

1. Welcome

Thank you for buying this quality WHD product. Please read this manual carefully, especially the safety and security information.

Please check that you have the correct manual for your product. To do this, please compare the product code number shown above with the product code number displayed on your product.

AMP 4200

Matrix Amplifier with 4 speaker zones (4-8 ohms/70V/100V)



2. Inventory Checklist

- AMP 4200
- 19" bracket
- Device feet (premounted)
- Power cable
- Operation manual

3. Safety & Security

General Information

In addition to this guidance please adhere to your own country-specific safety & security regulations.

3.1. How to use this guide:

Read these instructions carefully before use and use this product only in accordance with the instructions listed here.

3.2. Signs & symbols used



This sign warns of danger of injury and property damage.



This sign warns of injury from electricity.



This sign warns of injury and/or explosion.



This symbol refers to additional information.

3.3. Signal words and their meaning

Danger: Potential severe physical damage and acute danger.

Warning: Potential electrical shock physical damage and severe property damage.

Caution: Potential fire hazard physical damage or property damage as a result of.

Attention: Advisory notes only.

Manual
Valid for

AMP 4200
111-425-04-001-00



Warning

The 230V line must be connected only by a professional electrician.
The Electrical supply must be disconnected before working on the device.
Improper handling may void warranty.

4. Product Scope

Matrix Amplifier for 4 speaker zones (4-8 ohms/70V/100V).

5. Intended use

Indoors



6. Improper use

The device is not suitable for outdoor operation. The ambient temperature should not exceed 30 ° C.

7. Specifications AMP 4200



Power Supply	100-240 V AC, 50/60 Hz
Output Power	4 x 200 Watt rms
Protection	Thermal, over-current, over-voltage, short circuit protection
Dimensions (H/W/D)	44 x 430 x 320 mm
Weight	5.5 kg
Operating Temperature	5 ... 30 °C
Input:	
Sensitivity *)	0 / +6 dBV (variable)
Impedance	22 kOhm
Type	4 x Phoenix, 3Pin Bzw. 4 x RCA Trigger: 12VdC (3,5mm mono jack)
Output:	
Speaker	4 x Phoenix, 2Pin
Audio Performance:	
Type	Class D
Frequency Response	20 ~ 20kHz ± 1dB
THD+N	> 1% @ 1 kHz, Rated Power
S/N Ratio	≥ 90 dB (A-weighted)

Network:	
IP User Interface	Web-GUI, 10/100 mbps Ethernet
DSP Specifications:	
DSPs	28-/56-Bit, 50 MIPS
Crossovers	6 dB/oct ...24 dB/oct
Equalizer	3-Band IIR per channel Peaking, bass, treble, LFP, HFP, Notch
Limiters	Peak Limiter
Matrix	4 x 4 Matrix/Mixer
Presets	20 preset banks

8. Preparatory work before installation

Check if all cables (e.g. 230 V AC, antenna and the RCA cable for AUX) are installed in accordance with installation guidelines, and your desired port scenario.

Note:

For the installation / configuration via the web interface (web GUI) you need a corresponding end device (PC / laptop / ... etc.) and an Ethernet crossover cable.

9. Installation and assembly

The device is suitable for 19 "installation (1 U). To do this, mount the enclosed bracket.

Note on 19 "installation:

Leave at least 2 U free above the device to prevent overheating.

With the premounted device feet, you can use the AMP 4200 as a standing device.



Notes on temperature development:

Like any amplifier, the device can reach high operating temperatures, especially under load. Make sure there is sufficient heat dissipation. Therefore, mount the device mainly in the technical room or a suitable distribution cabinet (ventilation / air conditioning) and not directly in furniture.

9.1. Connection of external audio sources

You can connect either 4 mono sources or 2 stereo sources to the device. Use either the Phoenix terminals (ensure correct polarity!) Or the RCA connectors on the back of the device.

Note on setting the sensitivity of the input sources:

For the input sensitivity you can choose between +6 dBV and 0 dBV (switch).

For devices with a low output level (e.g. smartphones), please set the switch to 0 dBV. This amplifies the input signal.

9.2. Connection of the speakers

When connecting the speakers, you can choose for each zone whether you want to operate it as a low-resistance version (4 ohms) or in 100V ELA technology (speakers with transformer / longer transmission paths).



Note:

NEVER mix the two technologies in one zone!

Pay attention to the correct polarity when connecting the speakers!

When connecting the speakers, make sure that the dimensions are correct.

With 100V technology, the total power of the speakers must not exceed 200 W per zone!

With low-resistance connections, the total impedance of the loudspeakers must not be less than 4 ohms!

10. Operation

10.1. Connections

Connect the 230V cable (2) to the device and switch on the amplifier (3).

Select TRIGGER (T) if needed.

(1) (T)

(2)



(3)



10.1.1. Configuration without a network (direct access)

For configuration, plug an Ethernet crossover cable into your PC / laptop, ... (1) and open your web browser.

Enter the following default IP address in the start bar of the browser: 192.168.14.1

Default password:

Username: **admin**

Password: **admin**

This opens the configuration interface.

10.1.2. Configuration in the network

The AMP 4200 is delivered with DHCP. I.e. an IP address is automatically assigned to the device as soon as it is recognized in the network.

