



KRAMER ELECTRONICS LTD.

USER MANUAL

MODEL:

Tavor 8-Sub
Powered Subwoofer

P/N: 2900-300397 Rev 3



Tavor 8-Sub Quick Start Guide

This guide helps you install and use your product for the first time. For more detailed information, go to <http://bit.ly/k-prod-downloads> to download the latest manual or scan the QR code on the left.

Step 1: Check what's in the box

- Tavor 8-Sub powered subwoofer
- 1 wall bracket
- 4 black rubber feet

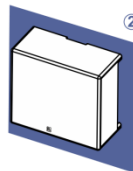


Step 2: Choose the best location

Position your subwoofer on: ① a hard surface horizontally, ② on the wall or ③ place it vertically, making sure to keep the vibrations to a minimum. Do not cover the **Tavor 8-Sub** or place anything on its top.



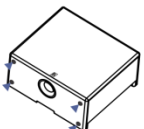
Horizontal Position



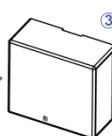
On-the-wall Position

Before installing the speakers:

- Place the **Tavor 8-Sub** in different locations and check the sound before deciding on the most suitable location so that the subwoofer sound blends smoothly with the speakers
- Do not position the subwoofer exactly along the center line of the room



Vertical Position



Stick the 4 rubber feet supplied with the unit on the lower part of the speaker so it will not touch the floor

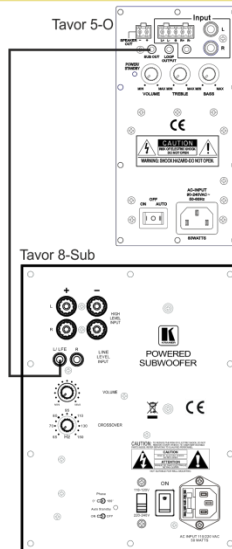
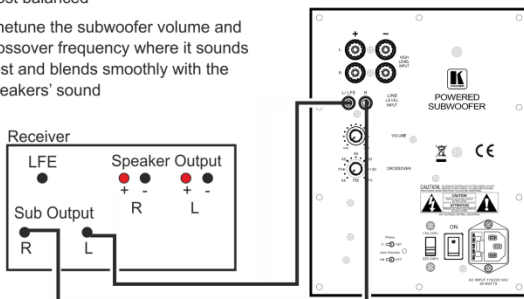
Step 3: Install the speaker

Always switch OFF the power on each device before connecting it to your subwoofer.

For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to your speakers

To install the **Tavor 8-Sub**:

- Connect **one** of the inputs to an amplifier/receiver or an active speaker
- Connect the power and press the ON switch
- Set the phase according to the location of the subwoofer (front or rear)
- Set the crossover frequency to the lower cutoff range of the main speakers
- Turn the volume all the way down
- Play a track with deep bass and various low frequencies
- Listen to the bass line and set the volume to the point where the bass sounds most balanced
- Finetune the subwoofer volume and crossover frequency where it sounds best and blends smoothly with the speakers' sound



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1 Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront video, audio, presentation, and broadcasting professionals on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Our 1,000-plus different models now appear in 14 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Routers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters; GROUP 11: Sierra Video Products; GROUP 12: Digital Signage; GROUP 13: Audio; and GROUP 14: Collaboration.

Congratulations on purchasing your Kramer **Tavor 8-Sub Powered Subwoofer**, which is ideal for the following typical applications:

- Boardrooms
- Conference rooms
- Educational classrooms
- Presentation venues
- Home theater

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual



Go to http://www.kramerelectronics.com/support/product_downloads.asp to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

2.1 Achieving the Best Performance

To achieve the best performance:

- Use only good quality connection cables to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Do not secure the cables in tight bundles or roll the slack into tight coils
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality
- Position your Kramer **Tavor 8-Sub** away from moisture, excessive sunlight and dust



This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.



Do not open the housing of the speaker; doing so may reduce the quality of the sound.

2.2 Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer's recycling arrangements in your particular country go to our recycling pages at <http://www.kramerelectronics.com/support/recycling/>.

3 Overview

The **Tavor 8-Sub** is an attractive powered Subwoofer that is used to reproduce the low-range audio frequencies (the bass) in a sound system. It has a control and connection panel as well as the woofer on its rear panel and a bass port facing downwards. The **Tavor 8-Sub** can be mounted on the wall, on the floor or next to the wall in a way that hides the control panel.

The **Tavor 8-Sub** powered subwoofer features:

- Three optional input methods:
 - A line level stereo on RCA connectors to connect to the pre-amplifier output connector on a receiver/amplifier
 - An LFE input on an RCA connector to connect to the pre-amplifier output connector on a receiver/amplifier
 - A high level input to connect to the subwoofer connector on the audio source as well as to the speakers directly
- A volume level knob button
- A crossover frequency knob button (65Hz to 150Hz)
- Two optional power settings (110-120V or 220-240V)
- An optional auto standby mode
- Reverse phase selection (0 or 180 degrees)

The **Tavor 8-Sub** is enclosed in a wooden cabinet.

[Figure 1](#) shows the front panel and [Figure 2](#) shows the **Tavor 8-Sub** rear panel:

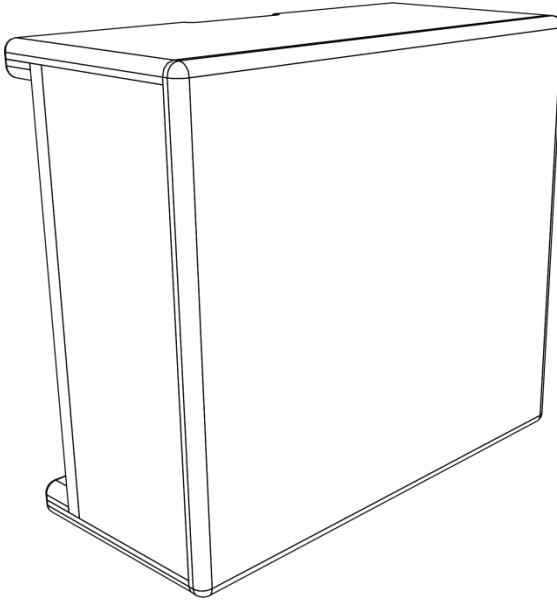


Figure 1: Tavor 8-Sub Front Panel

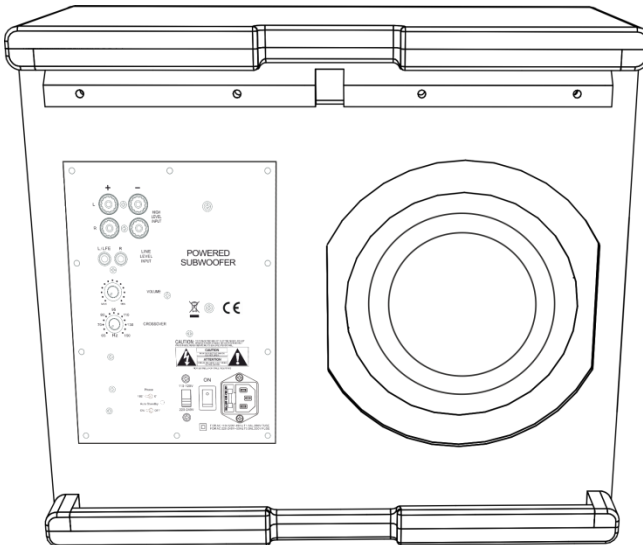


Figure 2: Tavor 8-Sub Rear Panel

4 Defining the Tavor 8-Sub

This section defines the active **Tavor 8-Sub**:

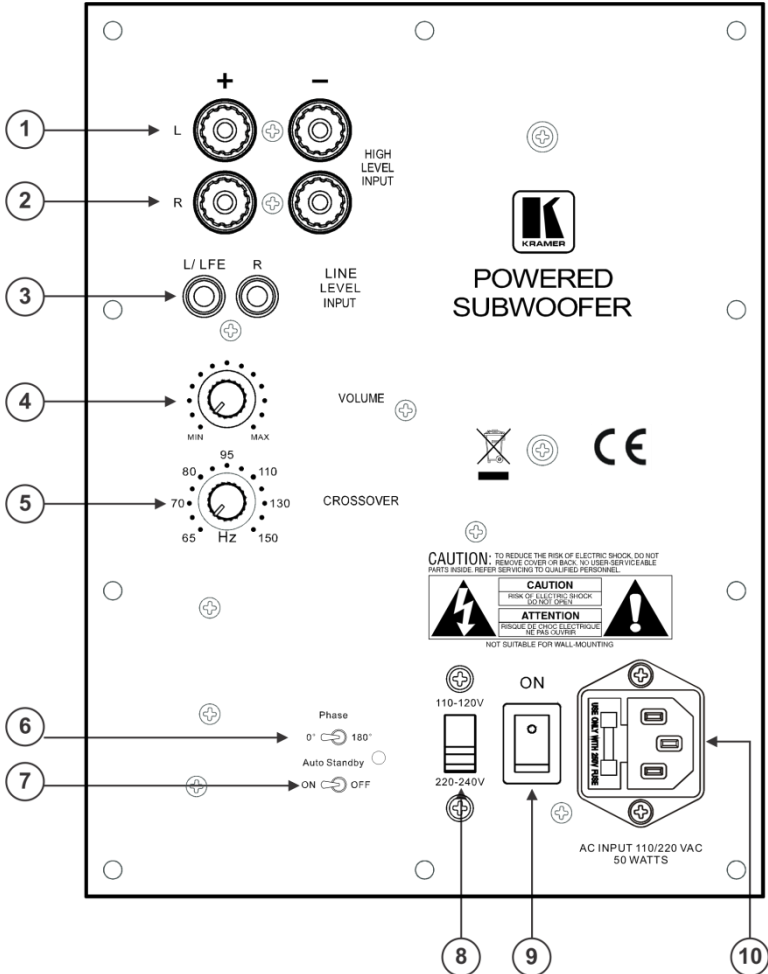


Figure 3: Tavor 8-Sub Active Speaker

#	Feature		Function
1	HIGH LEVEL INPUT	L (+ and -)	Connect to an amplified audio source (for example, an amplifier)
2		R (+ and -)	
3	LINE LEVEL INPUT (L/LFE and R) on RCA Connectors		Connect to the subwoofer output on the amplifier/powerd speakers (either to the LFE output or to the LEFT and RIGHT outputs (for example, the Tavor 5-O))
4	VOLUME Control Knob		Rotate the button to adjust the audio volume
5	CROSSOVER Control Knob		Rotate the button to adjust the upper transmission frequency
6	Phase Switch		Set to 0 or 180 degrees
7	Auto Standby Switch		Set to on for the subwoofer to enter standby mode automatically when idle for over 10 minutes, set to off to disable auto standby
8	POWER Settings Slide Switch		Set to 110-120V or to 220-240V
9	ON Switch		Set to ON to power the Subwoofer
10	Power Connector with Fuse		AC connector, enabling power supply to the unit

5 Installing the Tavor 8-Sub

This section explains how to:

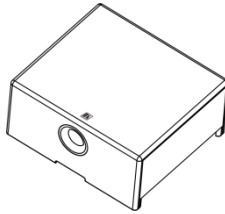
- Choose the best location (see [Section 5.1](#))
- Install the wires (see [Section 5.2](#))

[Section 5.3](#) describes the different subwoofer setups.

