VM AUDIO

INSTALL GUIDE

VAS428P-PAIR / VAS4210P-PAIR
VAS4212P-PAIR

SHAKER LOUDSPEAKER SYSTEMS
Thank you for your interest in VM Audio products. Our goal is to enhance your listening experience. The Shaker Series was designed as the economical solution for a performance craving, casual consumer. The experts and engineers at VM Audio have meticulously tested and designed this product with a reasonable price tag to fit any budget. Let the Shaker Series maximize the value of your investment.

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### System Features

- 4-Way Passive Loudspeaker System
- High Output Compact DJ System Design
- Direct Radiating 1” Piezo Super Tweeter
- Wide Dispersion High Frequency 1” Horn Tweeter
- Dual High Output Mid/Low Ribbed Cone Woofers
- 1” High Temp Multi-Layer Copper Voice Coil
- Low Noise CAD Tuned Bass Reflex Enclosure
- Computer Engineered MDF Acoustic Enclosure
- Heavy Duty Aviation Grade Enclosure Carpet Cover
- Sturdy ABS Heavy Duty Cabinet Handle
- Impact Resisting Black ABS Corner Guards
- Built-In 35-mm ABS Speaker Mount Socket
- Strong Rubber Edge Black Steel Woofer Grilles
- 1/4” TS Jacks and Speakon Inputs with Aux Outputs
- Binding Post Input Speaker Wire Connector
1. Please read these instructions carefully before attempting to install and operate this unit.
2. Please read all instructions as indicated in the User Guide.
4. Save all packaging in the event the unit needs to be returned for service or replacement.
5. Heed all warnings; unit can be hazardous if not used properly or as directed.
6. Ensure to setup your system in a safe and secure manner.
7. Do not expose the unit to rain, moisture, dripping, splashing or use near water.
8. Do not place objects filled with liquids on the unit.
9. Do not place or install unit near heat sources such as radiators, heat registers, stoves, amplifiers or other apparatus that produce heat.
10. Protect the speaker wires from being walked on or getting pinched.
11. Use only hardware such as tripods, brackets, attachments, and other accessories components specified by VM Audio.
12. Before placing, installing or suspending this loudspeaker product, inspect all hardware, brackets, surfaces, cabinets and associated equipment for damage. If a fault is discovered, it should be corrected immediately.
13. Do not attempt to service this unit, refer all servicing to qualified service personnel.

Package Contents

Your Shaker DJ Loudspeaker was carefully packaged to ensure a safe and secure transport to its destination. Please review the contents of the package and make sure you have received all the items included with your loudspeaker.

VASP428P-PAIR, VAS4210P-PAIR, VAS4212P-PAIR

(2) Loudspeakers
(1) User Guide

Features Overview

The Shaker DJ Series are easy to operate loudspeaker systems, designed for both professional and consumer DJ use. Please take a few moments to read this user guide and familiarize yourself with the loudspeaker features.

VAS428P-PAIR, VAS4210P-PAIR, VAS4212P-PAIR

Front

Tweeters

Woofer

Ports
**Features Overview**

*VAS428P-PAIR, VAS4210P-PAIR, VAS4212P-PAIR*

**Input Terminal Plate**

**Speakon Cable Connectors** - Two connectors are featured which are wired in parallel. Use one connector to connect to the amplifier and use the second connector to tap into the signal to drive another loudspeaker.

**1/4" TS Jack Connectors** - Two connectors are featured which are wired in parallel. Use one connector to connect to the amplifier and use the second connector to tap into the signal to drive another loudspeaker.

**Binding Posts** - Connector accepts banana plugs, bare wires, and spade connectors.
Getting Started

Loudspeaker Placement
The Shaker DJ Series Loudspeakers were designed to sit on a solid flat surface or be pole mounted on a 35 mm diameter loudspeaker support pole.

- Follow the user guide installation procedures to install your Shaker DJ Loudspeakers into your own sound system.
- Place the loudspeaker cabinet on a solid level surface where it cannot be toppled or tilted.
- If the loudspeaker is to be pole mounted, ensure the tripod is on a flat solid surface and on a location where it cannot be toppled or tilted by the audience or personnel.
- Elevate the loudspeaker at or above head level. This is to prevent the high frequencies from being blocked and getting muffled by obstacles directly in front of the tweeters.
- Avoid placing full-range loudspeakers in a corner or right next to a wall to avoid degrading the overall sound quality.
- If loudspeakers are to be placed in locations where large amounts of reverberations or echoes are produced, such as gymnasiums and auditoriums, laying carpet or rugs will help dampen the reflections and improve the overall sound quality of the system.

CAUTION!
- Before installing this loudspeaker product, inspect all hardware, brackets, surfaces, cabinets and associated equipment for damage. If a fault is discovered, it should be corrected immediately.
- Never connect multiple amplifier outputs to the parallel speakon or 1/4” jack speaker wire connectors at the same time. This may cause a short and may damage your equipment or cause a fire.
- This loudspeaker can easily reproduce sound pressure levels (SPL) loud enough to cause permanent ear damage that could result in hearing loss. Take great precaution to protect yourself from prolonged exposure to high output sound pressure levels.

