

FORSYTHE SERIES

EAW BH800C

Horn Loaded, High Output Low Frequency Reproducer

- **Exceptionally High Output Capabilities** of 139 dB SPL peak output at 1 meter makes the BH800C the natural choice for larger sound reproduction applications.
- **Full Power Bandwidth** down to the 40 Hz region for incredible dynamic impact especially in multiple unit arrays.
- **Uniform Frequency Response** - unlike folded horns, the BH800 can provide smoother response than most vented systems with considerably higher output and better throw.

Applications

The BH800C is designed to provide high quality sound at greater than 135 dB SPL over the bandwidth from the deep bass fundamentals up to the 400 Hz region where it will be crossed over to a proper mid bass reproducer, e.g. EAW's MR102. Ideal applications include live concert sound reinforcement, motion picture and performing arts theaters and dance club installations. The BH800 is also ideal for many special effect applications where extremely high output in the 45 to 250 Hz band are required.

The BH800 offers a combination of high output and smooth response that no other commercially available reproducer anywhere near its size can match. The BH800's superior performance led the Japanese Audio Society to select the BH800 based Unicus system as the finest high level sound system in the world.

Description

The BH800 is a Forsythe designed bent bass horn with a very low flare rate of 44 Hz and exceptionally large mouth (effectively the entire frontal area) for excellent deep bass response. The horn is constructed of 18 plies/inch cross-grain-laminated birch hardwood with the highest stiffness-to-weight ratio of any wood product available, and is reinforced with EAW's unique polyurethane high damping foam. The resulting product provides the established standard for smooth, deep bass response at high sound pressure levels. The BH800 will out-perform theater type horns, scoop-type horns and vented boxes in the 45 to 250 Hz range and exhibits higher conversion efficiency and lower effective frequency response due to its unprecedented smooth air loaded impedance characteristic.

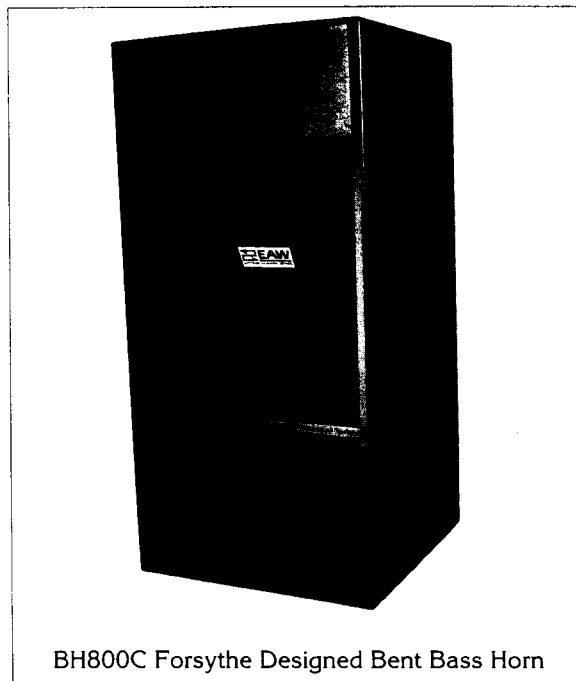
The new RCF LAB L18/851K 450 mm (18-inch) loudspeaker used in the BH800C sets a new standard for durability, power handling and low distortion. Its 1000 watt AES maximum input specification enables the BH800C to offer over 139 dB SPL at 1 meter maximum peak output.

Architect's & Engineer's Specifications

The low frequency loudspeaker system shall be of bent horn type, and shall meet the following performance criteria: Sensitivity of 109 dB SPL 1w @ 1m. Power response 45 to 400 Hz +/- 3 dB. Power handling of 1000 watts in accordance with the AES standard. The loudspeaker system shall incorporate a 450mm (18-inch) driver with a reference efficiency of more than 3%.

The horn cabinet shall be constructed of void-free birch plywood reinforced with high damping polyurethane foam. The horn shall have a flare rate of 44 Hz. The cabinet shall have all exposed corners and edges rounded for damage resistance and the cabinet shall be finished with a black catalyzed polyurethane chemical coating.

The low frequency loudspeaker system shall be the EAW model BH800.



BH800C Forsythe Designed Bent Bass Horn

Specifications:

BH800C

Type:	Single 18-in Bent Bass Horn
Frequency Response	
Single Unit	
-10 dB:	48 to 500 Hz
+/- 3 dB:	52 to 400 Hz
Quad Array	
-10 dB:	42 to 300 Hz
+/- 3 dB:	45 to 250 Hz
Sensitivity:	109 dB SPL 1w@1m
Power Handling	
100 Hour Sine Wave:	400 watts
100 Hour IEC Pink Noise:	800 watts
AES Standard:	1000 watts
Maximum Sound Pressure Level	
Peak:	139 dB SPL @1m
Long Term:	135 dB SPL @1m
Nominal Impedance:	8Ω
Flare Rate:	44 Hz
Nominal Coverage Angles	
Horizontal:	120°
Vertical:	60°
Driver Data	
Model:	RCF LAB L18/851K
Nominal Diameter:	450 mm (18-in)
Voice Coil Diameter:	100 mm (4-in)
Other Data	
Connectors:	Dual 1/4 inch Phone Jacks & Banana Plugs Standard Optional: EP-4
Cabinet Material:	18-Ply per Inch Cross-Grain Laminated Birch With Polyurethane Reinforcing Catalyzed Polyurethane
Cabinet Finish:	
Dimensions:	60.5-in x 29.75-in x 29.75-in
Weight:	260 lbs.