

# BERYLLIUM CONE SPEAKERS

Model

# 41-SE/B

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**EMP**  
Tek

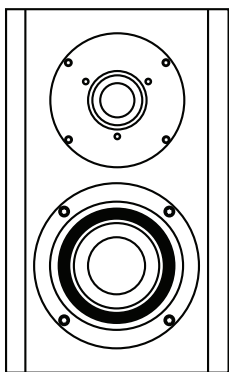
## OWNER'S MANUAL

## Introduction

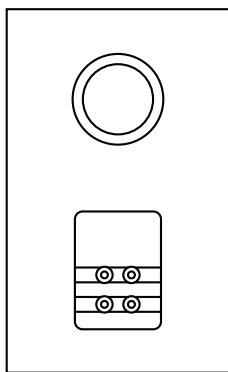
Congratulations on your purchase of EMP Tek 41-SE/B speakers! Your speakers are the result of many years of research and development dedicated to producing high quality products for home audio systems.

This manual contains features, setup recommendations and specifications for the EMP Tek 41-SE/B speakers. We recommend you thoroughly read through the material contained in this manual before connecting your speakers. This will ensure you have a good understanding of how to setup your speakers for optimum performance and allow for years of listening enjoyment.

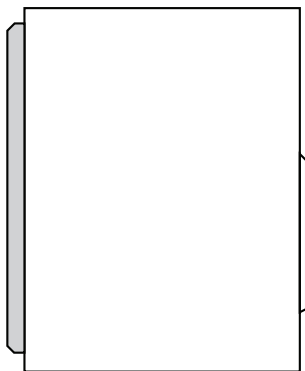
## 41-SE/B Bookshelf Speakers



FRONT VIEW



BACK VIEW



SIDE VIEW

## Break-in Period

Allow several hours of listening time to adequately break-in the speakers. As the speakers break-in, the driver suspension will loosen. The result of break-in will be an increase in low frequency response, improved definition, and increased clarity and detail.

## Care and Cleaning

To maintain speaker appearance, we recommend wiping them down with a clean and damp, soft cloth. To clean dust from the grille cloth, use a vacuum with a brush attachment.

## Features

At the heart of the EMP Tek 41-SE/B speakers are proprietary beryllium cone woofers. The special beryllium cone material combines stiffness, low mass and self damping properties in a manner that allows virtually uncolored presentation of program material. A powerful magnet, extended voice coil and bumped back plate give the bass/midrange drivers high excursion capability. This ensures accurate dynamic reproduction. For high frequencies, a premium quality silk dome tweeter is used. This tweeter uses liquid cooling to allow greater power handling.

Each EMP Tek speaker features an extensive crossover network. Steep acoustic slope crossovers are used to integrate drivers. The use of steep crossover slopes allows for higher power handling, minimizes driver interaction anomalies, and maximizes the ability of each driver in their respective band of frequencies. Large 5-way binding posts ensure a good, solid electrical connection to these crossover networks.

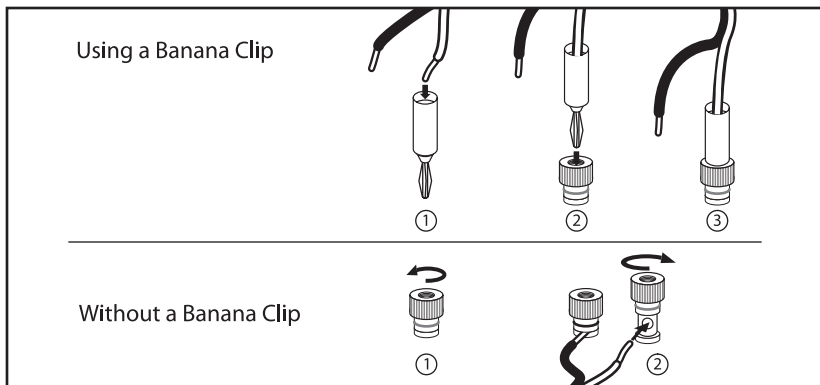
EMP Tek 41-SE/B speaker cabinets are constructed of ¾-inch medium density fiberboard because of its inert properties, thereby preventing sound coloration due to cabinet diffraction. The thickness of the front baffles also prevents excess acoustic radiation. Sophisticated computer modeling and measurement techniques are used extensively throughout the EMP Tek speaker design process.

## Attaching Speaker Wires

When using a banana jack to attach speaker wires to the binding post terminals, insert the speaker wire into the banana jack. Next insert the banana jack into the hole provided in the top of the terminal. Be sure the nut is tight before inserting the banana jack. Repeat for the other speaker wire(s) as necessary, see diagram on page 4.

If not using a banana jack, simply loosen the binding nut to allow the hole in the side of the terminal to become exposed. Strip ¼-inch of the insulation from the end of the speaker wire and insert the exposed wire end into the now exposed hole in the side of the terminal. Tighten the binding nut by turning the nut clockwise until the speaker wire is secured. Repeat for the other speaker wire(s) as necessary, see diagram on page 4.

## Attaching Speaker Wires (continued)



## Room Setup Suggestions

In order to obtain the best possible sound from your speaker system, it is important to determine where the speakers will sound best in your listening room. Room reflections from the floor, ceiling and side walls influence the balance, imaging and overall sonic quality at the listening position. Experiment with speaker placement to determine which location offers the best overall sound. As a general guide, use the room layout diagram and following the descriptions when setting up a home theater system. Some speakers shown in the diagram on the next page may not be applicable to your individual system.

### Front Main Speakers

As a starting point, place your left and right front speakers at least 15 inches from the wall and 7 feet apart from each other. The distance from the listening position to each speaker should be close to the distance that separates the two main speakers. Angling the speakers inward towards the listening position may give a more spacious and realistic sound stage. Main speakers may be placed on stands to place the tweeters closer to ear height.

### Center Channel Speaker

The Center Channel Speaker should be placed between both left and right main speakers. Often this positioning dictates placing the speaker either directly above or below a television monitor. Since some speakers are available with video shielding, the center speaker may be placed in close proximity to a CRT-type television without cause for concern.

### Rear Surround Speakers

The Surround Speakers may be placed either above, behind or to the sides of the listening position. The listening position should be centered between the surround speakers.

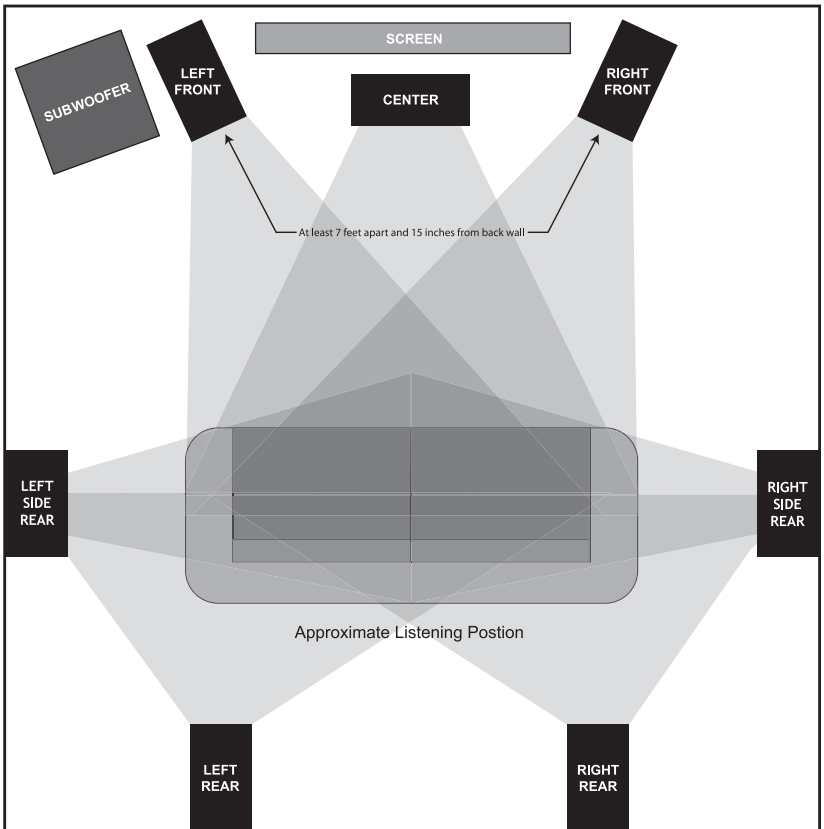
## Room Setup Suggestions (continued)

### Rear Surround Speakers (continued)

For best performance, you may want to experiment with angling the surround speakers either towards or away from the listening position.

