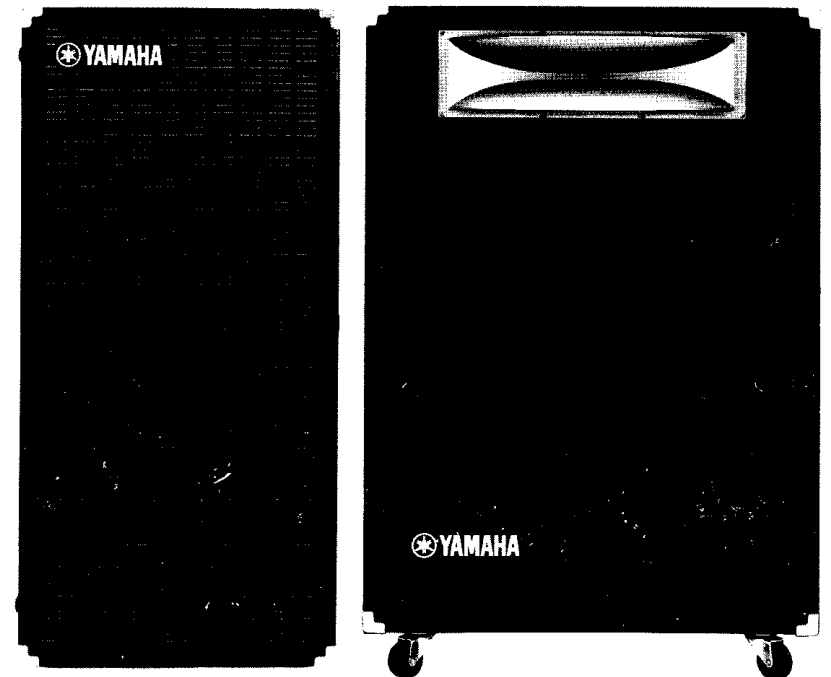


# SELF-POWERED SPEAKER SYSTEMS

OWNER'S MANUAL

A0112T  
A4115H

 YAMAHA



<b>Contents</b>	
Features .....	2
Precautions and Connections .....	3
Control Panels .....	4
A0112T Specifications .....	5
A4115H Specifications .....	7
For the British Standard Models .....	9

## **Congratulations!**

Welcome to the large and happy family of satisfied users of Yamaha products. We are sure you will be delighted with your new Yamaha Self-Powered Speaker System. Whether you chose A0112T or A4115H, you are sure to enjoy years and years of wonderful sounds.

Please read this manual carefully before connecting your speaker system. The few minutes spent going over this manual will help you to understand and appreciate the operation and high performance. You will also learn how to make the best use of the fine features built into this sound system equipment.

If you need any special service or help, see your Yamaha dealer. He'll be happy to help you. So now, read on. And prepare to enjoy happy, trouble-free listening.

# FEATURES

The new Yamaha Self-Powered Speaker Systems have all the quality features that make Yamaha the top name in sound technology. Precision engineered and time tested, these powerful speakers deliver the total sound with clarity and definition. And the special built-in high fidelity, low distortion amplifier was custom designed by Yamaha for this outstanding speaker system. No extra power amp is needed. Just connect up and play. A0112T is a lighter, compact unit especially effective vocal punch and tonal quality. A4115H is a larger unit with strong, constant carrying power for clear and uncolored reproduction.

## Extra Power Handling

Both systems have high power output for critical listening, sustained drive. A0112T has a full 75 Watt RMS output. A4115H has a full 100 Watt RMS output.

## High Efficiency

One 12" and one 10" woofers combined with 4 tweeters are used in Model A0112T to put out that big sound, clearly and sharply. A4115H has a specially developed high frequency driver and horn to go with a powerful 15" woofer. Both of these speaker systems provide excellent directional dispersion and the purest sound.

## Solid Enclosure

This system was designed as one unit. The speakers and enclosure are made for each other. A0112T features a sturdy, solid bass reflex enclosure. The efficient and highly functional front-loaded horn/bass reflex enclosure for A4115H provides a rich defined tonal quality.

