



CINELINE

**pulz**<sup>®</sup>

ENERGY SERIES





# THE ENERGY SERIES

Pulz Energy Series is a result of over three decades of experience in cinema acoustics and an intensive research and development program to beat the existing price to performance barrier. Energy Series loudspeaker systems offer an entire range of products right from conventional 2-Way horn loaded systems to uniquely designed 3-Way large format coaxial high power systems.

Movie soundtracks today have the capability to deliver edge of the seat audio to enhance the movie going experience. However, their faithful reproduction is often compromised by poor quality or underrated audio amplifiers and speaker systems. Pulz Energy Series products are designed to bridge this gap and offer practical solutions to builders of modern multiplexes. Currently installed in over 2500 theatres, Pulz systems have been received with enthusiasm by cinema audiences and the discerning audio critics alike.

Energy Series exploits the latest development in driver design, enclosures and horns to optimize the highest level of performance.



# EM1P



## FEATURES

- 12" (300 mm) Low Frequency Driver
- 1.75" (44 mm) High Frequency Driver
- High dynamic SPL
- High system efficiency
- Low harmonic distortion
- Exceptional transient response
- Unique pattern control
- Smooth and extended frequency response
- Compact size
- Ideal for small size auditoria

The Pulz EM1P 2-Way Passive Cinema Screen Speaker System has been developed as a cost effective solution for use in small size cinemas.

The system consists of an 12" low frequency driver in conjunction with 1.75" voice coil high frequency driver of high sonic quality and dynamic range.

The 90° horizontal and 40° vertical pattern control horn exhibits uniform HF response throughout the cinema auditorium.

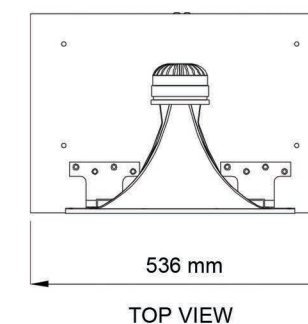
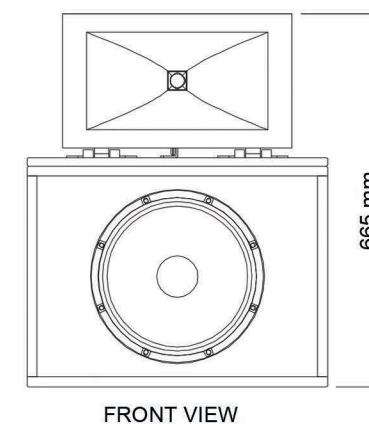
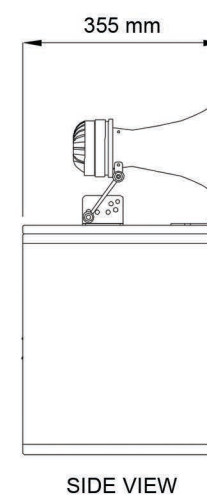
The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver.

EM1P system incorporates a critically designed passive crossover due to which the system can be driven with a single channel of amplifier.

All components feature a textured black finish to eliminate the reflection of light through perforated cinema screens.

## SPECIFICATIONS:

<b>Frequency Response:</b>	50Hz to 20kHz
<b>Power Rating:</b>	400W AES, 1600W Peak
<b>Sensitivity:</b>	97dB @ 1W/1m
<b>Maximum SPL:</b>	123dB continuous, 129dB peak @ 1m
<b>Nominal Impedance:</b>	8Ω
<b>Recommended Amplifier:</b>	300W to 600W @ 8Ω
<b>Low Frequency Driver:</b>	1 X 12" (300 mm) weather resistant long excursion woofer
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil compression driver
<b>Crossover:</b>	1.2kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	90° horizontal X 40° vertical
<b>Dimensions (H X W X D):</b>	665 mm X 536 mm X 355 mm (26.2" X 21.2" X 14")
<b>Net Weight:</b>	23 kg (50.7 lb)
<b>Packed Weight:</b>	27 kg (59.5 lb)





## EM1



### FEATURES

- High dynamic SPL
- High system efficiency
- Low harmonic distortion
- Exceptional transient response
- Unique pattern control
- Smooth and extended frequency response
- Compact size
- Ideal for small size auditoria

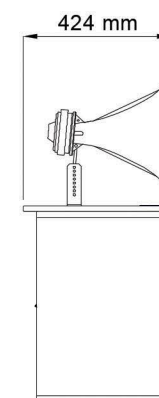
### SPECIFICATIONS:

<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 500W AES, 2000W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 98dB @ 1W/1m; HF: 113dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 125dB continuous, 131dB peak @ 1m; MF/HF: 132dB continuous, 138dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 8Ω; HF: 8Ω
<b>Recommended Amplifier:</b>	300W to 800W @ 8Ω
<b>Low Frequency Driver:</b>	15" (380 mm) weather resistant long excursion woofer
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil compression driver
<b>Crossover:</b>	1kHz Active
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	90° horizontal, -30° + 20° vertical
<b>Dimensions (H X W X D):</b>	959 mm X 760 mm X 424 mm (37.8" X 30" X 16.7")
<b>Net Weight:</b>	50 kg (110 lb)
<b>Packed Weight:</b>	60 kg (132 lb)

