USER MANUAL

VM SYSTEM

MODEL

VMS 1512 DSP

VMS 1815 DSP

active three-way **set**
with DSP processor

Introduction

Thank you very much for the trust you have placed in the FAVO Audio brand by choosing our sound system. During the design and production stages, we strive to meet the highest quality standards and satisfy the most stringent requirements regarding sound, ease of use, simplicity of configuration, and transport. The components and materials used in the production process guarantee safety and uncompromising quality. Thoughtful solutions at the design stage allow for various system configurations depending on the conditions. The minimized amount of cabling reduces connection time, and the structural elements enable optimal system placement in the appropriate position relative to the sound space. The configuration of both systems (VMS1815DSP and VMS1512DSP) and their connection, as well as the operation of the signal processor (DSP), are identical (except for the lack of a control screen in the VMS1512).

What is included in the set?

Depending on the selected set (VMS1815 or VMS1512):

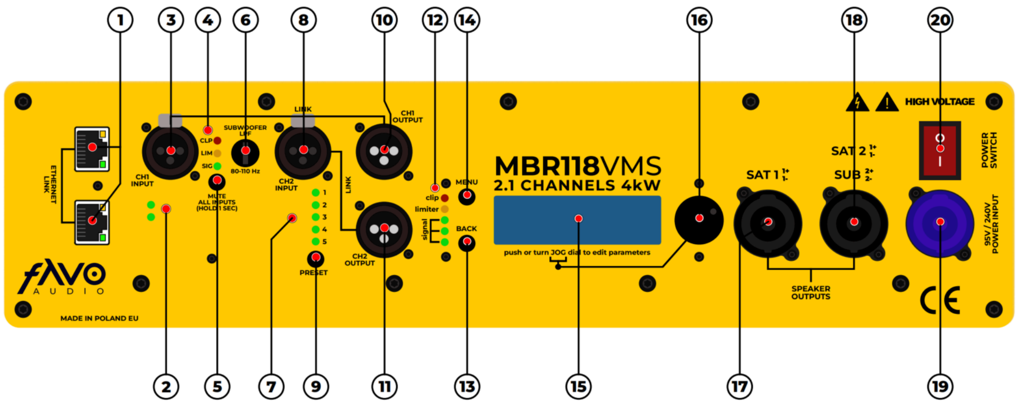
- Multifunctional satellite VSC (VSC12f/VSC15f) - **2 pcs.**
- Active subwoofer module MBR118VMS/MBR115VMS - **1 pc.**
- Passive subwoofer module (signal connection on pins 2+/-) MBR118/MBR115 - **1 pc.**
- 3m power cable (Powercon/16A) - **1 pc.**
- 12m four-core signal cable Speakon NL4 (4x2.5mm^2) - **1 pc.**
- 3m two-core signal cable Speakon NL2 (2x1.5mm^2) - **2 pcs.**
- Telescopic connector/distance rod (satellite to bass) with safety lock - **2 pcs.**

OPTIONAL:

- transport rolls
- rigid covers made of hard cordura with protective padding

Aktywny moduł subbasowy

MBR118VMS, panel wzmacniacza

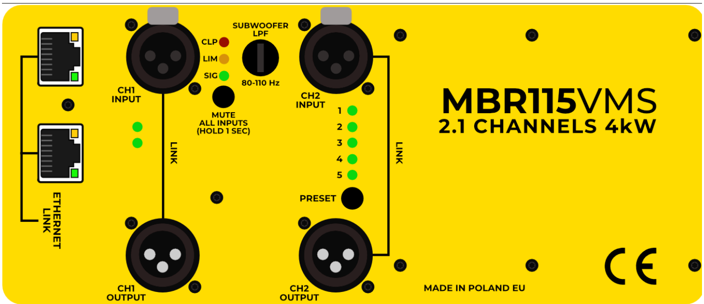


Description of the rear panel of the active module MBR118VMS:

1. Ethernet control connector with the possibility of connecting another device
2. LED indicators (not used in firmware version 1.35 and below)
3. Symmetrical XLR INPUT 1 signal input
4. Simplified processor input signal indicator (SIG, LIM, CLIP -6dBGR)
5. MUTE button that mutes all inputs. Press for 1 second (from version 1.35)
6. Knob for changing the Low Pass filter height for the subwoofer - adjustable between 80-110Hz. The vertical position of the knob sets the LPF to 100Hz@LR-24 (from firmware version 1.35)
7. LEDs indicating the selected preset
8. Symmetrical XLR INPUT 2 signal input
9. PRESET switch for selecting the first five presets
10. Symmetrical XLR INPUT 1 signal output (pass-through)
11. Symmetrical XLR INPUT 2 signal output (pass-through)
12. Input signal level indicator (SIG, -14dBu, -2dBu, +6dBu, CLIP)
13. Menu control buttons BACK
14. MENU selection button
15. LED screen indicating the selected preset and basic parameters
16. MENU control knob (rotate to select and press to confirm)
17. Speakon output (1+/-) to the satellite located above the active bass,
18. Speakon output (1+/-) to the satellite above the passive bass and to the passive bass (2+/2-) - use the four-wire NL4 cable provided with the set
19. Powercon socket for 230V power connection (90-265V)
20. System power switch on/off

