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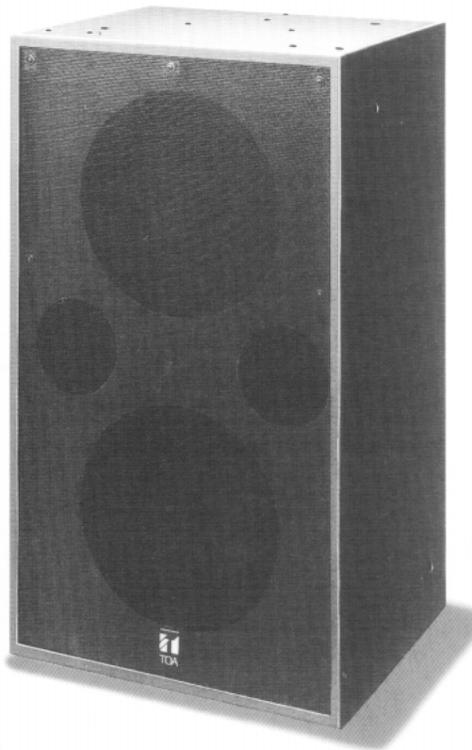
TOA SPEAKER COMPONENT

# LOW-FREQUENCY ENCLOSURE

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## SB-38W

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### DESCRIPTION

The TOA SB-38W is a vented, bass-reflex, low-frequency enclosure for permanent speaker-system installations. It serves as a low-frequency enclosure for two HLS38UL-8 woofers. It may be used in multi-amp systems employing the TOA SAORI for optimal time alignment, phase programs, equalization and channel divider functions. The optional HNW-500 dividing network should be used when operating the speaker system passively. The optional HY-700 suspension kit may be mounted in the SB-38W before the woofers are installed, and the LE-M94 or LE-940 may be attached with the HY-M94 or HY-940 horn mounting bracket. A large screw terminal input panel ensures safe and solid connections. The enclosure comes with a protective punched-metal grille and a leatherette finish.

### FEATURES

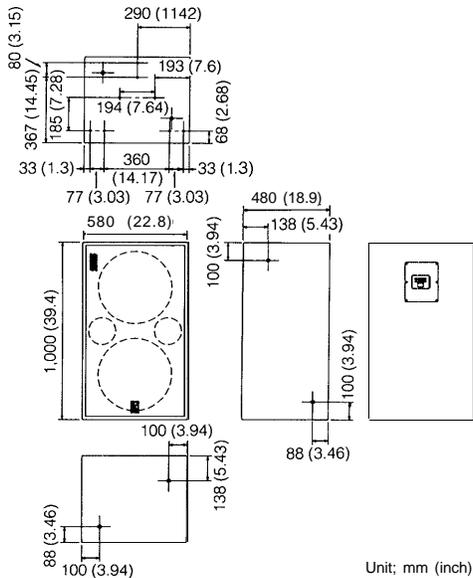
1. Low-frequency, vented (bass-reflex) enclosure for fixed installations.
2. Two HLS38UL-8 woofers may be installed to produce a woofer system that is highly efficient in reproducing the low-frequency range. Box tuning frequency (fb) is 45Hz.
3. Creates a wide-range, highly efficient speaker system when used in conjunction with the LE Series horn, an HFD Series compression driver and two HLS38UL-8 woofers.
4. SB-38W may be suspended by using the optional HY-700 suspension kit.
5. Speaker system configuration allows for easy mounting of LE-M94/LE-940 to the enclosure with the optional HY-M94 or HY-940 horn mounting bracket.
6. Large, screw terminal, barrier-strip input panel.
7. Optional HNW-500 cross-over network with HF equalization can be mounted in the supplied input panel opening.
8. Protective punched-metal grille.
9. Leatherette finish.

## SPECIFICATIONS

Enclosure	Vented (bass-reflex) type
Box Tuning Frequency	45 Hz
Applicable Speaker Unit	HLS38UL-8 x 2
Input Terminal	2P screw-terminal, barrier-strip (M5)
Material	Particleboard
Finish	Leatherette dark gray
Dimensions	580(W) x 1,000(H) x 480(D) mm 22.8(W) x 39.4(H) x 18.9(D) inches
Weight	39kg (86 lbs.)
Accessories	Rubber feet: 4

\*Specifications are subject to change without notice.