## Low Distortion, Broad Frequency Response

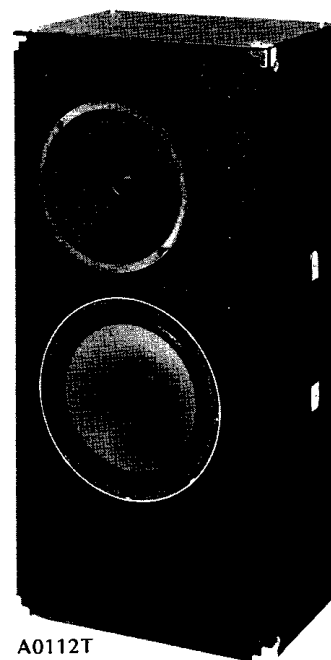
Improved technology offers greater fidelity, with none of the frequency response and distortion limitations.

## High Frequency Level Control

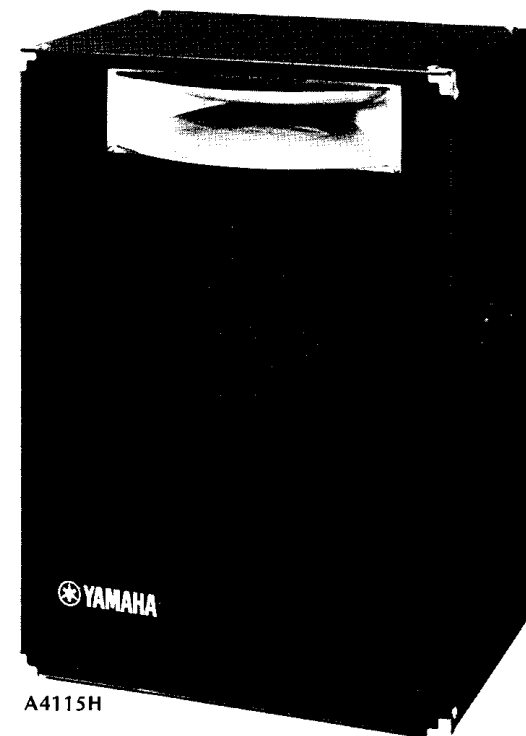
Model A4115H has a high frequency level control that permits continuous control of the horn speaker output. The normal setting is 8.

## Detachable Castors

Easily detachable castors on Model A4115H simplify the positioning and transporting problems.



A0112T



A4115H

# PRECAUTIONS & CONNECTIONS

## Precautions

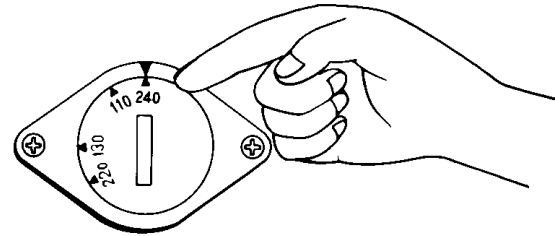
The Yamaha Self-Powered Speaker System is made to give years of satisfying service. It's sturdy and tough enough to stand the rigors of the road. But it needs to be handled properly.

The most frequent cause of trouble is malfunction caused by improper use. You must know what your speaker can and cannot do. Please read all these instructions and precautions carefully before connecting, or attempting to use, your new speaker system.

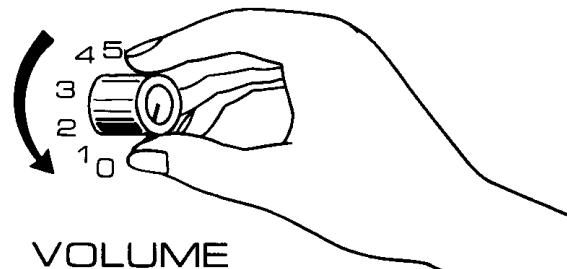
1. Make sure POWER switch is OFF position before plugging in the power cord.
2. Disconnect power source, or at least make sure POWER switch is set in OFF position before connecting or disconnecting any of the lines or equipment.
3. For maximum protection, there are at least three fuses on each self-powered speaker system. If a fuse blows, be sure that the replacement is exactly the same type and rating. Repeated fuse failures indicate a problem with the amplifier, speaker lines or power lines. If you have regular fuse failures, consult a Yamaha dealer.
4. Do not expose your speaker system to direct sunlight or other sources of excessive heat, humidity, dust or shocks.

