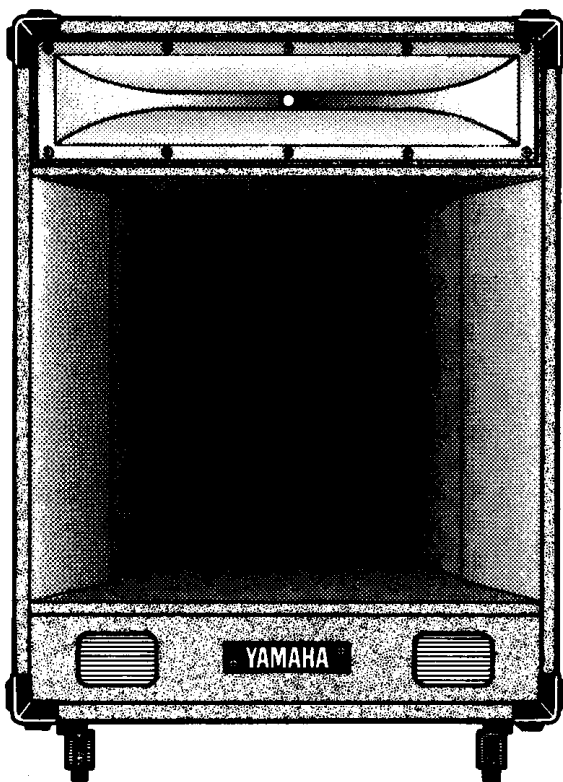


# YAMAHA

**Sound Peinforcement Speaker System**  
**Haut-Parleur de Renforcement Sonore**  
**Tonverstärkungslautsprechersystem**

## S4115HII

*OPerating Manual*  
*Mode d'emploi*  
*Bedienungsanleitung*



*Thank you for purchasing the Yamaha S4115HII Sound Reinforcement Speaker System. The S4115HII is a professional SR speaker system that is versatile enough for use in a wide range of sound systems. It is mounted in a large model, front loaded-horn bass-reflex type enclosure. An ample 38 cm carbon cone woofer with superior attack and dispersion, and a high performance H.F. driver and horn combination provide superb sound reproduction and excellent balance in both low and mid-to-high frequency ranges. What's more, the H.F. driver level can be freely controlled with the H.F. LEVEL control installed in the input panel, for top SR performance under all conditions. Naturally the materials, components and construction of the speaker box have been carefully tested, right down to the selection of the NW elements.*

*To obtain maximum performance from your Yamaha speaker system and ensure its trouble-free operation, we recommend that you read this operation manual thoroughly.*

## **CONTENTS**

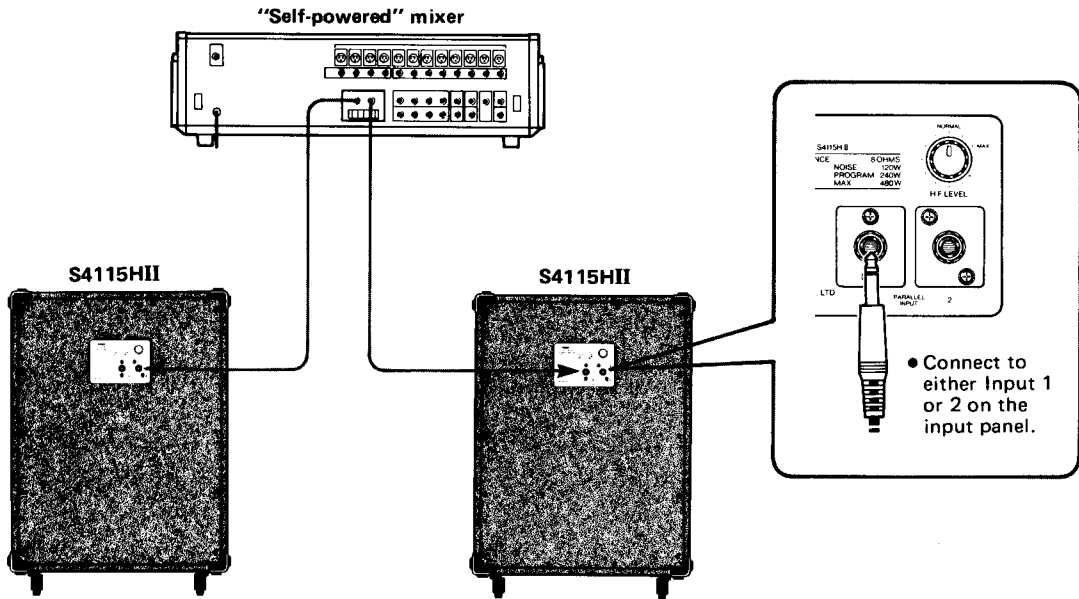
|                                 |          |
|---------------------------------|----------|
| <b>CONNECTIONS</b> .....        | <b>2</b> |
| <b>SPECIFICATIONS</b> .....     | <b>4</b> |
| <b>SCHEMATIC DIAGRAM</b> .....  | <b>4</b> |
| <b>DIMENSIONS</b> .....         | <b>4</b> |
| <b>PERFORMANCE GRAPHS</b> ..... | <b>5</b> |
| <b>SERVICE</b> .....            | <b>7</b> |