Active subwoofer module

MBR115VMS, amplifier panel

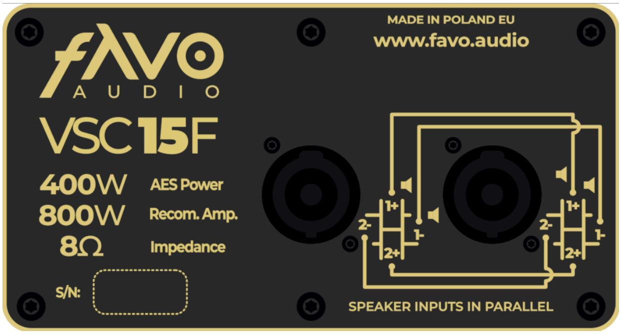


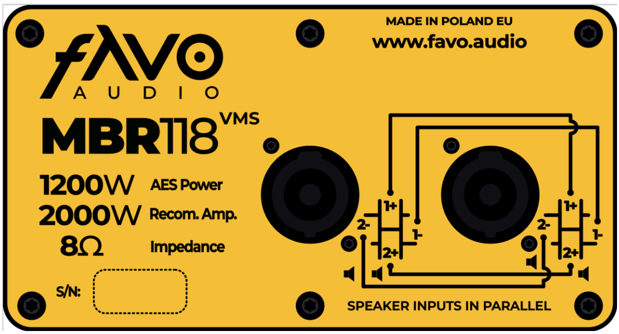
In the active subwoofer MBR115VMS, we do not find the LED control screen as in the VMS1815 model, but its functionality is identical. The signal input indicators and limiters operate on processor LEDs, and the presets can be changed using the PRESET button. To access advanced processor functions, a PC/MAC computer with FAVO Control software must be used, which can be downloaded here:

https://favo.audio/support/downloads

Passive subwoofer and full-range modules

MBR and VSC rear connection panel





Description of the Speakon Connection Panel:

1. Model designation for VSC and MBR
2. Nominal speaker power according to Audio Engineering Society standards
3. Recommended amplifier power for the model according to FAVO
4. Nominal impedance
5. Serial number
6. Speakon signal sockets with designation for subwoofer signal pair (2+/-) and full-range (1+/-) - speaker icon

ATTENTION!! *Whenever you see a **black panel**, it indicates speaker signal connections on Speakon pins 1+/-. A **yellow panel** indicates speaker signal connections on pins 2+/-. A **red panel** indicates Bi-Amp connections.*

First connection

Po uprzednim rozstawieniu systemu VMS przy pomocy dołączonego do zestawu kompletu łączników teleskopowych (jeżeli sytuacja tego wymaga można użyć dowolnych statywów głośnikowych w standardzie 35mm), podłącz elementy zestawu w następujący sposób:

1. Connect the active subwoofer MBR118/MBR115 using the SAT/SUB speaker output (refer to amplifier panel description, point 18) to the passive MBR118/MBR115 set on the other side of the stage (any Speakon socket)*. Use the four-wire cable (12m, Speakon NL4) provided with the system.
2. Using two-wire Speakon cables (3m, NL2), connect the subwoofers directly to the VSC satellites. In the active bass, use the Speakon output labeled “SAT+1/-1” (17), and in the VSC satellite, use any socket*. In the passive subwoofer, use the free Speakon socket* and connect it to any socket in the second VSC12 module.
3. Connect the power cable with the blue Neutrik Powercon plug to the blue power socket in the active bass (19). Ensure the electrical outlet has a properly connected grounding wire and that the AC voltage is within the range of 210 – 250V~.
4. **MAKE SURE you are using the correct preset - the default is preset number 1.**
5. Connect the stereo signal from the sound mixer appropriately – left to the XLR1 socket (3), right to the XLR2 socket (8). Ensure all previous connections are stable and that the plugs are securely seated in the sockets. Only use properly made balanced cables for connections.
6. Turn on the power using the "POWER" switch (20).

** (In passive modules, both speakon connectors are bridged, which means flexibility in connection and the ability to send the signal further.)*

DSP PC and panel control

The VMS sound system is factory-equipped with a set of presets loaded into the DSP processor memory for proper system operation. These presets are recalled almost immediately after the system is turned on (unless changes were made during the previous use). **IMPORTANT - the set of factory presets cannot be deleted and can always be loaded as a starting point.** You can edit the presets and save your own settings above the protected range. The processor menu operation and setting adjustments can be performed in two ways. From the panel using the multifunctional manipulator and buttons located next to the LCD screen (VMS1815) or from the computer application (all Favo systems). The application is available in Win 64bit, Win32bit, and OSX versions. Go to www.favo.audio, then select "SUPPORT" from the menu, and then "Downloads". From the available options, choose the appropriate version for your operating system and download it to your computer. After downloading, install the application following the on-screen prompts. The application communicates with the DSP via Ethernet ports. **Always use the latest firmware version for your FAVO model - contact our service for the possibility of uploading the latest software.**

