

BRIDGEABLE FOUR-CHANNEL  
POWER AMPLIFIER

AMPLIFICATEUR DE PUISSANCE  
PONTABLE A QUATRE VOIES

# OWNER'S MANUAL MODE D'EMPLOI

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Vielen Dank für den Kauf dieses PIONEER Produkts. Diese Bedienungsanleitung vor der Inbetriebnahme sorgfältig durchlesen.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.



**PIONEER**  
The Art of Entertainment

# GM-3400

## WARNING

### Connection

- Remove the negative lead of the battery, otherwise there may be a short circuit, or the lead may be damaged.
- Use the supplied battery lead, as other leads may cause a fire.
- If the fuse in the battery lead needs to be replaced, use a fuse with the same rating. Do not use a piece of wire instead of the fuse, as it may cause a fire.

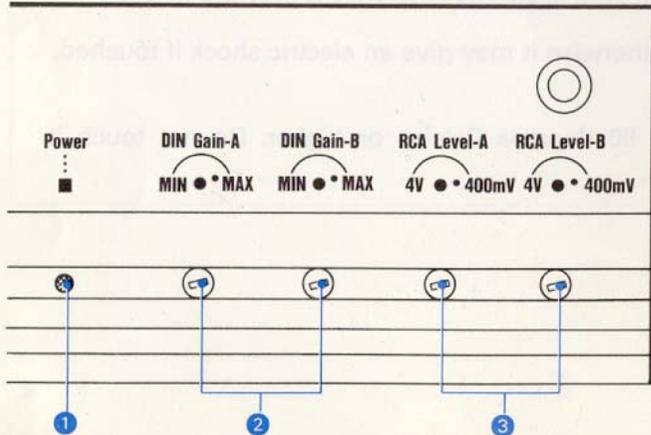
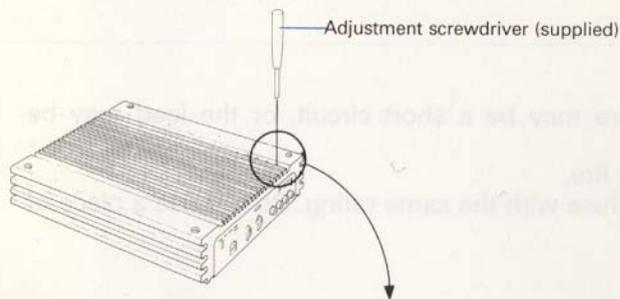
### Installation

- If the amplifier is installed in the passenger compartment, fix it securely, otherwise it may break free while the car is moving, and cause an injury or an accident.
- Do not install the amplifier anywhere that can get wet, otherwise it may give an electric shock if touched.

### Use

- When the amplifier is in use, its temperature reaches 80 degrees Celsius or higher. Do not touch it, otherwise you may be burned.

# Controls and their Use



## ① Power indicator

The power indicator lights when the power is switched on.

## ② DIN input gain controls A and B

If the amplifier is connected to a Pioneer car component with a DIN socket, DIN input gain controls A and B need to be adjusted. Normally, set the controls to the indicated positions •. Gain control A adjusts speaker output A, gain control B adjusts speaker output B.

## ③ RCA input level controls A and B

If the amplifier is connected to a car component with RCA pin jacks, RCA input level controls A and B need to be adjusted. If the component is a Pioneer, set the controls to the indicated positions •. If the component is not a Pioneer, adjust the controls as shown in Fig. 1. Level control A adjusts speaker output A; level control B adjusts speaker output B.

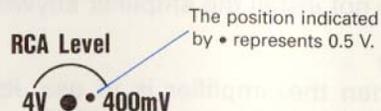
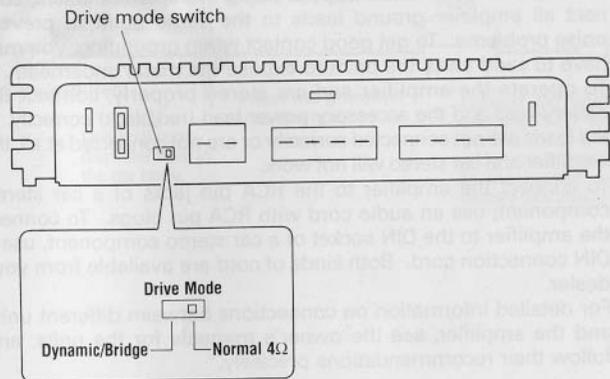


Fig. 1

- Adjust controls ② and ③ with the supplied adjustment screwdriver. Keep the screwdriver in case you need to readjust the controls later.

