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CMQ405



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1 Important

Safety

- Read and understand all instructions before you use the apparatus. If damage is caused by failure to follow instructions, the warranty does not apply.
- This unit is designed for negative ground (earth) 12 V DC operation only.
- Use only the supplied mounting hardware for a safe and secure installation.
- Do not connect any active speakers (with built-in amplifier) to the speaker terminals of the unit. Doing so may damage the active speakers.
- To ensure safe driving, adjust the volume to a safe and comfortable level.
- To avoid short circuit, do not expose the apparatus, remote control or remote control batteries to rain or water.
- Never expose the apparatus to direct sunlight, naked flames or heat.
- Clean the apparatus with soft, damp cloth. Never use substances such as alcohol, chemicals or household cleaners on the apparatus.

Notice

Environmental information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet.)

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Any changes or modifications made to this device that are not expressly approved by Philips Consumer Lifestyle may void the user's authority to operate the equipment.

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2 Your car power amplifier

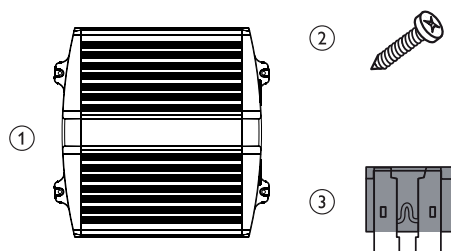
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Introduction

With the amplifier, you can enjoy high quality sound performance with powerful bass and beats.

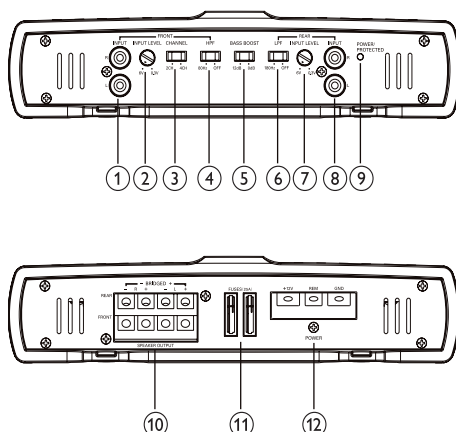
What's in the box

Check and identify the contents of your package:



- ① Amplifier
- ② Screw (25mm) x 4
- ③ Fuse x 2

Overview of the main unit



- ① **FRONT INPUT L/R**
 - Connect car audio with RCA cable.
- ② **FRONT INPUT LEVEL**
 - Adjust input level (0.3V to 6V).
- ③ **FRONT CHANNEL**
 - When switch to 2CH, front channel input.
 - When switch to 4CH, each input from front and rear channel.
- ④ **FRONT HPF**
 - Adjust frequency of HPF to 80Hz or OFF (FLAT) mode.
- ⑤ **REAR BASS BOOST**
 - Boost frequency for around 50Hz, 12dB.
- ⑥ **REAR LPF**
 - Adjust frequency of LPF to 180Hz or OFF(FLAT) mode.
- ⑦ **REAR INPUT LEVEL**
 - Adjust input level (0.3V to 6V).
- ⑧ **REAR INPUT L/R**
 - Connect car audio with RCA cable.

⑨ POWER/PROTECTED

- Light in green when the amplifier is switched on.
- Light in red when the amplifier is abnormal and protected.

⑩ SPEAKER OUTPUT

- Connect to speakers or subwoofers.

⑪ Fuse: 25A x 2

⑫ POWER (GND/REM/+12V)

- To connect +12V-DC power wire, ground wire, and remote control wire.

3 Installation



Note

- Follow all mounting and wiring instructions.

Mount the amplifier in car

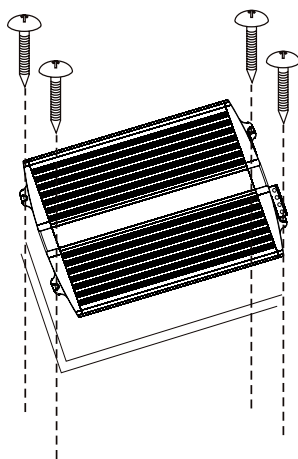
You can mount the amplifier either under a seat or on the rear tray.



Note

- To avoid interference, do not place the amplifier too close to the car audio or antenna.
- The supplied mounting screws are 25mm long. Make sure that the mounting board is thicker than 25mm.

- 1 Place the unit on the location for installation.
- 2 Mark the positions of the four screw holes.
- 3 Drill the holes with drill of approximately 4mm in diameter.
- 4 Mount the unit with the supplied screws.

