

Pioneer

CLASS D FOUR-CHANNEL AMPLIFIER
AMPLIFICATEUR 4 CANAUX CLASSE-D
AMPLIFICATORE A 4 CANALI IN CLASSE D
AMPLIFICADOR 4 CANALES CLASE D
VIERKANAL-VERSTÄRKER DER KLASSE D
KLASSE D-VERSTERKER MET VIER KANALEN
4-КАНАЛЬНЫЙ УСИЛИТЕЛЬ КЛАССА D

GM-D1004

Owner's Manual
Mode d'emploi
Manuale d'istruzioni
Manual de instrucciones
Bedienungsanleitung
Handleiding
Руководство пользователя

English

Français

Italiano

Español

Deutsch

Nederlands

Русский

Before you start

Thank you for purchasing this PIONEER product


To ensure proper use, please read through this manual before using this product. It is especially important that you read and observe **WARNINGS** and **CAUTIONS** in this manual. *Please keep the manual in a safe and accessible place for future reference.*



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for the correct method of disposal.


By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health. 

Visit our website


Visit us at the following site:

<http://www.pioneer.co.uk>

- Register your product. We will keep the details of your purchase on file to help you refer to this information in the event of an insurance claim such as loss or theft.

- We offer the latest information about PIONEER CORPORATION on our website. 

If you experience problems

Should this product fail to operate properly, please contact your dealer or nearest authorized Pioneer Service Station. 

Before connecting/ installing the amplifier



WARNING

- This unit is for vehicles with a 12V battery and negative grounding. Before installing in recreational vehicles, trucks or buses, check the battery voltage.
- When the fuse of the car which supplies the power to this unit is less than 15 A, supply the power directly to this unit from a battery. In addition, do not connect the speaker to the car stereo for speaker output while using this unit.

If the speaker is connected to the car stereo, since the current consumption of the whole system becomes large, the power must be supplied from a car battery directly.
- When installing this unit, make sure to connect the ground wire first. Ensure that the ground wire is properly connected to metal parts of the car's body. The ground wire of the one of this unit must be connected to the car separately with different screws. If the screw for the ground wire loosens or falls out, it could result in fire, generation of smoke or malfunction.
- Always use a fuse of the rating prescribed. The use of an improper fuse could result in overheating and smoke, damage to the product and injury, including burns.

Before you start

- Check the connections of the power supply and speakers if the amplifier fuse blows. Determine and resolve the cause, then replace the fuse with an identical equivalent.
- Always install the amplifier on a flat surface. Do not install the amplifier on a surface that is not flat or on a surface with a protrusion. Doing so could result in malfunction.
- When installing the amplifier, do not allow parts such as extra screws to get caught between the amplifier and the automobile. Doing so could cause malfunction.
- Do not allow this unit to come into contact with liquids. Electrical shock could result. Also, damage to this unit, smoke, and overheating could result from contact with liquids. The surfaces of the amplifier and any attached speakers may also heat up and cause minor burns.
- In the event of any abnormality, the power supply to the amplifier is cut off to prevent equipment malfunction. If this occurs, switch the system power off and check the power supply and speaker connections. If you are unable to determine the cause, please contact your dealer.
- Always disconnect the negative \ominus terminal of the battery beforehand to avoid the risk of electric shock or short circuit during installation.
- Do not attempt to disassemble or modify this unit. Doing so may result in fire, electric shock or other malfunction.
- The power indicator will turn off and the amplifier will shut down in the situations outlined below.
 - If the temperature inside the product gets high.
 - If the speaker output terminal and speaker wire are short-circuited.
 - If a DC voltage is applied to the speaker output terminal.
 - If the battery voltage is outside of the use range.
- The amplifier will reduce the power output if the temperature inside the amplifier gets high. If the temperature gets too high, the power indicator will turn off, and the amplifier will shut down. \blacksquare

CAUTION

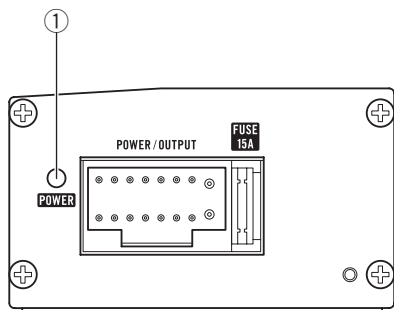
- Always keep the volume low enough to hear outside sounds.
- Extended use of the car stereo while the engine is at rest or idling may exhaust the battery.