Check the current IP address on the device. (Press on "ADJUST / SET" and turn to the left Device Info) and enter this in the start bar of the browser:

Example: My IP address: 172.22.0.139

Default password:

Username: **admin**

Password: **admin**

This opens the configuration interface.

Note:

If you access the amplifier via a network, you can also enter <http://AMP4200/> in the start bar.

If you have changed the user name / password in a previous configuration setting, please enter this

My login details:

User name: _____

Password: _____

IP address: _____

10.1.2. RESET to factory settings

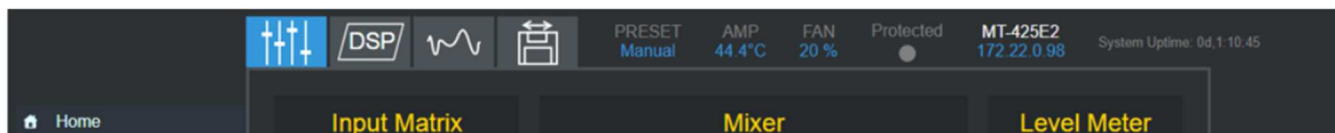
Simultaneously press the "BACK" button and the "ADJUST / SET" rotary button **for more than 5 seconds**. This returns the device to the factory settings.

Note:

A RESET (reset to factory settings) **deletes all settings** and **all saved presets** and **sets all outputs to 4-8 ohms** in the "Output Configurations" menu.

10.2. Configuration

10.2.1. Home Menu



On the left side you will find the selection of the menu items.

The tabs above the configuration area show the sub-items input matrix, DSP, equalizer and storage. Further to the right you will find the other basic settings of the device, the current heat load as well as the device name, the IP address of the device and the current software version.

Input Matrix:



Input signals can be mixed and assigned to specific outputs via the input matrix. Four zones with different volume can be created using the graphic controls.

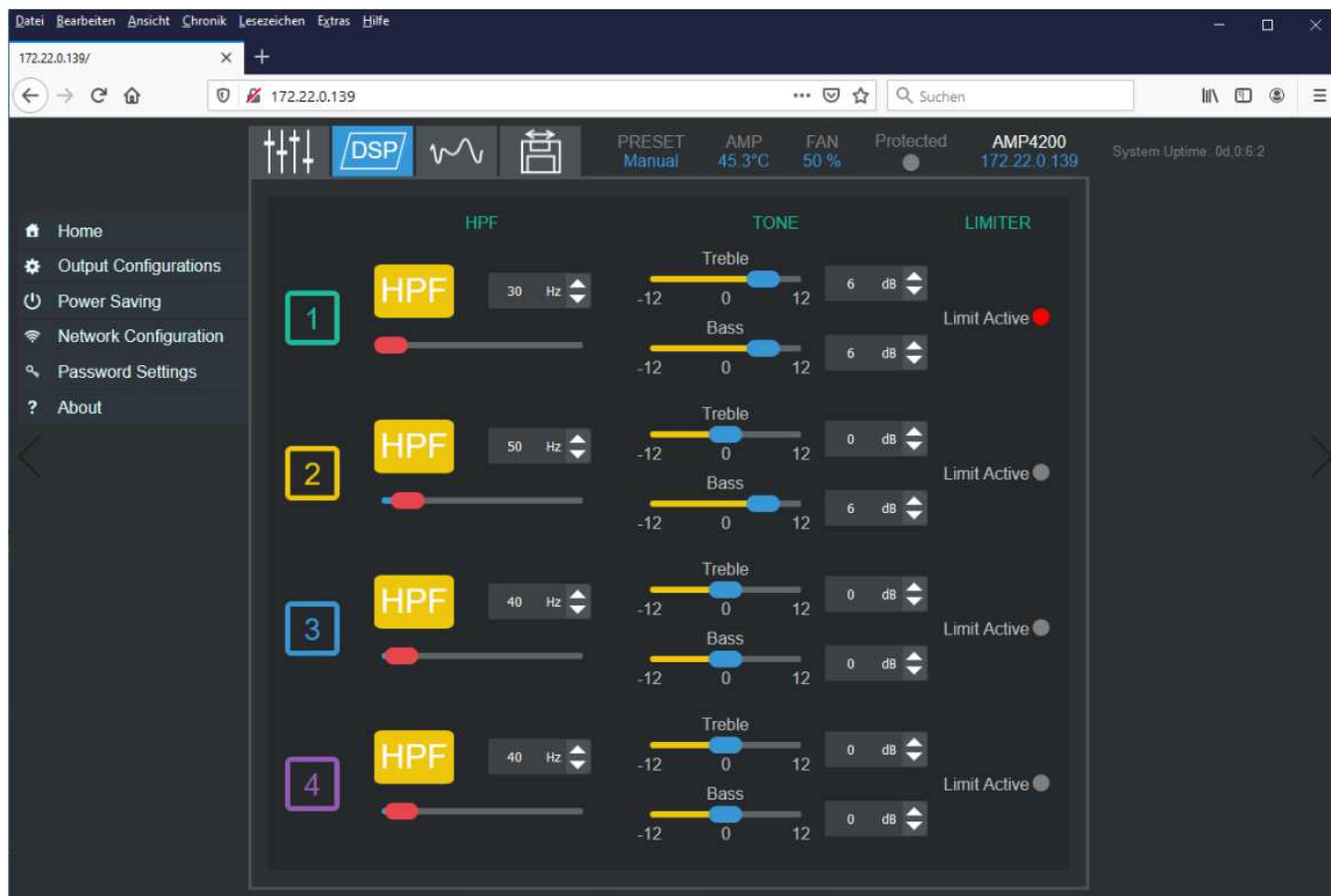


The bars on the right show the current level while music is playing.