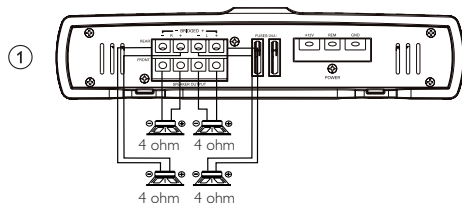


Connect speakers

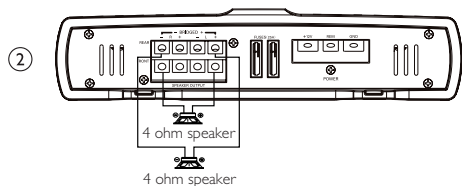
Note

- Use speakers with an impedance of 2 to 8 ohm (4 to 8 ohm when used as a bridged amplifier).
- Match the "left", "right", "+" and "-" terminals correctly. Revised polarity may degrade sound quality.

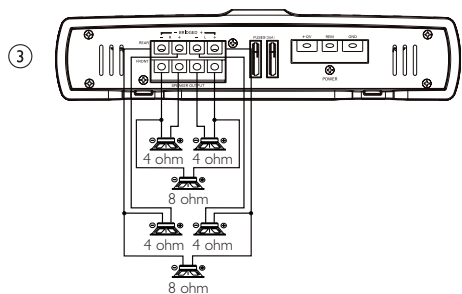
Option 1: Stereo mode: connect 4 speakers



Option 2: Mono bridged mode: connect 2 speaker

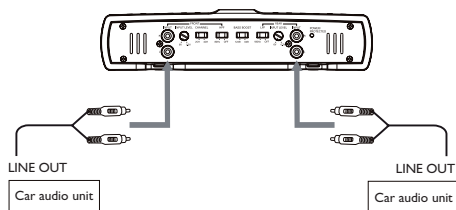


Option 3: Tri-mode: connect 6 speakers



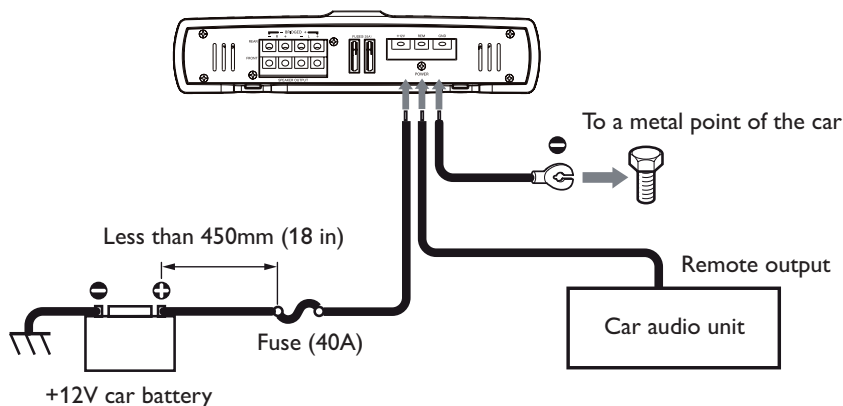
Connect car audio

Connect the amplifier to the car audio with an RCA cable.



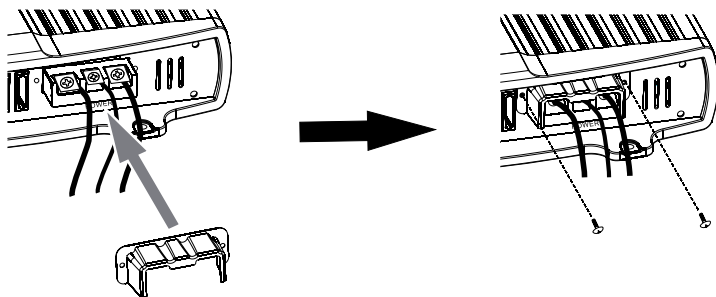
Connect power

- 1 Make the power connection as illustrated below:
 - Connect the ground wire from the car to the **GND** socket.
 - Connect the remote wire from the car audio to the **REM** socket.
 - With this connection, you can turn on/off the amplifier with the car audio.
 - Connect the power wire from the car battery to the **+12V** socket.



Tip

- If your car audio does not have remote output, connect the remote input terminal (REM) to the accessory power supply.
- To avoid short circuit, cover the power socket with the supplied shield and screws after connected power wires. See below illustration:



4 Use your power amplifier

Select HPF/LPF mode

- 1 Slide **LPF** or **HPF** to the selected mode.

HPF (high-pass-filter)	80Hz	More low frequency signal is filtered. Select this if you prefer less bass effect.
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OFF

LPF (low-pass-filter)	180Hz	More high frequency signal is filtered. Select this if you prefer stronger bass effect.
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OFF

Adjust input level

To ensure sound quality, adjust input level to match it with the car audio's output voltage.