## **PRECAUTIONS**

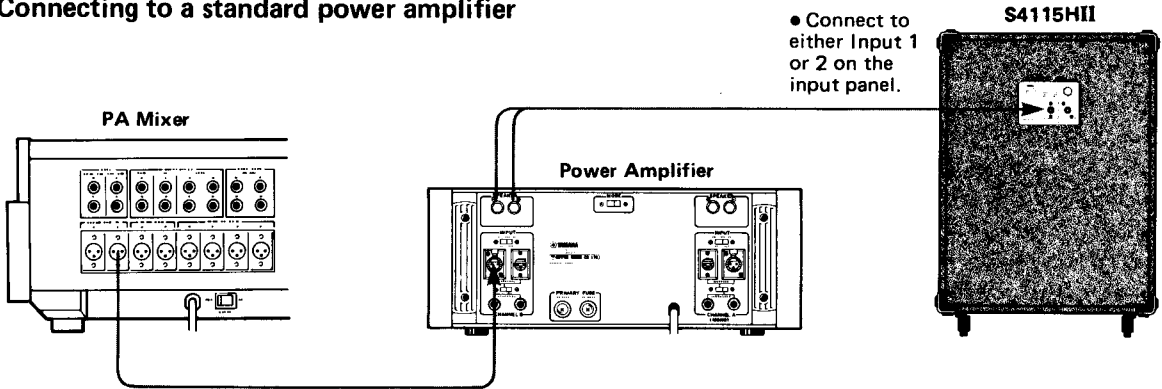
- Be sure to turn amplifier power OFF before attempting to connect the speakers.
- To avoid distortion and possible damage to the speaker units, never drive the speakers with more than their maximum rated power.
- Nominal impedance of the S4115HII is 8 ohms. When operating the unit in parallel, please ensure overall impedance falls within the amplifier's rated capacity.
- To avoid phase problems, please ensure that all speakers are correctly connected to the amplifier's speaker terminals (+, -).
- Corner protectors hold the S4115HII in place if it is set on a base, but when operated in this position proper safety precautions must be taken to prevent it from falling.