DSP Configuration:



A high-pass filter and a simple bass / tweeter control can be carried out for each output.



HPF: High-Pass-filter:

Frequencies above the specified value are let through, lower frequencies are filtered out.

Tone:

Sound settings for treble and bass.

Limiter, setting and activation:

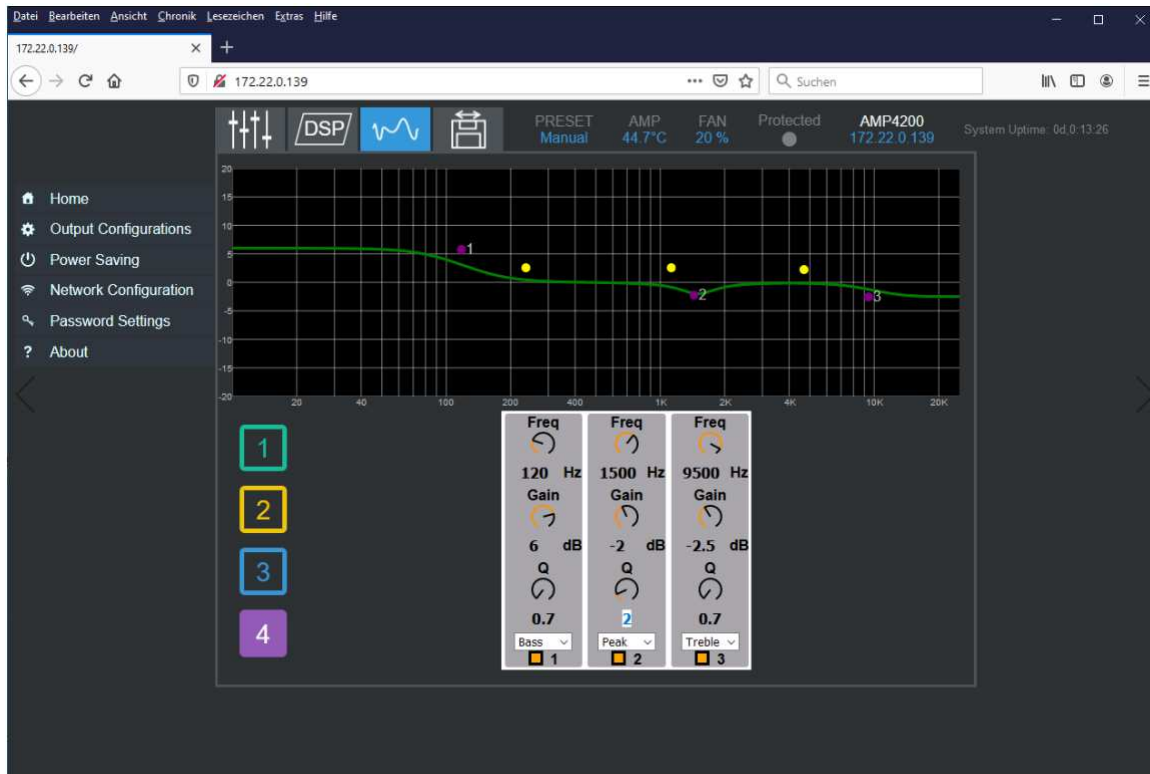
Power setting of the amplifier output.

0 dB: maximum power / -3 dB: half power

Equalizer Configuration:



Three parametric equalizer bands are available per output.
Select the output and configure the desired settings.



Freq:

Set the center frequency for a filter for channel 3 for frequency bands.

Gain:

Then set the gain / attenuation factor (-3 dB is half the output signal).

Q factor (quality, between 0.4 to 14):

If you select a Q factor of "0.4", a wider frequency range will be processed than with a factor of "4". If only a certain frequency range is to be processed as specifically as possible, i.e. narrow-band, please select a high Q value.

Peak filter:

Select the filter type you want. The choices are: Peak, Bass, Treble, Notch, LPF, HPF. Activate / deactivate the desired filter via the checkbox.

