

# Pronomic MC4-600, MC6-400 power amplifier

ArtNo: 00083665, 00083668



# Instruction manual

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Thank you for choosing this product. To ensure that you are completely satisfied with this product, please read this manual carefully.

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The signal word **WARNING** is used to indicate hazards that can lead to serious injuries if no precautionary measures are taken.



The signal word **NOTE** indicates general precautions that should be observed when handling the product.



Images and screen representations in these operating instructions may differ slightly from the appearance of the actual product, as long as this does not have a negative impact on the technical characteristics and safety of the product.



All person-related formulations in these operating instructions are to be regarded as gender-neutral.

These operating instructions apply to mature users and to persons who have been supervised or instructed in the operation of the device by a person responsible for their safety and who have proven that they are able to handle the device.



**Children should be supervised to ensure that they do not use this device as a toy.  
Never allow children to play with the packaging material unsupervised.**



**Risk of damage to property! We are not liable for accidents that occur as a result of non-compliance with the safety instructions or incorrect handling.**

All information in this operating manual has been checked to the best of our knowledge and belief. However, neither the author nor the publisher can be held liable for any damage related to the use of these operating instructions.

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Do not disassemble or make any modifications to the product. This could result in injury from electric shock.

If you notice that the power cord shows obvious signs of use, the unit malfunctions or has an unpleasant odor, something has fallen into the product, the unit has been exposed to rain, the unit shows obvious changes in performance, or the unit has been dropped, unplug the unit from the wall outlet immediately and refer servicing, maintenance, or repair to qualified service personnel or your dealer.

Before cleaning the product, please turn it off and disconnect it from the power. Clean the product only with a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids or chemically impregnated wipes.

Always place the product on a level, stable surface to ensure safe standing.

Do not use the product in a damp or wet environment.

Do not place any objects on the device that could fall into it and do not allow any liquids to penetrate the inside of the housing.

Do not expose the product to the following conditions to avoid deformation, discoloration or major damage:

Direct sunlight, extreme temperature or humidity, excessively dusty or dirty places, strong vibration or shock, strong magnetic fields.

Do not place the item near other electrical equipment to avoid interference.

Do not use force of any kind when handling the product and do not place heavy objects on it.

Unplug this apparatus during lightning storms or when unused for long periods of time. Please pull the plug, not the cable.

Please handle the power cable with care. It should not be placed near radiators, you should not place heavy objects on it and it should be laid in such a way that no person can step on it or fall over it.

Only connect the power supply to a socket with the correct voltage.