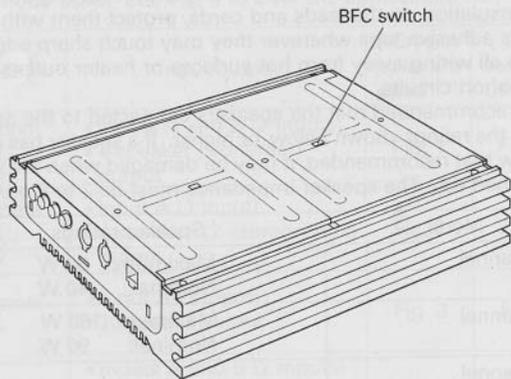
### Drive mode switch

If the impedance of the speakers connected to the amplifier in 4-channel mode is  $4\Omega$  or more, slide the drive mode switch on the front to the right (Normal  $4\Omega$ ). If 2- or 3-channel mode is used or if the speaker impedance is less than  $4\Omega$ , slide the switch to the left (Dynamic/Bridge).



### BFC (Beat Frequency Control) switch

If beating is heard when listening to AM stations on your car radio, change the position of the BFC switch on the bottom of the amplifier with a small flat-bladed screwdriver.



# Connecting the Units

Connect the components as shown in the diagram.

- Before finalizing installation, turn everything on, and make sure everything works correctly and that no noise is getting into the system.
- When routing leads and cords, secure them with cable retainers and electrician's adhesive tape. Also, to prevent any damage to the insulation on the leads and cords, protect them with electrician's adhesive tape wherever they may touch sharp edges.
- Keep all wiring away from hot surfaces or heater outlets to prevent short circuits.
- It is recommended that the speakers connected to the amplifier have the ratings shown below, or higher. If a speaker has a rating below that recommended, it may be damaged when the volume is turned up. The speaker impedance must be 2 to 8 ohms.

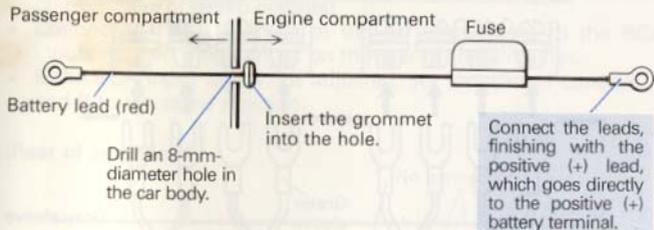
Mode	Speaker ratings
4-channel	Maximum: 80 W Nominal: 40 W
2-channel	Maximum: 180 W Nominal: 90 W
3-channel Speaker output (A)	Maximum: 60 W Nominal: 30 W
Speaker output (B)	Maximum: 180 W Nominal: 90 W

In the case of a full-range speaker, use one whose maximum rating is higher than the maximum rating shown. In the case of a sub-woofer, use one whose nominal rating is higher than the nominal rating shown. If a sub-woofer is used, connect the separately-sold crossover network to the amplifier.

- Never connect a speaker lead to ground or to other speaker grounds. The protection circuitry will operate instantaneously, turning off the amplifier.
- To prevent noise problems, keep the power leads to the amplifier away from the signal cords and speaker leads. Also, keep the power leads away from any antenna cords.
- Amplifier ground leads (black) should be connected to a solid metal part of the vehicle body. If using multiple amplifiers, connect all amplifier ground leads to the same point to prevent noise problems. To get good contact when grounding, you may have to sand away the paint to expose the metal underneath.
- To operate the amplifier and car stereo properly, connect the battery lead and the accessory power lead (red/black) correctly. If the leads are not connected correctly or are not connected at all, the amplifier and car stereo will not work.
- To connect the amplifier to the RCA pin jacks of a car stereo component, use an audio cord with RCA pin plugs. To connect the amplifier to the DIN socket of a car stereo component, use a DIN connection cord. Both kinds of cord are available from your dealer.
- For detailed information on connections between different units and the amplifier, see the owner's manuals for the units, and follow their recommendations precisely.

## Connecting the battery lead (red)

Route the battery lead (red) from the engine compartment to the passenger compartment to connect it to the amplifier. To prevent a short circuit, do not connect the positive (+) lead of the battery until the other leads have been connected.