## APPEARANCE AND DIMENSIONAL DIAGRAM



## OPTIONAL ACCESSORIES

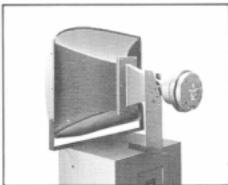
HY-700  
Suspension Kit



HY-M94  
LE-M94 CD Horn  
Mounting  
Bracket



HY-940  
LE-940 CD Horn Mounting Bracket



## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The low-frequency enclosure shall be a TOA SB-38W or approved equivalent. The enclosure shall be a vented, bass-reflex low-frequency unit intended for permanent speaker system installations. It shall serve as a low-frequency enclosure for two HLS38UL-8 woofer units. Box tuning frequency (fb) shall be 45Hz. When installation with a suspended SB-38W is required, the optional HY-700 suspension kit shall be mounted to the SB-38W before the woofers are installed. The LE-M94 or LE-940 may be attached with the HY-M94 or HY-940 horn mounting bracket. A large barrier-strip input panel shall ensure safe and solid connections. Dimensions shall be 1000(H) x 580(W) x 480(D)mm (39.4(H) x 22.8(W) x 18.9(D) in.). Weight shall be 39kg (86 lb.), for the enclosure. The enclosure shall be of particle board and shall come with a protective punched-metal grille and a leatherette finish.

## INSTALLATION EXAMPLES

The SB-38W is an enclosure for reproducing low-frequencies. A high-efficiency low-frequency speaker system can be created by adding two HLS38UL-8 woofers. A high-level, wide range two-way speaker system can be configured by adding TOA's LE Series constant directivity horns and HFD Series compression drivers. When driving the speaker system with multi-amplifier operation, the time alignment, phase program, equalization and channel divider functions can be set to their optimum performance conditions by using the TOA SAORI integrated sound processor. When driving the speaker system in passive operation, use the optional HNW-500 dividing network.

### Installing the Low-Frequency Loudspeakers

1. Detach the protective punched-metal grille.
2. Connect the cables to the speakers.
3. Mount each speaker unit in the enclosure and tighten the screws at the 8 locations. Use the screws provided with the speaker.
4. Mount the protective punched-metal grille to the enclosure and tighten the screws at the 13 locations.

### Suspending the Enclosure

Before installing the speakers, mount the HY-700 suspension kit in the enclosure. For details, refer to the HY-700's instruction manual. When suspending this speaker system, be sure to investigate the structure of the installation location, and confirm that it is adequate for the weight of the components in the system.

### Mounting Horns

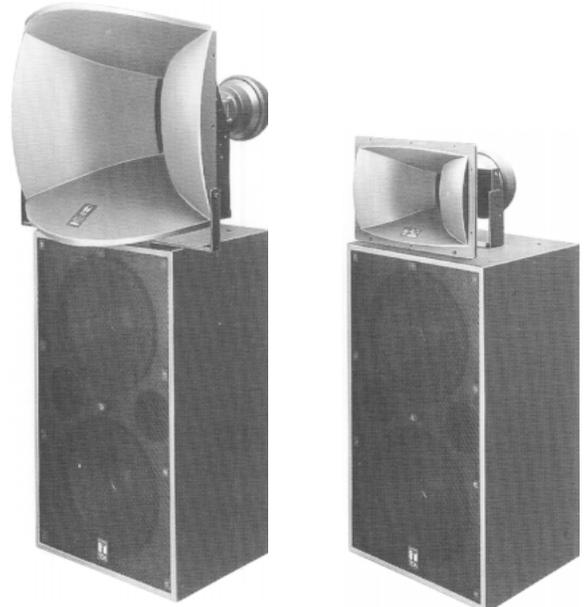
When the speaker system is assembled, the LE-M94/LE-940 constant directivity horn is attached to the SB-38W with the HY-M94/HY-940 horn mounting bracket. For details, refer to the HY-M94/HY-940's instruction manual.