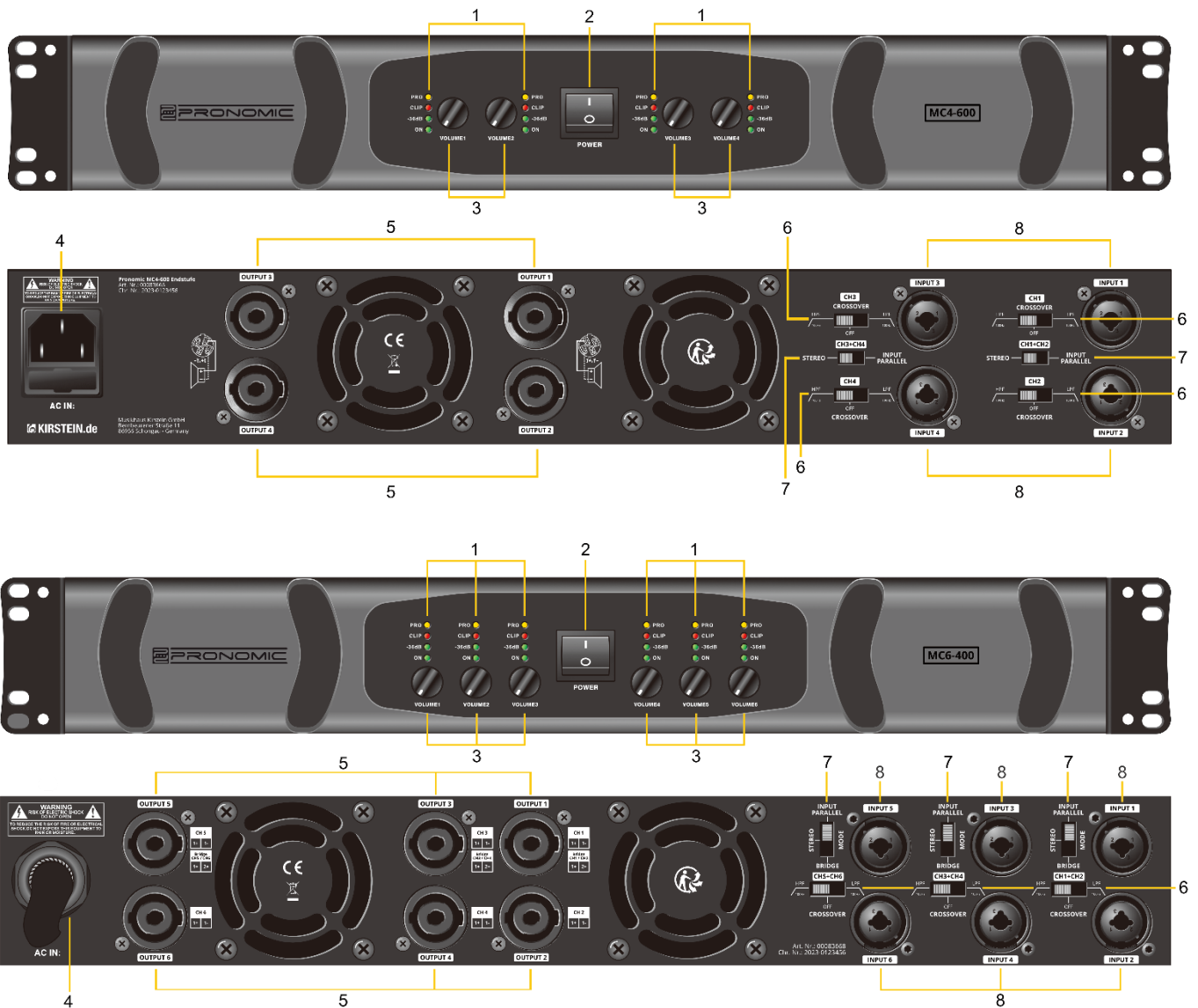
Do not exert excessive force on controls such as switches, knobs, buttons, mounting screws.

This product, when used with headphones or speakers, can produce sound levels that can cause permanent hearing loss. Do not operate the device at a high volume or at a level that is uncomfortable for extended periods of time. Seek medical attention if you experience hearing loss or ringing in the ears.

The device should be placed in such a way that good ventilation is ensured.

Make sure in advance that the speaker, connections, and wiring are suitable for the power amp's output, otherwise damage may occur.

## Connections and controls



### 1. LED signal indicator

The green LED (ON) lights up when the amplifier is turned on.

The green signal LED (-36dB) lights up to confirm the presence of this input signal on this channel of the amplifier.

The red LED (clip) lights up when the input level of the power amplifier is exceeded (overload). If this occurs, you must either turn down the volume of this channel or reduce the output level of the preceding component. This avoids distortion in the sound image and prevents damage to the connected speakers.

The yellow protection LED (Pro) lights up as soon as the power amplifier is in protection mode (see page 10).

## 2. Power switch

Use this switch to turn the unit on or off. Turn the level controls to 0 before switching on. A momentary mute is normal when the amplifier is switched on or off.

Attention: Always switch on the power amplifier after all other connected devices. Always switch off the power amplifier before all other connected devices.

## 3. Level control

These controls adjust the level of each channel. Turn these knobs counterclockwise when the clip LEDs are constantly lit, as this indicates that the input signal is too strong.

## 4. Mains connection

Use this connector to supply power to the power amplifier.

## 5. Loudspeaker channel outputs

Use these Speakon compatible connectors to connect to external speakers.

## 6. Crossover switch

This switch allows you to select the filter type for each channel.

Off = No filters, full range signal is output.