## Connection of speaker leads and input leads

Either 4-channel mode (2 inputs/4 speakers or 1 input/4 speakers), 2-channel mode (1 input/2 speakers), or 3-channel mode (2 inputs/3 speakers) can be selected for the speaker output. The way the speaker leads and RCA or DIN input cords are connected depends on the mode used. See Fig. 1 to 8 for the appropriate way.

Mode	Input/output	RCA pin jacks are used (*1)	DIN socket is used (*2)
4-channel mode, type 1	<ul style="list-style-type: none"> <li>Inputs A and B (2 inputs)</li> <li>4-speaker (front/rear) output</li> </ul>	Fig. 1	Fig. 5
4-channel mode, type 2	<ul style="list-style-type: none"> <li>Input A (1 input)</li> <li>4-speaker (2 stereo pairs) output</li> </ul>	Fig. 2	Fig. 6
2-channel mode	<ul style="list-style-type: none"> <li>Input A (1 input)</li> <li>2-speaker output</li> </ul>	Fig. 3	Fig. 7
3-channel mode	<ul style="list-style-type: none"> <li>Inputs A and B (2 inputs)</li> <li>2-speaker (stereo) plus 1 speaker (mono) output</li> </ul>	Fig. 4	Fig. 8

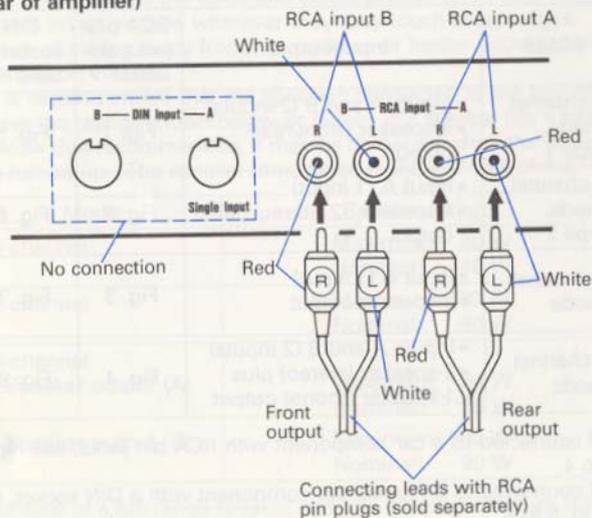
\*1 If connected to a car component with RCA pin jacks, see Fig. 1 to 4.

\*2 If connected to a Pioneer car component with a DIN socket, see Fig. 5 to 8.

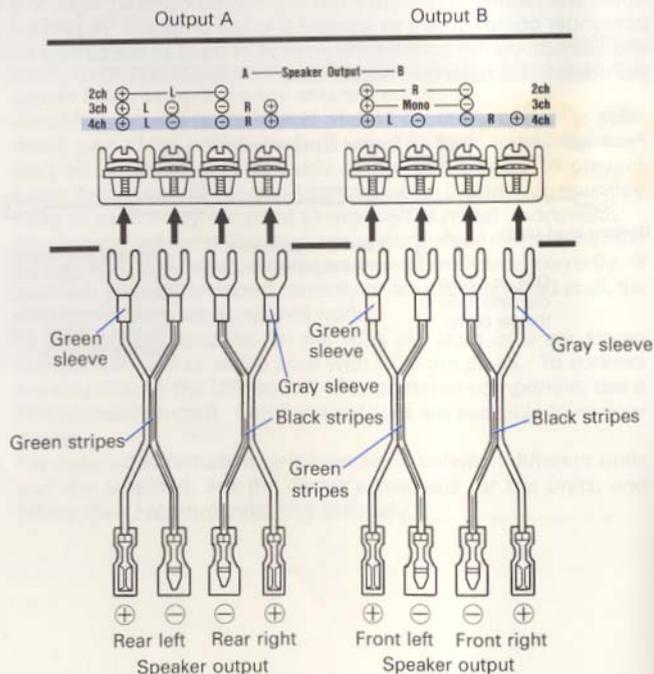
Connection of speaker and RCA input leads when the amplifier is connected to a car component with RCA pin jacks

Fig. 1 - When using 4-channel mode type 1

(Rear of amplifier)



