

COMPACT THEATER SPEAKERS

Model **EF50**
SERIES



EMP
™

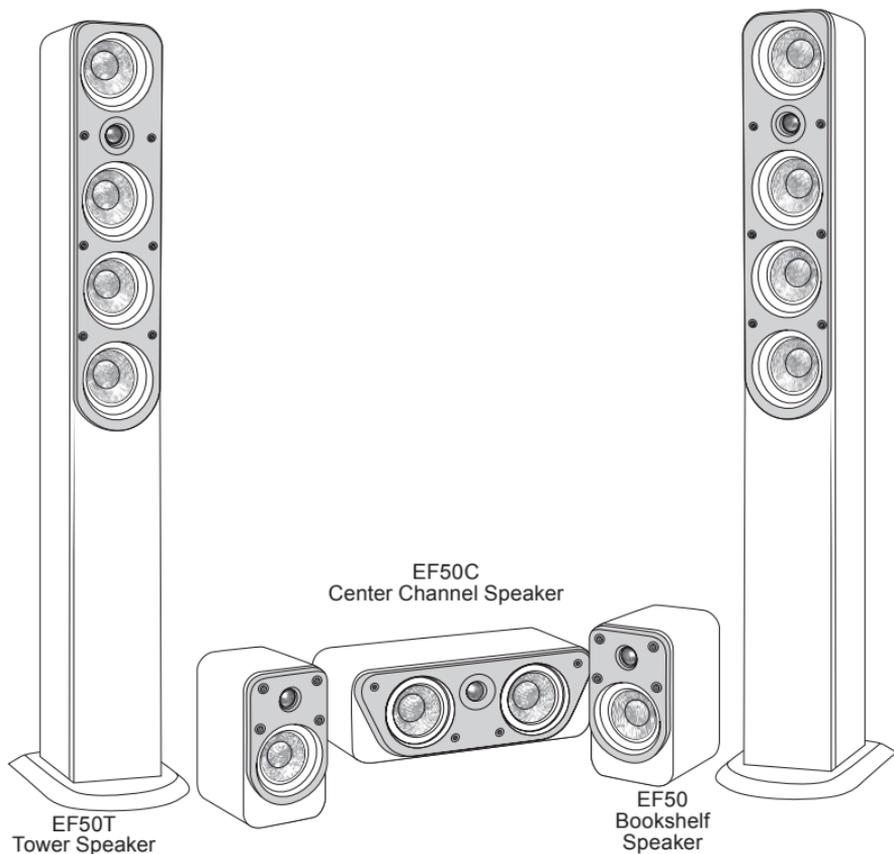
OWNER'S MANUAL

Introduction

Congratulations on your purchase of EMP Tek compact theater speakers! Your speakers are the result of many years of research and development.

This manual contains setup recommendations and specifications for the EF50, EF50C and EF50T compact theater speakers. It is highly recommended you thoroughly read through the material contained in this manual before connecting your speakers. This will ensure you have an understanding of how to properly setup, operate and maintain your speakers for optimum performance and maximum enjoyment.

EF50 Series Speakers



Break In Period

Allow several hours of listening time for your speakers to adequately break-in. During this period, the driver suspensions will loosen, the result will be an increase in bass, improved definition, and increased clarity and detail.

Care and Cleaning

To maintain the speaker's high quality appearance, it is recommended you regularly use a dry or slightly-damp soft cloth to keep the exterior of your speakers free from dust, lint or dirt. To clean dust from the grille, use a vacuum with a brush attachment and gently brush the surface of the grille.

Features

Proprietary Aluminized Fiberglass Matrix cone woofers are the heart of the EMP Tek EF50, EF50C and EF50T compact theater speakers. This special material is stiff, lightweight, and has self-damping properties which helps provide a virtually uncolored audio reproduction. These woofers have a powerful magnet that gives them high excursion capabilities; this helps the EF50 Series speakers provide extended dynamics and frequency response not typically found in speakers of their size. To avoid any interference with tube-type televisions and monitors, the EF50C is video shielded using additional opposing magnets and steel cups to cancel any stray magnetic fields.

High frequencies are handled by a high-quality poly silk tweeter. This tweeter uses liquid cooling for greater power handling. This allows the tweeter to last longer and provide accurate reproduction at the higher power output levels today's amplifier systems are capable of producing.