Installation
Step 1
Carefully run CH 1 or both CH 1 and CH 2 speaker wires from the amplifier up to the location of the loudspeakers.

Stereo Loudspeaker Installation
Installation

Step 2 - Speaker Wire Connections

**WARNING!**
To prevent electrical shock hazard, always switch off the amplifier when making connections to the subwoofer.

Option 1 (Binding Post Connection)
1. Strip off 1/2 inch of insulation from the ends of each speaker wire to expose the two conductors, and tightly twist the wire strands.

2. Turn post terminals counter clockwise to expose wire holes and insert the positive (+) and negative (-) wires through their respective post and tighten the terminals.

Option 2 (1/4" TS Jack Connection)
If using 1/4" TS jack speaker cable(s), plug the jack into one of the 1/4" jack connectors.

Option 3 (Speakon Connection)
If using Speakon speaker cable(s), plug the Speakon into one of the Speakon connectors and lock it into place by turning the connector clockwise. Once locked, it cannot be accidentally disconnected.
Making Your Own Connectors

1/4” TS Jack Connectors

1. Strip off 1/2 inch of insulation from the ends of each speaker wire to expose the two conductors, and tightly twist the wire strands.

2. Disassemble the 1/4” TS Jack connector by separating the shield barrel from the tip sleeve and insert the speaker wire through the shield barrel.

3. Solder the negative (-) wire to the sleeve and the positive (+) wire to the tip.

4. Assemble the 1/4” TS Jack connector by attaching the shield barrel back to the tip sleeve.

Speakon Connectors

1. Strip off 1/2 inch of insulation from the ends of each speaker wire to expose the two conductors, and tightly twist the wire strands.

2. Disassemble the Speakon connector by separating the bushing from the housing and insert the speaker wire through the bushing and chuck.

3. Remove the insert from the housing and connect the negative (-) wire to the 1- terminal as well as the positive (+) wire to the 1+ terminal.

4. Assemble the Speakon connector by attaching the bushing back to the housing.
Speaker Power Requirements
The following guidelines will assist you in selecting the appropriate amplifier for your loudspeaker(s) to maintain a safe level of operation.

- For clear, high quality performances where distortion should be at its minimum, the loudspeaker(s) should be powered with an amplifier capable of delivering twice its power rating. (ex. Classical, Jazz, Instrumental, etc)

- For non-distorted high output performances where the music is at a constant beat, the loudspeaker(s) should be powered with an amplifier with the same power rating.

- For musical performances where distorted material will be allowed to be played back, an amplifier with half the power rating is recommended for safe operation.

Speaker Wires
When running long lengths of speaker wires, it is recommended that higher gauge wire (12 Ga or higher) is always used. Using speaker wires lower than 12 Ga limits the amplifier from delivering full power to the loudspeaker(s), which may result in poor sound performance.

Equipment Protection
- Always optimize the signal levels throughout the system to avoid overdriving your system and the loudspeaker(s).

- When possible, use a low pass electronic crossover to protect the loudspeakers from low frequency notes and protect the system.

- Keep in mind the electrical limitations of your system.

- Always avoid feedback.

Stereo Operation
Loudspeaker Configurations

Stereo with Subwoofer Operation

Parallel Speaker Connections

1/4" TS Jack Plug

Speakon Quick-Connect
Parallel Speaker Connections

**Troubleshooting**

No audio when loudspeaker is connected
- Make sure the mute is off.
- Ensure volume and all gain controls in your system are turned up.
- Check if speaker wire connections have been interrupted and make sure they have a solid connection to the speaker terminals on the amplifier and enclosure.
- Check if all line level cables are carrying a signal.
- Make sure all relevant channels are turned on.

Audio output only on one channel
- Make sure all relevant channels are turned on.
- Check that the mixer console and amplifier are working properly and do not have a muted channel.
- Check speaker wire connections to the silent channel and to the corresponding speaker and make sure they are solid.

Distorted output
- Make sure that all signal gains have been adjusted correctly on the mixing console.
- Check if all signal levels on the signal processor(s) have been set to the correct levels.
- Ensure input signal to the amplifier is not higher than the maximum allowed input level.
- Make sure that the amplifier outputs are not "clipping".
- Check cable and speaker wire connections and make sure that they are not electrically shorting out.

Treble output too low
- Check that the treble level on the mixer is turned up.
- Position the cabinet with the tweeter at ear level.
- Tweeter protection feature may be on, check the tweeter for output.