# CONNECTIONS

## 1. Connecting to a mixer a built-in power amplifier

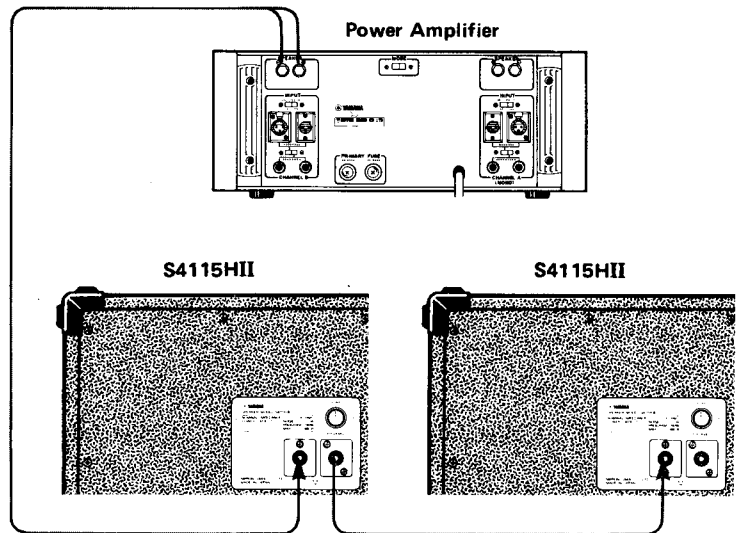


## 2. Connecting to a standard power amplifier



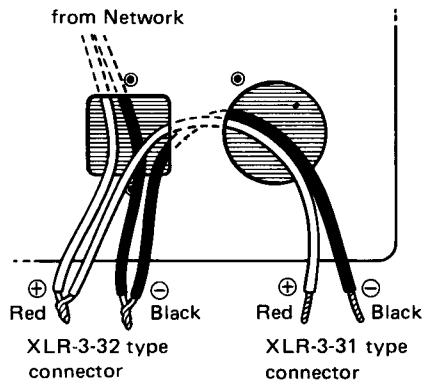
## 3. Connection in parallel

The two input jacks are connected in parallel inside the unit, so that connections can easily be made as shown in the diagram. Power amplifiers are normally designed for stable operation with 4 or 8 ohm impedance loads. Therefore, you should never connect more than two speaker units in parallel, except when using a power amplifier designed to operate with a load impedance lower than 4 ohms.



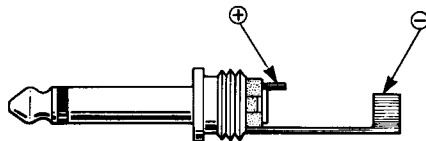
● **INSTALLATION OF XLR TYPE CONNECTORS**

The S4115HII phone jacks can be easily replaced with XLR type connectors if necessary. Simply remove the phone jacks by unscrewing the two screws which hold them in place.



● **PHONE PLUG WIRING**

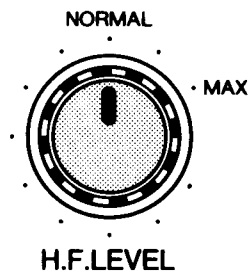
Standard input terminals for this unit are 1/4" phone jacks. Connect speaker leads as shown in this diagram.



● **H.F. LEVEL Controller**

The H.F. LEVEL controller installed in the input panel is usually set to NORMAL. The S4115HII speaker system delivers an extremely flat response at both the highest and lowest extremes of the frequency range, and this knob provides control of the high range (H.F. driver) level to suit the operating conditions.

To reduce this level 1.6 kHz or more, turn the knob to the left. To increase it 1.6 kHz or more, turn it toward MAX.