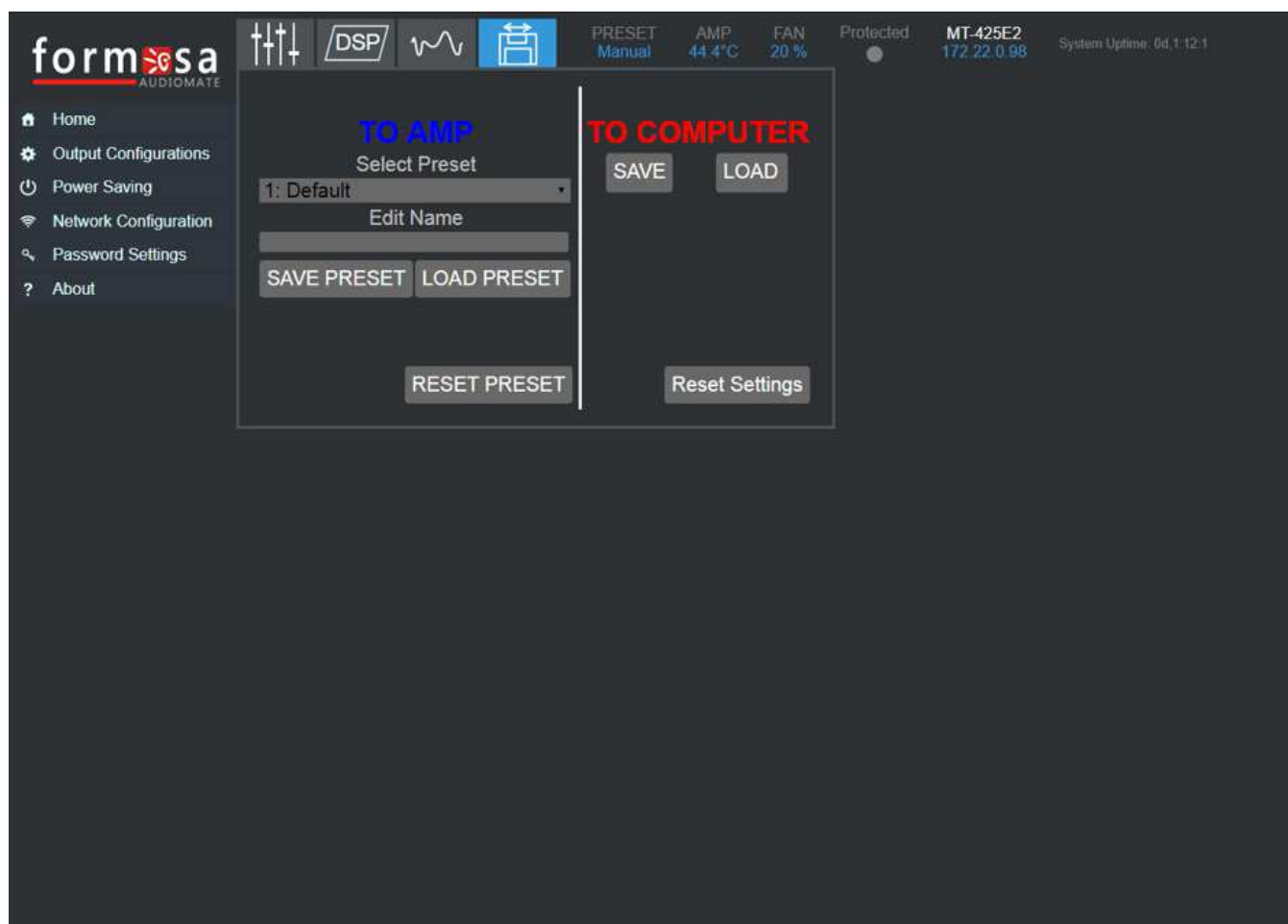
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Preset Management:



You can save up to 20 presets on the device and reactivate them.
The presets can also be saved and read back on the PC / laptop, ... of the service technician.



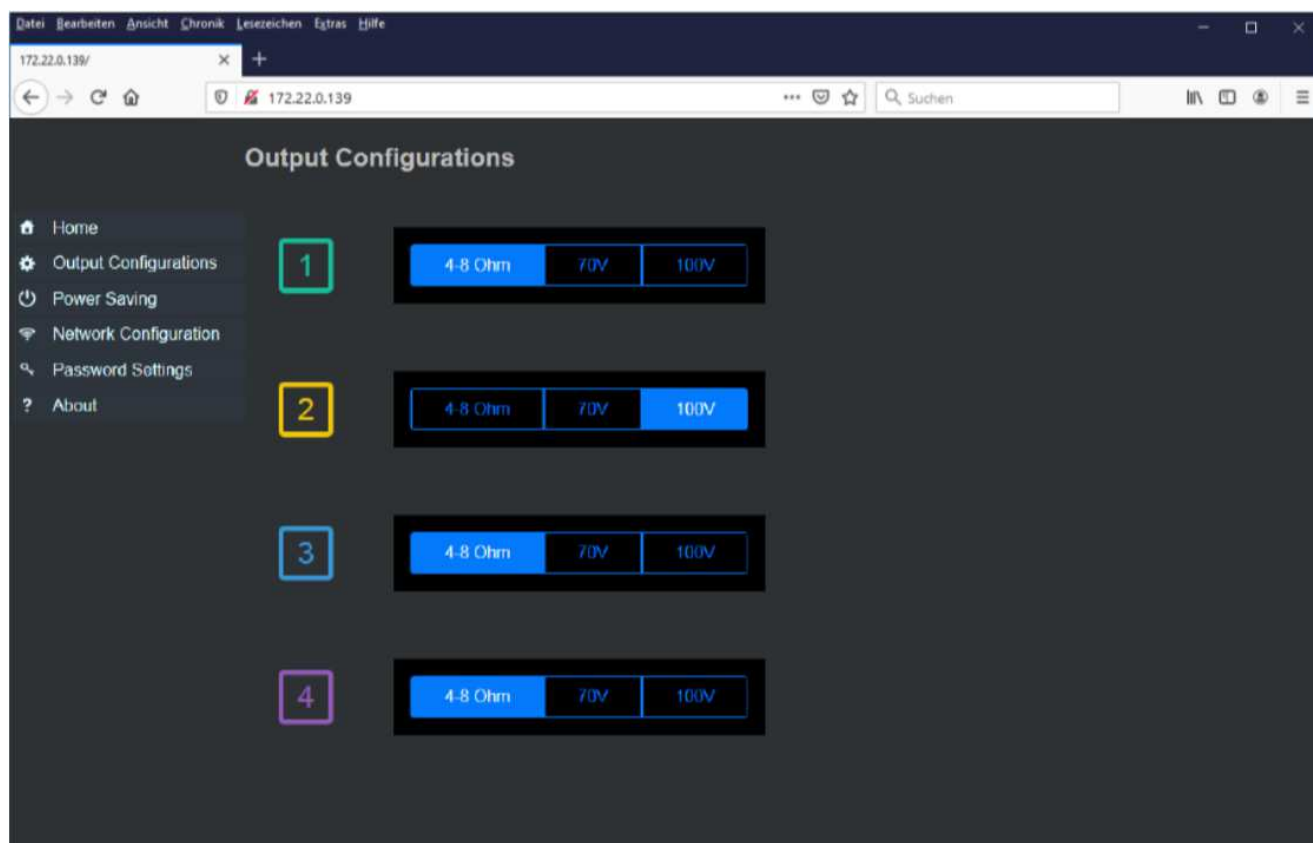
Note:

A RESET (reset to factory settings) **deletes all settings** and **all saved presets** and **sets all outputs to 4-8 ohms** in the "Output Configurations" menu.

10.2.2. Output Configuration

⚙️ Output Configurations

Here the output impedance can be selected separately for each channel.



Note:

NEVER mix the two technologies in one zone!

Pay attention to the correct polarity when connecting the speakers!

When connecting the speakers, make sure that the dimensions are correct.

With 100V technology, the total power of the speakers must not exceed 200 W per zone!

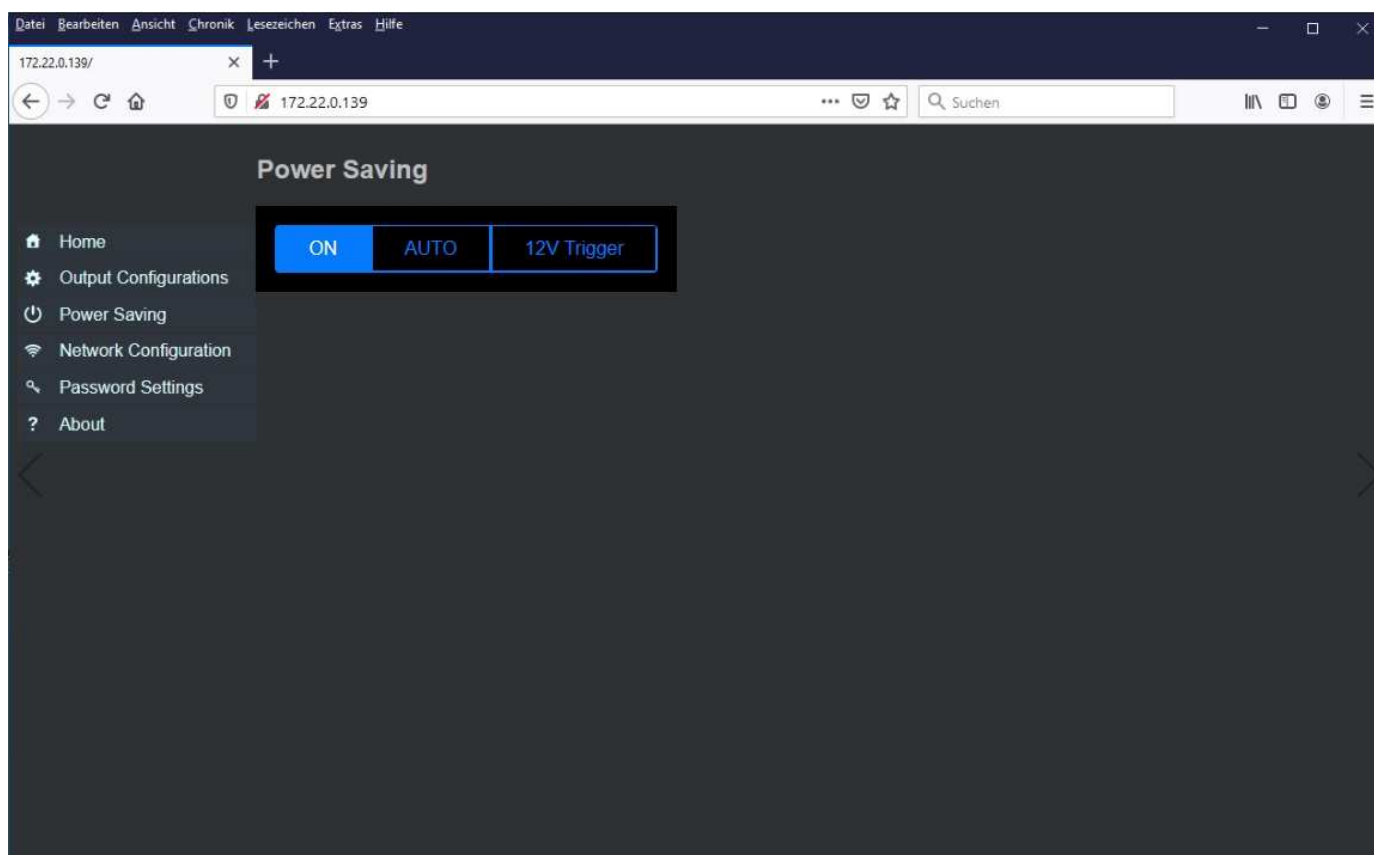
With low-resistance connections, the total impedance of the loudspeakers must not be less than 4 ohms!