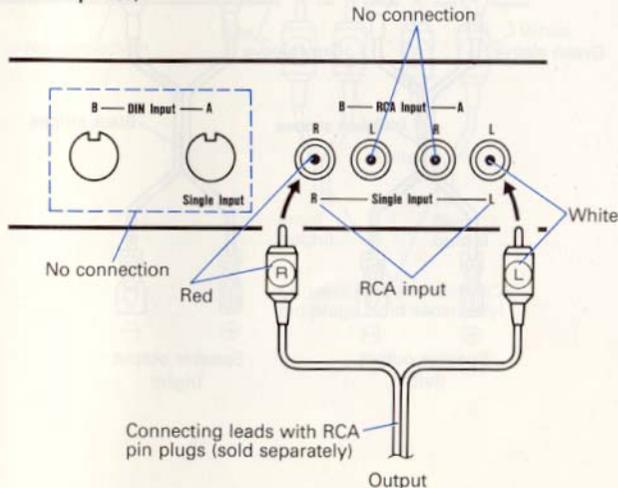
(Front of amplifier)



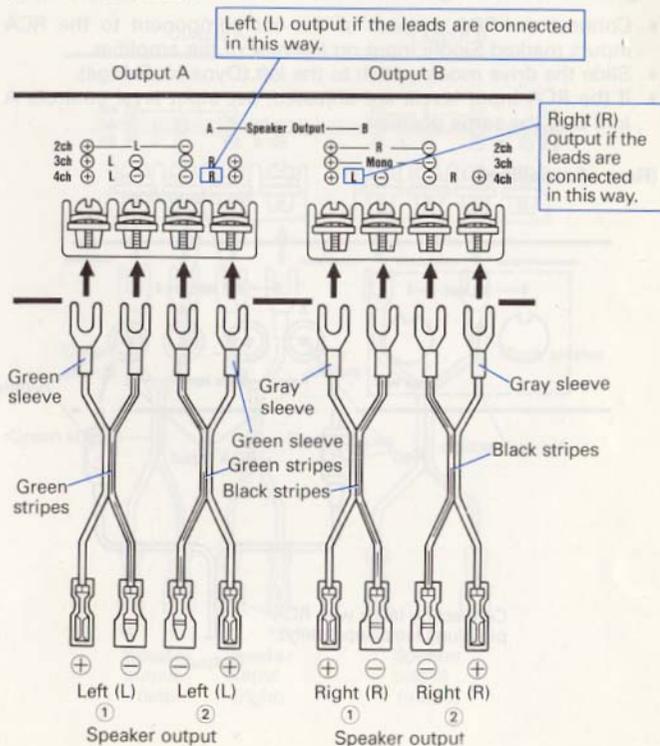
**Fig. 2 - When using 4-channel mode type 2**

- With this connection, the left (L) and right (R) positions of the speaker terminals on the front of the amplifier are slightly different from the positions indicated. See Fig. 2.
- The left (L) ① and right (R) ① speaker leads to stereo output ①, and the left (L) ② and right (R) ② speaker leads to stereo output ② (two pairs of stereo outputs).
- Connect the RCA outputs of the car component to the RCA inputs marked Single Input on the rear of the amplifier.
- If the RCA input levels are adjusted, set input level controls A and B to the same position.

**(Rear of amplifier)**



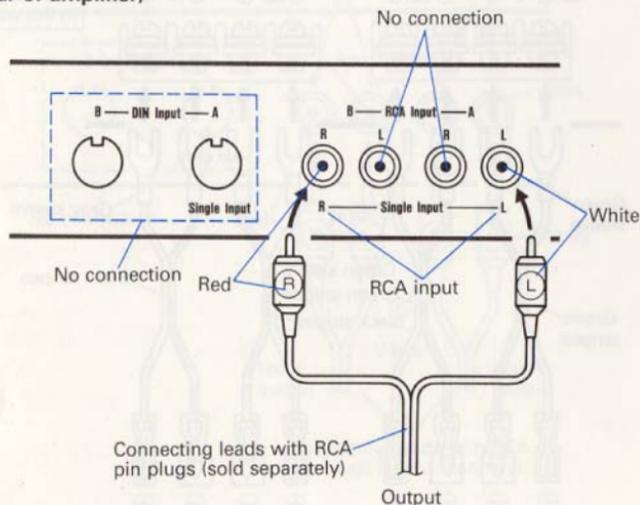
**(Front of amplifier)**



**Fig. 3 – When using 2-channel mode**

- