

 **BLAUPUNKT**

ESTABLISHED  
— IN —  
GERMANY  
Since 1923 

EMA 275  
EMA 475



EMA 275



EMA 475

*Enjoy it.*

# INTRODUCTION

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Proper system planning is vital in order to maximize the device's performance and road safety. Plan your installation carefully to avoid compromising performance reliability of the system. Consult an authorized Blaupunkt dealer for installation or reparation. Read the manual carefully before operating the device for the first time.

Ensure to follow below safety notes during installation and wiring connection :-

- Disconnect the negative terminal of the battery. Refer to the safety notes of vehicle manufacturer.
- Ensure positions of the holes are nowhere near the vehicle component to avoid any damage during drilling.
- Ensure cross section of the cable is no less than 5mm<sup>2</sup> if the positive and negative cables are too long.
- Incorrect installation may result in malfunction of the device or the car sound system.

## Installation and Connection Instructions

- Select a dry and well-ventilated location to install the device.
- The device must not be installed in overly exposed location such on the rear shelf, rear seat etc.
- The installation location must be suitable for screw holes and have stable ground support.

## Integrated Fuse

The integrated fuse in the device protects the output voltage and the entire electrical system in case of malfunction. Do not replace damaged fuse with higher current.

## Disclaimer

- In no event shall Blaupunkt be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, improper storage, whatsoever arising out of or connected with the use or misuse of our products.

- USA & CANADA : Product not intended for sale in the United States and Canada. If purchased in the U.S. or Canada, this product is purchased as-is. No warranty, express or implied is provided in the U.S. and Canada.

## General Safety Notes

Observe the following to protect yourself against injuries :

- The supply voltage requirement is 12V DC with grounded negative connection. Unauthorised dismantling or modifying may void the warranty of the device. Blaupunkt is not liable for any loss or damaged caused or resulting from unauthorized reparation or modification to the device. Refer to a Blaupunkt specialist in case of any installation or reparation required.
- The device's core components may be damaged when the car is driven on bumpy roads for a prolonged period of time or if it is used to play non-standard volume level.
- Please do not operate the car radio under extreme temperature conditions (extremely high temperature or extremely low temperature); ensure the temperature within the car ranges from -10°C to 85°C (Storage temperature : 5°C to 35°C) before connecting to the power supply.
- For abnormalities, please refer to TROUBLE-SHOOTING. Consult a specialist if the problem persist.
- Solvents, cleaning and scouring agents as well as dashboard spray and plastics care products may contain materials which can damage the surface and screen of the device. Use only dry or slightly moistened cloth to clean the device.
- This manual may be updated from time to time without any prior notice.

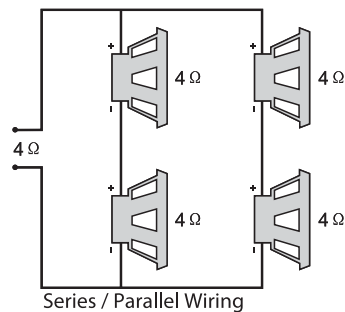
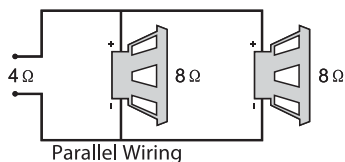
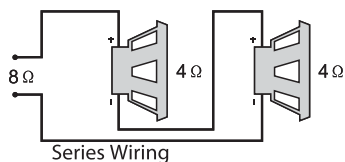
# INTRODUCTION

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## Speaker Requirements

Each speaker of your amplifier can easily drive  $4\Omega$  speaker loads when used in stereo mode. When a channel-pair is bridged, the recommended minimum load impedance is  $3\Omega$  for subwoofer use, and  $4\Omega$  for full range operation. Although operation with lower impedances is not likely to cause immediate damage to internal circuitry, the unit will most likely overheat, causing the thermal protection circuitry to shut down the amplifier. When the chassis cools down, normal operation will resume. Continuing to operate the amplifier under these conditions is not recommended and will reduce its life expectancy.