10.2.3. Power Saving

Power Saving

If “Auto” is selected as “Power Saving”, the amplifier goes into stand-by mode after an extended period (approx. 20 min.) without an input signal.

You can use the **trigger function** e.g. if you use a control signal via a beamer (home cinema).



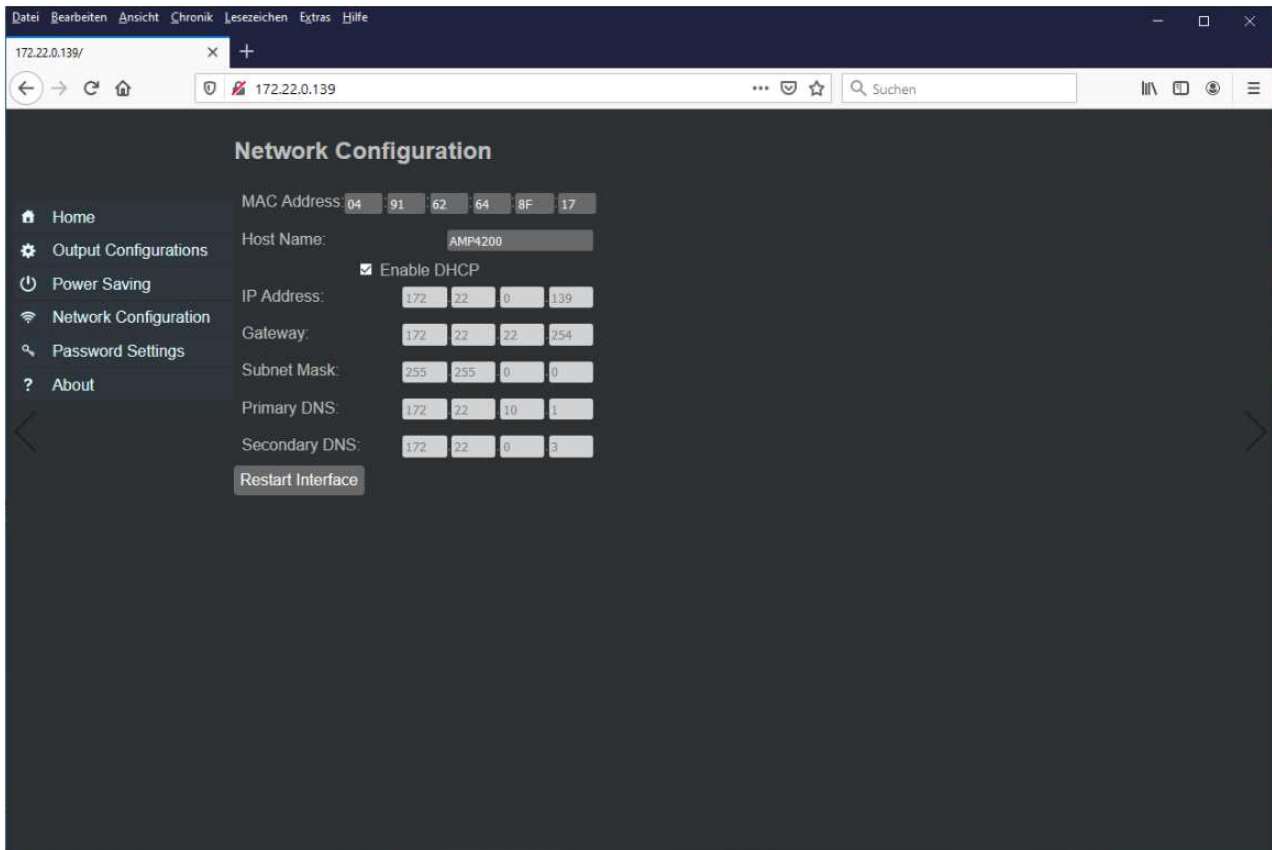
Note:

As soon as an input signal is present again, the amplifier is reactivated.

10.2.4. Network Configuration

Network Configuration

Here you will find the network settings of your device.



