

**BRIDGEABLE TWO-CHANNEL
POWER AMPLIFIER**

**AMPLIFICATEUR DE PUISSANCE
PONTABLE A DEUX VOIES**

Owner's Manual

GM-5200T

Mode d'emploi

PIONEER CORPORATION

4-1, MEGURO 1-CHOME, MEGURO-KU, TOKYO 153-8654, JAPAN

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Before Using This Product

Thank you for purchasing this PIONEER product. It is designed to give you many years of enjoyment.

PIONEER SUGGESTS USING A PROFESSIONAL INSTALLER DUE TO THE COMPLEXITY OF THIS PRODUCT.

Please read all instructions and **WARNINGS** in this manual before attempting operation. Should you have any questions, contact your nearest Pioneer authorized dealer or installation specialist.

Information to User

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

Important

The serial number of this amplifier is written on the bottom of the unit. For your own security and convenience, write it down on the enclosed warranty card. Keep the card handy for future reference.

After-sales service for Pioneer products

Please contact the dealer or distributor from where you purchased the product for its after-sales service (including warranty conditions) or any other information. In case the necessary information is not available, please contact the companies listed below:

Please do not ship your product to the companies at the addresses listed below for repair without advance contact.

7 U.S.A.

Pioneer Electronics (USA) Inc.
CUSTOMER SUPPORT DIVISION
P.O. Box 1760
Long Beach, CA 90801-1760
800-421-1404

7 CANADA

Pioneer Electronics of Canada, Inc.
CUSTOMER SATISFACTION
DEPARTMENT
300 Allstate Parkway
Markham, Ontario L3R 0P2
1-877-283-5901

For warranty information please see the Limited Warranty sheet included with your product.

Product registration

Visit us at the following site:


<http://www.pioneerelectronics.com>

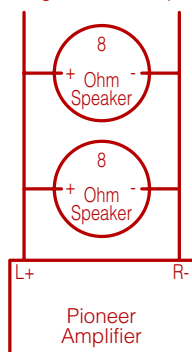
- 1 Register your product. We will keep the details of your purchase on file to help you refer to this information in the event of an insurance claim such as loss or theft.
- 2 Receive updates on the latest products and technologies.
- 3 Download owner's manuals, order product catalogues, research new products, and much more.

! CAUTION

Never replace the fuse with one of greater value or rating than the original fuse. Use of an improper fuse could result in overheating and smoke and could cause damage to the product and injury including burns.

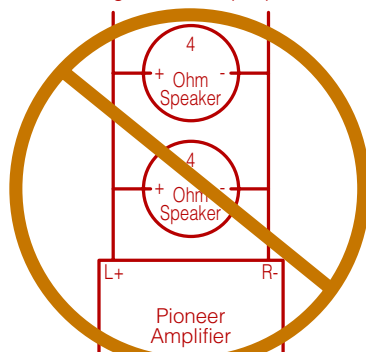
! CAUTION

Diagram A - Proper



4 Ohm Bridged Mode

Diagram B - Improper



2 Ohm Bridged Mode

Do NOT install or use your Pioneer amplifier by wiring speakers rated at 4 Ohm (or lower) in parallel to achieve a 2 Ohm (or lower) bridged mode (Diagram B). Amplifier damage, smoke, and overheating could result from improper bridging. The amplifier surface could also become hot to the touch and minor burns could result. To properly install or use a bridged mode for a two-channel amplifier and achieve a 4 Ω load, wire two 8 Ω speakers in parallel with Left + and Right – (Diagram A) or use a single 4 Ω speaker. For a four-channel amplifier, follow the speaker output connection diagram for bridging as shown on the back of your amplifier, and wire two 8 Ω speakers in parallel to achieve a 4 Ω load or use a single 4 Ω speaker per channel.

If you have any questions or concerns, please contact your local authorized Pioneer dealer or call Pioneer customer service.