Most speakers designed for car audio operation are  $4\Omega$  impedance. Connecting two such speakers in parallel will result in a  $2\Omega$  nominal impedance, which is not recommended for usage with bridged channels amplifier.

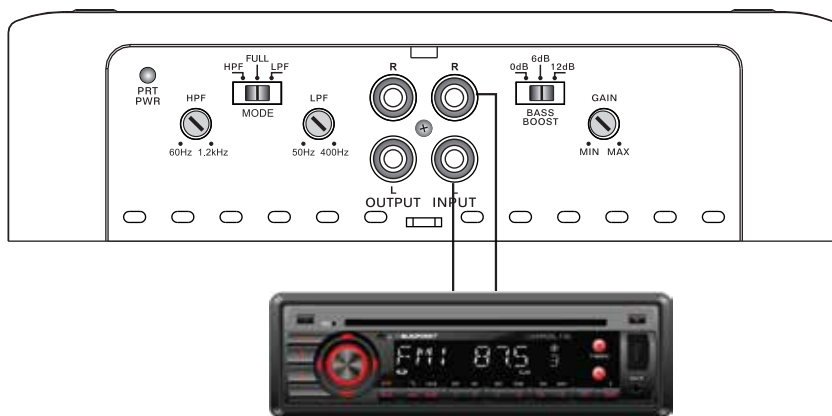


# WIRING DIAGRAM

## EMA 275

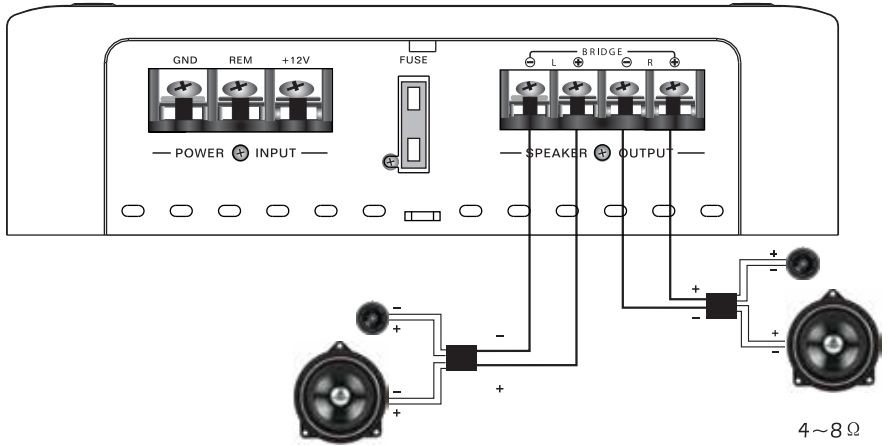
- Amplifier Class : AB
- No of Channel : 2/1 Channel
- Max. Output Power : 150W x 2
- RMS Power (4 ohms) : 60W x 2
- RMS Power (2ohms) : 90W x 2
- Max Total Power Bridged (4ohms) : 180W x 1
- Frequency Response : 10Hz - 45KHz
- Signal-To-Noise Ratio:  $\geq 96$ dB
- Voltage Supply : 11-16V DC
- Idlling Current : 0.5A
- Gain Adjust : 160mV-6V
- Bass Boost Frequency : 50Hz
- Bass Boost Level : 0 / 6 / 12dB
- Crossover Type : Variable LPF / HPF
- Crossover Frequency (Low Pass Filter) : 50Hz - 400Hz
- Crossover Frequency (High Pass Filter) : 60Hz - 1.2KHz
- Crossover Slope : -12dB/oct
- Lo-Volt Input Level Control : 150mV - 5.5V
- Total Harmonic Distortion :  $\leq 0.05\%$
- RCA Input : 2 Channel
- Fuse : 30A X 1
- Power / Ground Terminal : Screw-Type
- Speaker Terminal : Screw-Type
- Weight : 1.7 KG
- Dimension ( W x H x D ) : 265 x 190 x 53mm