Host Name: Name of the device

IP address: Address with which you can call up the device in the browser (IPv4).

Gateway: For connections to the public network.

Subnet Mask: Filter for subnet or host address.

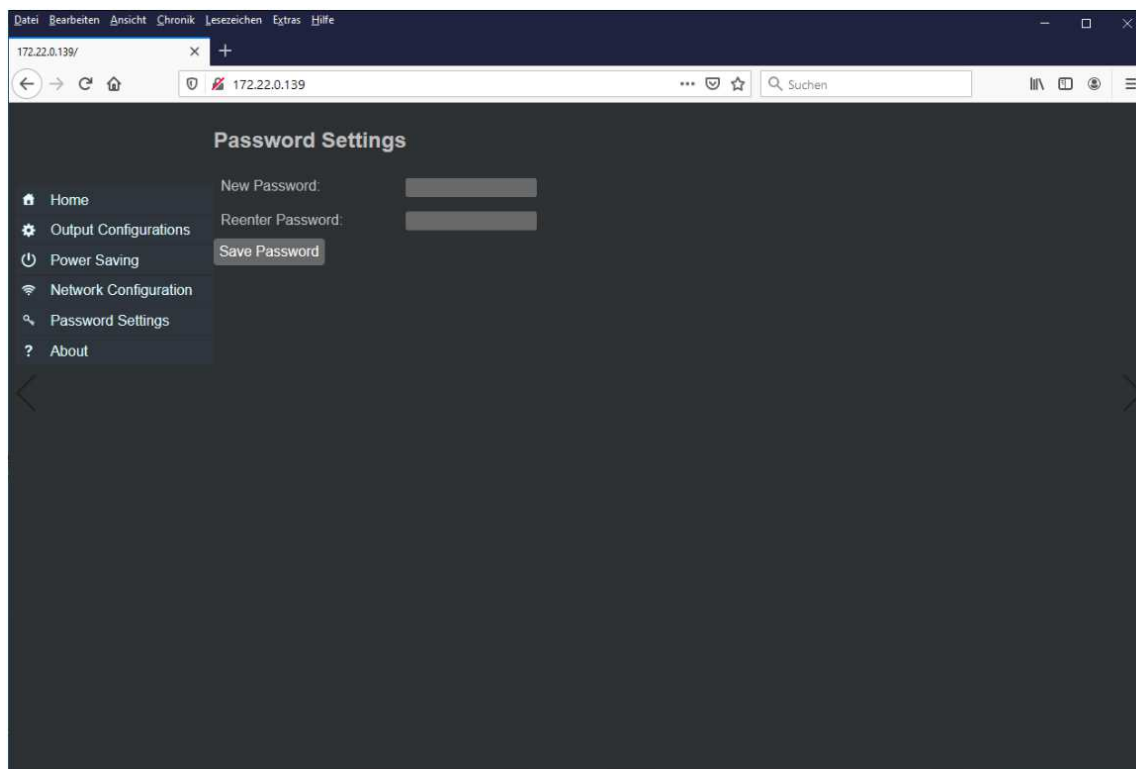
Primary / Secondary DNS: Server for the resolution of domain and computer names.

DHCP (enabled): assignment of the network configuration of the device by a server.
DHCP (disabled): Manual configuration.

10.2.5. Password Settings

🔍 Password Settings

The web interface can be protected with a password.



Instructions for assigning passwords:

The amplifier is visible in the network. You can only expect secure operation if you assign individual passwords.

- ! When commissioning each device for the first time, change the default password first. Make a note of the password in the enclosed operating instructions, in your customer documentation or on a sticker on the device.
- ! Handle the password carefully (GDPR)

The password may be max. 17 ASCII characters long.

How to assign a secure password (according to GDPR)

1. When choosing the password, it is important that a password that is as long as possible is selected. Passwords with 8 characters or more are considered sufficient. But of course the security of the password increases with its length. A length of 20 or more digits is particularly appropriate for particularly sensitive data.

2. Combinations with personal details such as the birthday or the name of children should not be used, as these can easily be unmasked by others.

Example: Leon1998 or Schatz75

3. Coherent words, meaningful sentences or repetitions of numbers should be avoided.
Example: securepassword or dreamcar911