Crossover networks are used to integrate the EF50 Series woofers and tweeters. The use of steep crossover slopes allows higher than average power handling, minimizes the audio interaction between the drivers, and maximizes the speaker's overall clarity by allowing each driver to specialize in its own respective frequency band. One component featured within the EF50 Series crossover networks is a polyswitch. A polyswitch, or current-limiting device, is used to prevent damage to the tweeter if the speaker is over-driven or fed a distorted audio signal. This device operates 900% faster than a fuse and self-resets when the volume level or amount of distortion is reduced.

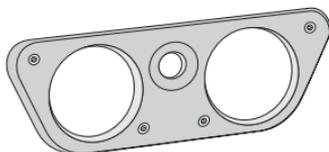
Features (continued)

The EF50 Series enclosures have a narrow profile to minimize the impact the cabinet has on the audio signal. The speakers virtually disappear, leaving only a wide, deep sound stage with pinpoint imaging typical of much higher priced speakers. A special damping material is also used inside the cabinet to dampen the internal standing waves which helps the speakers provide a true-to-life experience.

The EF50 Series have removable faceplates. The speakers are shipped with a pewter faceplate. Check the EMP Tek website for faceplates available in other colors (sold separately).



EF50
Faceplate



EF50C
Faceplate

System Setup

To obtain the best possible sound quality from your EF50 Series compact theater speakers, it is important to place the speakers where they will sound best in your listening room. Your room will influence the balance, imaging and overall sonic quality of the system, so you may want to experiment with speaker placement to determine which location offers the best overall sound for each speaker. As a general guide, use the room layout diagram and the following descriptions when setting up a home theater system. Some speakers shown in the diagram may not always be applicable to your individual system.

Front Main Left and Right Speakers

As a suggested starting point for the front left and right main speakers, try to place your speakers about 15 inches away 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 (i.e.: a triangle). The EMP Tek EF50 compact theater speakers can also be hung on a wall or placed in bookshelves to better match your décor. If this is how your system will be arranged, keep in mind the spacing comments above for best performance. Also, slightly angling the speakers inward towards the listening position may give a more spacious and realistic sound stage.

Center Channel Speaker

For optimal performance in surround sound applications, the center channel speaker (typically the EF50C) should be placed in the middle between the front left and right main speakers. Often this positioning dictates placing the center channel speaker either directly above or below a television or monitor. Since the EF50C compact theater speaker features video shielding, it may be placed in close proximity to any television without cause for concern. Also, the EF50C may be placed in either a horizontal (lying down) or vertical (standing) position.

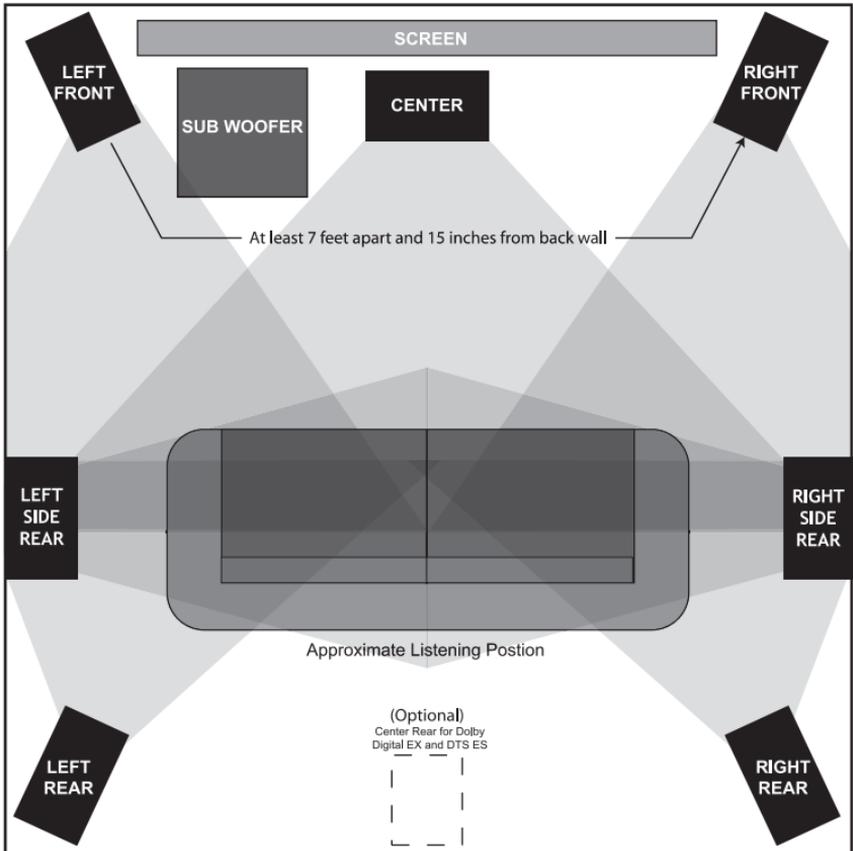
System Setup (continued)