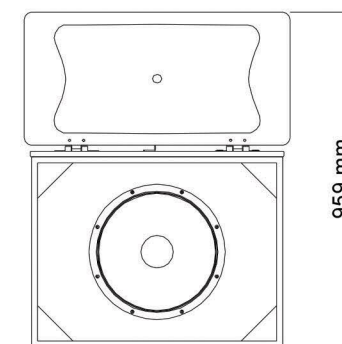
The Pulz EM1 2-Way Cinema Screen Speaker is a compact and cost effective solution for small cinemas. The system consists of a single 15" low frequency high efficiency driver working in conjunction with a 1.75" voice coil high frequency compression driver. The 90° horizontal and -30° to +20° vertical pattern control horn exhibits uniform HF response throughout the cinema auditorium.

The LF driver is loaded in a direct radiator bass-reflex enclosure. The vented enclosure design is chosen to extend low frequency performance while limiting cone excursion. This also reduces distortion and driver strain. The large port area reduces air turbulence at full power output and low frequencies.

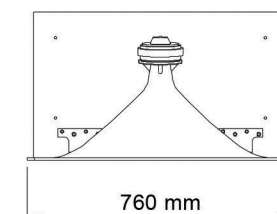
Very fine adjustments can be done by adjusting the tilt of the horn through our unique adjustable steel bracket. The vented woofer box design gives great low frequency extension with compact size.



SIDE VIEW



FRONT VIEW



TOP VIEW



# EM2P



## FEATURES

- High dynamic SPL
- High system efficiency
- Low harmonic distortion
- Exceptional transient response
- Unique pattern control
- Smooth and extended frequency response
- Compact size
- Ideal for small and medium size auditoria

The Pulz EM2P 2-Way Passive Cinema Screen Speaker System has been developed as a cost effective solution for use in small to medium size cinemas.

The system consists of 2 X 12" low frequency driver in conjunction with 1.75" voice coil high frequency driver of high sonic quality and dynamic range.

The 90° horizontal and 40° vertical pattern control horn exhibits uniform HF response throughout the cinema auditorium. The dual 12" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers.

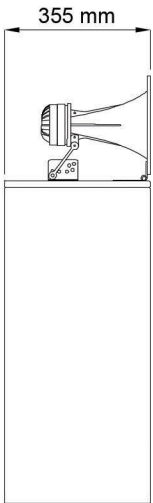
The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver.

EM2P system incorporates a critically designed passive crossover due which the system can be driven with a single channel of amplifier.

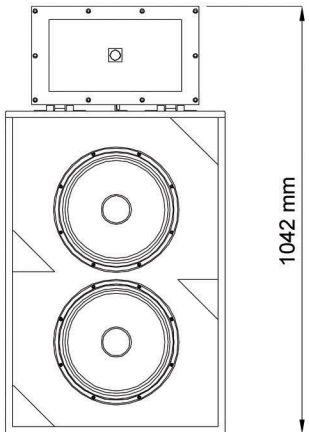
All components feature a textured black finish to eliminate the reflection of light through perforated cinema screens.

## SPECIFICATIONS:

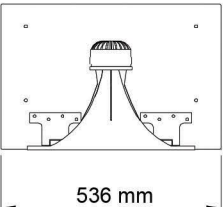
<b>Frequency Response:</b>	50Hz to 20kHz
<b>Power Rating:</b>	800W AES, 3200W peak
<b>Sensitivity:</b>	100dB @ 1W/1m
<b>Maximum SPL:</b>	129dB continuous, 135dB peak @ 1m
<b>Nominal Impedance:</b>	4Ω
<b>Recommended Amplifier:</b>	500W to 1000W @ 4Ω
<b>Low Frequency Driver:</b>	2 X 12" (300 mm) weather resistant long excursion woofer
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil compression driver
<b>Crossover:</b>	1.2kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	90° horizontal X 40° vertical
<b>Dimensions (H X W X D):</b>	1042 mm X 536 mm X 355 mm (40" X 21.1" X 14")
<b>Net Weight:</b>	42 kg (92 lb)
<b>Packed Weight:</b>	46 kg (101 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



# EM3



## FEATURES

- High dynamic SPL
- High system efficiency
- Low harmonic distortion
- Exceptional transient response
- Smooth and extended frequency response
- Ideal for medium to large auditoria

The Pulz EM3 2-Way Cinema Screen Speaker System has been developed as a cost effective solution for use in medium to large size cinemas.

The system consists of 2 X 15" low frequency transducers in conjunction with a 1.75" voice coil high frequency compression driver of high sonic quality and dynamic range.

The 90° horizontal and -30° to +20° vertical pattern control horn exhibits uniform HF response throughout the cinema auditorium. The dual 15" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers.

The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver.

Full performance of the EM3 system is achieved by an bi-amp configuration using either Analog or Digital cross-over.

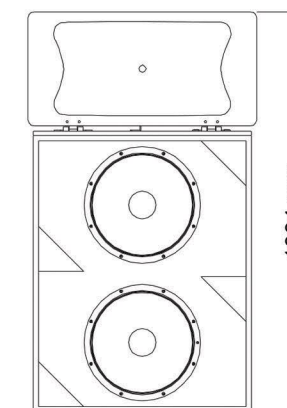
All components feature a textured black finish to eliminate the reflection of light through perforated cinema screens.

## SPECIFICATIONS:

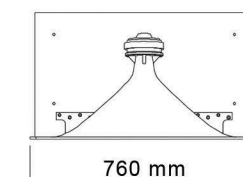
<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 800W AES, 3200W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 101dB @ 1W/1m; HF: 113dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 130dB continuous, 136dB peak @ 1m; MF/HF: 132dB continuous, 138dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 4Ω; HF: 8Ω
<b>Recommended Amplifier:</b>	600W to 1200W @ 4Ω
<b>Low Frequency Driver:</b>	2 X 15" (380 mm) weather resistant long excursion woofer
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil compression driver
<b>Crossover:</b>	1kHz Active
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	90° horizontal, -30° + 20° vertical
<b>Dimensions (H X W X D):</b>	1334 mm X 760 mm X 424 mm (52.5" X 30" X 16.7")
<b>Net Weight:</b>	68 kg (150 lb)
<b>Packed Weight:</b>	75 kg (165 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



# ESM4



## FEATURES

- Dual concentric design
- High efficiency system
- Point source reproduction
- Phase coherent sound
- High dynamic SPL
- Low harmonic distortion
- Exceptional transient response
- Smooth and extended frequency response

The Pulz ESM4 3-Way Cinema Screen Speaker System has been specially developed as a cost effective solution for today's competitive multiplex environment.

The system consists of 2 X 15" low frequency driver in conjunction with a unique coaxial Mid-High frequency driver. The 90°X 40° large format pattern control horn exhibits uniform Mid-High frequency response throughout the cinema auditorium.

The Mid-High coaxial driver has been specifically engineered to overcome the incoherency of the traditional 3-Way approach. It delivers exceptional dialogue clarity and sound imaging, superior to the conventional Mid-High configuration.

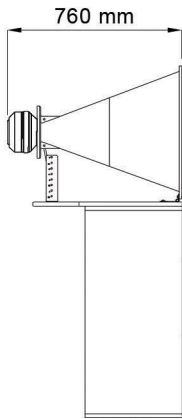
The dual 15" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers. The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver.

The system can be conveniently bi-amped with the built in passive crossover between the Mid and High section and using the Pulz XO47 Active crossover. Full performance of the ESM5 system is achieved by an active tri-amplified configuration.

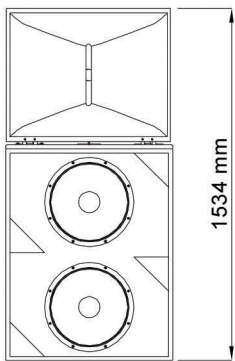
With its companion - the Pulz PZ 4820 power amplifier, the ESM4 is capable of offering outstanding performance at an unbelievable price

## SPECIFICATIONS:

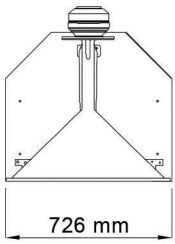
<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 800W AES, 3200W peak; MF: 150W AES, 1000W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 101dB @ 1W/1m; MF/HF: 118dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 130dB continuous, 136dB peak @ 1m; MF/HF: 139dB continuous, 145dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 4Ω; MF/HF: 8Ω
<b>Recommended Amplifier:</b>	600W to 1200W @ 4Ω
<b>Low Frequency Driver:</b>	2 X 15" (380 mm) weather resistant long excursion woofer
<b>Mid Frequency Driver:</b>	3.5" (90 mm) voice coil coaxial compression driver
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil coaxial compression driver
<b>Crossover:</b>	500Hz Active, 6.5kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	Large format 90° horizontal X 40° vertical constant directivity horn
<b>Dimensions (H X W X D):</b>	1534 mm X 726 mm X 760 mm (60.3" X 28.6" X 30")
<b>Net Weight:</b>	85 kg (187 lb)
<b>Packed Weight:</b>	92 kg (203 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



## ESM5



### FEATURES

- Dual concentric design
- Point source reproduction
- Phase coherent sound
- High dynamic SPL
- Low harmonic distortion
- Exceptional transient response
- Smooth and extended frequency response

The Pulz ESM5 High Resolution 3-Way Cinema Screen Speaker System has been developed for use in prestigious medium to large size cinema environments. The system consists of 2 X 15" low frequency high efficiency drivers in conjunction with a unique coaxial Mid-High frequency driver. The 90° X 40° large format pattern control horn exhibits uniform Mid-High frequency response throughout the cinema auditorium.

The Mid-High coaxial driver has been specifically engineered to overcome the incoherency of the traditional 3-Way approach. It delivers exceptional dialogue clarity and sound imaging, superior to the conventional Mid-High configuration.

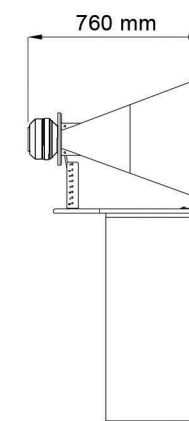
The dual 15" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers. The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver. The adjustable steel bracket allows the finer alignments of the horn to suit individual auditoriums, which can then be locked into position.

The system can be conveniently bi-amped with the built in passive crossover between the Mid and High section and using the Pulz XO47 Active crossover. Full performance of the ESM5 system is achieved by using an active tri-amplified configuration.

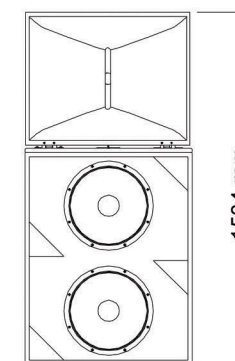
All components feature a textured black finish to eliminate the reflection of light through perforated cinema screens.

### SPECIFICATIONS:

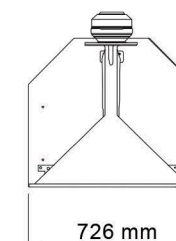
<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 1000W AES, 4000W peak; MF: 150W AES, 1000W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 101dB @ 1W/1m; MF/HF: 118dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 131dB continuous, 137dB peak @ 1m; MF/HF: 139dB continuous, 145dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 4Ω; MF/HF: 8Ω
<b>Recommended Amplifier:</b>	800W to 1300W @ 4Ω
<b>Low Frequency Driver:</b>	2 X 15" (380 mm) weather resistant long excursion woofer
<b>Mid Frequency Driver:</b>	3.5" (90 mm) voice coil coaxial compression driver
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil coaxial compression driver
<b>Crossover:</b>	500Hz Active, 6.5kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	Large format 90° horizontal X 40° vertical constant directivity horn
<b>Dimensions (H X W X D):</b>	1534 mm X 726 mm X 760 mm (60.3" X 28.6" X 30")
<b>Net Weight:</b>	85 kg (187 lb)
<b>Packed Weight:</b>	92 kg (203 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



# ESM6



## FEATURES

- Dual concentric design
- High efficiency system
- Point source reproduction
- Phase coherent sound
- High dynamic SPL
- Low harmonic distortion
- Exceptional transient response
- Smooth and extended frequency response

The Pulz ESM6 3-Way Cinema Screen Speaker System has been specially developed as a cost effective solution for large and extra large cinemas. The ESM6 incorporates many of the key features of the ESM7, however at a lower price point.

The system consists of 4 X 15" low frequency high efficiency transducers in conjunction with a unique coaxial Mid-High frequency driver. The 90° X 40° large format pattern control horn exhibits uniform Mid-High frequency response throughout the cinema auditorium.

The Mid-High coaxial driver has been specifically engineered to overcome the incoherency of the traditional 3-Way approach due to which it delivers exceptional dialogue clarity and sound imaging, superior to the conventional Mid-High configuration.

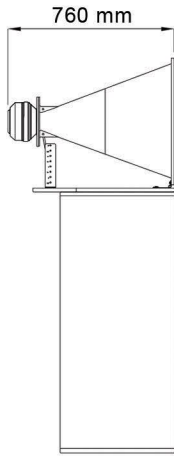
The quad 15" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers. The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver. The adjustable steel bracket allows the finer alignments of the horn to suit individual auditoriums, which can then be locked into position.

The system can be conveniently bi-amped with built in passive crossover between the Mid and High section or tri-amped using an Active Analog or Digital crossover.

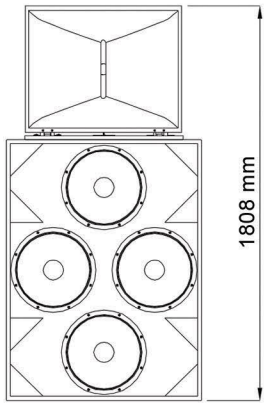
The ESM6 is capable of meeting the requirement of SMPTE cinema specifications in very large auditoria.

## SPECIFICATIONS:

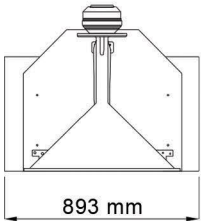
<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 1600W AES, 6400W peak; MF: 150W AES, 1000W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 104dB @ 1W/1m; MF/HF: 118dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 136dB continuous, 142dB peak @ 1m; MF/HF: 139dB continuous, 145dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 4Ω + 4Ω; MF/HF: 8Ω
<b>Recommended Amplifier:</b>	1200W to 1800W @ 4Ω X 2 Ch.
<b>Low Frequency Driver:</b>	4 X 15" (380 mm) weather resistant long excursion woofer
<b>Mid Frequency Driver:</b>	3.5" (90 mm) voice coil coaxial compression driver
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil coaxial compression driver
<b>Crossover:</b>	500Hz Active, 6.5kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	Large format 90° horizontal X 40° vertical constant directivity horn
<b>Dimension (H X W X D):</b>	1808 mm X 893 mm X 760 mm (71.1" X 35.1" X 30")
<b>Net Weight:</b>	137 kg (302 lb)
<b>Packed Weight:</b>	148 kg (326 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



# ESM7



## FEATURES

- Dual concentric design
- High power handling
- Point source reproduction
- Phase coherent sound
- High dynamic SPL
- Low harmonic distortion
- Exceptional transient response
- Smooth and extended frequency response

The Pulz ESM7 High Resolution 3-Way Cinema Screen Speaker System has been developed for use in prestigious large cinema environments. The ESM7 can deliver sound pressure levels in excess of 135dB with uniform on and off axis frequency response, tighter pattern control extending to low frequencies and wide dynamic range.

The system consists of 4 X 15" low frequency high efficiency drivers in conjunction with a unique coaxial Mid-High frequency driver. The 90° X 40° large format pattern control horn exhibits uniform Mid-High frequency response throughout the cinema auditorium.

The Mid-High frequency coaxial driver has been specifically engineered to overcome the incoherency of the traditional 3-Way approach due to which it delivers exceptional dialogue clarity and sound imaging, superior to the conventional Mid-High configuration.

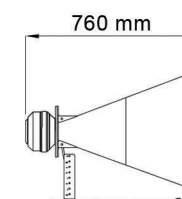
The quad 15" drivers are independently loaded in a direct radiator bass-reflex enclosure. This technique avoids "sympathetic failure" and provides better interface options with the amplifiers. The large port area reduces turbulence at full power output and low frequencies. A heavy duty spring loaded push type terminals ensures secure connection to the LF driver. The adjustable steel bracket allows the finer alignments of the horn to suit individual auditoriums, which can then be locked into position.

The system can be conveniently bi-amped with built in passive crossover between the Mid and High section or tri-amped using an Active Analog or Digital crossover.

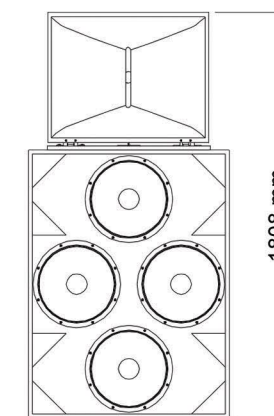
The ESM7 is capable of meeting the requirement of SMPTE cinema specifications in very large auditoria.

## SPECIFICATIONS:

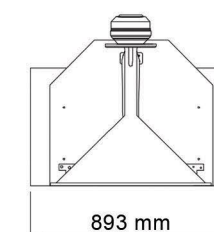
<b>Frequency Response:</b>	45Hz to 20kHz
<b>Power Rating:</b>	LF: 2000W AES, 8000W peak; MF: 150W AES, 1000W peak; HF: 80W AES, 450W peak
<b>Sensitivity:</b>	LF: 104dB @ 1W/1m; MF/HF: 118dB @ 1W/1m
<b>Maximum SPL:</b>	LF: 137dB continuous, 143dB peak @ 1m; MF/HF: 139dB continuous, 145dB peak @ 1m
<b>Nominal Impedance:</b>	LF: 4Ω + 4Ω; MF/HF: 8Ω
<b>Recommended Amplifier:</b>	800W to 1300W @ 4Ω X 2 Ch.
<b>Low Frequency Driver:</b>	4 X 15" (380 mm) weather resistant long excursion woofer
<b>Mid Frequency Driver:</b>	3.5" (90 mm) voice coil coaxial compression driver
<b>High Frequency Driver:</b>	1.75" (44 mm) voice coil coaxial compression driver
<b>Crossover:</b>	500Hz Active, 6.5kHz Passive
<b>Finish:</b>	Black impact resistant structured coating
<b>Connector:</b>	Push type binding post, cable upto 4 mm diameter
<b>Enclosure:</b>	18 mm MDF direct radiator vented enclosure
<b>Horn:</b>	Large format 90° horizontal X 40° vertical constant directivity horn
<b>Dimensions (H X W X D):</b>	1808 mm X 893 mm X 760 mm (71.1" X 35.1" X 30")
<b>Net Weight:</b>	137 kg (302 lb)
<b>Packed Weight:</b>	148 kg (326 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



ES 8



FEATURES

- Convenient mounting options
- Smooth on and off frequency response
- High performance transducers
- 90° conical dispersion
- High SPL
- Professional construction
- High quality components

The Pulz ES8 is a 2-Way Cinema Surround Speaker System, designed to reproduce faithfully the wide dynamic range and extended frequency response to meet today's immersive audio formats.

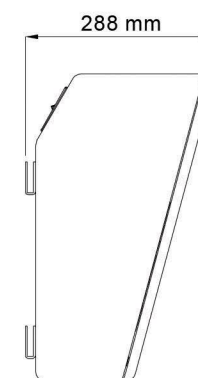
The system features a 8" (200 mm) long throw Mid-Bass driver in a reflex enclosure along with a 1" (25 mm) Dome tweeter mounted on a conical waveguide. The crossover network has been specially designed to have flat frequency response over the entire audible frequency range.

