

# PS18E-D

SELF-POWERED

# PERFORMANCE SYSTEM

## APPLICATIONS

Electric Bass Guitar

Chapman Stick

Acoustic Bass Instruments

## DESCRIPTION

The Bag End® PS18E-D is a compact self powered single 18" musical instrument speaker well matched to electric bass, or acoustic bass. It is a sealed box type enclosure optimized for use with the Bag End® Infra™ processors for extended low frequency response. It has damped spring loaded handles, shock absorbing corners, and a 3/4" thick plywood cabinet covered in our Deep Red carpet making it a very portable, and durable speaker enclosure. A Bag End® Minima One™ power amplifier is mounted on the rear panel, allowing the system to be fed from any instrument preamp via XLR or 1/4" jacks. AC mains power between 88 and 270 volts is accepted via a Neutrik® PowerCON connector. Its excellent sound and modest size make it a great choice for a stand alone system for most gigs or as part of a larger multi way modular system.



## SPECIFICATIONS

### System Type:

Infrasub™ sealed chamber 3 ft<sup>3</sup>

### Enclosure:

3/4" 13-ply solid hardwood core plywood

### Finish:

Deep Red Carpet

### Grille:

16 Gauge black power coated perforated steel

### Low Frequency Components:

Transducers, 18" cone, 3" Voice coil,  
120 oz. Magnet

### 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 - Dynamic filter threshold  
Red - System fault or sleep mode

### Mains Voltage Requirements:

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

### Mains Current Requirements:

2.3 Amps @ 120 Volts  
1.2 Amps @ 240 Volts

### Hardware:

2 - Handles  
8 - Protective corners

### Crossover Type:

Optional external Infra™ Integrator

### Sensitivity:

96 dB SPL @ 80 Hz (2.83 V @ 1m)

### Frequency Response:

60 Hz to 2 KHz ±3 dB  
8 Hz to 95 Hz ±3 dB with external Infra™  
Integrator

### Polarity:

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

### Dimensions:

22"h x 22.5"w x 18.5"d  
56 cm x 57 cm x 47 cm

### Weight:

67 lbs  
31 kg

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## ABOUT MUSICAL INSTRUMENT SYSTEMS

Musical Instrument Systems, especially loudspeakers for use with stringed instruments, require more than just technical expertise. Over the years Bag End® has employed the highest degree of technology into these systems, but beyond that, we consider the loudspeaker to be an extension of the instrument itself. A well designed loudspeaker will reproduce all the characteristics of the instrument, but it also adds some of its own timber to the sound. Since before Bag End® was formed in 1976 the founders were both technicians and musicians and they incorporated both good taste and technology into the sound of the loudspeaker systems. Over the years some of the original designs proved to be exactly what many musicians wanted and therefore, have not changed for over 3 decades.

## 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 DYNAMIC FILTER™

The Dynamic Filter™ is a complimentary technology to the Infra™ system taking unique advantage of the Infra™ design approach, to implement a reliable protection scheme that is transparent and inaudible to the listener. Systems using the external rack mount Infra-MXB processor require an appropriate threshold adjustment that sets the amplifiers power and sensitivity to the Infra™ loudspeakers in use. When a system is asked to do more than it is capable of, or if an accidentally large signal is presented the threshold of the Dynamic Filter™ is crossed and the system protects itself from the bottom up by reducing the lowest frequencies first. Since the most power and excursion is always required at the lowest frequency, reducing the level of the lowest frequencies first avoids an overload, while at the same time the system is able to reproduce the middle and upper bass and leave the upper crossover region unaffected. This is a very natural and inaudible method to protect the system and unique to the Infra™ technology.

## ABOUT DEEP RED CARPETED CABINETS

Deep Red Carpeted Cabinets are constructed with high grade U.S. solid core hardwood plywood and covered in our unique Deep Red carpet. The Deep Red carpet is a custom blend of mostly black fibers but a closer look reveals a small percentage of ruby red colored fibers that give it a unique color flavor. On stage the cabinets look dark, almost black, but up close they reveal a stately dark red texture. Deep Red carpet is thick and strong and is made from durable fiber that resists shedding and breakdown over time and use. Proprietary glue and assembly techniques keep the carpet and the cabinet a tight solid package that resists wear and stress over time. Deep Red cabinets made over 20 years ago and in constant use have retained their solid sound, good looks and structural stability.

## ABOUT BAG END® LOUSPEAKERS

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.

## DIMENSIONS