## Connecting Up

1. Before plugging in the power cord, make sure the VOLTAGE SELECTOR is properly set for your locality. (U.S., Canadian and Australian models are preset and thus don't have this feature.) For the British Standard model, please refer to the instructions on page 9.

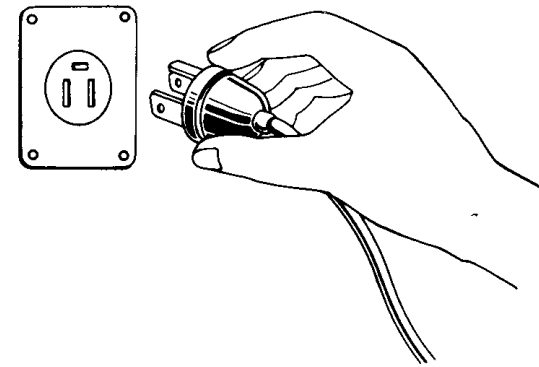


2. Set VOLUME control to "zero" and make sure POWER switch is OFF.

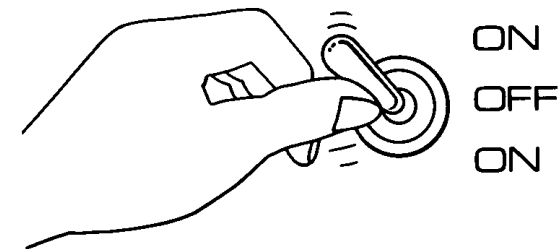


3. Connect the input cord from your instrument to the INPUT jack.

4. Plug in the power cord.



5. Turn on the POWER switch. Pick the ON position which has the lower hum level. (European and Australian models have only one ON position.)



6. Adjust the VOLUME and other controls to your liking. Now you're ready to go.

# CONTROL PANELS

## 1 HIGH FREQUENCY LEVEL CONTROL (Model A4115H only)

Regulates high and mid-range frequency output. Normal setting is 8.

## 2 INPUT JACKS

Two jacks available for connecting with mixer, combo keyboard or auxiliary equipment. Connected in parallel to permit use of additional self-powered speaker systems.

Model A0112T – input sensitivity set at 0dBm.  
Model A4115H – input sensitivity can be set at 0dBm or -20dBm. Selected by input level selector.

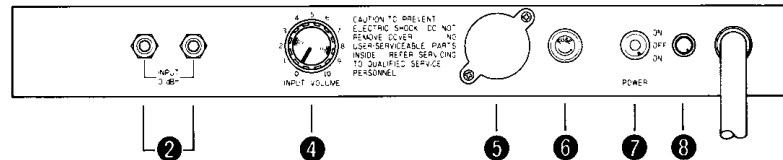
## 3 INPUT LEVEL SELECTOR

Controls input sensitivity for both input jacks on A4115H as noted above. The nominal sensitivities correspond to preamplified electric instrument outputs and low-level (hi-fi) line sources. Proper input setting provides best combination of maximum sound and minimum noise characteristics. Maintains full range of volume control.

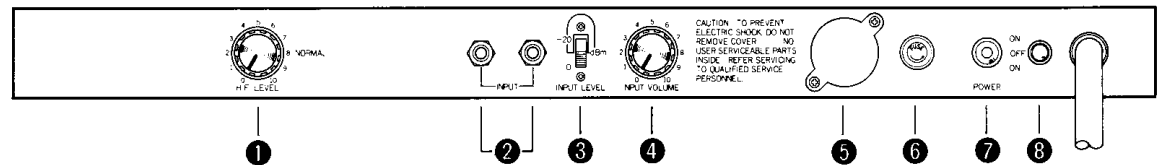
## 4 INPUT VOLUME

Completely controls output from zero to full power.