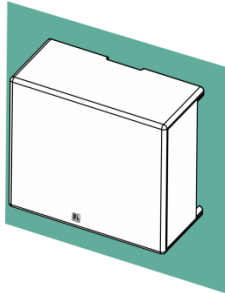
5.1 Choosing the Best Location

You can position your **Tavor 8-Sub**:

On the floor with the woofer facing the floor (horizontally placed)

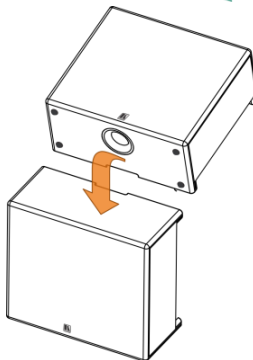


On the wall with the woofer facing the wall and the bass port facing downwards (see [Section 6](#))



On the floor vertically with woofer facing the wall and the bass port facing the floor.

Stick the four self-adhesive rubber feet firmly into place to create some free space around the bass port and ensure proper air relief.



Make sure that you:

- Keep the vibrations to a minimum
- Do not cover or place anything on the **Tavor 8-Sub**

Before installing the subwoofer:

- Experiment by placing the subwoofer in different locations and check the sound before finally deciding on the most suitable location (see installation instructions in [Section 5.2](#)) where the subwoofer sound blends smoothly with the speakers.
Note that the ideal place would be between the two front speakers, but other locations may produce good results.
- Do not place the subwoofer directly in the central dividing line of the room, it should be located toward the left or the right of the central dividing line

5.2 Installing the Tavor 8-Sub

To install the **Tavor 8-Sub**:

1. Connect **one** of the optional inputs to a receiver or to an active speaker (see [Section 5.3](#))
2. Connect the power.
3. Press the ON switch.
4. If the subwoofer is located in front of the listeners (next to the front speakers), set the phase to 0°. If it is located behind them (next to the rear speakers) set it to 180°.

You can further optimize the subwoofer phase in the following way: after choosing the location of the subwoofer:

- Sit at the center of the main listening area
- Play a 80Hz signal through your audio system
- Measure dBSPL in both 0 and 180 degrees settings (using your ears (loudness) or via an application or a dB meter)

Whichever setting is louder (higher dBSPL) is the recommended setting to use.

5. Set the Crossover frequency knob to the lower range of the main speakers (if the main speakers have a frequency response of 100Hz to 20kHz set the crossover frequency to 100Hz).
6. Turn the volume all the way down.
7. Play a track with deep bass and rich in low frequencies.
8. Listen to the bass line and set the **Tavor 8-Sub** volume to the point where the bass sounds most balanced. The subwoofer should not be louder compared to the rest of the system; it might sound muddy or 'boomy'.
9. Fine tune the **Tavor 8-Sub** volume and crossover frequency where it sounds best and blends smoothly with the rest of the speakers' sound.



Note that if you decide to place the **Tavor 8-Sub** vertically on the floor, you need to stick the four self-adhesive rubber feet firmly into place to create some free space around the bass port and ensure proper air relief.

5.3 Tavor 8-Sub Different Setups

The **Tavor 8-Sub** has several optional setups:

You can connect it directly to an amplifier/receiver via the:

- LFE (Low Frequency Effects) input (recommended for surround systems), see [Section 5.3.1](#)
- LINE LEVEL INPUT, see [Section 5.3.2](#)
- HIGH LEVEL INPUT, see [Section 5.3.3](#)

You can also connect the **Tavor 8-Sub** to an active speaker as described in [Section 5.3.4](#).



Sending a 50W input to the Hi-Level inputs and setting full volume on the LFE inputs – might damage the **Tavor 8-Sub**.

5.3.1 Connecting to a Receiver via the LFE Input

Some receivers have an LFE or pre-out connector (a low frequency effects channel) which is a channel dedicated to the low frequencies for Dolby® Digital or DTS® receiver (typically used for surround systems).

To connect via the LFE input, connect the Pre-out, LFE or Subwoofer Out (or any other similar name) RCA connector on the receiver to the LFE input on the **Tavor 8-Sub** via an RCA cable.