### Installing the Dividing Network

When using the HNW-500 dividing network, remove the input panel at the back of the enclosure and mount the HNW-500 dividing network in its opening. For details, refer to the HNW-500's instruction manual.

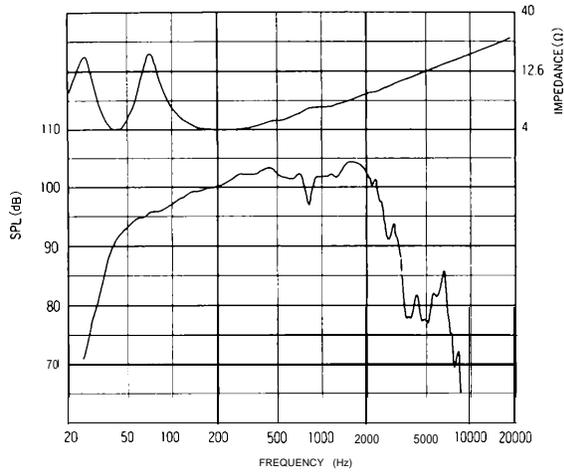
### Free-Standing Enclosure

If necessary, attach the provided rubber feet to the four locations at the bottom of the enclosure for free-standing installation.



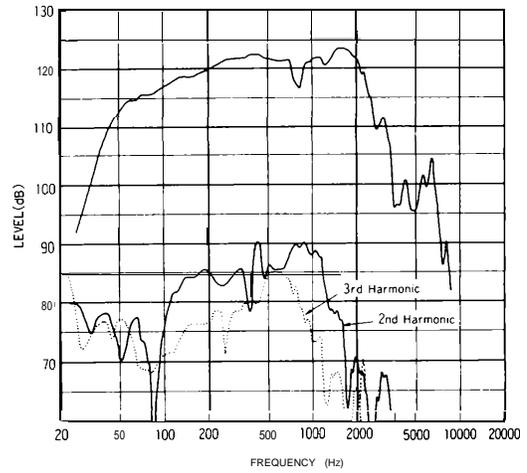
# CHARACTERISTIC DIAGRAMS (Assembled with two HLS38UL-8 Low-frequency Loudspeakers)

- Frequency Response and Impedance Curve



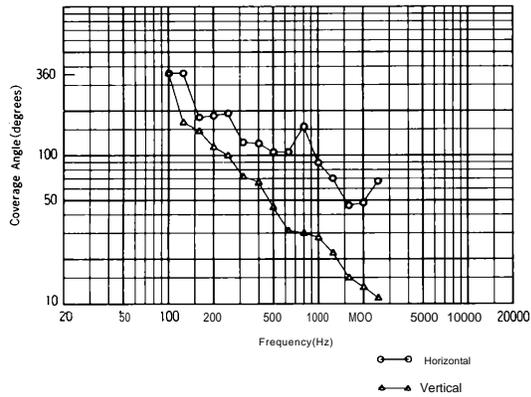
\*Measured in an anechoic environment referenced to 1 watt at 1 meter.

- Harmonic Distortion

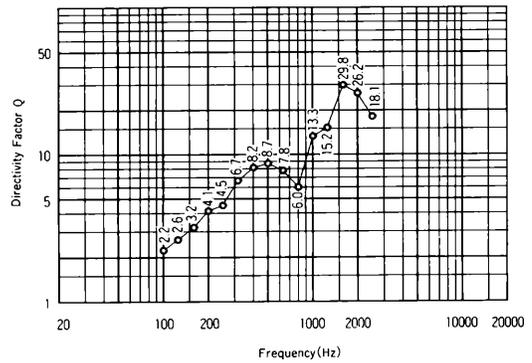


\*Measured at 100 watts (-10dB power), 1 meter reference distance

- Coverage Angle vs Frequency (-6dB)



- Directivity Factor (Q) vs Frequency



- Polar Response (1/3 Octave Pink Noise)