WARNING

- Handling the cord on this product or cords associated with accessories sold with the product will expose you to lead, a chemical known to the State of California and other governmental entities to cause cancer and birth defects or other reproductive harm. ***Wash hands after handling.***
- Always use the special red battery and ground wire [RD-223], which is sold separately. Connect the battery wire directly to the car battery positive terminal (+) and the ground wire to the car body.
- Do not touch the amplifier with wet hands. Otherwise you may get an electric shock. Also, do not touch the amplifier when it is wet.
- For traffic safety and to maintain safe driving conditions, keep the volume low enough so that you can still hear normal traffic sound.
- Check the connections of the power supply and speakers if the fuse of the separately sold battery wire or the amplifier fuse blows. Detect the cause and solve the problem, then replace the fuse with another one of the same size and rating.
- To prevent malfunction of the amplifier and speakers, the protective circuit will cut the power supply to the amplifier (sound will stop) when an abnormal condition occurs. In such a case, switch the power to the system OFF and check the connection of the power supply and speakers. Detect the cause and solve the problem.
- Contact the dealer if you cannot detect the cause.
- To prevent an electric shock or short-circuit during connection and installation, be sure to disconnect the negative (–) terminal of the battery beforehand.
- Confirm that no parts are behind the panel when drilling a hole for installation of the amplifier. Be sure to protect all cables and important equipment such as fuel lines, brake lines and the electrical wiring from damage.
- DO NOT allow amplifier to come into contact with liquids due to, for example, the location where the amplifier is installed. Electrical shock could result. Also, amplifier and speaker damage, smoke, and overheating could result from contact with liquids. In addition, the amplifier surface and the surface of any attached speakers could become hot to the touch and minor burns could result.

Power Indicator

The power indicator lights when the power is switched on.

Gain Control

If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the front of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.

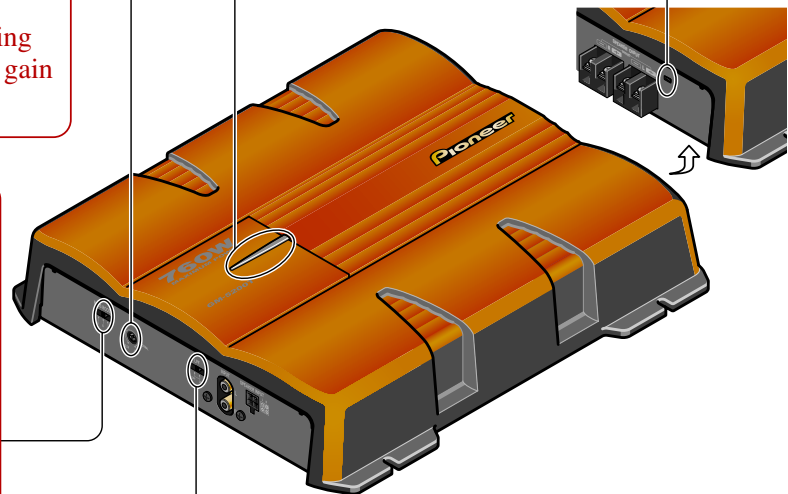
- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.
- If you hear too much noise when using the speaker input terminals, turn the gain control counter-clockwise.

Bass Boost Level Control Switch

Bass boost level control can boost the level around the frequency selected by the bass boost frequency control switch from 0, 6, and 12 dB.

BFC (Beat Frequency Control) Switch

If you hear a beat while listening to an AM broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver.



LPF (Low-Pass Filter) Select Switch

Set the LPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (right)	Very Low Frequency range	Subwoofer	Connect a subwoofer.
OFF (left)	Full range	Full range	

Connecting the Unit



CAUTION

- Disconnect the negative (–) terminal of the battery to avoid the risk of short-circuit and damage to the unit.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around it where they lie against metal parts.
- Do not route wires where they will get hot, for example where the heater will blow over them. If the insulation heats up, it may become damaged, resulting in a short-circuit through the vehicle body.
- Make sure that wires will not interfere with moving parts of the vehicle, such as the gearshift, handbrake or seat sliding mechanism.
- Do not shorten any wires. Otherwise the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply wire to tap from the wire. The current capacity of the wire will be exceeded, causing overheating.
- Never replace the fuse with one of greater value or rating than the original fuse. Use of an improper fuse could result in overheating and smoke and could cause damage to the product and injury including burns.



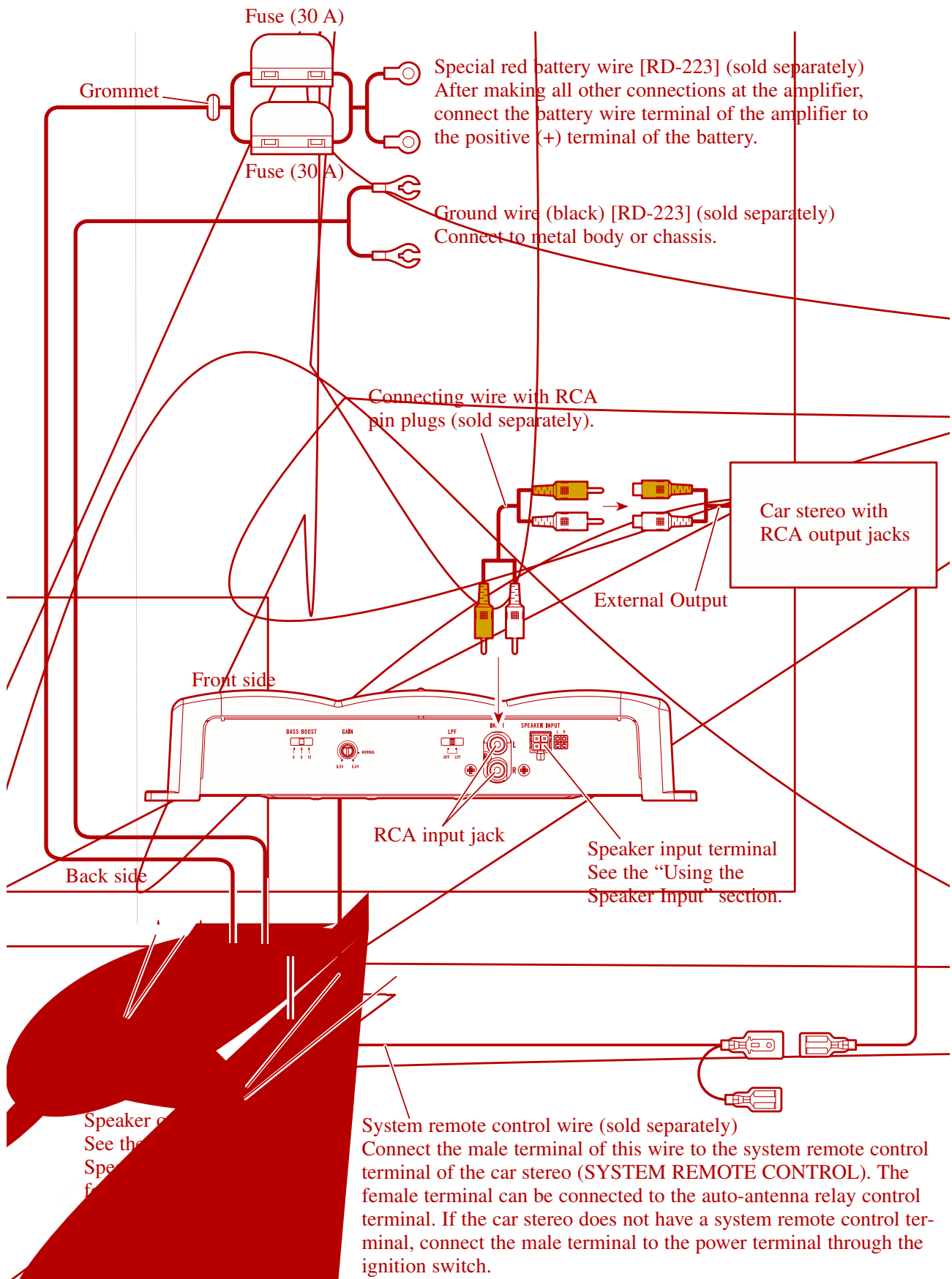
CAUTION:

To prevent damage and/or injury

- Do not ground the speaker wire directly or connect a negative (–) lead wire for several speakers.
- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck or bus, check the battery voltage.
- If the car stereo is kept on for a long time while the engine is at rest or idling, the battery may go dead. Turn the car stereo off when the engine is at rest or idling.
- If the system remote control wire of the amplifier is connected to the power terminal through the ignition switch (12 V DC), the amplifier will always be on when the ignition is on— regardless of whether the car stereo is on or off. Because of this, the battery could go dead if the engine is at rest or idling.
- Speakers to be connected to the amplifier should conform with the standards listed below. If they do not conform, they may catch fire, emit smoke or become damaged. The speaker impedance must be 2 to 8 ohms for stereo connection, and 4 to 8 ohms for monaural and other bridge connection.
- Install and route the separately sold battery wire as far away as possible from the speaker wires. Install and route the separately sold battery wire, ground wire, speaker wires and the amplifier as far away as possible from the antenna, antenna cable and tuner.
- Cords for this product and those for other products may be different colors even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

Speaker Channel	Speaker Type	Power
Two-channel	Subwoofer	Nominal input: Min. 120 W
	Other than subwoofer	Max. input: Min. 250 W
One-channel	Subwoofer	Nominal input: Min. 420 W
	Other than subwoofer	Max. input: Min. 760 W

Connection Diagram

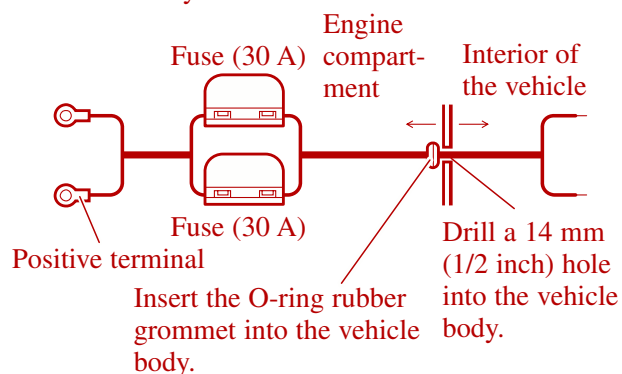


Connecting the Power Terminal

- Always use the special red battery and ground wire [RD-223], which is sold separately. Connect the battery wire directly to the car battery positive terminal (+) and the ground wire to the car body.

1. Pass the battery wire from the engine compartment to the interior of the vehicle.

- After making all other connections to the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.



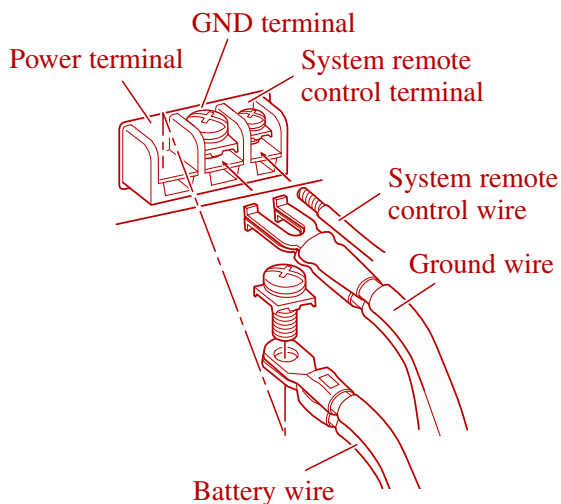
2. Twist the battery wire, ground wire and system remote control wire.

3. Attach lugs to wire ends. Lugs not supplied.

- Use pliers, etc., to crimp lugs to wires.

4. Connect the wires to the terminal.

- Fix the wires securely with the terminal screws.



WARNING

Failure to securely fasten the battery wire to the terminal using the terminal screws could cause the terminal area to overheat and could result in damage and injury including minor burns.

Connecting the Speaker Output Terminals

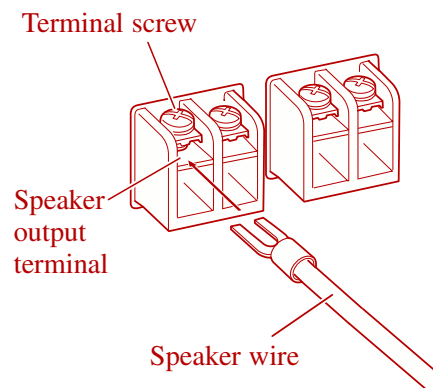
1. Expose the end of the speaker wires using nippers or a cutter by about 10 mm (3/8 inch) and twist.

2. Attach lugs to speaker wire ends. Lugs not supplied.

- Use pliers, etc., to crimp lugs to wires.

3. Connect the speaker wires to the speaker output terminals.

- Fix the speaker wires securely with the terminal screws.

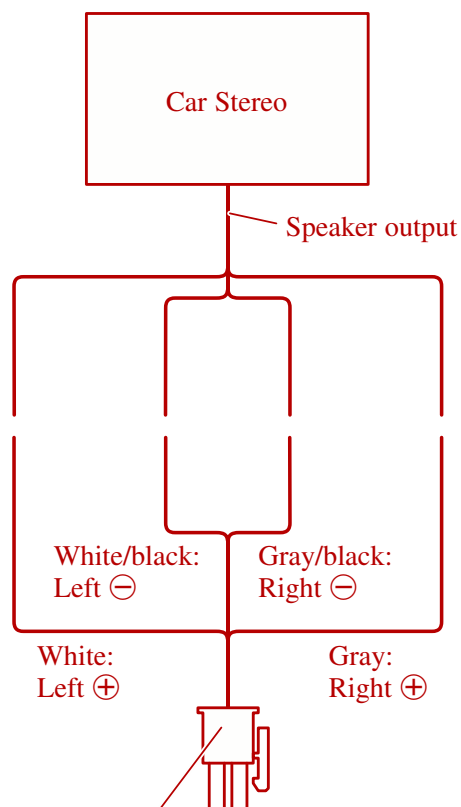


Using the Speaker Input

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

- Do not connect both the RCA input and the speaker input at the same time.

7 Connections when using the speaker input



Speaker input connector
To speaker input terminal of
this unit.

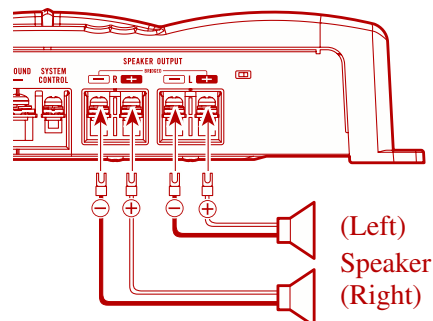
Connecting the Speaker Wires

The speaker output mode can be two-channel (stereo) or one-channel (mono).

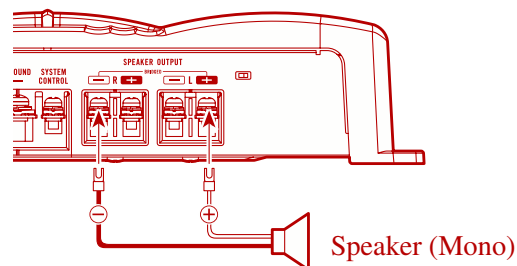
Connect the speaker leads to suit the mode according to the figures shown below.

- Do not connect both the RCA input and the speaker input at the same time.

Two-channel mode (stereo)



One-channel mode (mono)





CAUTION

- 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.
- Make sure that wires are not caught in the sliding mechanism of the seats, resulting in a short-circuit.
- Confirm that no parts are behind the panel when drilling a hole for installation of the amplifier. Protect all cables and important equipment such as fuel lines, brake lines and electrical wiring from damage.
- 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.
- DO NOT allow amplifier to come into contact with liquids due to, for example, the location where the amplifier is installed. Electrical shock could result. Also, amplifier and speaker damage, smoke, and overheating could result from contact with liquids. In addition, the amplifier surface and the surface of any attached speakers could become hot to the touch and minor burns could result.
- To ensure proper installation, use the supplied parts in the manner specified. If any parts other than the supplied ones are used, they may damage internal parts of the amplifier, or they may become loose causing the amplifier to shut down.
- Never replace the fuse with one of greater value or rating than the original fuse. Use of an improper fuse could result in overheating and smoke and could cause damage to the product and injury including burns.