About the protection function

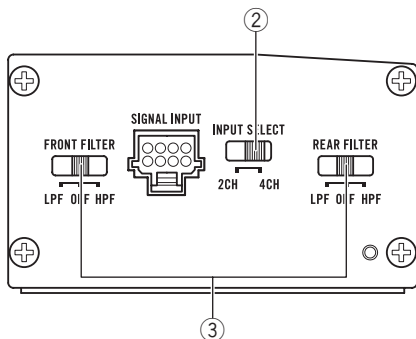
This product has protection function. When this product detects something abnormal, the following functions will operate to protect the product and speaker output.

What's what

Right side



Left side



To adjust the switch, use a flathead screwdriver if needed.

① Power indicator

The power indicator lights up to indicate power ON.

② INPUT SELECT (input select) switch

Select **2CH** for two-channel input and **4CH** for four-channel input.

③ LPF (low-pass filter)/HPF (high-pass filter) select switch

Switch the settings based on the connected speaker.

- When the Subwoofer is connected:
Select **LPF**. This eliminates high range frequency and outputs low range frequency.

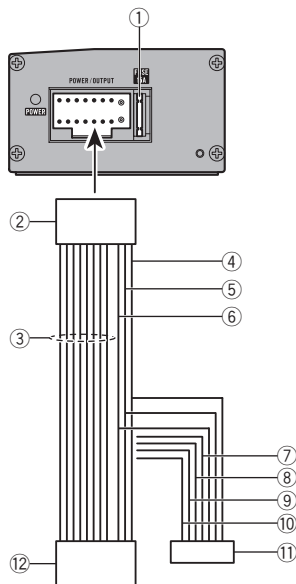
- When the full range speaker is connected:
Select **HPF** or **OFF**. **HPF** eliminates low range frequency and output high range frequency. **OFF** outputs the entire frequency range.
- Switch the **LPF/HPF** select switches after turning down the volume of the head unit.
- Protective function included to automatically prevent malfunction of the unit and/or speakers due to excessive output, improper use or improper connection.
- Even though the sound is optimally adjusted, when outputting high volume sound etc., this function may cut off the output for a few seconds as a normal function. However, the output is restored when the volume of the head unit is turned down.
- When the sound output cuts off, turn down the volume of the head unit.
- Despite turning down the volume of the head unit, the unit sound still cuts out periodically. In such cases, please contact the nearest authorized Pioneer Service Station. ■

Connecting the units

Connection of power cord and speaker

⚠ CAUTION

Connect the yellow cord to the terminal linked to the fuse unit of the car.



- ① Fuse 15A × 1
- ② To power cord input
- ③ Speaker cord
 - White: Front left ⊕
 - White/black: Front left ⊖
 - Gray: Front right ⊕
 - Gray/black: Front right ⊖
 - Green: Rear left ⊕
 - Green/black: Rear left ⊖
 - Violet: Rear right ⊕
 - Violet/black: Rear right ⊖
- ④ Black (chassis ground)
- ⑤ Yellow
 - Connect to the constant 12 V supply terminal.
- ⑥ Blue/white
 - Connect to system control terminal of the car stereo.

- ⑦ Red
 - Connect to terminal controlled by ignition switch (12 V DC).
- ⑧ Orange/white
 - Connect to lighting switch terminal.
- ⑨ Yellow/black
 - If you use an equipment with Mute function, wire this lead to the Audio Mute lead on that equipment. If not, keep the Audio Mute lead free of any connections.
- ⑩ Pink
 - Connect to car speed signal input.
- ⑪ ISO connector (Power)
 - Connect to the power supply terminal of the car stereo.
- ⑫ ISO connector (Speaker)
 - Connect to the speaker terminal of the car stereo.

Note

INPUT SELECT (input select) switch must be set. For details, see *Setting the unit* on page 4. ■

Before connecting the amplifier

⚠ WARNING

- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap sections in contact with metal parts in adhesive tape.
- Never cut the insulation of the power supply to feed power to other equipment. Current capacity of the wire is limited.

⚠ CAUTION

- Never shorten any wires, the protection circuit may malfunction.
- Never wire the speaker negative cable directly to ground.
- Never band together multiple speaker's negative cables.

Connecting the units

- If the system remote control wire of the amplifier is connected to the power terminal via the ignition switch (12VDC), the amplifier will remain on with the ignition whether the car stereo is on or off, which may exhaust battery if the engine is at rest or idling.
- Install and route the Power cord, ground wire, speaker wires and the amplifier as far away as possible from the antenna, antenna cable and tuner.

The point of connector attachment/detachment

- Push in the connector until a clicking sound, and connect it certainly.
- When you remove the connector, hold the connector portion and pull it. When the cord is pulled, the cord may be pulled out from the connector.

About suitable specification of speaker

Ensure speakers conform to the following standards, otherwise there is a risk of fire, smoke or damage. Speaker impedance is 2 Ω to 8 Ω , or 4 Ω to 8 Ω for two-channel and other bridge connections.

Subwoofer

Speaker channel	Power
Four-channel output	Nominal input: Min. 45 W
Two-channel output	Nominal input: Min. 90 W
Three-channel Front speaker out	Nominal input: Min. 45 W
Three-channel Rear speaker out	Nominal input: Min. 90 W

Other than subwoofer

Speaker channel	Power
Four-channel output	Max. input: Min. 100 W
Two-channel output	Max. input: Min. 200 W
Three-channel Front speaker out	Max. input: Min. 100 W
Three-channel Rear speaker out	Max. input: Min. 200 W



Connecting the units

Connections when using the RCA input jack

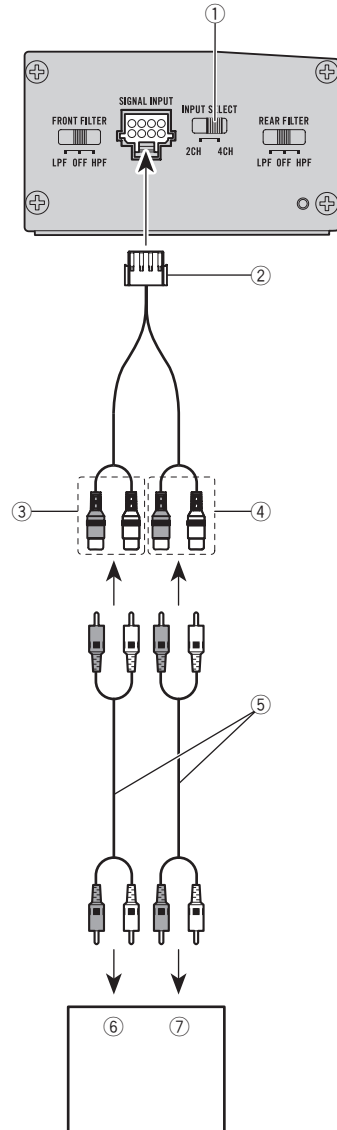
Connect the car stereo RCA output jack and the RCA input jack of the amplifier.

- Do not connect the speaker to the car stereo for speaker output while using RCA input jack.

If the speaker is connected to the car stereo, since the current consumption of the whole system becomes large, the power must be supplied from a car battery directly.

Four-channel / Three-channel input

- Slide **INPUT SELECT** (input select) switch to **4CH** position.