## CAR RADIO CONNECTION

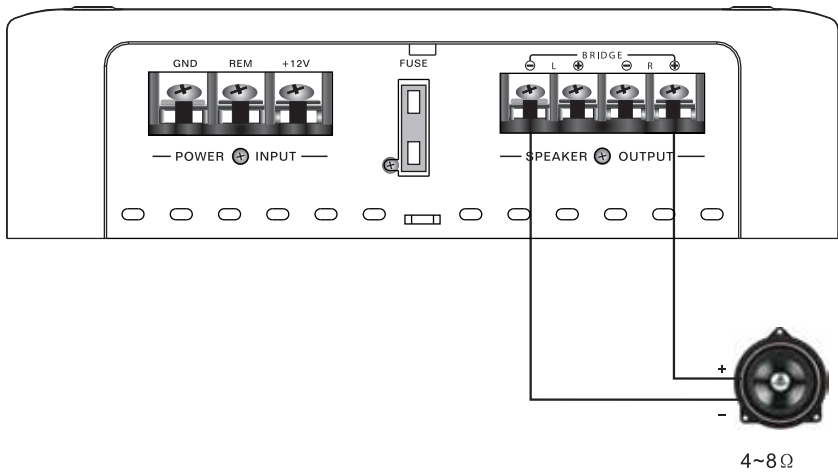


# WIRING DIAGRAM

## SYSTEM 1 - 2 CHANNEL MODE



## SYSTEM 2 - BRIDGED CONNECTION SUBWOOFER

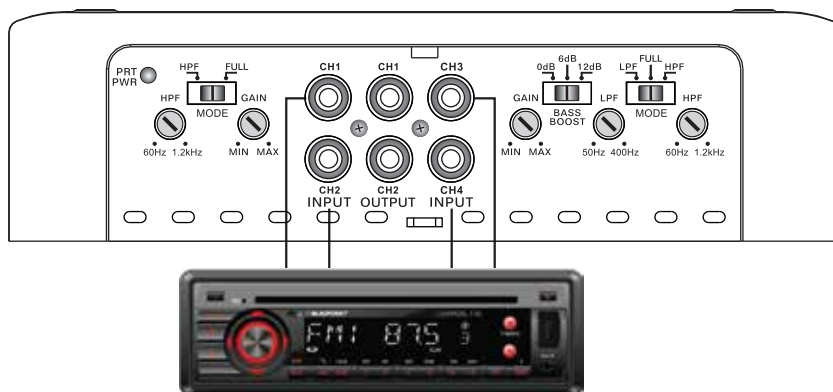


# WIRING DIAGRAM

## EMA 475

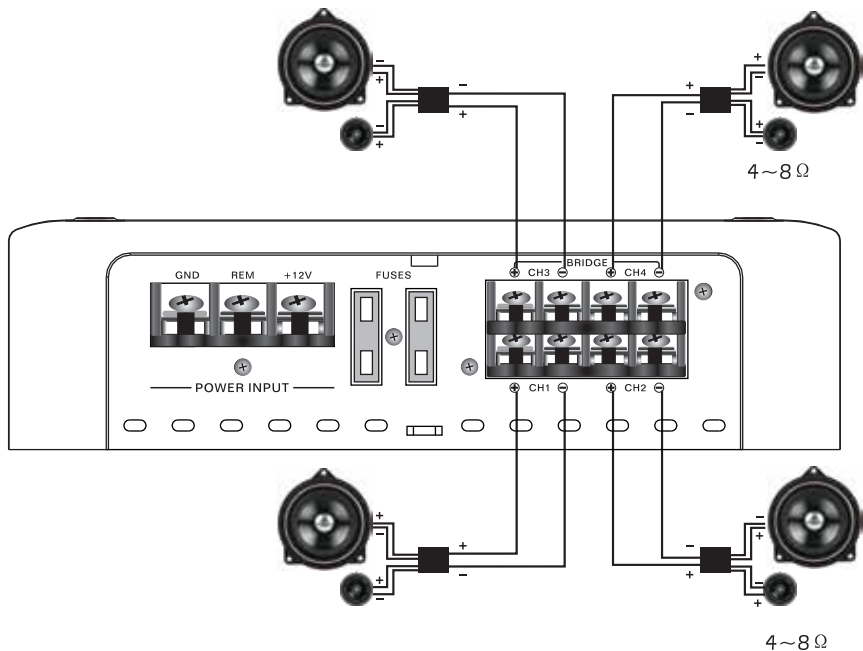
- Amplifier Class : AB
- No of Channel : 4/3/2 Channel
- Max. Output Power : 150W x 4
- RMS Power (4 ohms) : 60W x 4
- RMS Power (2ohms) : 90W x 4
- Max Total Power Bridged (4ohms) : 180W x 2
- Frequency Response : 10Hz - 45KHz
- Signal-To-Noise Ratio: >=96dB
- Voltage Supply : 11-16V DC
- Idling Current : 0.6A
- Gain Adjust : 160mV-6V
- Bass Boost Frequency : 50Hz
- Bass Boost Level : 0/6 /12dB
- Crossover Type : Variable LPF / HPF
- Crossover Frequency (Low Pass Filter) : 50Hz - 400Hz
- Crossover Frequency (High Pass Filter) : 60Hz - 1.2KHz
- Crossover Slope : -12dB/oct
- Lo-Volt Input Level Control : 150mV - 5.5V
- Total Harmonic Distortion : <=0.05%
- RCA Input : 4 Channel  
Fuse : 20A X 2
- Power / Ground Terminal : Screw-Type
- Screw-Type
- Speaker Terminal : Screw-Type
- Weight : 2.2 KG
- Dimension ( W x H x D ) : 350 x 190 x 53mm