The shape of ES8 allows easy wall mounting with a 15° downward tilt. With a sensitivity of 93.5dB and well controlled dispersion characteristics, it can cover a wide seating area with even frequency and power response. The black textured finish and slim line construction of the enclosure blends unobtrusively in the cinema auditoria.

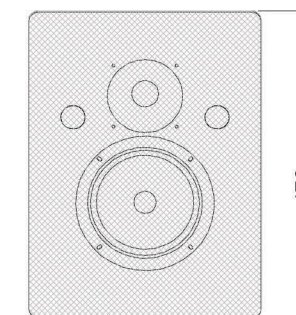
The mounting provisions of this speaker have been designed to suit a wide range of cinemas.

SPECIFICATIONS:

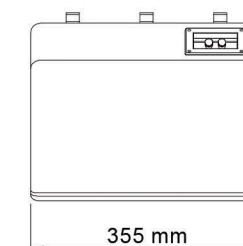
Frequency Response:	65Hz to 20kHz
Power Rating:	100W AES, 400W peak
Sensitivity:	93.5dB @ 1W/1m
Maximum SPL:	113.5dB continuous, 119.5dB peak @ 1m
Nominal Impedance:	8Ω
Low Frequency Driver:	8" (200 mm) Mid-Bass driver
High Frequency Driver:	1" (25 mm) Dome tweeter
Crossover:	2.5kHz Passive, low loss air core inductors and MKP capacitors
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	15 mm MDF direct radiator vented enclosure
Dispersion:	90° conical
Grill:	Acoustically transparent black woven fabric
Dimensions (H X W X D):	470 mm X 355 mm X 288 mm (18.5" X 14" X 11.3")
Net Weight:	10.2 kg (22 lb)
Packed Weight:	11.2 kg (25 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



# ES12



## FEATURES

- 12" (308 mm) Low Frequency Driver
- 1" (25 mm) High Frequency Driver
- Convenient mounting options
- Smooth on and off frequency response
- High performance transducers
- 90° H X 40° V dispersion
- High SPL
- Professional construction
- High quality components

The Pulz ES12 is a 2-Way Cinema Surround Speaker System, designed to reproduce faithfully the wide dynamic range and extended frequency response to meet today's immersive audio formats.

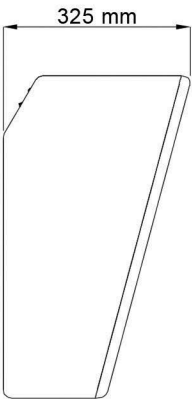
The system features a 12" (308 mm) long throw Mid-Bass driver in a reflex enclosure along with a 1.75"(44 mm) voice coil compression driver mounted on a 90° horizontal X 40° vertical waveguide. The crossover network has been specially designed to have flat frequency response over the entire audible frequency range.

The shape of ES12 allows easy wall mounting with a 15° downward tilt. The enclosure is equipped with various mounting options to place it directly on the wall or mount it with an optional C-bracket to achieve ±45° tilts in 9° increments. Additional security hooks are provided for added safety when mounting the system on ceiling. The heavy duty MDF enclosure is finished with abrasion resistant textured paint.

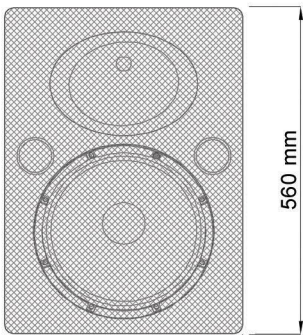
With a sensitivity of 97dB and well controlled dispersion characteristics, it can cover a wide seating area with even frequency and power response. The black textured finish and slim line construction of the enclosure blends unobtrusively in the cinema auditoria.

## SPECIFICATIONS:

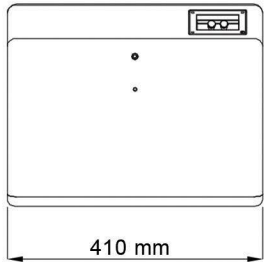
Frequency Response:	60Hz to 20kHz
Power Rating:	400W AES, 1600W peak
Sensitivity:	97dB @ 1W/1m
Maximum SPL:	123dB continuous, 129dB peak @1m
Nominal Impedance:	8Ω
Low Frequency Driver:	12" (308 mm) Low-Mid driver
High Frequency Driver:	1.75" (44 mm) voice coil compression driver mounted on 90° X 40° horn
Crossover:	1.3kHz Passive, low loss air core inductors and MKP capacitors
Dispersion:	90° horizontal, 40° vertical
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	15 mm MDF direct radiator vented enclosure
Grill:	Acoustically transparent black woven fabric
Dimensions (H X W X D):	560 mm X 410 mm X 325 mm (22" X 16.2" X 12.8")
Net Weight:	17 kg ( 37 lb)
Packed Weight	19 kg ( 42 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