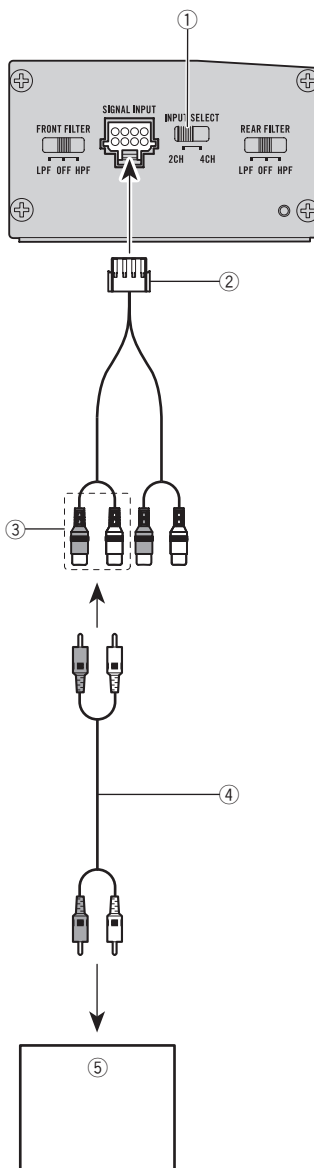
- INPUT SELECT** (input select) switch
- RCA input cord
To signal input terminal of this unit.
- RCA front input
- RCA rear input

Connecting the units

- ⑤ RCA cables (sold separately)
- ⑥ Car stereo with RCA front output jacks
- ⑦ Car stereo with RCA rear output jacks

Two-channel input (Stereo) / (Mono)

- Slide **INPUT SELECT** (input select) switch to **2CH** position.
- Connect to the RCA front input when using it in two-channel mode.



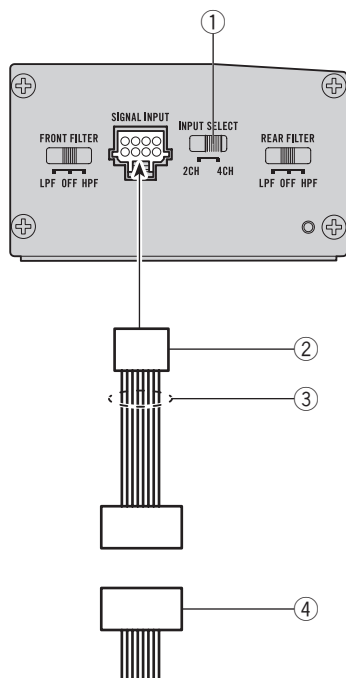
- ① **INPUT SELECT** (input select) switch
- ② RCA input cord
To signal input terminal of this unit.
- ③ RCA front input

Connecting the units

- ④ RCA cables (sold separately)
- ⑤ Car stereo with RCA output jacks

Connections when using the speaker input wire

Connect the car stereo speaker output wires to the amplifier using the supplied SP input cord.



- ① **INPUT SELECT** (input select) switch
- ② SP input cord
To signal input terminal of this unit.
- ③ Speaker cord
 - White/black: Front SP, Left ⊖
 - White: Front SP, Left ⊕
 - Gray/black: Front SP, Right ⊖
 - Gray: Front SP, Right ⊕
 - Green/black: Rear SP, Left ⊖
 - Green: Rear SP, Left ⊕
 - Violet/black: Rear SP, Right ⊖

— Violet: Rear SP, Right ⊕

- ④ ISO connector

Note

If speaker input wires from a head unit are connected to this amplifier, the amplifier will automatically turn on when the head unit is turned on. When the head unit is turned off, the amplifier turns off automatically. This function may not work with some head units. In such cases, make sure that the front L channel is connected correctly. If the function still does not work, please use a system remote control wire. If multiple amplifiers are to be connected together synchronously, connect the head unit and all amplifiers via the system remote control wire.


Before installing the amplifier

! WARNING

- To ensure proper installation, use the supplied parts in the manner specified. If any parts other than those supplied are used, they may damage internal parts of the amplifier, or become loose causing the amplifier to shut down.
- Do not install in:
 - Places where it could injure the driver or passengers if the vehicle stops suddenly.
 - Places where it may interfere with the driver, such as on the floor in front of the driver's seat.
- Install tapping screws in such a way that the screw tip does not touch any wire. This is important to prevent wires from being cut by vibration of the car, which can result in fire.
- Make sure that wires do not get caught in the sliding mechanism of the seats or touch the legs of a person in the vehicle as short-circuit may result.
- When drilling to install the amplifier, always confirm no parts are behind the panel and protect all cables and important equipment (e.g. fuel/brake lines, wiring) from damage.