## CAR RADIO CONNECTION

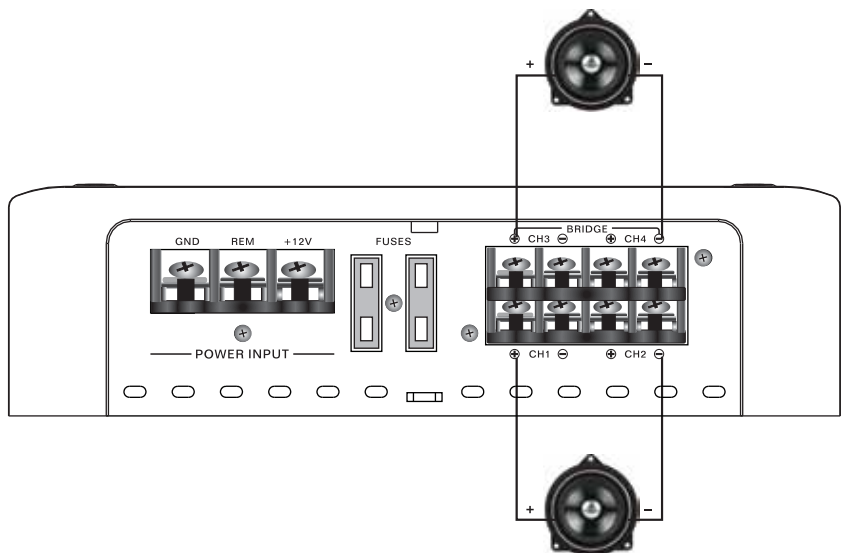


# WIRING DIAGRAM

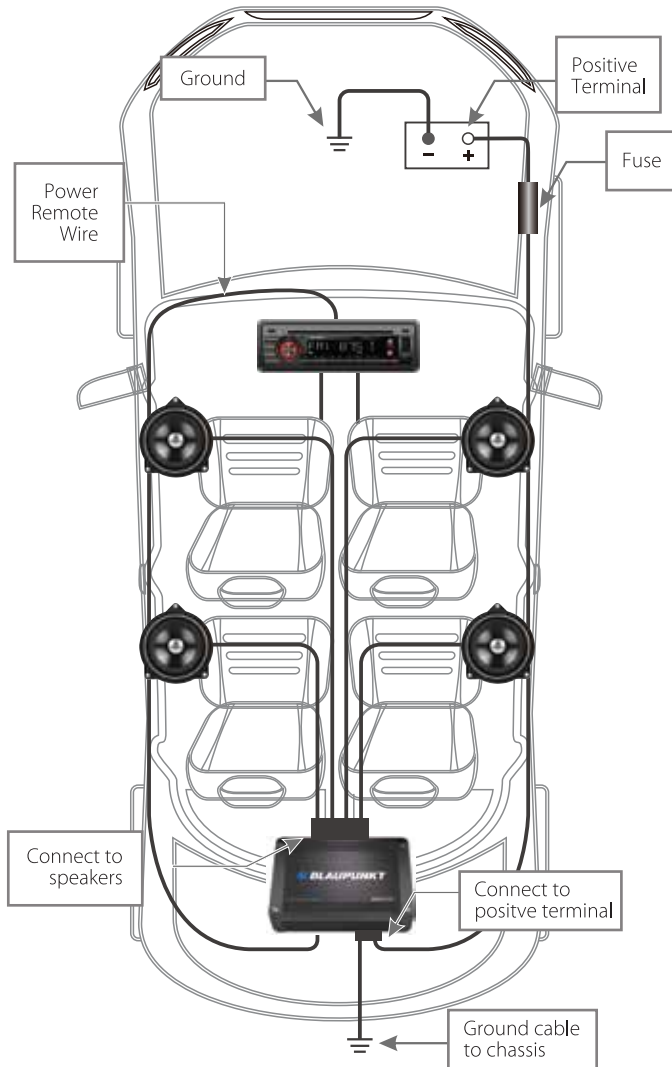
## SYSTEM 1 - 4 CHANNEL MODE



## SYSTEM 2 - BRIDGED CONNECTION SUBWOOFER



# WIRING DIAGRAM



**⚠ WARNING**  
Do not connect negative charge of the battery to the positive charge before installation.



## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
No audio output	Remote wire failed to work	Examine voltage output/connection and repair accordingly.
	Fuse failed to work	Examine power integrity and reversed polarity, repair or replace fuse accordingly.
	Disconnected power wires	Examine power wire and ground connections. Replace and repair accordingly.
	Missing output from source or audio input not connected	Examine input connection and signal integrity. Replace or repair accordingly.
	Disconnected speaker wires	Examine speaker wires. Replace or repair accordingly.
Unstable audio cycle	Broken speaker	Examine radio system. Replace or repair accordingly.
	Thermal protection will be activated when amplifier temperature exceeds 90°C	Improve amplifier's ventilation accordingly.
	Poor audio input	Examine input connection. Replace or repair accordingly.
Audio distortion	High amplifier sensitivity setting, exceed maximum output capability of amplifier	Refer to manual to reset gain setting.
	Low impedance	Examine speaker impedance. Rewire speaker accordingly, if below 2Ω stereo or 4Ω mono.
	Improper connection of speaker and amplifier	Examine speaker wire, replace or repair accordingly. Refer to manual for installation instruction.
	Broken speaker	Examine radio system. Replace or repair accordingly.
Poor bass response	Wrong speaker wire polarity connection causing phase cancellation	Examine speaker polarity and repair accordingly.
Broken battery fuse	Low impedance	Examine speaker impedance. Rewire speaker accordingly, if below 2Ω stereo or 4Ω mono.
	Incorrect power connection	Examine power wire and ground connections. Repair accordingly.
	Fuse used is smaller than recommended	Replace with recommended fuse type.
	Over drawn current	Examine speaker impedance. Rewire speaker and replace fuse accordingly, if below 2Ω stereo or 4Ω mono.
	Incorrect power wire	Examine power wire and ground connections. Repair accordingly.

## TROUBLESHOOTING

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<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Broken amplifier fuse	Over drawn current	Examine speaker impedance. Rewire speaker and replace fuse accordingly, if below 2Ω stereo or 4Ω mono.
	Fuse used is smaller than recommended	Examine power wire and ground connections and repair accordingly with correct fuse.

