

# HS-315/215/212



HS-315

HS-215

HS-212

## GENERAL DESCRIPTION

The Toa HS series is made up of indoor speaker systems capable of being suspended from the ceiling or placed on the floor. A base-reflex type enclosure houses a 15" heavy-duty cone woofer, constant directivity horn and exponential horn tweeter on the 3-way HS-315, a 15" cone woofer and constant directivity horn on the 2-way HS-215, and a 12" cone woofer and constant directivity horn on the 2-way HS-212. The constant directivity horn is connected to a high-efficiency compression driver and ensures a uniform dispersion pattern of 90 degrees horizontal and 40 degrees vertical. These systems will handle 120 watts RMS of continuous pink noise and 360 watts of continuous program material. Rear-mounted screw input terminals allow full-range or bi-amp operation of each system. High frequency (mid and high frequency for the HS-315) level controls are provided on the front of the enclosure for the added convenience of level adjustment. Hardware for a mounting bracket for ceiling suspension is provided on both sides of each system enclosure. Protective corners prevent damage to the enclosure when the system is placed on a hard floor the enclosure is finished in pale beige for repainting if required. The charcoal brown front grille is removable.

## FEATURES

1. Three-way vented system (HS-215/212 two-way).
2. Extended smooth frequency response.
3. High power capacity of 120 RMS watts continuous pink noise and 360 watts continuous program material.
4. HS-315: 15" (38cm) heavy duty cone woofer; HS-215: 15" (38cm) cone woofer; HS-212: 12" (30cm) cone woofer.
5. Constant directivity horn coupled with high-efficiency compression driver gives coverage of 90 degrees horizontal by 40 degrees vertical.
6. Exponential horn tweeter on HS-315.
7. Mid and high frequency level controls on HS-315 and high frequency level controls on HS-215/212 are located on front of enclosure for added convenience.
8. Screw type input terminals for full-range and bi-amp operation.
9. Ceiling suspension hardware provided on both sides of enclosure.
10. Protective enclosure bottom corners for prevention of damage to enclosure when placed on a hard floor.
11. Removable front grille.

# SPECIFICATIONS

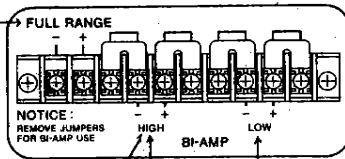
MODEL NO.	HS-315	HS-215	HS-212
<b>Enclosure</b>	Vented (bass reflex) type	Vented (bass reflex) type	Vented (bass reflex) type
<b>Speakers</b>	Low: 15" Woofer Mid: CD horn plus compression driver High: Horn tweeter	Low: 15" Woofer High: CD horn plus compression driver	Low: 12" Woofer High: CD horn plus compression driver
<b>Power Handling Capacity</b> Continuous Pink Noise	120 watts RMS of band-limited pink noise (50Hz ~ 20 kHz) 360 watts	120 watts RMS of band-limited pink noise (50Hz ~ 20 kHz) 360 watts	120 watts RMS of band-limited pink noise (50Hz ~ 20 kHz) 360 watts
<b>Impedance</b>	8 ohms	8 ohms	8 ohms
<b>Sensitivity</b>	100 dB (1 W/1 m)	100 dB (1 W/1 m)	100 dB (1 W/1 m)
<b>Frequency Response</b>	50Hz ~ 20 kHz	50Hz ~ 15 kHz	55Hz ~ 15 kHz
<b>Crossover Frequency</b>	1 kHz, 8 kHz	1 kHz	1 kHz
<b>Level Control</b>	Mid and high frequency 0 ~ -10 dB	High Frequency 0 ~ -10 dB	High Frequency 0 ~ -10 dB
<b>Input Terminals</b>	Screw type for a fullrange and bi-amp operation	Screw type for a fullrange and bi-amp operation	Screw type for a fullrange and bi-amp operation
<b>Finish</b>	Beige lacquer (enclosure), charcoal brown jersey (grille)	Beige lacquer (enclosure), charcoal brown jersey (grille)	Beige lacquer (enclosure), charcoal brown jersey (grille)
<b>Dimensions</b>	29.9(H) x 19.9(W) x 16.1(D) inches 759(H) x 506(W) x 409(D)mm	27.1(H) x 19.9(W) x 16.5(D) inches 689(H) x 506(W) x 419(D)mm	24.4(H) x 19.9(W) x 13.9(D) inches 619(H) x 506(W) x 354(D)mm
<b>Weight</b>	77.2 lbs (35 kg)	59.5 lbs (27 kg)	52.9 lbs (24 kg)

\*Specifications are subject to change without notice.

## CONNECTION

### FULL-RANGE INPUT:

For full-range operation, connect amp output to these terminals.



### BI-AMP INPUTS:

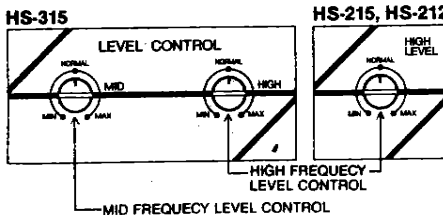
For bi-amp operation, remove all jumpers (shorting bars). Connect low frequency amp output to "LOW" and high frequency amp output to "HIGH" (MID & HIGH on the HS-315).

### "MID & HIGH on the HS-315"

### "HIGH" or "MID & HIGH" TERMINALS:

These terminals are directly connected to a driver unit in both the HS-215 and HS-212. In the HS-315, they are connected to the driver via an 8Hz crossover network, -3dB fixed pad and MID attenuator, and also to the tweeter via an 8Hz crossover network and HIGH attenuator.

## LEVEL CONTROLS



### HS-315

For full-range operation, an almost flat frequency response may be obtained by setting both controls to NORMAL. For bi-amp operation, set both controls to MAX.

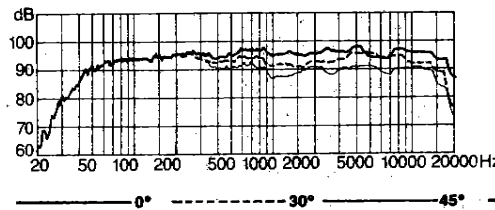
### HS-215, HS-212

For full-range operation, an almost flat frequency response may be obtained by setting the control to NORMAL. The control does not work during bi-amp operation because an amplifier is directly connected to the driver.

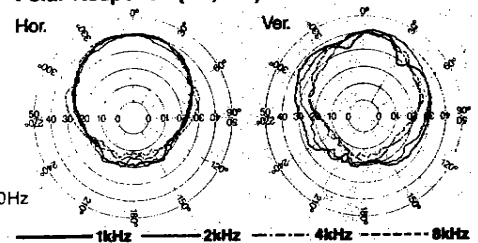
## CHARACTERISTIC DIAGRAMS (1/3 Octave Pink Noise)