Surround Channel Speakers

The surround channel speakers should be placed slightly above and behind, and/or to the sides of, the listening position. For best performance, try to keep the listening position centered between the surround channel speakers. You may want to experiment with angling the surround speakers either towards or away from the listening position (depending on your décor and your room's furnishings) to obtain better sound quality.

Subwoofer

Placement of the subwoofer will largely determine the quality, quantity, and extension of the bass frequencies in your listening room. Bass frequencies are reinforced by close room boundaries. Placing the subwoofer nearer to a corner will make the subwoofer sound louder and boost the very lowest frequencies. Placing the subwoofer away from a corner or walls will provide the least reinforcement, possibly making the bass sound subjectively thinner than if the subwoofer were closer to a wall or corner. A good starting point for subwoofer placement would be along a wall and up to 3 feet from the corner. You may want to experiment with subwoofer placement and the subwoofer amplifier controls to achieve the proper bass balance.

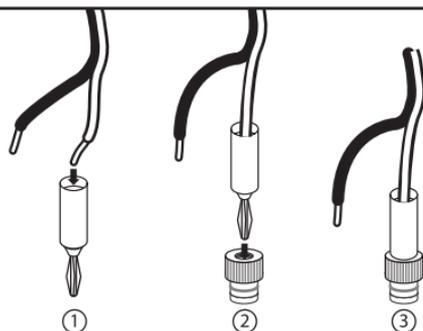


Attaching Speaker Wires

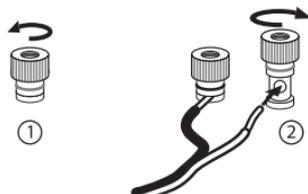
When using a banana jack to attach speaker wires to the binding post terminals, insert the speaker wire into the banana jack. Next insert the banana jack into the hole provided in the top of the binding posts. Repeat for the other speaker wire(s) as necessary.

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 $\frac{1}{4}$ -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.

Using a Banana Jack



Without a Banana Jack



Specifications

Model	EF50	EF50C	EF50T
Frequency Response:	100Hz – 20kHz \pm 3dB	100Hz – 20kHz \pm 3dB	80Hz – 20kHz \pm 3dB
Sensitivity:	85dB (2.83V@1m)	88dB (2.83V@1m)	87dB (2.83V@1m)
Recommended Power:	35-100 Watts	35-120 Watts	50-150 Watts
Woofers:	4" Aluminized Fiberglass Matrix	Dual 4" Aluminized Fiberglass Matrix	Four 4" Aluminized Fiberglass Matrix
Tweeter:	1" Poly Silk Dome	1" Poly Silk Dome	1" Poly Silk Dome
Impedance:	6 Ohms	8 Ohms	8 Ohms
Crossover Frequencies:	3000 Hz	3000 Hz	3000 Hz
Video Shielding:	Yes	Yes	Yes
Dimensions:	Width: 5" Height: 8½" Depth: 6½"	Width: 5" Height: 14" Depth: 6½"	Width: 5" Height: 40" Depth: 6½" Base Width: 9" Base Height: ¾" Base Depth: 11½"
Interchangeable Faceplate:	Check www.emptek.com for other available colors.	Check www.emptek.com for other available colors.	Check www.emptek.com for other available colors.
Grille:	Black	Black	Black
Finish:	Black	Black	Black
Weight:	5.3 lbs.	9.15 lbs.	28.15 lbs.

Warranty

Engineered Music Products "EMP Tek" warrants the EF50, EF50C and EF50T compact theater speakers (the "Product") to be free from original manufacturing defects in materials and workmanship for five (5) years from date of purchase from an authorized EMP Tek dealer. 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.



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