

PCRYSTAL2-R TIME-ALIGN®

SELF-POWERED

APPLICATIONS

Portable Sound Reinforcement

Theatrical Sound Reinforcement

Portable DJ Systems



DESCRIPTION

The PCRYSTAL2-R is a self-powered Minima One™, full range, portable loudspeaker system offering both high fidelity and high efficiency. The Time-Aligned™ studio quality sound provides detail and clarity not found in other designs. The PCRYSTAL2-R is constructed from durable 15mm birch plywood with a black Ro Tex™ finish and includes a stand adapter and recessed handles.

The audio input incorporates an InGenius® balanced line receiver providing very high common mode rejection to eliminate noise often present in systems with less optimized grounding and wiring schemes. The internal Minima One™ amplifier incorporates a high efficiency low power consumption green design with advanced digital switching to automatically accept any line voltage from 88 to 270 volts. Low voltage contacts are provided for installations to remotely turn the amplifier on and off.

SPECIFICATIONS

System Type:

2-way vented 2.5 ft³

Enclosure:

15 mm 13-ply birch plywood
horizontally arrayable

Finish:

Black Ro Tex™ True water born environmental
finish

Grille:

14 Gauge black powder coated perforated
steel in a welded extruded aluminum frame

Low Frequency Components:

2 - E-12 12" Transducers, 2.5" Voice coil,
80 oz. Magnet

High Frequency Components:

Transducer, 1.4" Exit compression driver,
3" Titanium diaphragm, Elliptic conical
waveguide

Input Connector:

XLR 1/4" combo with XLR loop through

Internal Amplification:

Minima One™

Input Impedance:

48K Ohms

Input CAL Sensitivity:

+4 dBu

**Maximum Continuous Amplifier
Power:**

1350 W into 4 Ohms

High Pass Filter:

Switchable: -6 dB @ 8 Hz; @ 50 Hz; @ 95 Hz

Overload Protection:

Internal limiter

LED Indicators:

Green - On
Yellow - System limit
Red - System fault or sleep mode

Mains Voltage Requirements:

Auto sensing
Universal voltage range
88 Volts minimum to 270 Volts maximum

Mains Current Requirements:

4.6 Amps @ 120 Volts
2.3 Amps @ 240 Volts

Hardware:

2 - Recessed handles
35 mm Stand adapter
2 - Birch skid plates with protective
UHMW polyethylene bumpers
Optional Crystal-F1 or Crystal-F2 rigging kit for
flying multiple cabinet arrays

Fly Points Safe Working Load:

200 lbs Upper most rigging points

Crossover Type:

Passive Time-Align® equalizer type @ 1.9 kHz

Frequency Response:

80 Hz to 18 kHz ±3 dB

Low Frequency Limit:

80 Hz

**Maximum Calculated Continuous
Acoustic Output:**

130 dB SPL @ 1m

Coverage Pattern:

55 degrees Horizontal (-6 dB)
40 degrees Vertical (-6 dB)

Polarity:

A positive asymmetrical signal applied to pin 2
will result in a positive asymmetrical
acoustical pressure

Dimensions:

39.5" h x 14.5" w x 17" d
101 cm x 37 cm x 44 cm

Weight:

115 lbs
52 kg

Custom Finishes:

Optional custom finishes include white or
unfinished ready to paint.

TIME-ALIGN® TIME-ALIGNED™ and TIME-ALIGNMENT™ are trademarks of E.M. Long Associates.

MINIMA ONE™ is a trademark of Modular Sound Systems, Inc., BAG END® is a registered trademark of Bag End, Inc.

PCRYSTAL2-R TIME-ALIGN®

ABOUT TIME-ALIGN® TECHNOLOGY

Time-Align® assures that the fundamental and overtones of a complex, transient, acoustical signal are presented to the listener in the same relationship as the electrical signal at the input terminals of the loudspeaker. The conventional loudspeaker spreads out the sound in time. When a rapid series of transients occur the results are blurring and lost detail. With Time-Align®, a transient is presented as a tight package of energy, with the same time relationships as the natural sound. This means that a rapid series of transients will be heard clearly.



True Time-Alignment™ requires much more than just physically lining up the loudspeaker components. It requires consideration of the driver placement, driver delay and adjustment of the crossover delay parameters. This achieves the precise simultaneous acoustical arrival time of each driver throughout the crossover region.

The first Time-Aligned™ Loudspeaker was invented by EM Long Associates in 1976 utilizing the Time-Align® generator invented and built by Ronald Wickersham. In 1980 Bag End® incorporated Time-Align® technology into our full range loudspeaker systems. Along with state-of-the-art laboratory instruments, the proprietary Time-Align® generator is still in use today to verify the time domain performance of our loudspeaker systems. When comparing a genuine Bag End® Time-Aligned™ loudspeaker system to any other, our technology and design is easy to hear and appreciate. The dramatic clarity, realism, and overall pleasant sound of our Time-Aligned™ systems are well noted worldwide.

ABOUT MINIMA ONE™

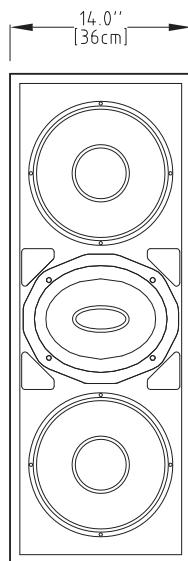
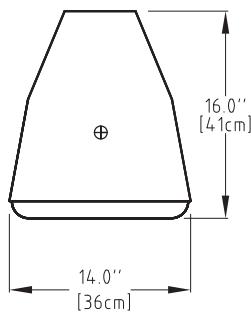
The Minima One™ is both a high fidelity and a high efficiency amplifier. With efficiency well over 80%, the Minima One™ provides more power to the loudspeakers and creates less heat in the amplifier. In real world applications there is practically no heat emitted from the amplifier and thus it requires no cooling fan.

Incorporating patented technology the comparison circuit of the Minima One™ corrects every single cycle to drive error to zero at the end of each cycle. On average, every 4 microseconds, the one cycle modulator transforms and amplifies the input signal into the ideal natural pulse width modulation. Switching at 250 kHz with the single cycle error correction insures extremely low distortion and high reliability. The power factor corrected AC power input, automatically and continuously adapts to any voltage between 88 and 270 volts. The Minima One™ is convenient and stable to operate on any power grid in the world.

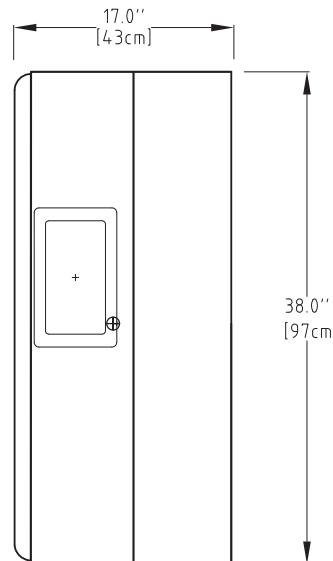
ABOUT OUR RO TEX™ FINISH

The durable Ro Tex™ finish is double layered on Bag End™ "R" series or Road cabinets. And single layered on installation or "I" cabinets. Ro Tex™ is a water born environmentally safe finish. It's uniquely strong and long lasting. As it solidifies it attaches and bonds to the wooden cabinet to make a super hard and durable permanent finish. Its light texture offers an attractive and rugged finished look.

DIMENSIONS



⊕ = Center of Gravity



**BAG
END**
EST. 1976