A0112T



A4115H



## 5 VOLTAGE SELECTOR

Not provided in U.S., Canadian and Australian models.

## 6 FUSE HOLDER

This fuse protects the primary (AC line) side of the power supply. If a fuse blows, be sure to replace it with one of the same type and rating as noted on the chassis.

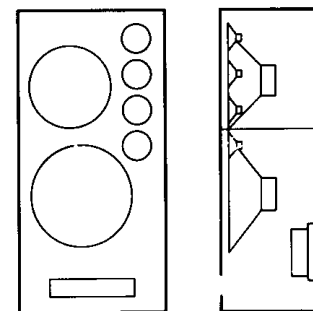
## 7 POWER SWITCH

Equipped with two ON positions. Hum can be minimized without reversing power cord (except for Australian and European models).

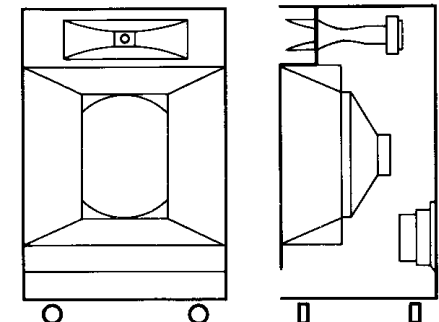
## 8 POWER INDICATOR

Easily visible from the far side of a stage yet not so bright that it creates a distraction, this red light indicates that the amplifier is on.

A0112T

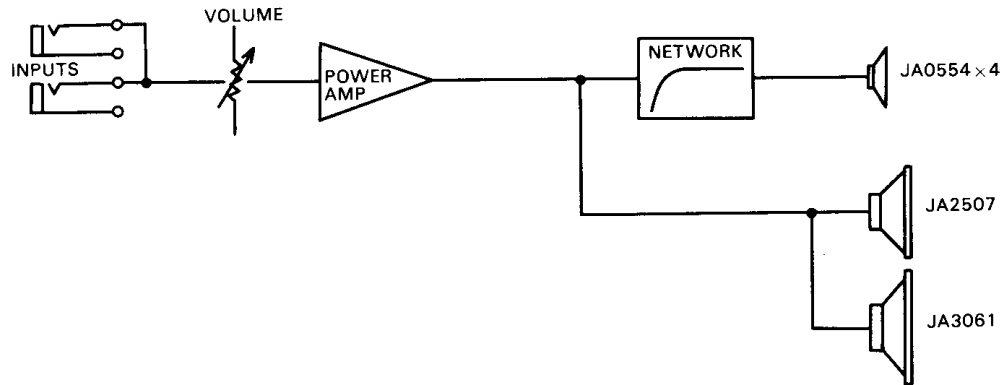


A4115H



# A0112T SPECIFICATIONS

## A0112T Block Diagram



## A0112T General Specifications

### AMPLIFIER SECTION

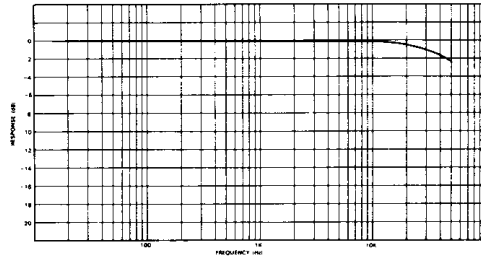
<b>CONTROLS:</b>	Input Level Control Power Switch and Indicator
<b>INPUT CONNECTORS:</b>	Standard Phonex2 (parallel wired)
<b>FREQUENCY RESPONSE:</b>	$\pm 0$ dB (10Hz ~ 30KHz)
<b>OUTPUT POWER:</b>	75W RMS @0.1% THD into 8 $\Omega$
<b>POWER BANDWIDTH:</b>	20Hz ~20KHz (75W @0.1% THD, 8 $\Omega$ )
<b>T.H.D.:</b>	Less than 0.02% (37.5W, 8 $\Omega$ )
<b>DAMPING FACTOR:</b>	70 (20Hz ~ 3KHz, 8 $\Omega$ )
<b>SLEW RATE:</b>	15V/micro-second
<b>HUM &amp; NOISE*:</b>	-73dB (0.17mV)
<b>INPUT SENSITIVITY:</b>	0dB (0.775V)
<b>INPUT IMPEDANCE:</b>	9K $\Omega$ (Input Level Control at max.)
<b>POWER REQUIREMENTS:</b>	117V AC fixed, or 110, 130 220 or 240V AC selectable, 50/60Hz. 100W (U.S. model), 117V 1.3A (Canadian model), 190W (other models)

