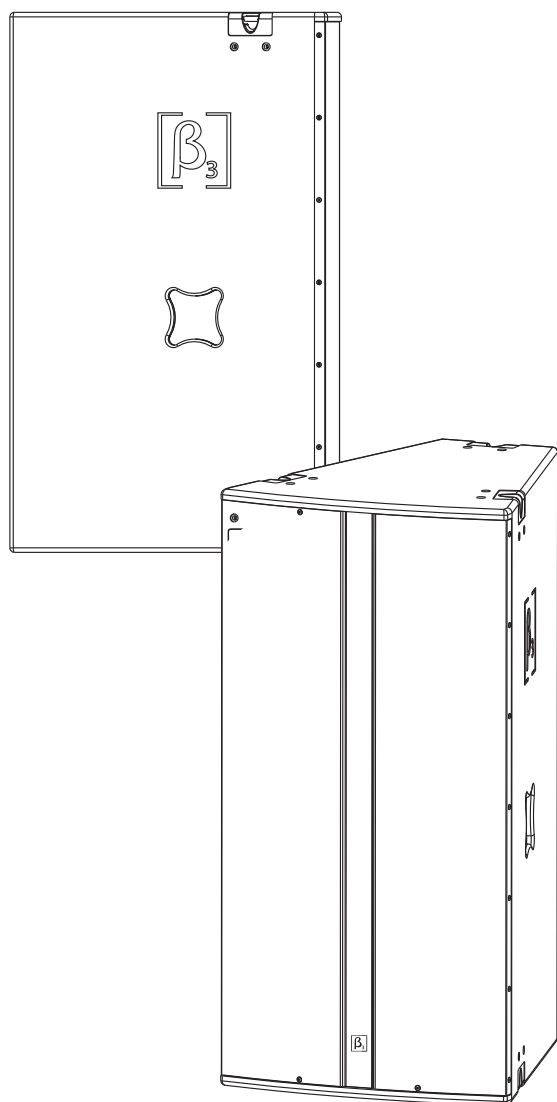




Beta Three



**ΣS2153II**

**Two Way Full Range  
Speaker With Dual 15" Woofers**

**User Manual**





UM-ES2153II -20170620 Ver B



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

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



**ΣS2153II**

Dual 15" Two Way Full Range Speaker

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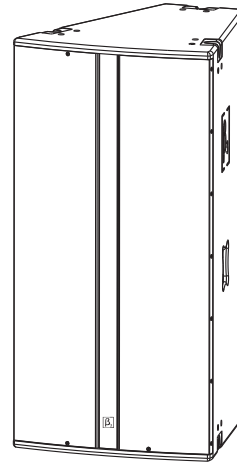
Product information may be updated without notification, please visit [www.elderaudio.com](http://www.elderaudio.com) for latest update.

# ΣS2153II

Dual 15" Two Way Full Range Speaker

## Features

- 3-transducer 2-way Full Range Speaker.
- Two 15" High Power LF Driver.
- One 3" HF Driver.
- Dispersion( H x V): 60° x 40°.
- Frequency Response 45Hz - 16kHz (-3dB).
- Sensitivity 98dB, MAX. SPL 126dB/132dB(PEAK).
- Rated Power 750W(RMS), 3000W(PEAK).



## Description

β<sub>3</sub> Σ S series speakers are special designed for various entertainment applications such as: Bars, Clubs, night clubs, touring and sound reinforcement for portable systems.

Σ S2153II the cabinet is with trapezoid section design, it's easy for making Line Array system. design can decline the internal stationary wave, it takes high density MDF board which is intensive enough, it can absorb strange sound caused by the resonance of the cabinet, Σ S series are standard hanging structure design, SPK input connectors, it's easy for installation and use.