### Subwoofer

Placement of the subwoofer will largely determine quality, quantity, and extension of the bass frequencies within your listening room. Bass frequencies are reinforced by close room boundaries. Placing the subwoofer in a corner will make the subwoofer sound louder and boost the very lowest frequencies. Placing the subwoofer away from walls will provide the least reinforcement, making the bass sound subjectively thinner. Good results can usually be obtained by placing a subwoofer along a wall 1-3 feet from a corner. Experiment with subwoofer placement and the sub-amplifier controls to achieve the proper bass balance.



# Specifications

<b>Model</b>	<b>41-SE/B</b>
<b>Speaker Type</b>	Bookshelf
<b>Frequency Response:</b>	60Hz – 20kHz ±3dB
<b>Sensitivity:</b>	88dB (2.83V @ 1M)
<b>Recommended Power:</b>	30-100 Watts
<b>Woofers:</b>	(1) 4" (102mm) Beryllium Cone
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome
<b>Impedance:</b>	8 Ohm
<b>Crossover Frequencies:</b>	3,000 Hz
<b>Crossover:</b>	12dB/Octave
<b>Dimensions:</b>	Width: 6-3/4" (171mm) Height: 11-1/2" (292mm) Depth: 10-1/4" (260mm)
<b>Grille Color:</b>	Black Fabric
<b>Finish:</b>	Black Oak Wood Grain with Gloss Black Tops and Bottoms
<b>Weight:</b>	12 lbs. (5.44 Kg)

# Troubleshooting

<b>Situation:</b>	<b>Probable Cause:</b>	<b>Solution:</b>
No sound from speakers	Speaker wire not connected	Make sure wire is connected at both the speaker and the amplifier observing proper polarity
	Speaker selector on amplifier is not on	Activate proper selector on amplifier
No sound from one speaker	Balance control on receiver or pre-amp is not centered	Place balance control in the center
	Speaker wire not securely connected	Check all connections at amplifier and speakers
Very little bass and/or imaging	Speakers are wired out of phase	Check entire system for proper polarity and make adjustments as necessary

## Warranty

Engineered Music Products “EMP Tek” warrants all EMP speakers and subwoofers (the “Product”) are covered by a limited warranty against defects in materials and workmanship for a period of 5 (five) years on the woofer and cabinet, and 1 (one) year on the amplifier from the original date of purchase from an authorized EMP Tek reseller or this web site. This warranty extends only to the original consumer purchaser. EMP Tek does not warrant goods used in industrial applications. This warranty does not cover any expenses incurred in any removal or re-installation of the product.

If the product should prove defective within the warranty period, contact EMP Tek for a return authorization number prior to returning the product by prepaid delivery to EMP Tek, along with the original sales invoice or other proof of purchase, which establishes eligibility for warranty service. EMP Tek will, at its option, replace or repair the product free of charge and return the product by prepaid delivery. This warranty does not apply to any product which has been damaged, misused, altered, neglected or repaired by anyone other than an EMP Tek authorized service facility.

Any implied warranties including fitness for use and merchantability are limited in duration to the period of the express warranties set forth above, and no person is authorized to assume for EMP Tek any other liability in connection with the sale of the product. EMP Tek expressly disclaims liability for any incidental and consequential damages caused by the product or the result of failure of this product. The remedies provided under this warranty are exclusive and in lieu of all others.

This warranty gives specific legal rights. In addition, there may be other legal rights arising from the sale of the product, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply in some areas.

Extended warranty available at [www.emptek.com/extendedwarranty.php](http://www.emptek.com/extendedwarranty.php)



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