### SPEAKER ENCLOSURE SECTION

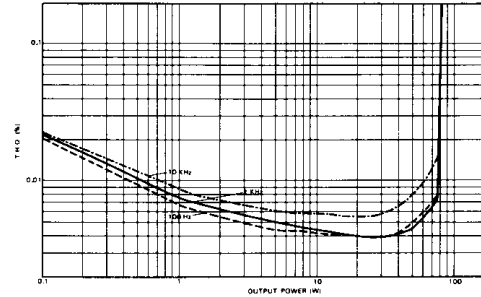
<b>SPEAKERS:</b>	Woofer: JA3061x1 Woofer: JA2507x1 Tweeter: JA0554x4
<b>FREQUENCY RESPONSE:</b>	98 $\pm$ 6dB (70Hz ~ 13KHz)
<b>DISPERSION:</b>	Horizontal: 100°, Vertical: 50° (6dB down points @1KHz)
<b>CROSSOVER FREQUENCY:</b>	4.5KHz (12dB/octave)
<b>ENCLOSURE TYPE:</b>	Bass Reflex
<b>FINISH:</b>	Black Leatherette, Reinforced Corners
<b>DIMENSIONS (WxHxD)**:</b>	435x910x326mm (17-1/8x35-7/8x12-7/8")
<b>NET WEIGHT:</b>	36Kg (79.4lbs.)
<b>OTHER FEATURES:</b>	Integral Carrying Strap, Slip Fittings Removable Black and Silver Grille Power Cord Binder

\*Measured with 6dB/octave filter @12.5KHz: equivalent to a 20KHz filter with infinite dB/octave attenuation.  
\*\*Height includes slip fittings.  
0dB is referenced to 0.775V.

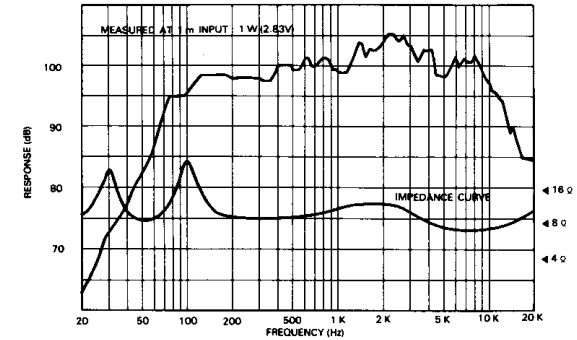
### FREQUENCY RESPONSE



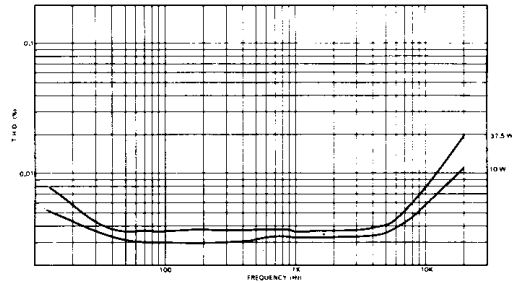
### OUTPUT POWER VS T.H.D.



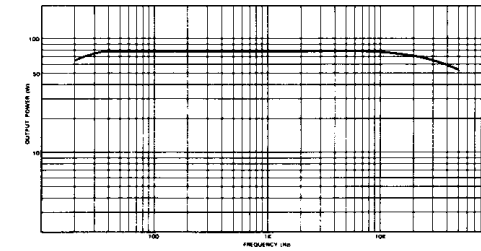
### FREQUENCY RESPONSE



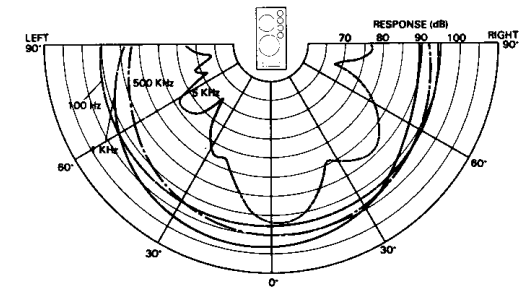
### TOTAL HARMONIC DISTORTION



### POWER BANDWIDTH



### HORIZONTAL 180° DISPERSION

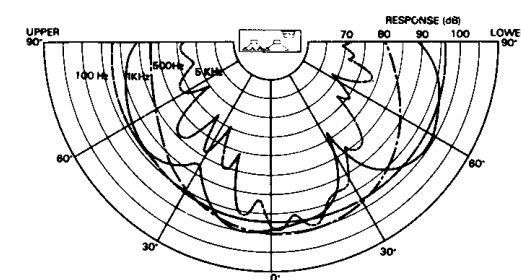


### A0112T LOUDSPEAKER SPECIFICATIONS

Model	JA3061	JA2507	JA0554
Nominal Cone Diameter	12" (30cm)	10" (25cm)	2" (5cm)
Voice Coil Diameter	2-5/8" (6.6cm)	1-5/8" (4.2cm)	1/2" (1.4cm)
Nominal Impedance	16 ohms	16 ohms	8 ohms
Sensitivity*	95dB	95dB	96dB
Continuous Pink-Noise Power Rating	40 Watts (20 ~ 20KHz)	40 Watts (20 ~ 20KHz)	3 Watts (2.5K ~ 20KHz)
Peak Power Rating	80 Watts (20 ~ 20KHz)	80 Watts (20 ~ 20KHz)	6 Watts (2.5K ~ 20KHz)
Magnet Assembly Weight	3,060g (6.7lbs.)	1,920g (4.2lbs.)	210g (0.5lbs.)
Flux Density	12,000 Gauss	12,000 Gauss	10,700 Gauss

\*Sensitivity is extremely significant, since an increase of only 3dB in sensitivity is equivalent to doubling the amplifier power. In other words, a 50-Watt amp used with a speaker that is 3dB more sensitive than another speaker, will produce the same sound level as a 100-Watt amp used with the less sensitive speaker.

### VERTICAL 180° DISPERSION

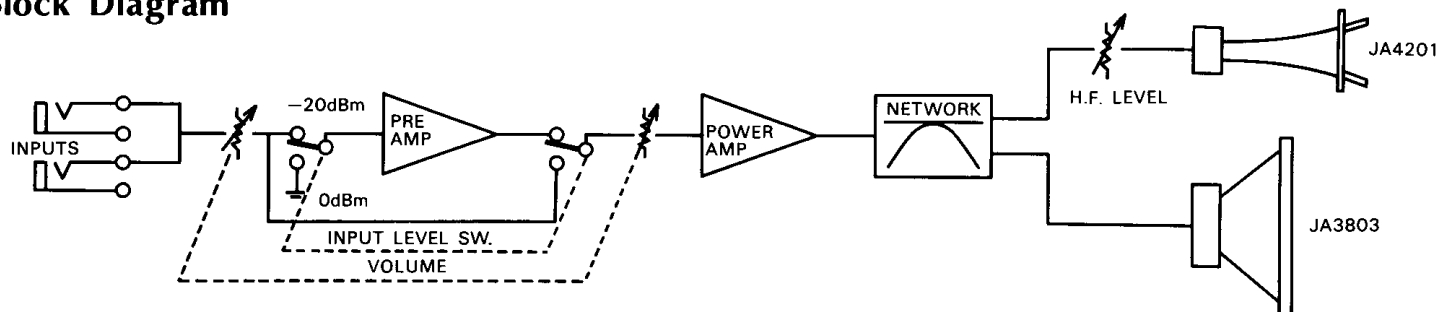


Specifications subject to change without notice.