CAUTION:

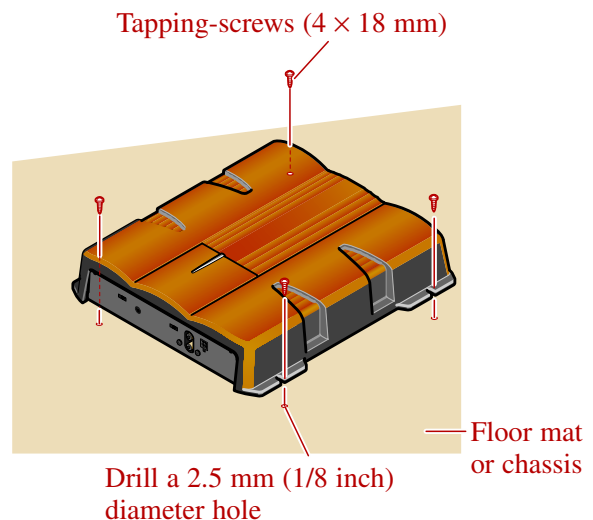
To prevent malfunction and/or injury

- To ensure proper heat dissipation of the amplifier, be sure of the following during installation.
 - Allow adequate space above the amplifier for proper ventilation.
 - Do not cover the amplifier with a floor mat or carpet.
- DO NOT allow amplifier to come into contact with liquids due to, for example, the location where the amplifier is installed. Electrical shock could result. Also, amplifier and speaker damage, smoke, and overheating could result from contact with liquids. In addition, the amplifier surface and the surface of any attached speakers could become hot to the touch and minor burns could result.

- Do not install the amplifier on unstable places such as the spare tire board.
- The best location for installation differs with the car model and installation location. Secure the amplifier at a sufficiently rigid location.
- Make temporary connections first and check that the amplifier and the system operate properly.
- After installing the amplifier, confirm that the spare tire, jack and tools can be easily removed.

Example of installation on the floor mat or on the chassis

1. Place the amplifier where it is to be installed. Insert the supplied tapping screws (4 × 18 mm) into the screw holes. Push on the screws with a screwdriver so they make marks where the installation holes are to be located.
2. Drill 2.5 mm (1/8 inch) diameter holes at the point marked, and install the amplifier, either on the carpet or directly to the chassis.



Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	30.0 A (at continuous power, 4 Ω)
Average current drawn*	10.0 A (4 Ω for two channels) 19.0 A (4 Ω for one channel)
Fuse	30 A $\times$ 2
Dimensions	300 (W) $\times$ 61 (H) $\times$ 336 (D) mm [12 in. (W) $\times$ 2-3/8 in. (H) $\times$ 1ft. 1 in. (D)]
Weight	3.9 kg (8.6 lbs.) (Leads for wiring not included)
Maximum power output	250 W $\times$ 2 (4 Ω) / 760 W $\times$ 1 (4 Ω)
Continuous power output	125 W $\times$ 2 (at 14.4 V, 4 Ω , 20 Hz — 20 kHz 0.2% THD) 380 W $\times$ 1 (at 14.4 V, 4 Ω , 20 Hz — 20 kHz 0.8% THD) 190 W $\times$ 2 (at 14.4 V, 2 Ω , 20 Hz — 20 kHz 0.8% THD)
Load impedance	4 Ω (2 — 8 Ω allowable) (Bridge connection: 4 — 8 Ω allowable)
Frequency response	10 Hz — 50 kHz (+0 dB, -1 dB)
Signal-to-noise ratio	95 dB (IHF-A network)
Distortion	0.015 % (10 W, 1 kHz)
Separation	70 dB (1 kHz)
Low pass filter	Cut off frequency: 80 Hz Cut off slope: -12 dB/oct
Bass boost	Frequency: 50 Hz Level: 0/6/12 dB
Gain control	RCA: 400 mV — 6.5 V Speaker: 1.6 — 26 V
Maximum input level / impedance	RCA: 6.5 V / 22 k Ω Speaker: 26 V / 40 k Ω

Power output	125 W RMS $\times$ 2 channels (4 Ω and $\leq$ 1 % THD+N) 380 W RMS $\times$ 1 channel (4 Ω and $\leq$ 1 % THD+N) 190 W RMS $\times$ 2 channels (2 Ω and $\leq$ 1 % THD+N)
Signal-to-noise ratio	75 dBA (Reference: 1 W into 4 Ω)



Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn

- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

Additional information

<English>

- This unit is equipped with a protective function to prevent malfunction of the unit itself and speakers from too much output, improper use or improper connection.
- When outputting sound at high volume etc., this function will cut off the sound output in a few seconds. But this is not a malfunction. When you turn down the volume of the head unit the sound output will be restored.
- If sound output is cut, the gain control of this unit may be improperly set. To ensure continuous sound output at increased volume of the head unit, set the gain control of the amplifier to a proper position according to the preout maximum output level of the head unit (Fig. 1). There is no need to decrease the volume of the head unit and too much output is controlled (Fig. 2, Fig. 3).
- If you decrease the volume of the head unit and set the gain control of the amplifier to the proper position but still the sound cuts out from time to time, contact the nearest authorized PIONEER Service Station.