HPF - High Pass Filter. Frequencies below the cut-off frequency (100 Hz) are cut off.

LPF - Low Pass Filter. Frequencies above the cut-off frequency (100 Hz) are cut off.

## 7. Mode selector switch

This switch on the back of the unit lets you choose between the three operating modes "Stereo" and "Input Parallel" and "Bridge".

To do this, slide the switch to the appropriate position.

- Stereo mode: Both channels (e.g. channel 1 and 2) work independently.

- Input Parallel: The input signal from one channel pair (e.g. channel 1 and 2) is forwarded to the other. If a signal is present at channel input 1, it is forwarded to channel input 2.

- Bridged mode (MC6-400 only): In this mode, the power of a pair of channels (e.g., channel 1 and 2) is combined to drive a single speaker. Therefore, make sure in advance that the speaker, connections and cabling are suitable for this power, otherwise damage may occur.

ATTENTION: Note the minimum load of 8  $\Omega$  and the output power of 1200 watts in this mode.

## 8. Balanced channel inputs

These XLR jack combo jacks are balanced. Balanced connections are recommended because they are less susceptible to signal interference. For long cable runs, an output impedance of less than 600 ohms is required to avoid signal loss. For stereo operation, both channel inputs of the channel pairs (e.g. channel 1 and 2) are used, while for bridged mono operation only channel inputs 1, 3 and 5 are used.

## Technical specifications

	<b>MC4-600</b>	<b>MC6-400</b>
<b>Output power (8 Ohm)</b>	4x 600W	6x 400W
<b>Output power (4 Ohm)</b>	4x 900W	6x 600W
<b>Output power (8 Ohm/bridged)</b>	/	3x 1200W
<b>Frequency response (1W into 8 Ohm)</b>	20 Hz - 20 kHz $\pm$ 0.5dB	20 Hz - 20 kHz $\pm$ 0.5dB
<b>THD 20 Hz - 20 kHz for 1 W</b>	0.1%	0.1%
<b>THD at 1 kHz and 1 dB under clipping</b>		
<b>Signal to noise ratio</b>	103 dB	103 dB
<b>Input sensitivity</b>		
<b>Input impedance</b>	20 k Ohm	20 k Ohm
<b>Output voltage rise</b>	40V/sec	40V/sec
<b>Attenuation factor</b>	>400	>400
<b>Input connectors</b>	XLR female, 3-pin	XLR female, 3-pin
<b>Max. voltage gain at 0.775V input voltage (8 Ohm)</b>	/	/
<b>Max. voltage gain at 1V input voltage (8 Ohm)</b>	36,3 dB	35,5 dB
<b>Max. voltage gain at 1.44V input voltage (8 Ohm)</b>	/	/
<b>Max. output voltage (4 Ohm)</b>	70 V	60 V
<b>Max. output voltage (8 Ohm)</b>	70 V	60 V
<b>Output circuit type</b>	Class D	Class D
<b>Output connectors</b>	Speakon compatible, 2-pin	Speakon compatible, 2-pin
<b>LED indicators per channel</b>	On, Level, Clip, Protect	On, Level, Clip, Protect
<b>Mains voltage</b>	230 VAC/50 Hz	230 VAC/50 Hz
<b>Dimensions</b>	480 x 299.5 x 64 mm (1.5 U)	480 x 331.2 x 64 mm (1.5 U)
<b>Weight</b>	5.1 kg	5.8 kg
<b>Panel controls</b>	Mode selection, compressor	Mode selection, compressor
<b>Cooling</b>	Two fans, front to back airflow, temperature controlled speed	Two fans, front to back airflow, temperature controlled speed
<b>Protection</b>	Short circuit, overload, soft-start, DC voltage	Short circuit, overload, soft-start, DC voltage