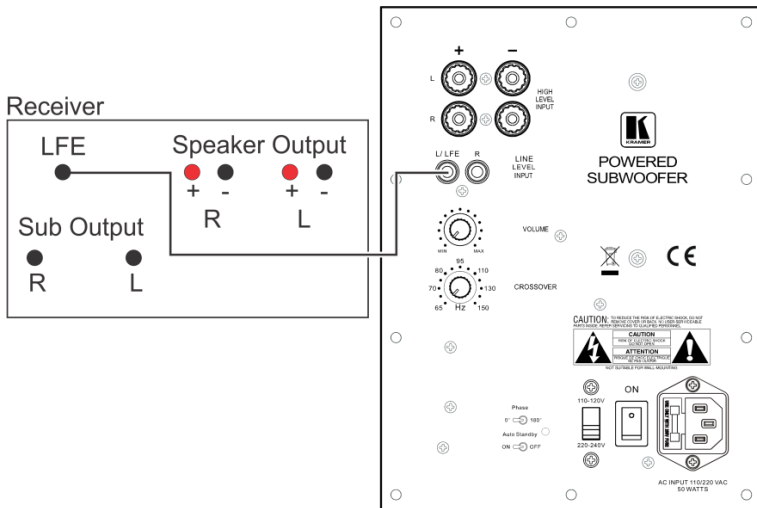


Figure 4: Connecting via LFE

5.3.2 Connecting to a Receiver via the Line Level Input

If the receiver/processor has Subwoofer outputs (and does not include Dolby® Digital or DTS®) use the Subwoofer outputs to connect to the subwoofer:

1. Connect the receiver subwoofer output left RCA connector to the L LINE LEVEL INPUT RCA connector, via an RCA cable.
2. Connect the receiver subwoofer output right RCA connector to the R LINE LEVEL INPUT RCA connector, via an RCA cable.

Use the CROSSOVER control button on the **Tavor 8-Sub** to set the optimal crossover frequency of the system.

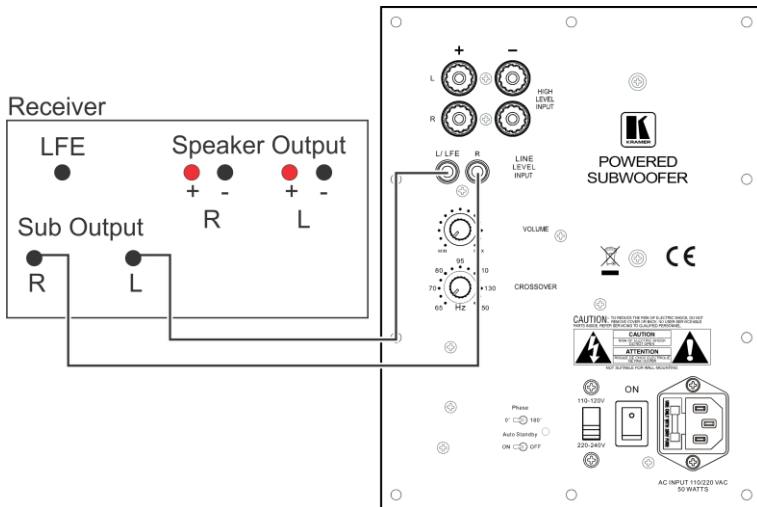


Figure 5: Connecting via Line Input

5.3.3 Connecting to a Receiver via the High Level Input

If the receiver does not have a dedicated subwoofer output, connect it to the **Tavor 8-Sub** using the receiver's speaker outputs via regular speaker wires. The low frequencies will be set via the Crossover control knob.

To connect via the high level input:

1. Connect the Left + and – speaker output connectors on the receiver to the + and – L HIGH LEVEL INPUT connectors on the **Tavor 8-Sub**, respectively, using speaker wires.
2. Connect the Right + and – speaker output connectors on the receiver to the + and – R HIGH LEVEL INPUT connectors on the **Tavor 8-Sub**, respectively, using speaker wires.

