⚠ ATTENTION:** *Don't refit the system or spare parts without being authorized as this will void the warranty.*

**⚠ WARNING:** *Don't place naked flames (such as candles) close to the equipment.*

1. Read the instruction manual first before using this product.
2. Please keep this manual for future reference
3. Pay attention to all warnings.
4. Obey all operating instructions.
5. Do not expose this product to rain or moisture.
6. Clean this equipment with a dry cloth.
7. Do not block any ventilation openings. Install according to manufacturer's instructions .
8. Do not install this product near any heat source, such as a, heater, burner, or any other equipment with heat radiation .
9. Only use spare parts supplied by the manufacturer.
10. Pay attention to the safety symbol on the outside of the cover.

## CONTENT

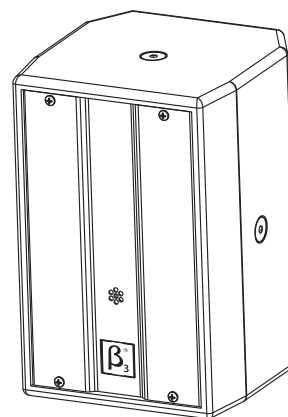
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# MU401

4" Two Way Full Range Speaker

## Main Features

- With 4 inches all frequency unit and 25 core compression of small column speaker.
- Frequency response 100Hz-20kHz(-3dB).
- Sensitivity 87dB, Max SPL 100dB.
- Dispersion 220° x 150°.
- Rated power 20w, max power 80w.
- Plywood cabinet with durable textured paint finish.
- Can be installed alone or stacked in multiples using the optional accessories. Suitable for many venues including inside and outside undercover environments.
- Designed for high speech intelligibility and natural sounding music.
- Quick install U bracket included.



## Product Description

β<sub>3</sub>® MU401 with 4" all frequency unit and 25mm compression of small column speaker. This attractively designed, 20W RMS, innovative speaker delivers high speech intelligibility and natural sounding music in a wide range of applications through its 4" full range drivers. A vertical line array of 4 drivers provides control over a horizontal and vertical pattern of 220° x 150° and reproduces the critical vocal range 100Hz-20kHz without requiring a processor.

A diffuser plate (patent pending) is fitted to the centre drivers to assist with the vertical pattern control. The MU401 speaker can either be used in singles, multiples or stacked using the optional accessories in many indoor applications such as Houses of Worship, Shopping Malls, Transport Terminals, Theme Parks, Meeting Rooms, Schools, Small Auditoriums. When stacking the MU401 end on end to create a taller line array the height of the line array must correspond to the ear height range of the listeners in both seated or standing positions.

The MU401 is manufactured from 15 mm plywood meeting a tensile strength of 3500N and is finished in either black or white using a very durable textured paint. The metal speaker grill is powder coated and passes all rust resistance tests.

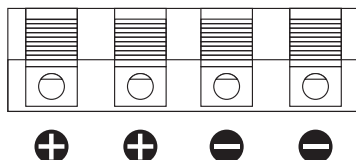
The MU401 is shipped with a quick install L bracket.

## Applications

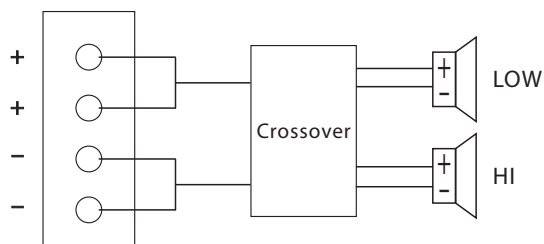
- churches/temples
- multifunction halls
- meeting rooms
- schools
- small auditoriums
- shopping malls
- transport terminals
- theme parks

The 4 way push terminal connectors are available for amplifier connections. Paralleled connector is very convenient for another speaker connection.