## EW1



### FEATURES

- High dynamic SPL
- Low harmonic distortion
- High temperature stabilized 3" copper voice coil
- High excursion limits
- Deep bass

### SPECIFICATIONS:

Frequency Response:	30Hz to 200Hz
Power Rating:	600W AES, 2400W peak
Sensitivity:	98dB @ 1W/1m
Maximum SPL:	125.5dB continuous, 131.5dB peak @ 1m
Nominal Impedance:	8Ω
Transducers:	1 X 18" (455 mm) long throw weather resistant woofer
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	18 mm MDF direct radiator vented enclosure
Subsonic Filter:	30Hz high pass 18dB/octave slope
Dimensions (H X W X D):	915 mm X 725 mm X 455 mm (36" X 28.5" X 18")
Net Weight:	55 kg (121 lb)
Packed Weight:	58 kg (128 lb)

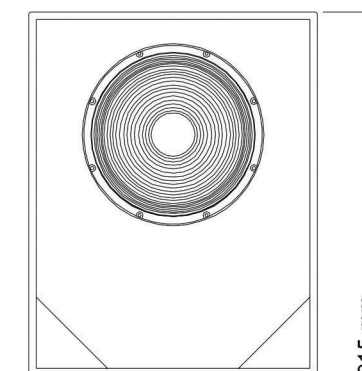
The Pulz EW1 Subwoofer has been specifically developed for playback of digital audio soundtracks in cinema theatres where high quality audio playback needs to be achieved at a moderate budget. The system is capable of high power output, low distortion and smooth response to the lowest audible frequencies.

The 18" driver is loaded in a direct radiator bass-reflex enclosure. It has a 3" high temperature stabilized voice coil for high power handling and reduced power compression. The specially treated cone is weather resistant and can withstand extremely severe climatic conditions. The large port area reduces turbulence at full power output and low frequencies.

The EW1 is recommended where long term reliability is of prime importance.



SIDE VIEW



FRONT VIEW



TOP VIEW



# EW 2



## FEATURES

- High dynamic SPL
- Low harmonic distortion
- Ultra high excursion limits
- High temperature stabilized 4" copper voice coil
- Waterproof cone with double sided treatment
- Deep bass

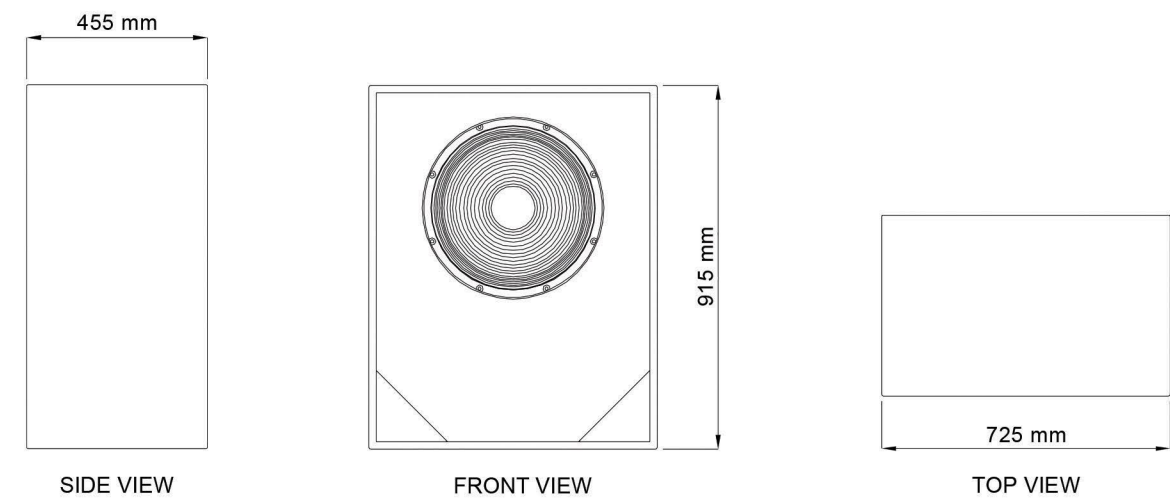
The Pulz EW2 Subwoofer System has been specifically developed for playback of digital audio sound- tracks in prestigious cinema theatres where high quality and high SPL is a must. The system is capable of high power output, low distortion and smooth frequency response to the lowest audible frequencies.

The 18" driver is loaded in a direct radiator bass-reflex enclosure. It has a 4" high temperature stabilized voice coil for high power handling and reduced power compression. The specially treated cone is weather resistant and can withstand extremely severe climatic conditions. The large port area reduces turbulence at full power output and low frequencies.

The EW2 is recommended where no compromise low frequency effects and long term reliability are desired.