Bass output too low
- Speakers wires may not be connected properly. Ensure that the positive (+) and negative (-) speaker wires are connected to the positive (+) and negative (-) terminals on the amplifier and on the speaker terminal on the enclosure.
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<tr>
<td><strong>Loudspeaker Type</strong></td>
<td>4-way Full-Range Loudspeaker</td>
<td>4-way Full-Range Loudspeaker</td>
<td>4-way Full-Range Loudspeaker</td>
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<tr>
<td><strong>High Frequency Drivers</strong></td>
<td>3&quot; x 7&quot; Horn Piezo Tweeters</td>
<td>3&quot; x 7&quot; Horn Piezo Tweeters</td>
<td>3&quot; x 7&quot; Horn Piezo Tweeters</td>
</tr>
<tr>
<td><strong>Low Frequency Driver</strong></td>
<td>8&quot; Dual High Output Woofer</td>
<td>10&quot; Dual High Output Woofer</td>
<td>12&quot; Dual High Output Woofer</td>
</tr>
<tr>
<td><strong>Frequency Response</strong></td>
<td>50 Hz - 20 kHz</td>
<td>40 Hz - 20 kHz</td>
<td>40 Hz - 20 kHz</td>
</tr>
<tr>
<td><strong>Total Power (RMS)</strong></td>
<td>800 Watts</td>
<td>1100 Watts</td>
<td>1800 Watts</td>
</tr>
<tr>
<td><strong>Total Power (Peak)</strong></td>
<td>1600 Watts</td>
<td>2200 Watts</td>
<td>3600 Watts</td>
</tr>
<tr>
<td><strong>Impedance</strong></td>
<td>8 Ohms</td>
<td>8 Ohms</td>
<td>8 Ohms</td>
</tr>
<tr>
<td><strong>Sensitivity</strong></td>
<td>95 dB</td>
<td>96 dB</td>
<td>97 dB</td>
</tr>
<tr>
<td><strong>Enclosure Construction</strong></td>
<td>Heavy Duty HDF Wood</td>
<td>Heavy Duty HDF Wood</td>
<td>Heavy Duty HDF Wood</td>
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<tr>
<td><strong>Enclosure Finish</strong></td>
<td>Aviation Grade Carpet Cover</td>
<td>Aviation Grade Carpet Cover</td>
<td>Aviation Grade Carpet Cover</td>
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<tr>
<td><strong>Input Connectors</strong></td>
<td>Speakon / 1/4&quot; Jack / Binding Post</td>
<td>Speakon / 1/4&quot; Jack / Binding Post</td>
<td>Speakon / 1/4&quot; Jack / Binding Post</td>
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<tr>
<td><strong>Net Weight</strong></td>
<td>18.8 Lbs / 8.53 kg (each)</td>
<td>25.8 Lbs / 11.70 kg (each)</td>
<td>31.4 Lbs / 14.24 kg (each)</td>
</tr>
<tr>
<td><strong>Dimensions (W x H x D)</strong></td>
<td>10.83&quot; x 29.53&quot; x 7.68&quot; (each)</td>
<td>12.09&quot; x 32.48&quot; x 8.07&quot; (each)</td>
<td>14.06&quot; x 38.11&quot; x 8.46&quot; (each)</td>
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Limited Warranty Agreement

Your product is covered by a limited warranty by VM Audio as established below:

Electronics Limited Warranty
Products purchased from an Authorized VM Audio Dealer are warranted to be free of defects in material and workmanship for one (1) year from the date of original purchase under normal usage. Products that are identified as "refurbished" have a limited warranty of ninety (90) days from the date of original purchase. Dated proof of purchase (original receipt or invoice) will be required for all warranty claims. In the unlikely event that you experienced a manufacturing defect or malfunction during the warranty period, VM Audio will repair the defective product or replace with the same or equivalent product if the same item is not available or discontinued. Replacement product may have superficial blemishes or scratches that do not affect the performance of the product. This warranty is only intended and valid for the original purchaser and cannot be extended to subsequent owners. Any applicable implied warranties are limited to the period of the expressed warranty starting from the original purchase date. No warranties, expressed or implied, will be accepted after the previously listed periods. Exclusions may apply; please check your local state laws.

Instructions for Claiming Warranty Service
If you should require warranty service, please return the product to the Authorized VM Audio Dealer you originally purchased the item for an experienced and speedy claim of your warranty service. Contact VM Audio directly to find the Authorized Dealers nearest you.

In the case the defective merchandise needs to be returned to VM Audio, please contact us and a Return Merchandise Authorization (RMA) number will be assigned. It is important to pack all defective items in the original packaging to prevent damages from shipping, and be sure to write the RMA number clearly on the outside of the box for faster processing. Do not include non-defective items as it is not necessary and will increase your shipping costs.

Limited Warranty Agreement

Include a copy of the original receipt or invoice with the purchase date, dealer’s name, customer’s name and invoice number clearly visible. Manufacturing date may be used if no proof of purchase is provided. The customer will pay to ship the defective product; COD will not be accepted.

Please follow the above instructions carefully to prevent voiding your warranty.

Your Warranty Service Does Not Cover the Following:
- Products not purchased from an Authorized VM Audio Dealer
- Damages from poor installation by not following the included instruction manual.
- Damages due to excessive moisture, heat and other elements from improper care.
- Evidence of tampering or repair by non-authorized personnel.
- Products not issued an RMA number.
- Damage during freight from poor packaging or handling.
- Return shipping on non-defective items.

Warranty Turnaround Time
It is VM Audio’s goal to turnaround the merchandise in a timely fashion of 1 week. Unexpected delays may occur due to repair parts or replacement shortage.

International Warranty
Please check with your Authorized International VM Audio Dealer or distributor for specific warranty policies and process for your country.