## Push Terminals

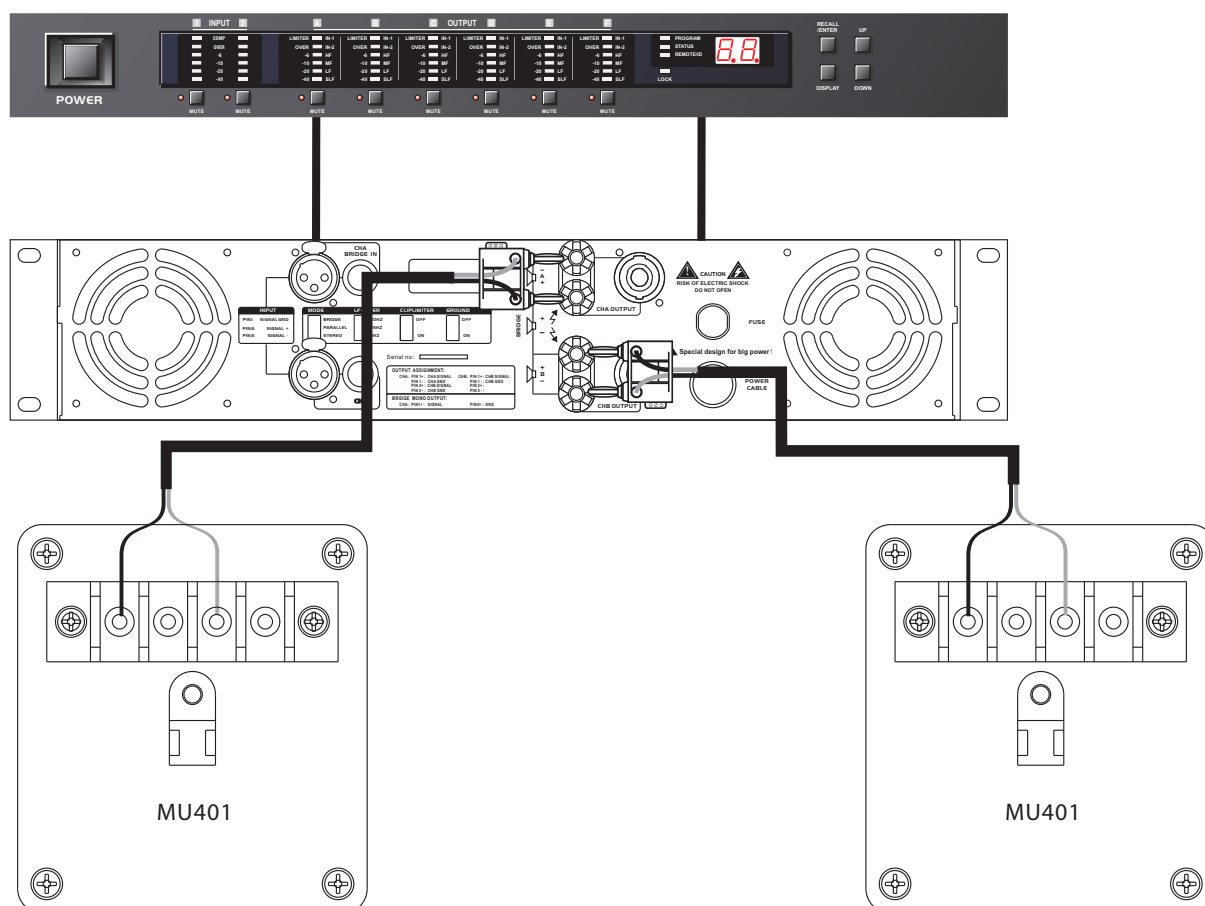


## INPUT



## System Reference Diagram

Processor (Optional EQ curves available on CD)



- ⚠ Attention:** The impedance of connected speaker must match the impedance of amplifier output.
- ⚠ Attention:** Make sure the polarity of speaker and amplifier correctly.

## INSTALLATION

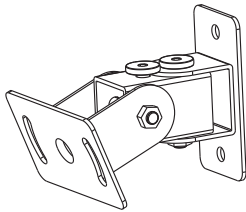
MU40I  
MU Series Pro Loudspeaker System



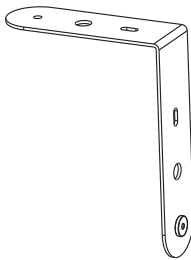
### Installation Accessories(Optional)

The standard flying mounting hardware is very convenient for different installations and applications.

#### 1.Wall bracket

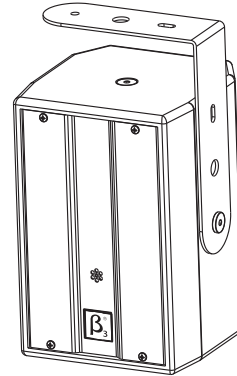


#### 2. L-Bracket

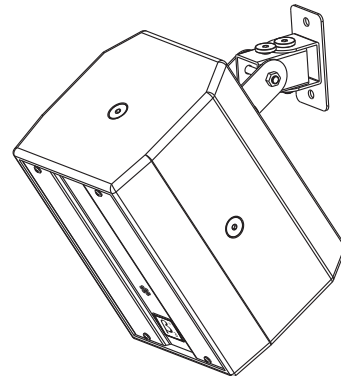


### Installation Reference

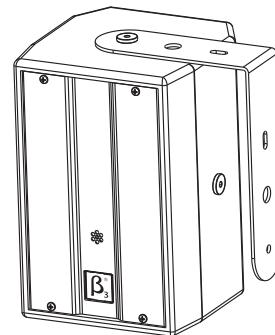
#### 1.Hanging A(L-Bracket)



#### 2.Hanging B



#### 3.Hanging C(L-Bracket)



**Warning:** Always ensure the mounting accessories safety factor is not less than 5:1 or that it meets the local standards.

## Specifications

Product:	Passive Wooden Speaker
Transducer:	1x 4" LF, 1x25mmHF
Frequency Response(-3dB): <sup>1</sup>	100Hz-20kHz
Frequency Response(-10dB):	90Hz-20kHz
Sensitivity(1W@1m): <sup>2</sup>	87dB
Maximum. SPL(1m): <sup>3</sup>	100dB/106dB (PEAK)
Power:	20W (RMS) <sup>4</sup> 40W (MUSIC) 80W (PEAK)
Dispersion Angle(HxV):	220 ° x 150 °
Rated Impedance:	8 ohms
Cabinet:	15mm plywood construction
Installation:	Mounting L bracket included and optional mounting points provided.
Paint:	White durable textured finish
Grill:	White powder coated , 1.0mm steel mesh.
Connector:	4-Push terminal
Dimension(WxDxH):	144 × 146 × 214mm (5.7 × 5.7 × 8.4in)
Packing Dimension(WxDxH):	195 × 195 × 276mm (7.7 × 7.7 × 10.9in)
Net Weight:	3.0kg(6.6 lbs)
Gross Weight:	4.0kg(8.8 lbs)
Optional Accessories:	Wall bracket,L-Bracket

## Speaker Testing Method

### 1. Frequency Response

Use Pink noise to test the speaker in the anechoic chamber, adjust the level to make the speaker work at its rated impedance and set the output power at 1W, then test the frequency response 1m away from the speaker.

### 2. Sensitivity

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increasing the signal to make the speaker work at its rated impedance and set the power output at 1W, then test the sensitivity 1m away from the speaker.

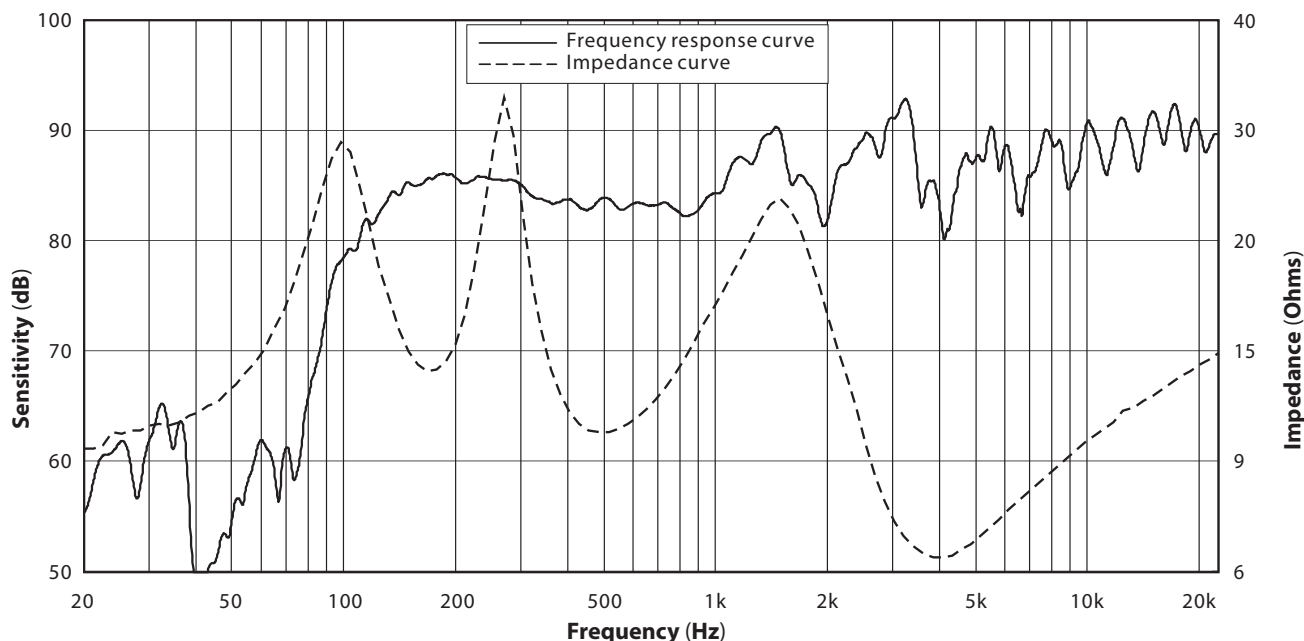
### 3. MAX.SPL

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increase the signal to make the speaker work at its maximum power output level, then test the SPL 1m away from the speaker.