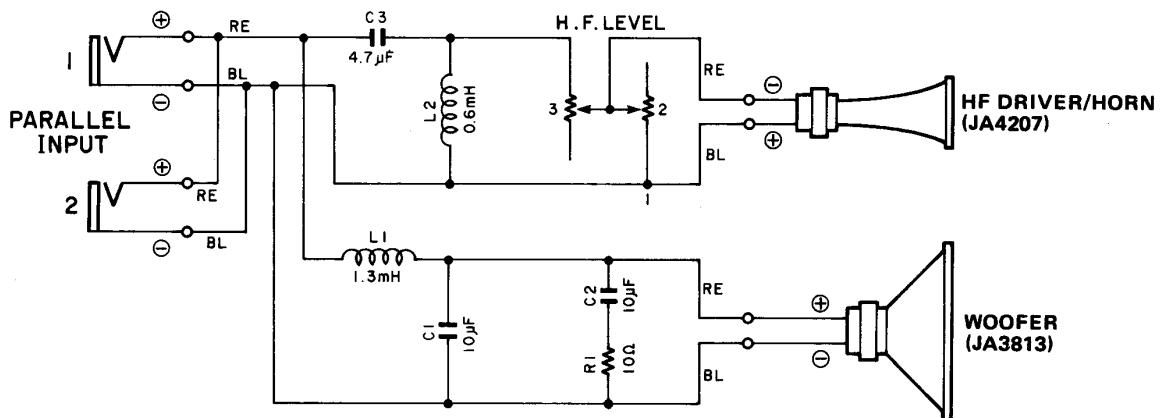


# SPECIFICATIONS

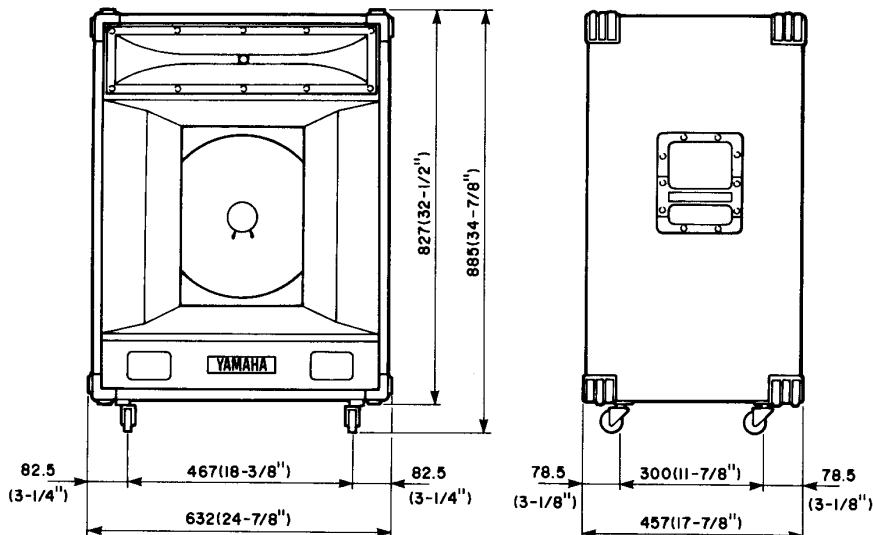
|                                |  |
|--------------------------------|--|
| <b>FREQUENCY RANGE:</b>        | 50Hz to 16kHz  |
| <b>POWER CAPACITY:</b>         | 120W (IEC weighted noise, 100 hours duration)<br>240W (Program)<br>480W (Max.)                   |
| <b>NOMINAL IMPEDANCE:</b>      | 8 ohms   |
| <b>SENSITIVITY:</b>            | 103dB SPL (With 1W at 1m on-axis)  |
| <b>CROSSOVER FREQUENCY:</b>    | 1.6kHz   |
| <b>DRIVER</b>                  | Low: 15" low frequency loudspeaker JA3813<br>High: High frequency compression driver/horn JA4207 |
| <b>CONNECTORS:</b>             | Parallel 1/4"-phone jack<br>(XLR connector can be substituted)                                   |
| <b>ENCLOSURE:</b>              | Front loaded-horn, Bass reflex type  |
| <b>DIMENSIONS (W x H x D):</b> | 632 x 827 x 457 mm<br>24-7/8 x 32-1/2 x 18" (Without caster)                                     |
| <b>WEIGHT:</b>                 | 56.0kg (123.2 lbs) (With caster)<br>55.2kg (121.4 lbs) (Without caster)                          |

*Specifications subject to change without notice.*

## SCHEMATIC DIAGRAM



## DIMENSIONS

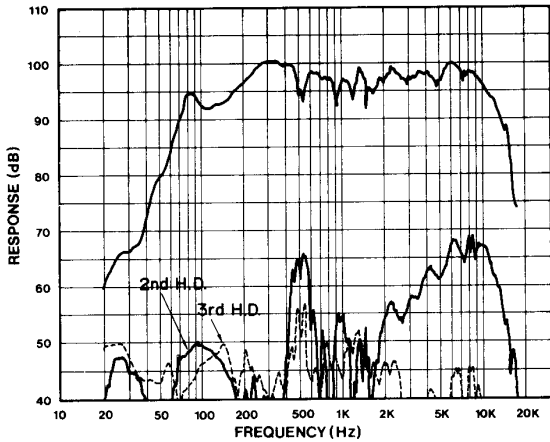


Units : mm (Inch)