### HS-315

#### Directivity Frequency Response (1W, 1m)

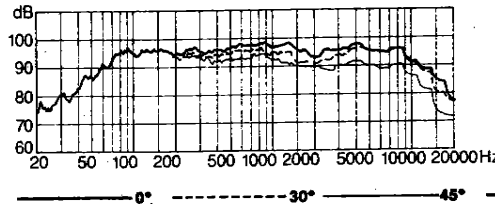


### Polar Response (1W, 4m)

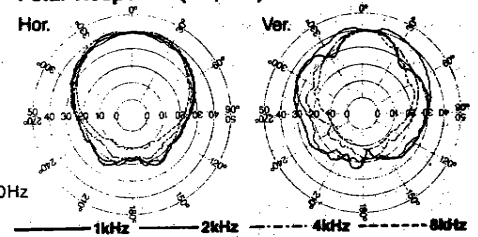


### HS-215

#### Directivity Frequency Response (1W, 1m)

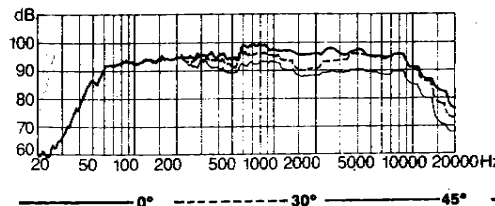


### Polar Response (1W, 4m)

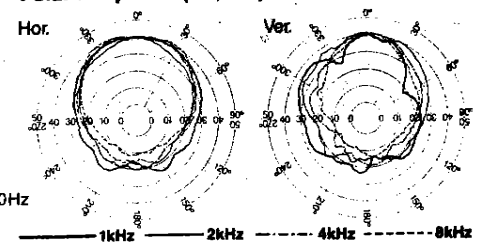


### HS-212

#### Directivity Frequency Response (1W, 1m)



### Polar Response (1W, 4m)

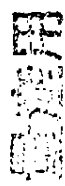
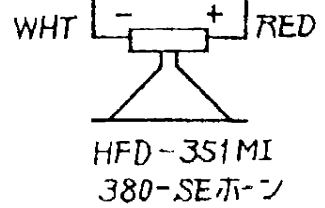
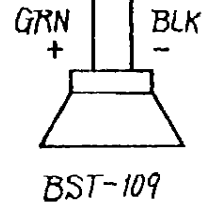
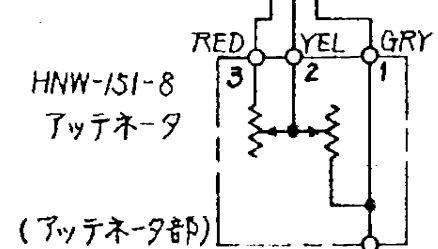
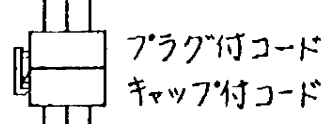
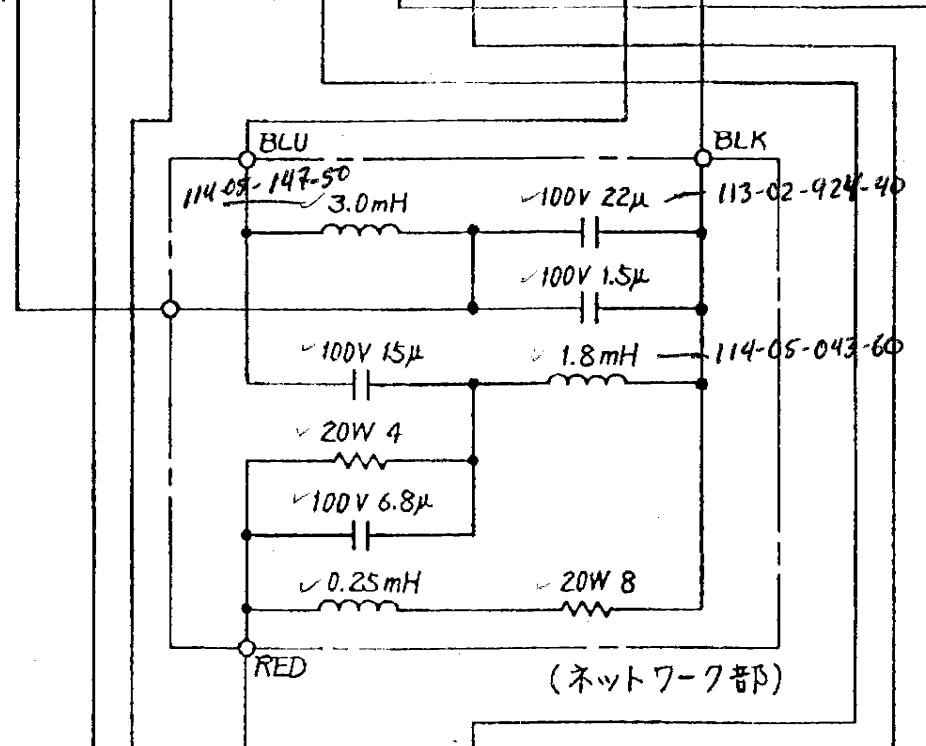
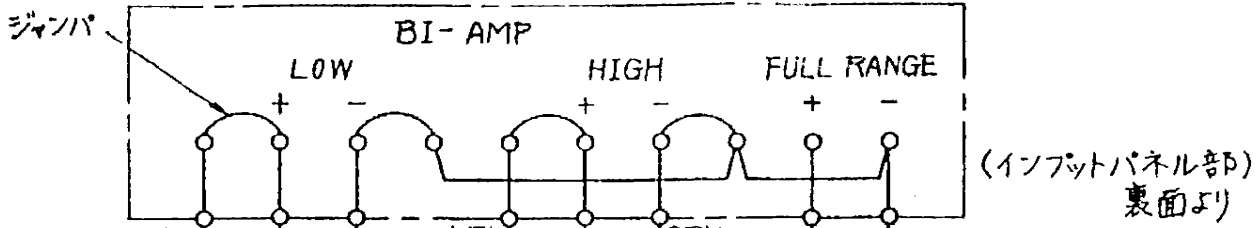


Toa Electric Co., Ltd.

KOBE, JAPAN

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符号 SYM	年月日 DATE	記 REVISIONS	事	印 SIGN



1004-711

設計 DESIGN BY 吉岡	NOV/28/85	名称 TITLE 回路図	尺度 SCALE X	基本設計機種 MODEL ORIGINALLY DESIGNED FOR HS-212
製図 DRAWN BY 井出	FEB/12/86	材料 MATERIAL	重量 WEIGHT	部品番号 PART NO
検図 ENG 吉岡	FEB/12/86	総理加工 END FINISH		管理記号 DWG 103486004
承認 APP'D BY 井出	FEB/13/87			

第3角投影法  
THIRD ANGLE PROJECTION

寸法単位はミリ(カッコ内はインチ)  
ALL DIMENSIONS ARE IN MILLIMETERS(INCHES)