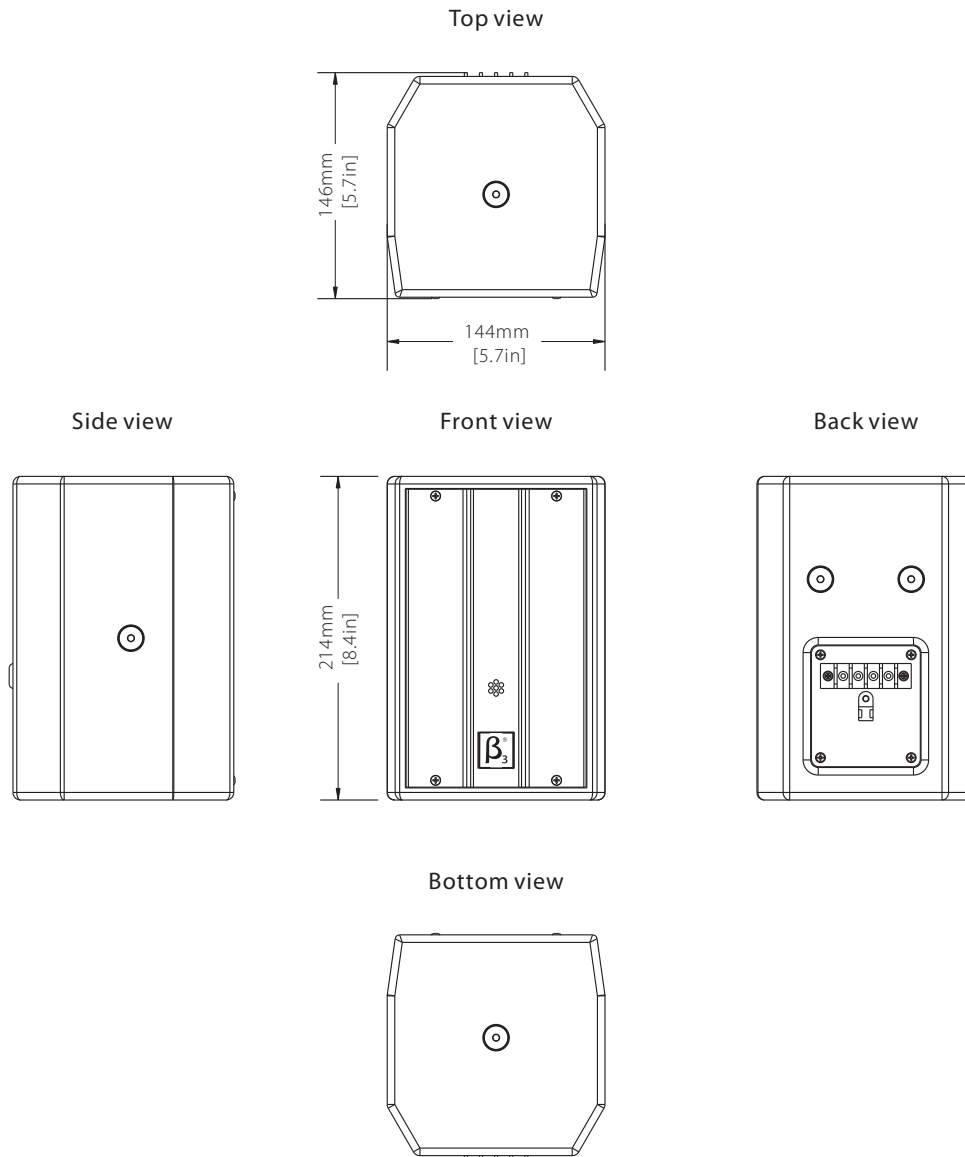
### 4. Rated Power

Use Pink noise to the IEC#268-5 standard to test the speaker, increase the signal for a continuous period of 100 hours, the rated power is the power when the speaker will show no visible or measurable damage.

## Frequency response curve & Impedance curve



## Dimensions





**Notes:**



**Beta Three**