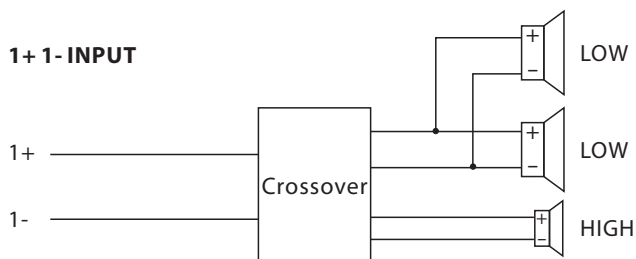
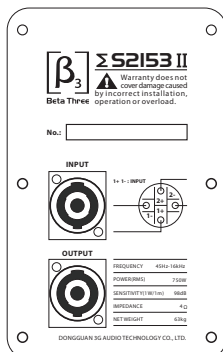
Σ S2153II products are developed with the latest computer aided simulation design combined with latest material and producing technology. Σ S series curves can satisfy the passionate demand in KTVs, all loudspeakers we adopt optimized high magnetic, low distortion, better ventilation and cooling magnetic system, the LF woofers we adopt voice coil with special impedance adhesive and unparallel thickness paper box and high power. The tweeter part we adopt high-temperature treated metal titanium membrane, rectangle coil with aluminum in cooper wires and compression cavity with line array phase design, it can obtain broader sound coverage with high dispersion horn, and also equipped with our latest adjustable-delay protection circuit, which will greatly improve reliability without any loss on sound quality, the LF units we adopt 100mm voice coil and 200mm diameter magnetic circuit, which will effectively eliminate distortion.

## Applications

- Bars and Dancing halls
- KTVs
- Night Clubs
- Touring
- DJ's
- Clubs

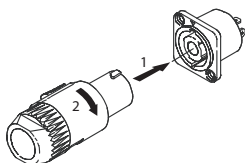
Two NL4 connectors are available for amplifier connection. Paralleled connector is very convenient for another speaker connection.