- 1 Check the line output voltage of the connected car audio.
- 2 Rotate **INPUT LEVEL** to select a matched voltage: 0.3V to 6V.

Adjust bass boost

To enjoy more bass sound:

- 1 Set **HPF** at **OFF** mode.
- 2 Slide **BASS BOOST** to **12dB** position.



Tip

- If **BASS BOOST** is set at **0dB** position, no extra bass will be boosted.



Note

- If **HPF** is set at **180Hz** mode, the bass frequency will be filtered.

About the protector indicator

The amplifier has a built-in protection circuit to protect the transistors and speakers in following conditions:

- The amplifier is overheated.
- A DC current is generated in speakers.
- The battery voltage is too low or too high. Or
- The speaker terminals are short circuited.

When the **PROTECTED** indicator lights up in red, the amplifier shuts down automatically. In this case please:

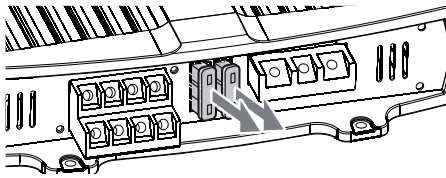
- 1 Take out the disc or tape and turn off the car audio.
- 2 Check the cause of the malfunction.
- 3 If the amplifier is overheated, let it cool down.

Replace fuse

If there is no power, the fuses might be damaged and need to be replaced.

- 1 Pull out the damaged fuses.
- 2 Replace the fuses with the supplied fuses or to buy two fuses that match the current rating of the damaged fuses (25A x 2).

If the fuse gets damaged immediately after they are replaced, the amplifier might have internal malfunction. In such case, consult qualified personal for repair.



5 Product information



Note

- Product information is subject to change without prior notice.

Power output (RMS)	- 4 ohm	75W x 4
	- 2 ohm	110W x 4
	- 4 ohm (bridged)	220W x 2
Total harmonic distortion		0.09%
Signal to noise ratio		100dB
Channel separation		50dB
Frequency response		5-50kHz
Input sensitivity		300mV - 6V
Input impedance		22k ohm
Fuse rating		25A x 2
Dimensions (D x W x H)		390 x 240 x 54mm
Weight		3.02kg

6 Troubleshooting

To keep the warranty valid, never try to repair the system yourself.

If you encounter problems when using this apparatus, check the following points before requesting service. If the problem remains unsolved, go to the Philips web site (www.philips.com/welcome). When you contact Philips, ensure that the apparatus is nearby and the model number and serial number are available.

Power indicator does not light up

- The connected car audio is not turned on.
- The fuse is blown. Replace the fuse with a new one.
- The input level is not set correctly (see "Adjust input level").

The protector indicator lights up in red.

- The speaker terminals are short circuited. Check the speaker connections.
- The amplifier is overheated. Cool down the amplifier before use.
- The amplifier is overloaded.

The sound is too low.

- The input level is not set correctly (see "Adjust input level").

The sound is interrupted or stopped suddenly.

- The thermal protector is activated. Reduce the volume.
- The ventilation outlet is blocked. Remove any obstructions from the outlet.

Alternate noise is heard.

- The power connecting wires are installed too close to the RCA pin cords.
- The ground wire is not securely connected to a metal point of the car.
- Negative speaker wires touch the car chassis.

The unit becomes abnormally hot.

- Place the amplifier in a well ventilated location.
- Use speakers with suitable impedance: 2-8 ohm (stereo), 4-8 ohm (bridged).

Name of the Parts 部件名称	Hazardous/toxic Substance 有毒有害物质或元素					
	Pb, Lead 铅	Hg, Mercury 汞	Cd, cadmium 镉	Chromium 6+ 六价铬	PBB 多溴联苯	PBDE 多溴二苯醚
Housing 外壳	O	O	O	O	O	O
Loudspeakers 喇叭单元	O	O	O	O	O	O
PWBs 电路板组件	X	O	O	O	O	O
Accessories (Remote control & cables) 附件 (遥控器, 电源线, 连接线)	X	O	O	O	O	O

- O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363 - 2006.
- O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363 - 2006 标准规定的限量要求以下。
- X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363 - 2006.
- X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363 - 2006 标准规定的限量要求。



Environmental Protection Use Period 环保使用期限

This logo refers to the period (10 years) during which the toxic or hazardous substances or elements contained in electronic information products will not leak or mutate so that the use of these [substances or elements] will not result in any severe environmental pollution, any bodily injury or damage to any assets.

电子信息产品中含有的有毒有害物质或元素在正常使用的条件下不会发生外泄或突变，电子信息产品用户使用该电子信息产品不会对环境造成严重污染或对其人身、财产造成严重损害的期限。

