

# TA5002-I TIME-ALIGN®

## APPLICATIONS

Auditorium Sound Reinforcement      House of Worship Installations  
Audio-Visual Installations            Theatrical Sound Reinforcement  
Nightclub Installations

## DESCRIPTION

The TA5002-I is a permanent installation full range 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 TA5002-I is made from durable birch plywood with a black textured finish and a black coated steel grille. The TA5002-I produces high definition high impact sound over its wide angle making audience coverage easy and effective in a variety of venues. A compact loudspeaker, engineered for exceptional mid and far field performance it is well known for exceptional fidelity and its surprisingly high output capability.

Useful for foreground and live sound applications, it excels in speech projection and small PA systems. With its fidelity, size and output its perfect for large multi channel 5.1 presentations systems. In larger systems the TA5002-I is highly effective as a fill, delay or balcony speaker. The addition of a Bag End subwoofer will expand its capabilities for more demanding applications.

Fly points and an optional Yoke-U-bracket allow the TA5002-I to be easily installed and aimed in a multitude of applications.



## SPECIFICATIONS

### System Type:

2-way vented 3.4 ft<sup>3</sup>

### Enclosure:

18 mm 13-ply birch plywood

### Finish:

Black Ro Tex™ true water born environmental finish

### Grille:

16 Gauge black powder coated perforated steel

### Low Frequency Components:

E-15 15" Transducer, 2.5" Voice coil, 80 oz Magnet

### High Frequency Components:

ZE-250 1" Exit compression driver, 2" Titanium diaphragm, 24 oz magnet, Exponential waveguide

### Input Connector:

Cinch 142 screw terminal barrier strip

### Internal Amplification:

Optional self powered

### Hardware:

Fly points  
Optional steel yoke model TA5

### Fly Points Safe Working Load:

200 lbs Upper most rigging points

### Crossover Type:

Passive Time-Align® equalizer type at 1.7 kHz

### Time Offset Between Driver:

< ± 25 Microseconds

### Sensitivity:

101 dB SPL (2.83 V @ 1 m)

### Frequency Response:

50 Hz to 19 kHz ±3 dB

### Low Frequency Limit:

43 Hz

### Maximum Calculated Continuous Acoustic Output:

127 dB SPL @ 1 m

### Power Handling:

400 W continuous (IEC)  
800 W program

### Recommended Amplifier Power:

400 to 800 W at rated impedance

### Rated Impedance:

8 ohms

### Coverage Pattern:

90 degrees horizontal (-6 dB)  
40 degrees vertical (-6 dB)

### Recommended High Pass Filter:

50 Hz

### Polarity:

A positive asymmetrical signal applied to the + terminal will result in a positive asymmetrical acoustical pressure

### Dimensions:

27" h x 22" w x 18" d  
69 cm x 56 cm x 46 cm  
Trapezoidal – 8 degree taper per side

### Weight:

75 lbs  
34 kg

### Custom Finishes:

Optional custom finishes include white, unfinished ready to paint and outdoor weather treatment.

### 70/100/140 Volt Operation:

Optional 100 or 200 W taped internal transformer

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BAG END® is a trademark of Modular Sound Systems, Inc.



# TA5002-1 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.

attaches to the wooden cabinet it bonds with the wood to make a super hard permanent finish. It is lightly textured offering both an attractive and rugged finish.

## About BAG END® Loudspeakers

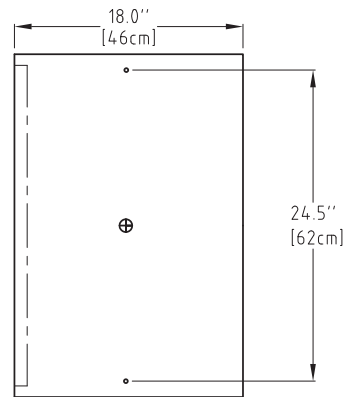
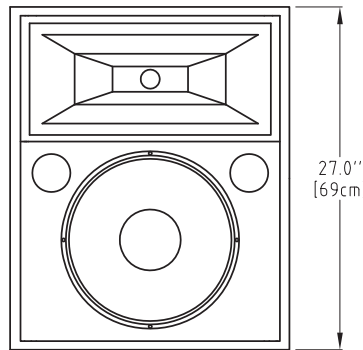
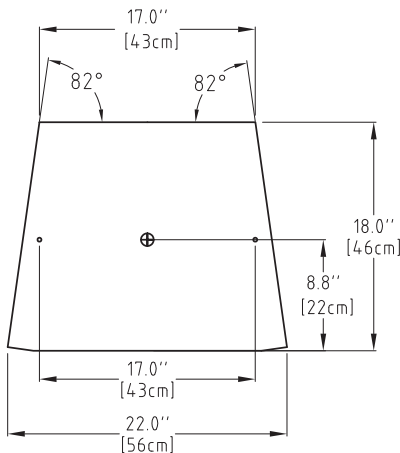
Bag End loudspeakers began in 1976 in a small shop by people dedicated to the pursuit of making high quality loudspeaker systems. Over the decades Bag End® has employed the very best construction techniques and innovative acoustical designs into their products. The ground breaking introductions of the Time-Align® and ELF™ Technologies into sound reinforcement and studio monitor loudspeakers in the 1980's was followed by Minima One™ self-powered systems and the highly unique E-Trap™, electronic bass trap. Over the decades, Bag End® has been a leader in providing uniquely good sounding products and extraordinary service to our customers world wide.