## Terminal Plate

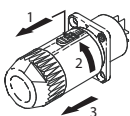


## NL4 Connection

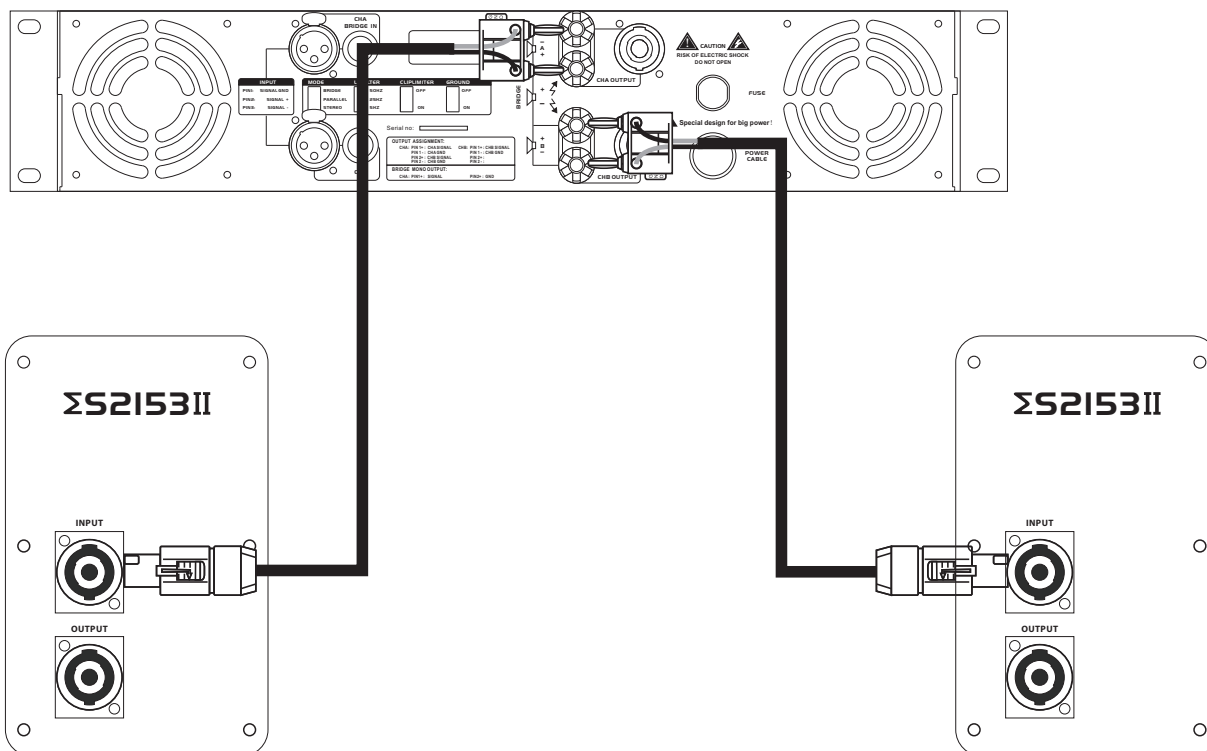
1. Connect



2. Disconnect



## System Connection Reference



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

## INSTALLATION

**ΣS2153II**  
Dual 15" Two Way Full Range Speaker



### Mounting Accessories(Optional)

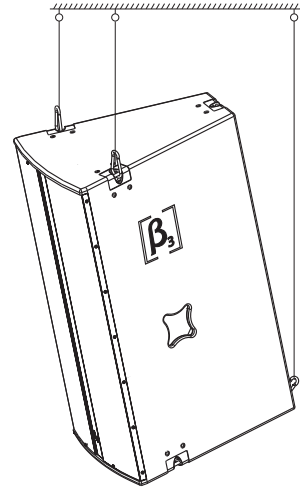
Eight mounting points are very convenient and efficient for the different application with special brackets.

1. Speaker stand  
SPS-502BC black

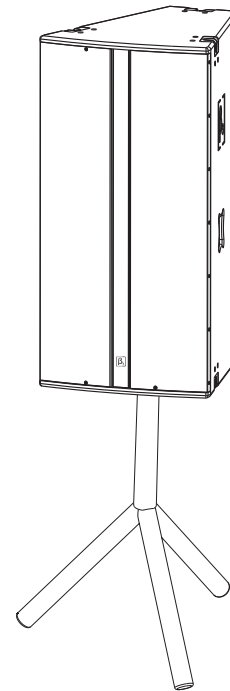


### Installation Reference

1. Ceiling



- 2.Support



**Warning:** Make sure the mounting accessories safety factor not less than 5:1 or meet the local standard during installation .

## Specification

|   |   |
|---|---|
| <b>System:</b>                                | Passive full range wooden speaker with painting               |
| <b>Tweeter:</b>                               | 1 × 3" Compression Driver                                     |
| <b>Woofer:</b>                                | 2 × 15" woofers   |
| <b>Frequency response(-3dB):</b> <sup>1</sup> | 45Hz-16kHz  |
| <b>Sensitivity(1W@1m):</b> <sup>2</sup>       | 98dB  |
| <b>Max.SPL(1m):</b> <sup>3</sup>              | 126dB/132dB(PEAK)   |
| <b>Power:</b>                                 | 750W (RMS) <sup>4</sup><br>1500W (MUSIC)<br>3000W (PEAK)      |
| <b>Dispersion ( H × V ) :</b>                 | 60 ° × 40 °   |
| <b>Rated impedance:</b>                       | 4 Ohms  |
| <b>Crossover point:</b>                       | 1.7kHz  |
| <b>Cabinet:</b>                               | Wedge shape   |
| <b>Mounting accessories:</b>                  | Fixed supporting base   |
| <b>Handle:</b>                                | 2 × Wooden handles  |
| <b>Painting:</b>                              | Cabinet coated by Polyurethane paint; grille is powder coated |
| <b>Connector:</b>                             | NL4 × 2   |
| <b>Cabinet dimension:</b>                     | 550 × 1075 × 660mm<br>(W × D × H)<br>(21.6 × 42.3 × 26.0in)   |
| <b>Package dimension:</b>                     | 1185 × 660 × 780mm<br>(W × D × H)<br>(46.7 × 26.0 × 30.7in)   |
| <b>N.W.(pc):</b>                              | 63.0kg(138.6lbs)  |
| <b>G.W.(pc):</b>                              | 67.5kg(148.5 lbs)   |
| <b>Optional mounting accessories:</b>         | Speaker stand   |