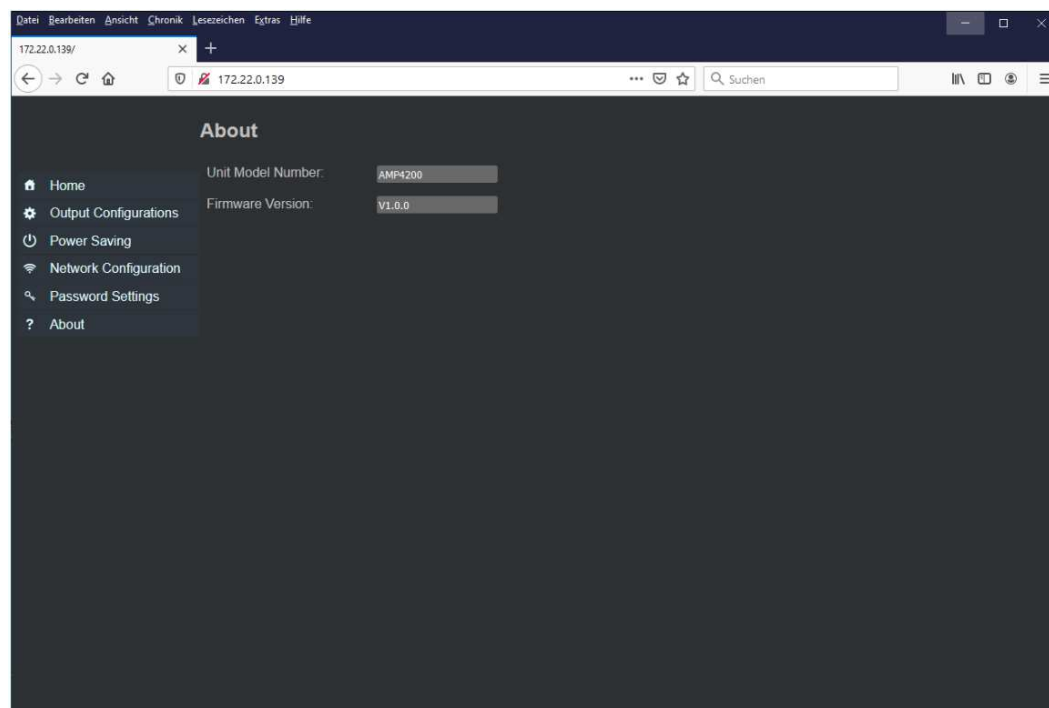
4. Instead, use an arbitrary combination of upper and lower case letters and numbers.
Example: Koch + lampshade + sun + corresponding numbers = K0chL4mp3nsch1rmS0nn3

If necessary, note the concepts and password guidelines developed for your company in cooperation with your data protection officer.

10.2.6. About



Here you will find the device name and the current software version.

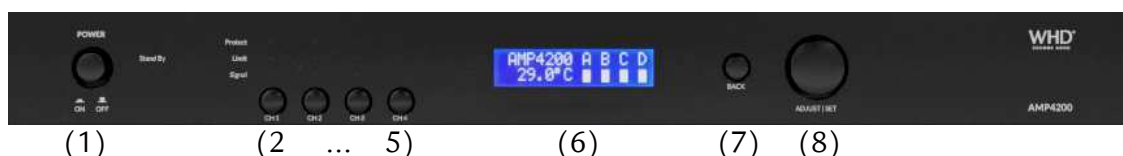


10.3. Manual configuration

The device can also be configured using the buttons and controls on the front.

We deliver each device with a personalized configuration so that you can do without the configuration using the device buttons.

We have mentioned the necessary manual steps for operation below.



- 1 ... ON/OFF button
- 2...5 ... Output channel (CH1/A, CH2/B, CH3/C, CH4/D)
- 6 ... Display
- 7 ... „BACK“ button
- 8 ... „ADJUST/SET“ (selection key, right / left rotation, push)

Note:

If no button is pressed, the device jumps back after approx. 60 seconds and takes over the current settings.

10.3.1. Retrieve the current IP address

Press the ADJUST / SET button (8) and turn it one step to the left.

"Device Info" appears in the display.

Press the ADJUST / SET button (8) again.

The current IP address of the device appears.

If you do not press / turn a button for approx. 60 seconds, the device jumps back to the original indication on the display. You can return at any time by pressing the "BACK" button.

10.3.2. Manual volume adjustment via the device buttons / buttons

Press the button of the desired output channel (2... 5).

The preset volume value (attenuation, -XY, Z dB) now appears on the display.

Turn the ADJUST / SET knob (8) to the left (quieter) or to the right (louder).

If you do not press / turn a button for approx. 60 seconds, the device jumps back to the original indication on the display. You can return at any time by pressing the "BACK" button.

10.3.3. RESET

Press the ADJUST / SET button (8) for **about 5 seconds**.

Note:

A RESET (reset to factory settings) **deletes all settings** and **all saved presets** and **sets all outputs to 4-8 ohms** in the "Output Configurations" menu.

11. Trouble-Shooting

No sound:

- check the speaker connections (cables may be loose) and the settings (100V / 4Ohm)
- check the speaker wiring (cables may have been kinked)
- check the supply voltage
- check whether there is an audio signal
- check the configuration / settings (if necessary, email us your configuration file)

Humming:

Make sure that the inputs on the amplifier are connected.

Otherwise there is a ground problem due to grounding / shielding the sound source / amplifier. Make sure that your 230V cabling complies with the EMC guidelines.

Different ground potentials (source & amplifier) can result in humming noises.

Remedy: Common mass or a mass separation filter.

Noise (cracking):

Make sure that only shielded cables are used.

Check the cable routing for cable crossings or parallel laying to 230V cables and eliminate them (induction problems). If possible, cinch cables should be laid at a distance of 30 cm.

Power amplifier switches channel off

Check the clip limiter settings of the channels.

12. Disposal



WHD are members of the INTERSEROH association.

We participate in the dual system as well as some industry-specific solutions therefore the plastic, metal and electronic parts can all be recycled.

15. Declaration of Conformity



This product supports all CE criteria.
The certificate can be requested at WHD.

16. Name and address of the manufacturer

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