# PERFORMANCE GRAPHS

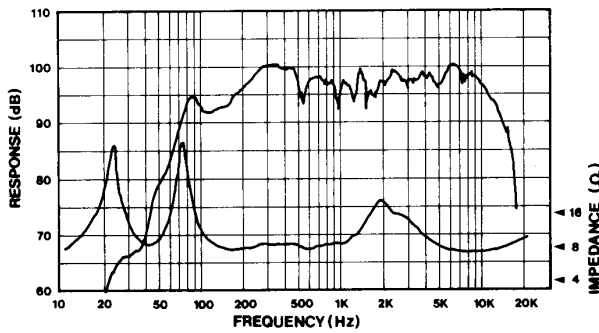
## ■ Frequency Response/Harmonic Distortion

(1W, 2m on axis, in anechoic chamber)



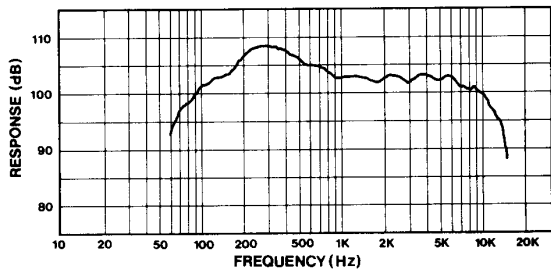
## ■ Frequency Response/Impedance

(1W, 2m on axis, in anechoic chamber)



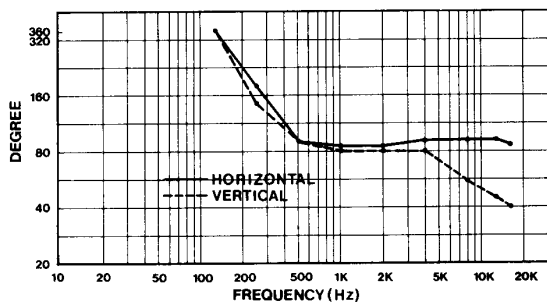
## ■ Power Level vs Frequency

(with 1W, in reverberant chamber)

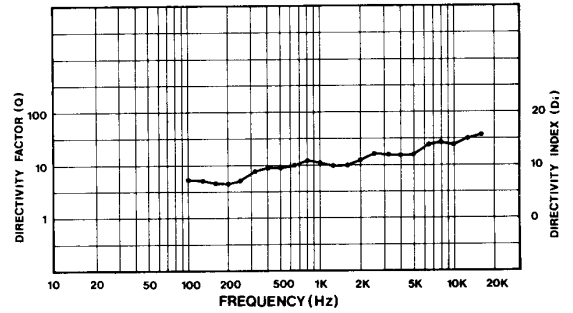


## ■ Beamwidth vs Frequency

(-6dB point)



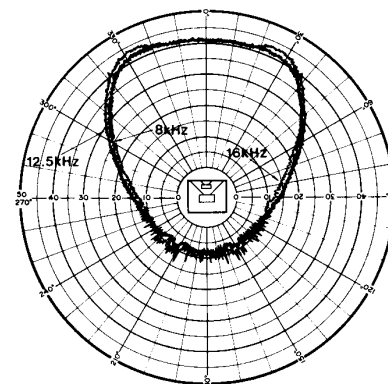
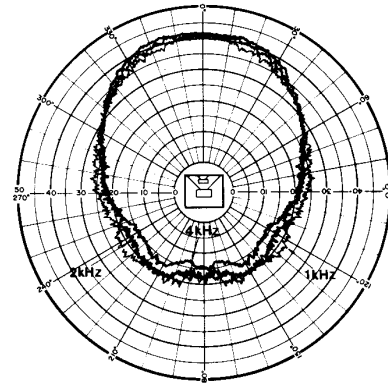
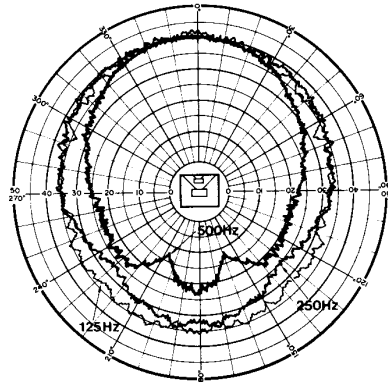
## ■ Directivity vs Frequency



