# TOA SPEAKER SYSTEM

# **CEILING MOUNT 3-WAY SPEAKER**

**SF-30** 



#### **DESCRIPTION**

The TOA SF-30 is a 3-way loudspeaker system designed to be suspended from the ceiling. Its bass-reflex enclosure houses a heavy-duty 12-inch woofer, a constant directivity horn coupled with a high-efficiency compression driver, and an exponential horn tweeter. The constant directivity horn ensures a uniform dispersion pattern of 90° horizontal and 40° vertical.

A high-tech crossover network of - 18 dB/octave slope is used between the woofer and the driver. This combination produces an extended, smooth frequency response and wide coverage area. The system will handle 120W RMS of continuous pink noise and 360W of continuous program material.

The rear panel has 1/4" phone jacks and screw-type terminals for full-range operation. The phone jacks can be converted into XLR connectors. Mid and high frequency level controls are provided on the side of the speaker enclosure. T-nuts for ceiling suspension mount brackets are provided on the rear slant and on both sides of the enclosure. The enclosure is finished in gray polyester. The black punched metal front grille is removable.

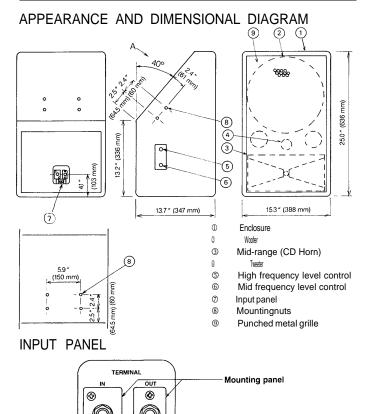
#### **FEATURES**

- Three-way vented system with 12" (30 cm) heavy-duty woofer and exponential horn tweeter.
- 120W RMS continuous pink noise and 360W continuous program material.
- Constant directivity horn with high-efficiency compression driver for 90° horizontal x 40° vertical coverage.
- High efficiency converts amplifier power into more sound volume.
- Level controls for mid and high frequencies located on side of enclosure.
- 1/4" phone jacks and screw type input terminals for fullrange operation.
- 1/4" phone jacks can be converted into XLR connectors.
- T-nuts for ceiling suspension provided on rear slant and both sides of enclosure.
- Removable punched metal front grille.



#### **SPECIFICATIONS**

Enclosure	Vented (bass reflex) type
Speakers Low Frequency	12" woofer, 2.83" (72 mm) edge-wound copper ribbon voice coil, Aluminum diecast
Mid Frequency	construction CD horn plus compression driver. duralumin diaphragm
High Frequency	Horn tweeter, duralumin diaphragm
Power Handling Capacity Continuous Pink Noise	120 watts RMS of band-limited pink noise (50 Hz to 20 kHz, 24 Hours)
Continuous Program	360 watts
Nominal Impedance	8 ohms
Sensitivity	100 dB (1W/1 m, Band-limited pink noise, 250 Hz to 2.5 kHz)
Frequency Response	70 Hz to 20 kHz
Box Tuning Frequency	62 Hz



The screw type terminals are connected in parallel with the 1/4 " phone jacks. Two 1/4 " phone jacks can be converted into XLR connectors by removing mounting panel and installing XLR connector.

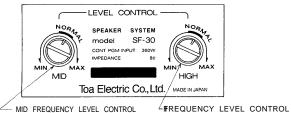
1/4" phone jack

Screw terminal

### LEVEL CONTROLS

➌

**⊗** ⊕



Separate level controls are provided for mid and high frequencies.

Make the level setting according to the environmental conditions, although almost flat frequency response is obtainable as long as the level controls remain within the "NORMAL" ranges.

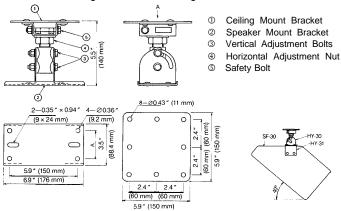
Crossover Frequencies	1 kHz, 8 kHz
Crossover Slope	1 kHz; 18 dB/Oct. 8 kHz: 12 dB/Oct.
Mid and High Frequencies Level Controls	0 to -10 dB (with an "OFF" position)
Input Terminals	Two 1/4 " phone jacks and screw type, both for full-range
Enclosure Materials and Finish	Midium Density Fiber board, Polyester in gray color
Dimensions	25.0 (H) x 15.3 (W) x 13.7 (D) inches 636 (H) x 388 (W) x 347 (D) mm
Weight	61.7 lbs (28 kg)
Standard Accessories	8 rubber pieces for T-nut holes
Optional Accessories	HY-30, HY31 Ceiling Mounting Bracket

<sup>\*</sup>Specifications are subject to change without notice

#### OPTION

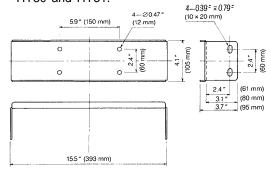
HV-30 Adjustable Ceiling Mount Bracket for Use with the HY-31

\*Mounting angle is adjustable 360° horizontal and  $\pm$  10° vertical 40° angle shown in the figure.

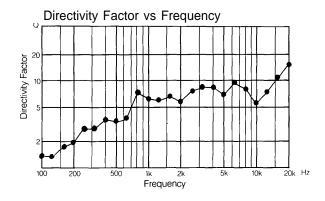


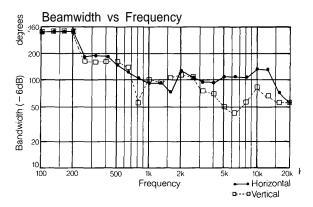
#### HY-31 Mount Bracket for Use with HY-30

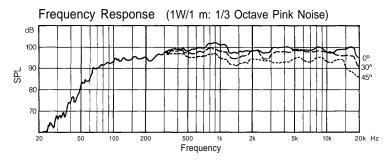
\* T-nuts for ceiling suspension are provided on the rear slant and both sides of the SF-30 enclosure, permitting it to be readily suspended from the ceiling when used with the HY30 and HY31.



# CHARACTERISTIC DIAGRAMS







# POLAR RESPONSE (1W/4m 1/3 Octave Pink Noise)