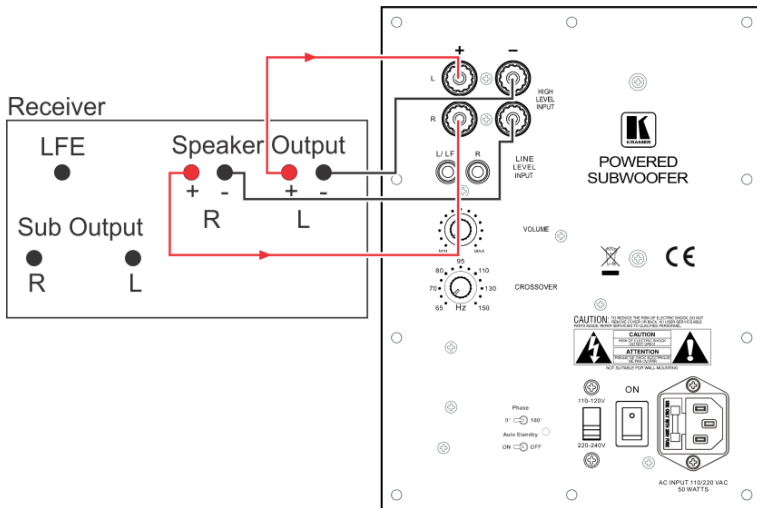


Figure 6: Connecting via High Level Input

5.3.4 Connecting to an Active Speaker via the Line Level Input

When using an active speaker, for example the **Tavor 5-O**, you can connect the **Tavor 8-Sub** directly to the speaker via its SUB OUT connector using the Kramer Mini Jack (3.5mm) to RCA cable (**C-A35M/2RAM**) as illustrated in [Figure 7](#):

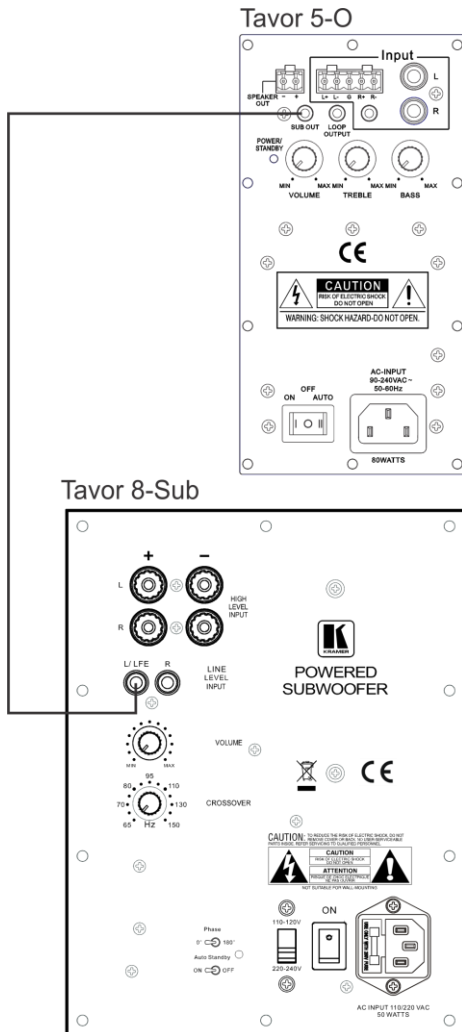


Figure 7: Connecting to an Active Speaker

6 Mounting the Tavor 8-Sub on the Wall

You can place the **Tavor 8-Sub** vertically or horizontally or use the specially designed wall mount bracket included in the package to hang the **Tavor 8-Sub** on the wall at the desired location.

To mount the **Tavor 8-Sub** onto the wall:

1. Run the wires from the receiver to the **Tavor 8-Sub** desired location.
2. Mark the desired location of the wall bracket. And prepare the wall for mounting the bracket (installing four masonry anchors for the support screws).
3. Screw the bracket in place:

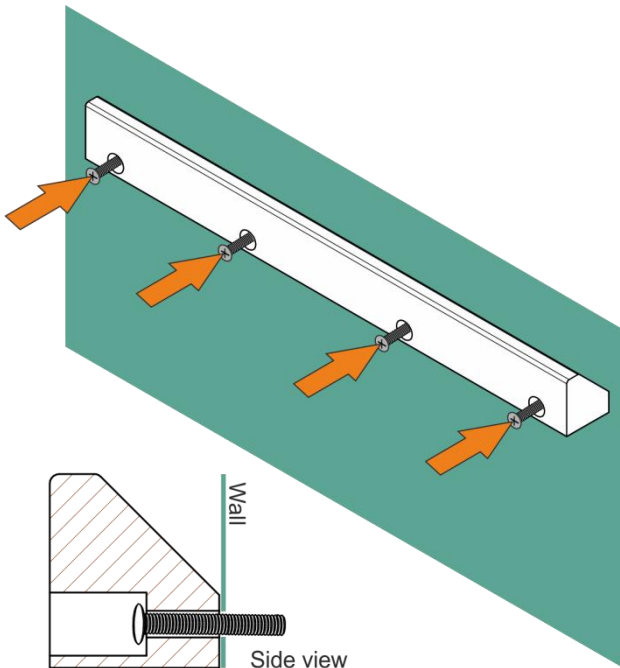


Figure 8: Installing the Bracket

4. Pass the wiring through the opening in the bracket.
5. Lift the **Tavor 8-Sub** and place the groove on the subwoofer over the bracket.

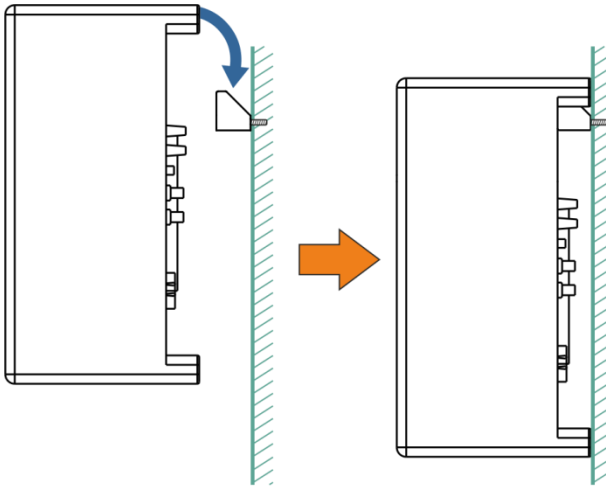


Figure 9: Mounting Tavor 8-Sub over the Bracket

7 Technical Specifications

Audio and Power	
DESCRIPTION:	Subwoofer speaker
FREQUENCY RESPONSE:	30Hz to 600Hz @ -10dB 45Hz to 350Hz @ ±3dB
WOOFER:	8" (203mm) aluminum with rubber surround
IMPEDANCE:	200Ω (high level input)
SENSITIVITY:	95dB SPL, 1W@1m
MAX SPL:	Continuous: 108dB Peak: 114dB
POWER HANDLING:	50W RMS 140W continuous program
POWER SOURCE:	Selectable: 110–120V AC 60Hz or 220–240V AC 50Hz
CROSSOVER FREQUENCY:	65-150Hz
INPUT CONNECTORS:	High level balanced stereo audio on binding post lug nuts LFE or Line level unbalanced stereo audio on RCA connectors
CONTROLS:	Volume, crossover, phase, auto standby and selectable power source
Shipping and Installation	
MATERIALS:	Wooden Cabinet and Wooden Bracket; 50W dual voltage amplifier
OPERATING TEMPERATURE:	-15° to +70°C (5° to 158°F)
STORAGE TEMPERATURE:	-30° to +55°C (-22° to 131°F)
HUMIDITY:	25% to 90%, RHL non-condensing
WEIGHT PER SINGLE SPEAKER:	9.9kg (21.8lbs) approx.
WEIGHT WITH MOUNTING KIT:	10.25kg (22.6lbs) approx.
SHIPPING WEIGHT (FOR PIECE):	12.45kg (27.4lbs) approx.
DIMENSIONS:	45cm x 40cm x 20.5cm (17.7" x 15.7" x 8.1"), W, D, H.
INCLUDED ACCESSORIES:	Power cable, 4 black rubber feet
COLORS:	White
Specifications are within a 10% tolerance and are subject to change without notice at http://www.kramerelectronics.com	

LIMITED WARRANTY

The warranty obligations of Kramer Electronics for this product are limited to the terms set forth below:

What is Covered

This limited warranty covers defects in materials and workmanship in this product.