## 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.

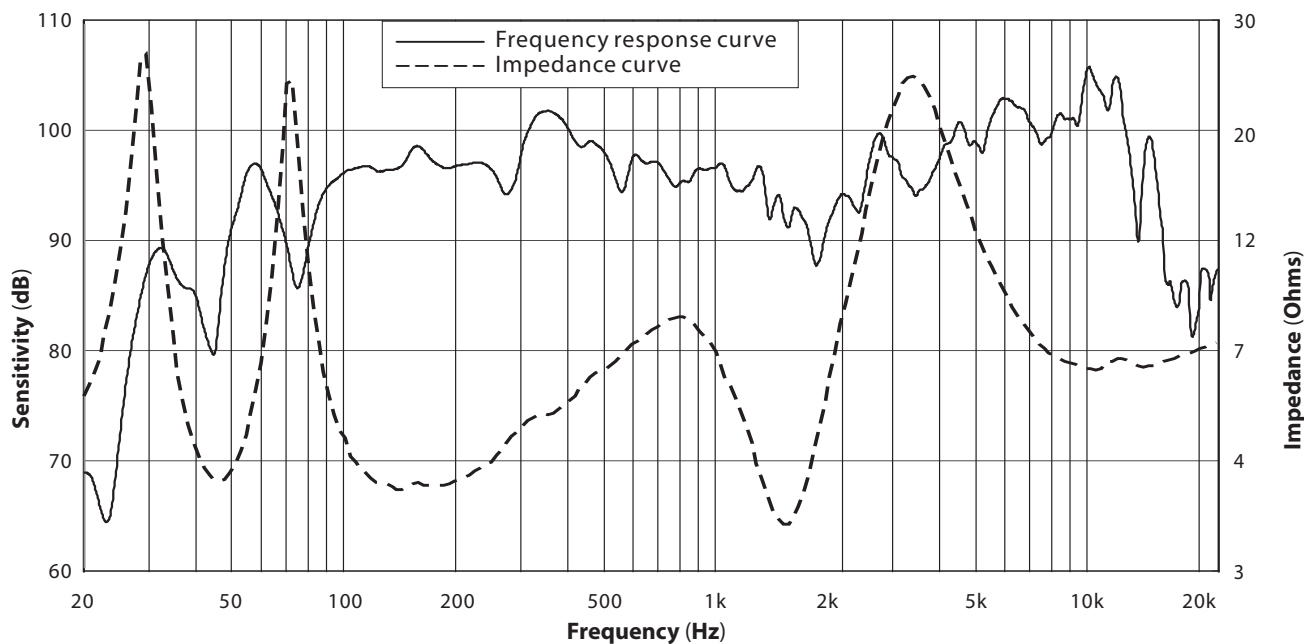
### 3. MAX.SPL

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

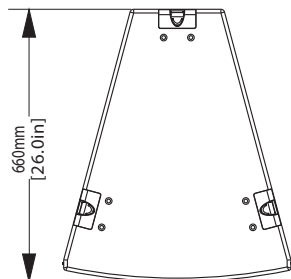
Use Pink noise to the IEC#268-5 standard to test the speaker, increase the signal for a continuous period of 100 hours, the rated power is the power when the speaker will show no visible or measurable damage.

## Frequency response curve & Impedance curve

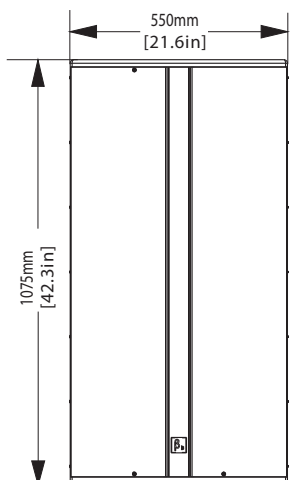


## 2D Dimension

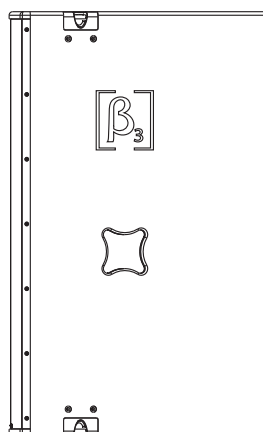
Top view



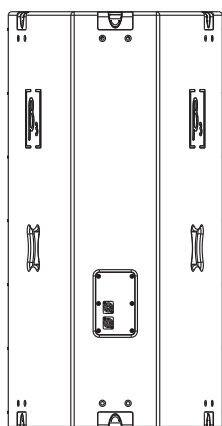
Front view



Side view



Back view





**Notes:**