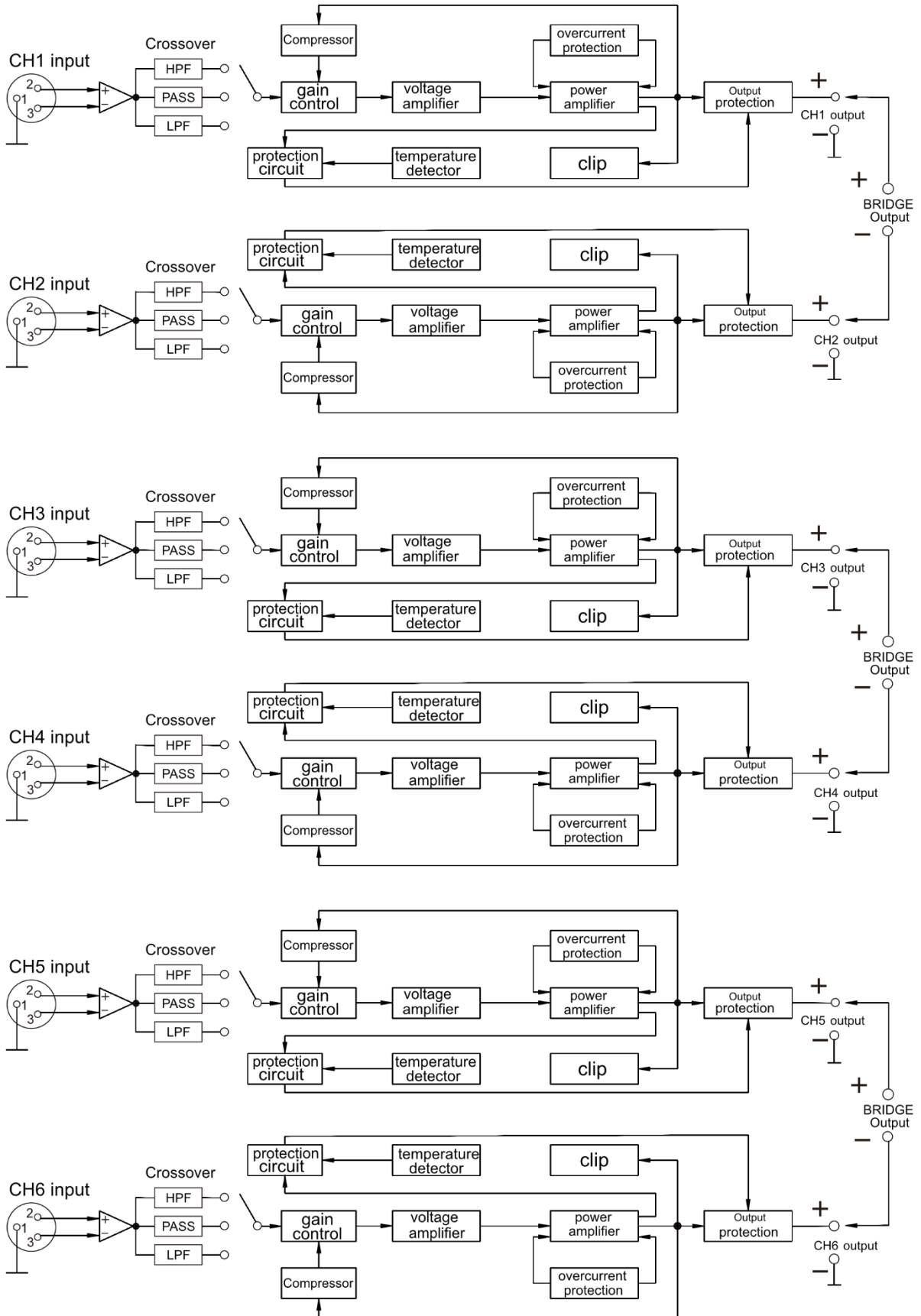
## Rack mounting

This power amplifier is suitable for mounting in standard 19" racks as well as for "stack" mounting without rack.

Use 4 screws and washers for mounting on the front rack rails. We recommend additionally securing the unit at the rear or bottom, as the power amplifier is subject to strong vibrations, especially during mobile use.