What is Not Covered

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Kramer Electronics to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover cartons, equipment enclosures, cables or accessories used in conjunction with this product.

Without limiting any other exclusion herein, Kramer Electronics does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

How Long Does this Coverage Last

One year as of this printing; please check our Web site for the most current and accurate warranty information.

Who is Covered

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

What Kramer Electronics will do

Kramer Electronics will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1. Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labor to complete the repair and restore this product to its proper operating condition. Kramer Electronics will also pay the shipping costs necessary to return this product once the repair is complete.
2. Replace this product with a direct replacement or with a similar product deemed by Kramer Electronics to perform substantially the same function as the original product.
3. Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

What Kramer Electronics will not do Under This Limited Warranty

If this product is returned to Kramer Electronics or the authorized dealer from which it was purchased or any other party authorized to repair Kramer Electronics products, this product must be insured during shipment, with the insurance and shipping charges prepaid by you. If this product is returned uninsured, you assume all risks of loss or damage during shipment. Kramer Electronics will not be responsible for any costs related to the removal or re-installation of this product from or into any installation. Kramer Electronics will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

How to Obtain a Remedy under this Limited Warranty

To obtain a remedy under this limited warranty, you must contact either the authorized Kramer Electronics reseller from whom you purchased this product or the Kramer Electronics office nearest you. For a list of authorized Kramer Electronics resellers and/or Kramer Electronics authorized service providers, please visit our web site at www.kramerelectronics.com or contact the Kramer Electronics office nearest you.

In order to pursue any remedy under this limited warranty, you must possess an original, dated receipt as proof of purchase from an authorized Kramer Electronics reseller. If this product is returned under this limited warranty, a return authorization number, obtained from Kramer Electronics, will be required. You may also be directed to an authorized reseller or a person authorized by Kramer Electronics to repair the product.

If it is decided that this product should be returned directly to Kramer Electronics, this product should be properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization number will be refused.

Limitation on Liability

THE MAXIMUM LIABILITY OF KRAMER ELECTRONICS UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

Exclusive Remedy

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IF ANY PRODUCT TO WHICH THIS LIMITED WARRANTY APPLIES IS A "CONSUMER PRODUCT" UNDER THE MAGNUSON-MOSS WARRANTY ACT (15 U.S.C.A. §2301, ET SEQ.) OR OTHER APPLICABLE LAW, THE FOREGOING DISCLAIMER OF IMPLIED WARRANTIES SHALL NOT APPLY TO YOU, AND ALL IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE PARTICULAR PURPOSE, SHALL APPLY AS PROVIDED UNDER APPLICABLE LAW.

Other Conditions

This limited warranty gives you specific legal rights, and you may have other rights which vary from country to country or state to state.

This limited warranty is void if (i) the label bearing the serial number of this product has been removed or defaced, (ii) the product is not distributed by Kramer Electronics or (iii) this product is not purchased from an authorized Kramer Electronics reseller. If you are unsure whether a reseller is an authorized Kramer Electronics reseller, please visit our Web site at www.kramerelectronics.com or contact a Kramer Electronics office from the list at the end of this document.

Your rights under this limited warranty are not diminished if you do not complete and return the product registration form or complete and submit the online product registration form. Kramer Electronics thanks you for purchasing a Kramer Electronics product. We hope it will give you years of satisfaction.



For the latest information on our products and a list of Kramer distributors, visit our Web site where updates to this user manual may be found.

We welcome your questions, comments, and feedback.

Web site: www.kramerelectronics.com

E-mail: info@kramereel.com

CE



SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

P/N:



2900-300397

Rev:



3