Register your product and get support at

www.philips.com/welcome

CMP400



EN User manual

PHILIPS

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 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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Your car power amplifier

Congratulations on your purchase, and welcome to Philips! To fully benefit from the support that Philips offers, register your product at www.philips.com/welcome.

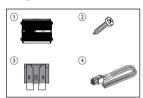
Introduction

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

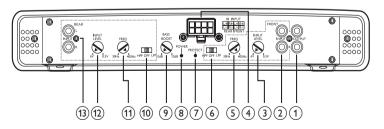
What's in the box

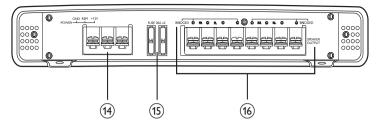
Check and identify the contents of your package:

- Amplifier
- ② Screw_4x14mm (x4)
- 3 Fuse (x2)
- 4 Hi input connector (x1)



Overview of the main unit





OUTPUT L/R

• Connect additional amplifier for additional speakers.

(2) FRONT INPUT L/R

Connect car audio with RCA cable.

(3) FRONT INPUT LEVEL

Adjust input level (0.3V to 6V).

(4) HI INPUT

Connect car audio with the supplied high input connector.

(5) FRONT FREQ

Adjust frequency of HPF or LPF from 30Hz to 400Hz.

(6) FRONT HPF/OFF/LPF

 Select High-pass-filter (HPF), Low-pass-filter(LPF) or OFF (flat) mode.

(7) PROTECT

· Light in red when the PROTECTOR is activated.

8 POWER

Light in blue when power is turned on.

(9) BASS BOOST

 Boost the frequencies at around 40Hz to a maximum of 12dB.

REAR HPF/OFF/LPF

 Select High-pass-filter (HPF), Low-pass-filter(LPF) or OFF (flat) mode.

11 REAR FREQ

Adjust frequency of HPF or LPF from 30Hz to 400Hz.

(12) REAR INPUT LEVEL

• Adjust input level (0.3V to 6V).

(13) REAR INPUT L/R

Connect car audio with RCA cable.

14 POWER (GND/REM/+12V)

 Connect +12V DC power cable, ground wire and remote wire.

(15) Fuse

6 SPEAKER OUTPUT

Connect to speakers.

2. Installation

Installation

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 14mm long. Make sure that the mounting board is thicker than 14mm.
- 1 Place the unit on the location for installation.
- 2 Mark the positions of the four screw holes.



- 3 Drill the holes with driller of approximately 3mm in diameter.
- 4 Mount the unit with the supplied screws.

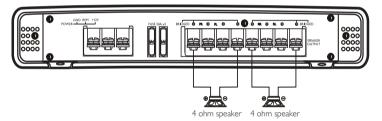
Connect speakers



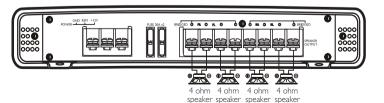
Note

- 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.

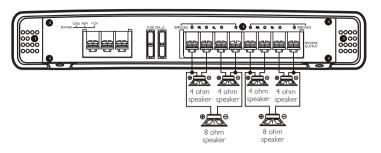
Option 1: Mono bridged mode: connect 2 speaker

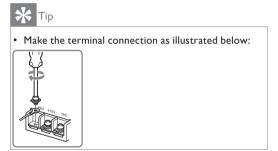


Option 2: Stereo mode: connect 4 speakers



Option 3: Tri-mode: connect 6 speakers

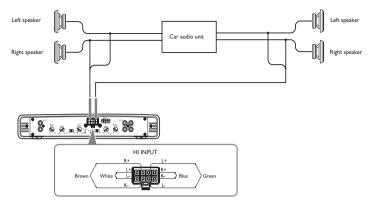




Connect car audio

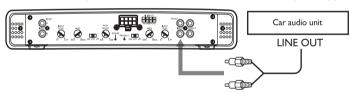
Option 1: High level input connection

Connect the amplifier to your car audio with the supplied High level input connector.



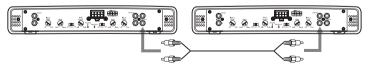
Option 2: Line input connection

Connect the amplifier to the car audio with a RCA cable (not supplied).



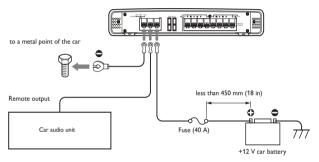
Option 3: Line output connection

Connect the amplifier to another amplifier.



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.





 If your car audio does not have remote output, connect the remote input terminal (REM) to the accessory power supply.

3. Use your power amplifier

Select crossover frequency





HPF (high-pass-filter) mode	Select this mode when mid-range speakers and tweeters are connected for high frequency output.
LPF (Low-pass-filter) mode	Select this mode when woofer and subwoofer is connected for low frequency output.
OFF (flat) mode	Select this mode when tri-mode speaker connection is used.

1 Slide HPF/OFF/LPF to the selected positon.

Adjust frequency

You can adjust frequency of HPF or LPF from $30\mathrm{HZ}$ to $400\mathrm{Hz}$.





Note

- When the HPF/OFF/LPF switch is set at OFF position, the frequency adjustment does not work.
- 1 Rotate **FREQ** to select frequency.

Adjust input level

You can adjust the input voltage from 0.3V to 6V.

1 Rotate INPUT LEVEL to adjust input voltage.



Adjust bass boost

You can punch extra bass for 0 to 12dB.

1 Rotate BASS BOOST to punch for extra bass.



About the protector indicator

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

POWFR

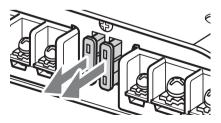
PROTECT

- The unit is overheated. Or
- A DC current is generated. Or
- The battery voltage is over low or over high. Or
- The speaker terminals are short circuited.
 When the PROTECTOR indicator lights up in red, the unit shuts down automatically. If this happens, please:
- 1 Take out the disc or tape and turn off the car audio.
- 2 Check the cause of the malfunction (see above).
- 3 If the amplifier has overheated, wait until the unit cools down before use

Replace fuse

If there is no power, the fuse may be damaged and need to be replaced.

- **1** Pull out the damaged fuse.
- 2 Replace the fuse with the supplied fuses or to buy two fuse that matches the voltage of the damaged fuse (40A).



If the fuse gets damaged immediately after it has been replaced, there may be an internal malfunction. In such case, consult your Philips dealer.

4. Product information



• Product information is subject to change without prior notice.

Power Output (RMS) - 4 ohm - 4 ohm (bridged) - 2 ohm	50W x 4 150W x 2 80W x 4		
Total harmonic distortion	0.01%		
Signal to noise ratio	106dB		
Channel separation	50dB		
Frequency response	5-100kHz		
Input sensitivity	300mV-6V		
Input impedance	22k ohm		
Fuse rating	20A × 2		
Dimensions (DxWxH)	54.4 × 336.5 × 240.2mm		

5. 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 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 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 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	Hazardous/toxic Substance							
	Pb, Lead	Hg, Mercury	Cd, cadmium	Chromium 6+	PBB	PBDE		
Housing	0	0	0	0	0	0		
Loudspeakers	0	0	0	0	0	0		
PWBs	×	0	0	0	0	0		
Accessories (Remote control & cables)	×	0	0	0	0	0		

- O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SI/T11363 - 2006.
- 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 SI/T11363 - 2006,

Environmental Protection Use Period

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.