# A4115H SPECIFICATIONS

## A 4115H Block Diagram



## A4115H General Specifications

### AMPLIFIER SECTION

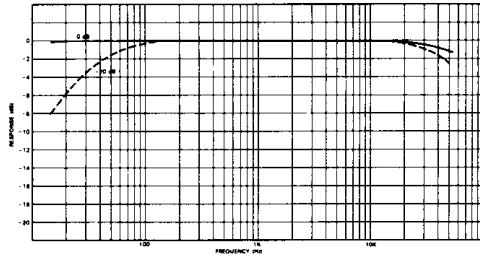
<b>CONTROLS:</b>	Input Level Control Input Level Selector (0/-20dBm) H.F. Level Control Power Switch and Indicator
<b>INPUT CONNECTORS:</b>	Standard Phonex2 (parallel wired)
<b>FREQUENCY RESPONSE:</b>	+0 dB (10Hz ~ 30KHz, Input Level Selector @0dBm setting) -3 dB (40Hz ~ 50KHz, Input Level Selector @-20dBm setting)
<b>OUTPUT POWER:</b>	100W RMS @0.1% THD into 8Ω
<b>POWER BANDWIDTH:</b>	20Hz ~ 20KHz (100W @0.1% THD, 8Ω)
<b>T.H.D.:</b>	Less than 0.01% (80W, 8Ω)
<b>DAMPING FACTOR:</b>	90 (20Hz ~ 3KHz, 8Ω)
<b>SLEW RATE:</b>	25V/micro-second
<b>HUM &amp; NOISE*:</b>	-73dB (0.17mV)
<b>INPUT SENSITIVITY:</b>	0dB (0.775V)/-20dB (77.5mV)
<b>INPUT IMPEDANCE:</b>	8KΩ (Input Level Control at max.)
<b>POWER REQUIREMENTS:</b>	117V AC fixed, 110, 130, 220 or 240V AC selectable, 50/60Hz. 117V 1.5A (Canadian model), 250W (other models)

### SPEAKER ENCLOSURE SECTION

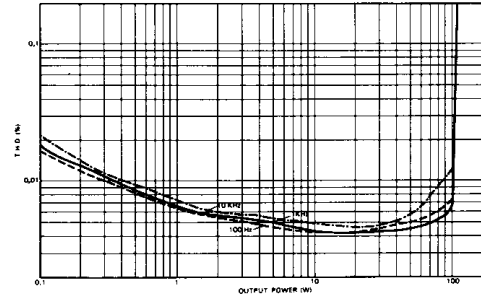
<b>SPEAKERS:</b>	Woofers: JA3803x1 H.F. Driver & Horn: JA4201x1
<b>FREQUENCY RESPONSE:</b>	101 ± 6dB (70Hz ~ 15KHz)
<b>DISPERSION:</b>	Horizontal: 70°, Vertical: 40° (6dB down points @1KHz)
<b>CROSSOVER FREQUENCY:</b>	2KHz (12dB/octave)
<b>ENCLOSURE TYPE:</b>	Bass Reflex Front-Loaded Horn
<b>FINISH:</b>	Black Leatherette, Reinforced Corners
<b>DIMENSIONS (WxHxD)**:</b>	610x908x452mm (24x35-3/4x17-3/4")
<b>NET WEIGHT:</b>	58Kg (127.9lbs.)
<b>OTHER FEATURES:</b>	Recessed Carrying Handles, Detachable Castors, Removable Black Grille Power Cord Binder

\*Measured with 6dB/octave filter @12.5KHz: equivalent to a 20KHz filter with infinite dB/octave attenuation.  
\*\*Height includes detachable castors.  
0dB is referenced to 0.775V.