Control via panel

To navigate the processor menu from the rear panel without connecting the computer application, use the "MENU" (**14**) and "BACK" (**13**) buttons, and the rotary encoder with confirmation function (**16**). It is located to the right of the LCD display screen. The function buttons are located just above and below the input signal indication LEDs on the left side of the screen. The number of buttons and the navigation through the processor menu are simplified to the maximum extent possible. In the first part, regarding preset memory, we have 80 user cells to choose from (the first 5 are locked by the manufacturer for dedicated presets). To activate the function for recalling settings from the internal memory, press the "MENU" button, and then use the rotary encoder.

To navigate between memory cells, rotate the encoder. Their names along with the sequential number are continuously displayed on the LCD screen. When you find the **desired settings (preset number 1 by default)**, press the encoder once, and a confirmation/cancellation message "yes/no" will appear on the display. Rotate the encoder to select the desired command and confirm again by pressing the encoder. The DSP processor will automatically load the new settings from memory, canceling all previous settings along with any modifications made. These steps are identical each time settings are changed from the DSP processor memory.

ADVANCED SETTINGS (for experienced users only)

The second part of the DSP menu involves changing all preset parameters, such as Gain, EQ, Delay, and Limiter. To begin making changes, press the rotary encoder once, then rotate it right or left to select the input or output channel you wish to modify, e.g., "InAB," "Out1," "Out 23." The channel selection mode is indicated by an arrow pointing towards the input symbol and away from the adjacent parameter. After selecting the desired channel, confirm by briefly pressing the encoder again. At this point, proceed to choose the parameter you want to edit, such as "Gain," "Crossover," "DEQ," "Limiter," etc. Once the appropriate parameter is displayed, confirm by briefly pressing the knob. If an incorrect channel or parameter is selected at any time, you can use the "back" button to return and find the correct one. The DSP processor implemented in the active subwoofer has an automatic memory function, meaning that **changes are retained even after the power is turned off and on again.** These changes remain until they are altered again or new settings are loaded from the processor memory. Remember, incorrectly entered settings can be reverted at any time, or the default preset (a set of initial settings) can be recalled from the memory list. At any point, it is possible to revert to the factory settings (usually position 1). This is useful if there is uncertainty about the correctness of the adjustments made, which may result in improper system operation when the location or arrangement of the sound system is changed.

Remember that every stage and every room has a unique set of acoustic characteristics, and settings from one location rarely fit perfectly in another with different volume, construction, or finishing materials.

Technical data:

	VMS 1512	VMS 1815
bass transducer size	15” / coil 4”	18” / coil 4”
mid/high transducer of the coaxial speaker size	12” / coil 3” 1.4” / coil 3”	15” / coil 3” 1.4” / coil 3”
total power (max load of channels)	4100W	4100W
SUB range amplifier power	2500W (4Ohm)	2500W (4Ohm)
SAT range amplifier power	2x 400W (8Ohm) 2x 800W (4Ohm)	2x 400W (8Ohm) 2x 800W (4Ohm)
crossover frequency	bass/satellite: 90Hz VSC12: 1,3kHz (passive)	bass/satellite: 90Hz VSC15: 800Hz (passive)
satellite nominal power (AES)	350W@8Ohm	400W@8Ohm
subwoofer nominal power (AES)	1000W@8Ohm	1200W@8Ohm
maximum SPL efficiency of satellites (peak CF 6fB)	2 x VSC12: 132dB	2 x VSC15: 134dB
maximum SPL efficiency of subs (peak CF 6fB)	2 x MBR115: 136dB	2x MBR118: 138dB
weight	satellites: 2 x 19kg basses: 28kg + 31.5kg	satellites: 2 x 24kg basses: 44kg + 47.5kg
mains power supply	90-240V 50Hz	90-240V 50Hz

Summary

The above user manual for the sound system sets contains the basic, essential information for their startup and operation. **This manual does not exempt the user from following the basic safety rules for using electrical and electronic devices.** NAW Performance Audio is not responsible for misuse and any degradation in sound quality resulting from using the equipment in a manner inconsistent with the accepted principles of sound reinforcement in rooms or open spaces. If you have any doubts about the correct placement of the system components in the space, their orientation, or angle of inclination, we encourage you to visit our website www.favo.audio, particularly the "BLOG" section. There, you can find a collection of tips and methods to achieve the best results when working with the VMS sound system. Additionally, if you have any doubts, we encourage you to contact our customer service department via email or WhatsApp. We will do our best to answer all questions regarding the set or its operation.

NAW Performance Audio provides an exclusive 36-month warranty on its sets from the date of purchase.

We wish you satisfaction with your purchased set and many successful projects.

The FAVO AUDIO team

We invite you to visit our website at www.favo.audio and our distributor in Poland at www.naw.pl.

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