## SPECIFICATIONS:

Frequency Response:	30Hz to 200Hz
Power Rating:	1000W AES, 4000W peak
Sensitivity:	98dB @ 1W/1m
Maximum SPL:	128dB continuous, 134dB peak @ 1m
Nominal Impedance:	8Ω
Transducers:	1 X 18" (455 mm) long throw weather resistant woofer
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	18 mm MDF direct radiator vented enclosure
Subsonic Filter:	30Hz high pass 18dB/octave slope
Dimensions (H X W X D):	915 mm X 725 mm X 455 mm (36" X 28.5" X 18")
Net Weight:	60 kg (132 lb)
Packed Weight:	63 kg (139 lb)





## EDW1



### FEATURES

- 2 X 18" (455 mm) woofer
- High dynamic SPL
- Low harmonic distortion
- High temperature stabilized 3" copper voice coil
- High excursion limits
- Deep bass

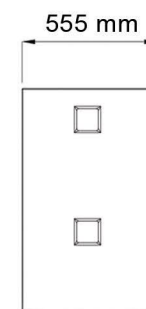
The Pulz EDW1 Subwoofer has been specifically developed for playback of digital audio soundtracks in cinema theatres where high quality audio playback needs to be achieved at a moderate budget. The system is capable of high power output, low distortion and smooth response to the lowest audible frequencies.

An dual 18" drivers are loaded in a direct radiator bass reflex enclosure. The drivers comprise of a 3" high temperature stabilized voice coil for high power handling and reduced power compression. The specially treated cone is weather resistant and can withstand extremely severe climatic conditions. The large port area reduces turbulence at full power output and low frequencies.

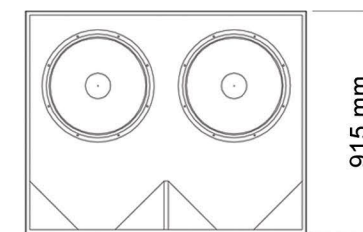
The EWD1 is recommended where long term reliability is of prime importance.

### SPECIFICATIONS:

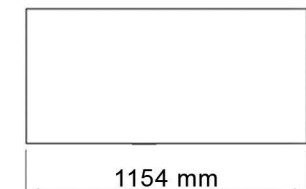
Frequency Response:	30Hz to 200Hz
Power Rating:	1200W AES, 4800W peak
Sensitivity:	101dB @ 1W/1m
Maximum SPL:	131.5dB continuous, 137.5dB peak @ 1m
Nominal Impedance:	4Ω
Transducers	2 X 18" (455 mm) long throw weather resistant woofer
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	18 mm MDF direct radiator vented enclosure
Subsonic Filter	30Hz high pass 18dB/octave slope
Dimensions (H X W X D):	915 mm X 1154 mm X 555 mm (36" X 45.5" X 21.9")
Net Weight:	110 kg (242 lb)
Packed Weight:	116 kg (256 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



## EDW2



### FEATURES

- 2 X 18" (455 mm) woofer
- High dynamic SPL
- Low harmonic distortion
- High temperature stabilized 4" copper voice coil
- High excursion limits
- Deep bass

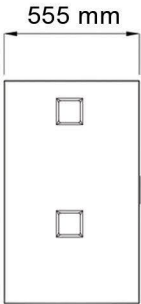
The Pulz EDW2 Subwoofer has been specifically developed for playback of digital audio soundtracks in cinema theatres where high quality audio playback needs to be achieved at a moderate budget. The system is capable of high power output, low distortion and smooth response to the lowest audible frequencies.

An dual 18" drivers are loaded in a direct radiator bass-reflex enclosure. The drivers comprise of a 4" high temperature stabilized voice coil for high power handling and reduced power compression. The specially treated cone is weather resistant and can withstand extremely severe climatic conditions. The large port area reduces turbulence at full power output and low frequencies.

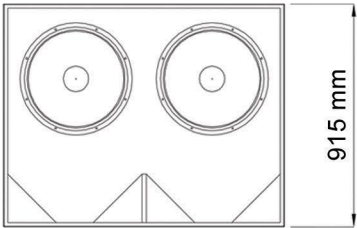
The EDW2 is recommended where no compromise low frequency effects and long term reliability are desired.

### SPECIFICATIONS:

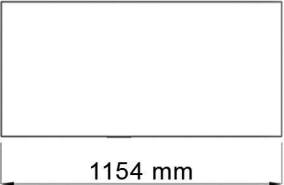
Frequency Response:	30Hz to 200Hz
Power Rating:	2000W AES, 8000W peak
Sensitivity:	101dB @ 1W/1m
Maximum SPL:	134dB continuous, 140dB peak @ 1m
Nominal Impedance:	4Ω
Transducers	2 X 18" (455 mm) long throw weather resistant woofer
Finish:	Black impact resistant structured coating
Connector:	Push type binding post, cable upto 4 mm diameter
Enclosure:	18 mm MDF direct radiator vented enclosure
Subsonic Filter	30Hz high pass 18dB/octave slope
Dimensions (H X W X D):	915 mm X 1154 mm X 555 mm (36" X 45.5" X 21.9")
Net Weight:	120 kg (265 lb)
Packed Weight:	126 kg (278 lb)



SIDE VIEW



FRONT VIEW



TOP VIEW



**sound matters**



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Pulz reserves the right to make changes in specifications without prior notice.