## About our Ro Tex™ Finish

The durable Ro Tex™ finish is found on Bag End™ "R" series or Road cabinets. Ro Tex™ is a water base, environmentally safe finish that is made in Europe and is uniquely strong and long lasting. As it solidifies and



## DIMENSIONS

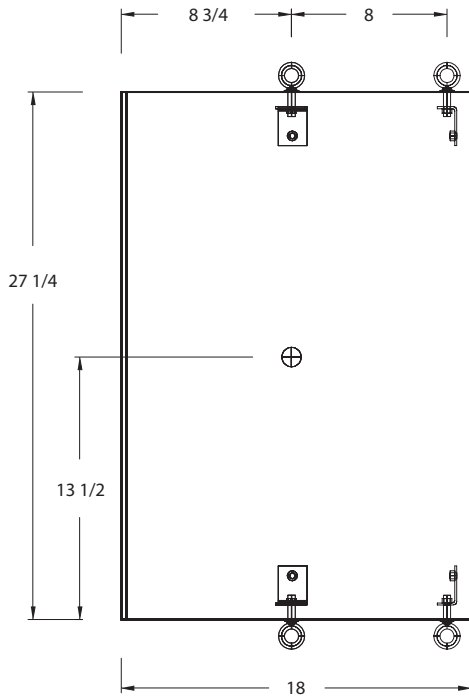


⊕ = Center of Gravity   ⊙ = 5/16" -18 Threaded Rigging Point

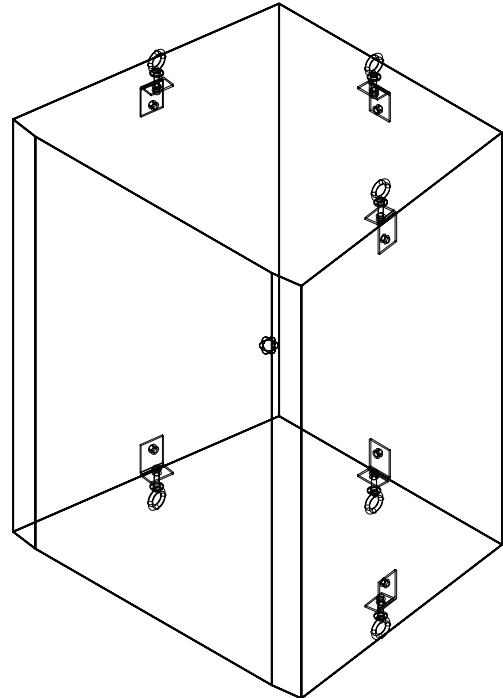


# TA5002-1 TIME-ALIGN®

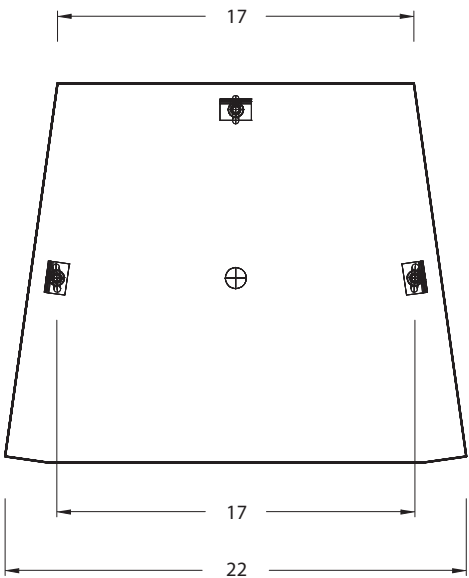
**SIDE VIEW**



**ISOMETRIC VIEW**



**TOP VIEW**



**Key**

Center of Gravity: +

**Warnings**

Mounting and rigging loudspeakers requires experienced professionals. Improperly installed loudspeakers can result in property damage, personal injury, death and/or liability to the installing contractor.

**Flypoints**

Optional hardware includes 5/16-18 threaded flypoints as shown.