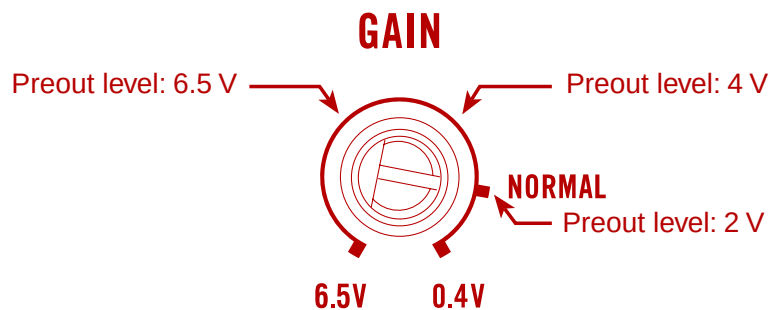


Fig. 1 Gain control of this unit

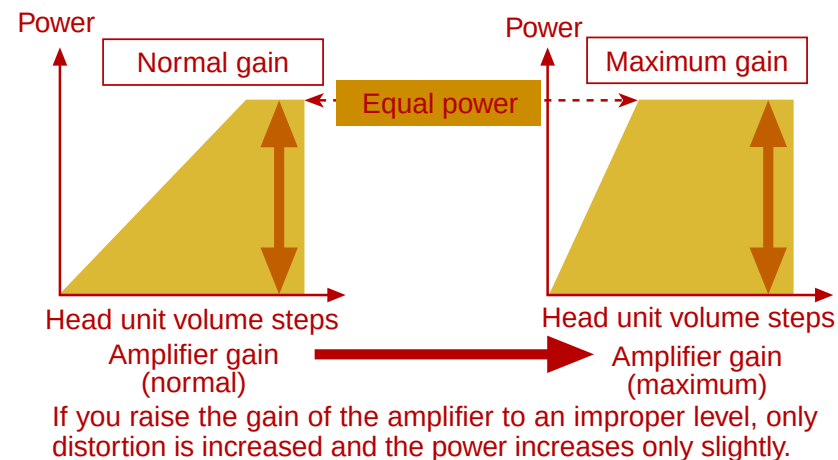


Fig. 2 Relationship between the gain of the amplifier and the output power of the head unit

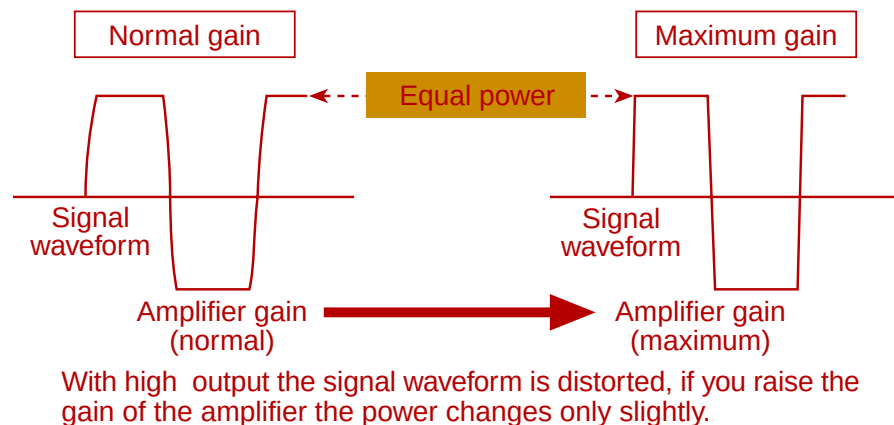


Fig. 3 Signal waveform when outputting at high volume by the gain control of the amplifier

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