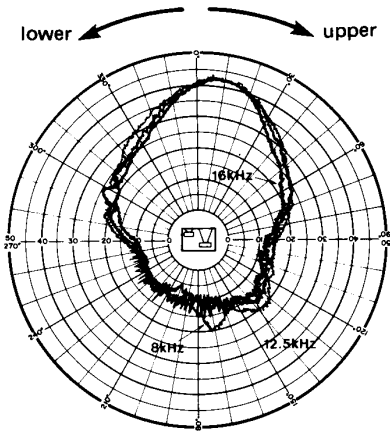
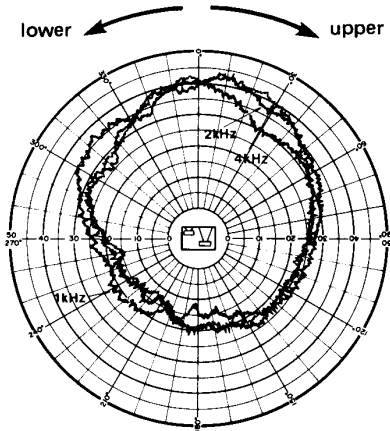
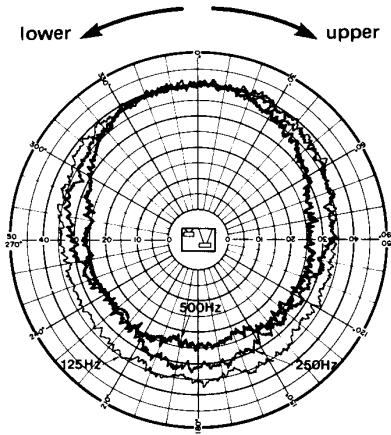
## ■ Polar Response

### ● Horizontal

(1/3 octave bands limited pink noise, 1W RMS, 2m on axis in anechoic chamber. All polars nominalized to on axis.)



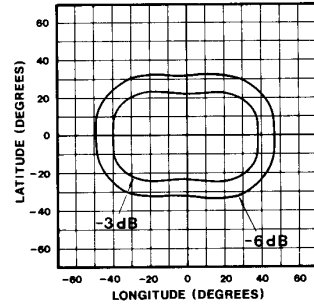
• Vertical



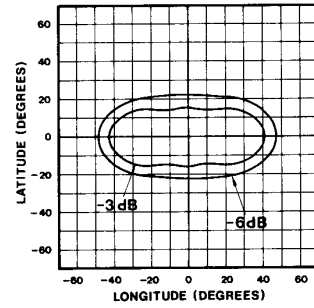
■ Isobar Contours

(octave bandwidth)  
(0dB on axis)

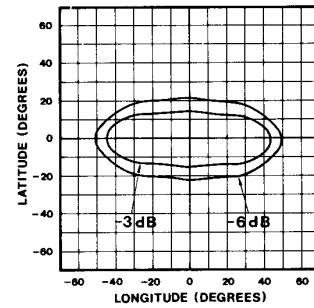
• 4kHz



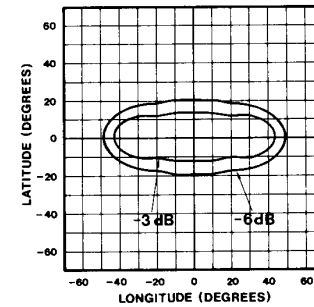
• 8kHz



• 12.5kHz



• 16kHz



#### **SERVICE**

The S4115HII is supported by Yamaha's worldwide network of factory trained and qualified dealer service personnel. In the event of a problem, contact your nearest Yamaha dealer.