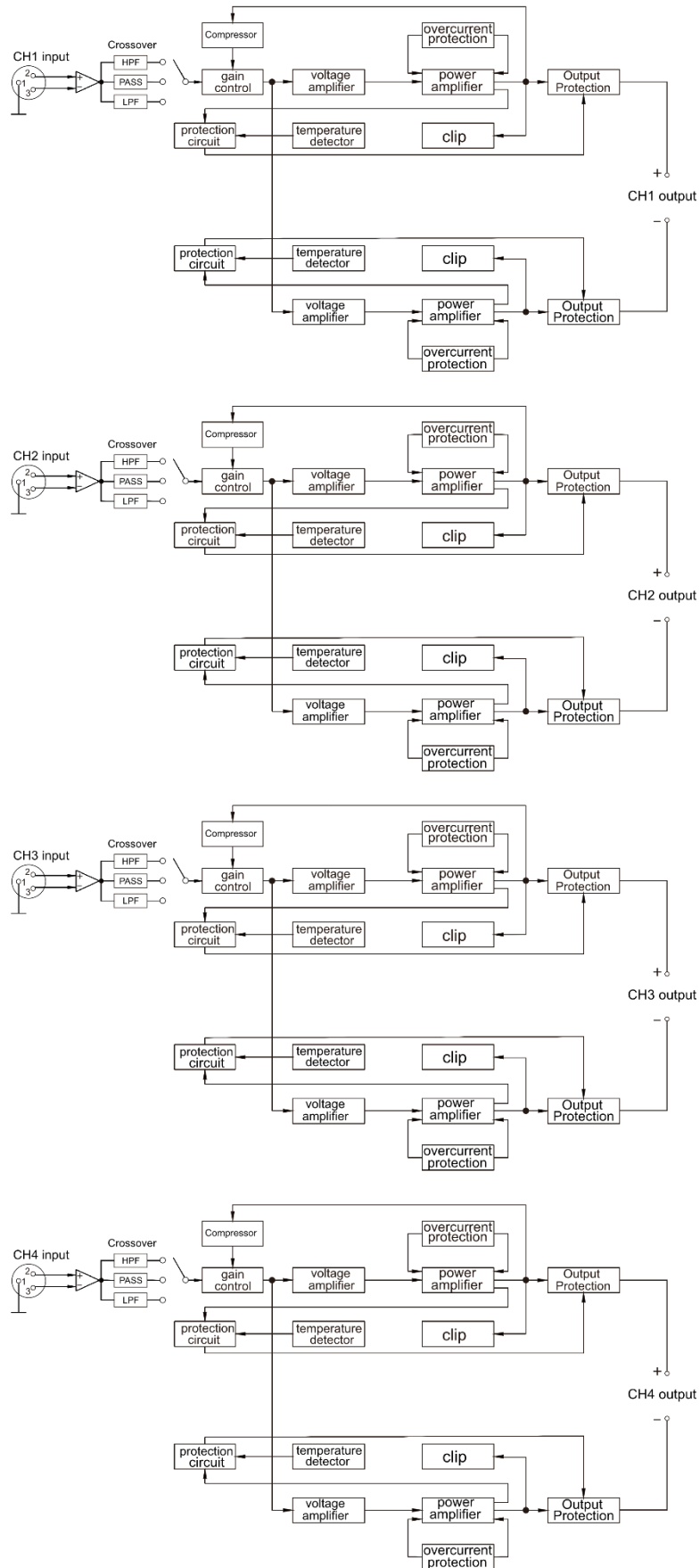
If you are mounting the unit in a rack, please make sure that you open the rear door fully to ensure proper ventilation.