! CAUTION

- To ensure proper heat dissipation of the amplifier, ensure the following during installation:
 - Allow adequate space above the amplifier for proper ventilation.
 - Do not cover the amplifier with a floor mat or carpet.
- Protection function may activate to protect the amplifier against overheating due to installation in locations where sufficient heat cannot be dissipated, continuous use under high-volume conditions, etc. In such cases, the amplifier reduces the power output or shuts down until it has cooled to a certain designated temperature.
- Place all cables away from hot places, such as near the heater outlet.

- The optimal installation location differs depending on the car model. Secure the amplifier at a sufficiently rigid location.
- Check all connections and systems before final installation.
- After installing the amplifier, confirm that the spare tire, jack and tools can be easily removed. 

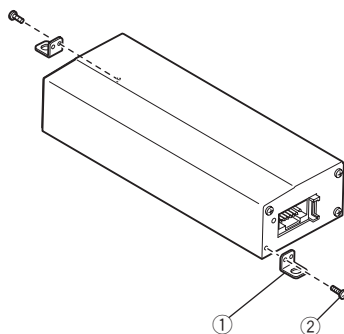
Example of installation on the floor mat or chassis

1 Place the amplifier in the desired installation location.

Insert the supplied tapping screws (4 mm × 18 mm) into the screw holes and push on the screws with a screwdriver so they make an imprint where the installation holes are to be located.

2 Remove each one screws of the left and right on a diagonal line from the side bottom of this unit.

3 Attach the bracket using the removed screws.



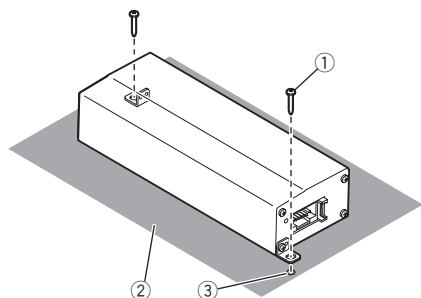
① Bracket

② Screw

4 Drill 2.5 mm diameter holes at the imprints either on the carpet or directly on the chassis.

Installation

5 Install the amplifier with the use of supplied tapping screws (4 mm × 18 mm).



- ① Tapping-screws (4 mm × 18 mm)
- ② Floor mat or chassis
- ③ Drill a 2.5 mm diameter hole

Notes

- Do not install the cords in places where they touch the legs of a person as a disconnection or short-circuit may result.
- Do not install the amplifier in a place where water drop may be attached.

Additional information

Specifications

Power source	14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system	Negative type
Current consumption	15 A (at continuous power, 4 Ω)
Average current consumption	1.7 A (4 Ω for four channels) 1.7 A (2 Ω for four channels)
Fuse	15 A
Dimensions (W × H × D) ...	181 mm × 38 mm × 64 mm
Weight	0.55 kg (Leads for wiring not included)
Maximum power output	100 W × 4 (at 14.4 V, 4 Ω)
Continuous power output ...	45 W × 4 (at 14.4 V, 4 Ω 20 Hz to 20 kHz \leq 1 % THD) 45 W × 4 (at 14.4 V, 2 Ω 1 kHz, \leq 1 % THD)
Load impedance	4 Ω (2 Ω to 8 Ω allowable)
Frequency response	10 Hz to 40 kHz (+0 dB, -3 dB)
Signal-to-noise ratio	90 dB (IEC-A network)
Distortion	0.05 % (4 W, 1 kHz)
Low pass filter:	
Cut off frequency	80 Hz
Cut off slope	-12 dB/oct
High pass filter:	
Cut off frequency	80 Hz
Cut off slope	-12 dB/oct
Gain control:	
RCA	Fixed 28 dB
Speaker	Fixed 8 dB
Maximum input level / impedance:	
RCA	1.0 V / 22 k Ω
Speaker	10.0 V / 22 k Ω

Notes

- Specifications and the design are subject to modifications without notice.
- The average current consumption is nearly the maximum current consumption by this unit when an audio signal is input. Use this value when working out total current consumption by multiple power amplifiers.