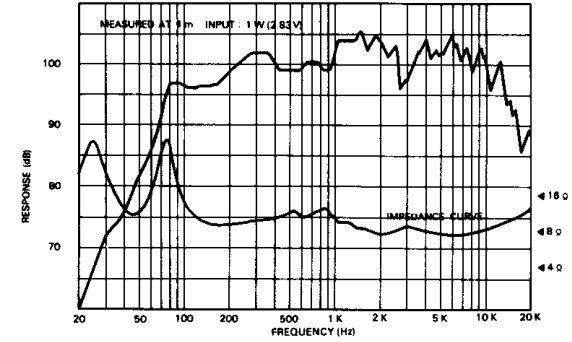
### FREQUENCY RESPONSE



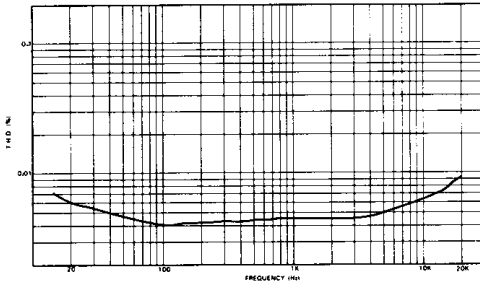
### OUTPUT POWER VS T.H.D.



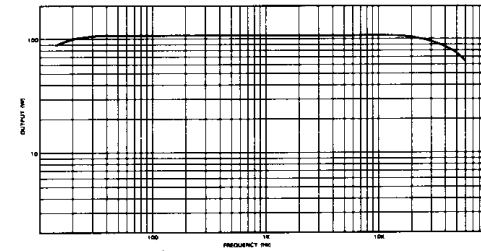
### FREQUENCY RESPONSE



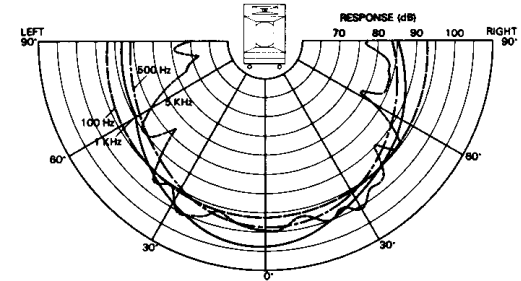
### TOTAL HARMONIC DISTORTION



### POWER BANDWIDTH



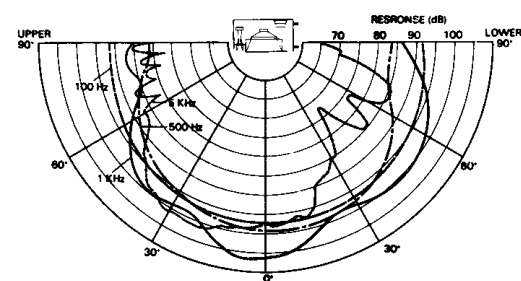
### HORIZONTAL 180° DISPERSION



### A4115H LOUDSPEAKER SPECIFICATIONS

Model	JA3803	JA4201
Nominal Cone Diameter	15" (38cm)	—
Voice Coil Diameter	2-5/8" (6.6cm)	1-5/8" (4.2cm)
Nominal Impedance	8 ohms	8 ohms
Sensitivity*	99dB	104dB
Continuous Pink-Noise Power Rating	120 Watts (20 ~ 20KHz)	20 Watts (2K ~ 20KHz)
Peak Power Rating	240 Watts (20 ~ 20KHz)	40 Watts (2K ~ 20KHz)
Magnet Assembly Weight	5,980g (13.2lbs.)	2,160g (4.8lbs.)
Flux Density	12,500 Gauss	16,000 Gauss

### VERTICAL 180° DISPERSION



\*Sensitivity is extremely significant, since an increase of only 3dB in sensitivity is equivalent to doubling the amplifier power. In other words, a 50-Watt amp used with a speaker that is 3dB more sensitive than another speaker, will produce the same sound level as a 100-Watt amp used with the less sensitive speaker.

Specifications subject to change without notice.

## **FOR THE BRITISH STANDARD MODELS**

As the colours of the wires in the mains lead of the apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows. The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  $\perp$  or coloured GREEN or GREEN-and-YELLOW. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

### **IMPORTANT:**

The wires in the mains lead are coloured in accordance with the following code.

GREEN-and-YELLOW . . . . . Earth  
BLUE . . . . . Neutral  
BROWN . . . . . Live

### **WARNING:**

This apparatus must be earthed.