### Circuit diagram MC6-400





### Circuit diagram MC4-600



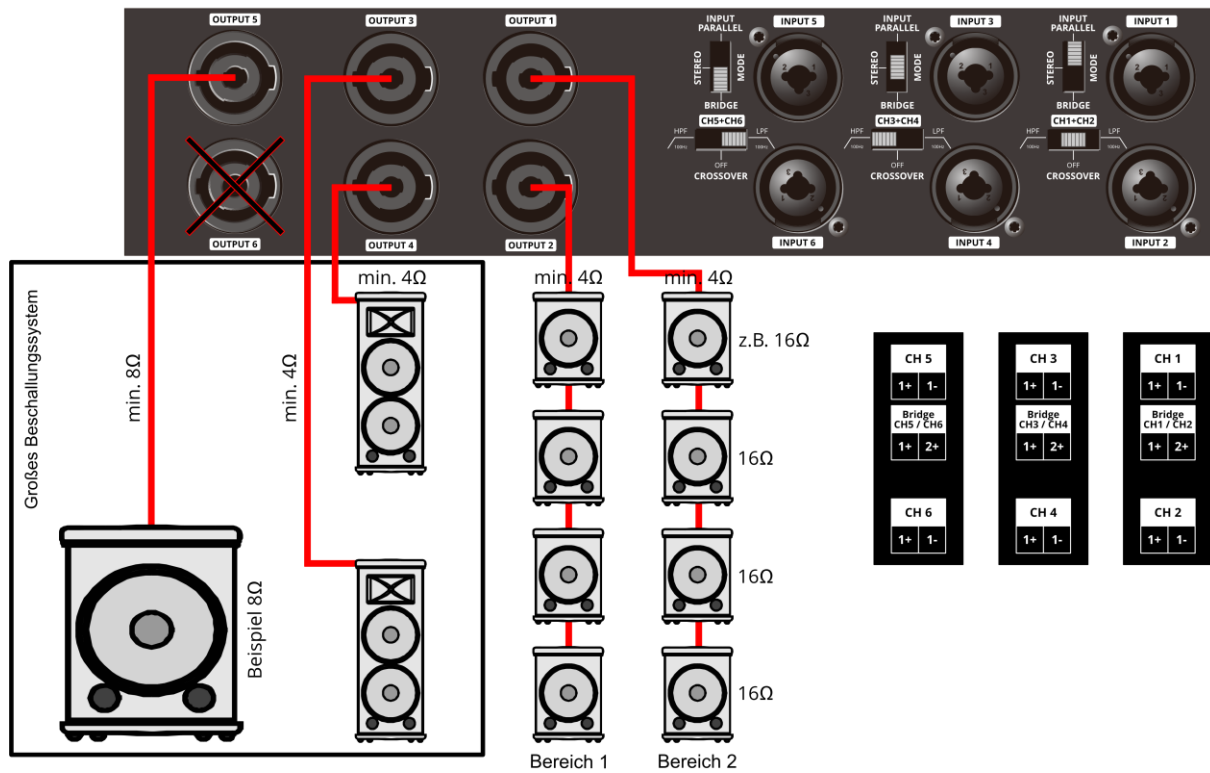
## Connection examples

The following examples describe the most common methods of using your power amplifier in a sound system. Turn off the power amplifier before making any connections.

**Example 1:** Input 1 + Input 2, Input Parallel Mode, Crossover Off  
 Connection via output 1 + output 2 with 8 individual speakers

**Example 2:** Input 3 + Input 4, stereo mode, high pass filter  
 Connection via output 3 + output 4 with 2 fullrange tops

**Example 3:** Input 5 + Input 6, Bridge Mode, Low Pass Filter  
 Connection via output 5 + output 6 with 1 single subwoofer



## Protective functions

### Output current protection function

When the output current of the amplifier channel exceeds the specified peak current, e.g.: short circuit at the output, the amplifier is tuned for 1000ms and restarts automatically after the short circuit condition disappears.

### Overvoltage protection

When the operating voltage exceeds the maximum operating voltage or falls below the minimum operating voltage, the device will enter protection mode and shut down the power supply. Operation above 240VAC voltage may cause current damage.

### Temperature protection

There is a temperature protection in the device which monitors the temperature of the heat sink and the power supply simultaneously. If the temperature of the heat sink exceeds the critical temperature, the output power is limited. When the temperature of the power supply exceeds the critical temperature, the output is disabled. As soon as the temperature reaches the limit again, the output stage is automatically reactivated.

## WEEE Declaration

(Waste of Electrical and Electronic Equipment)

Your product has been designed and manufactured using high quality materials and components that are recyclable and reusable. The symbol means that your product must be disposed of separately from household waste at the end of its service life. Dispose of this device at your local collection point or recycling center.

Please help protect the environment in which we all live.

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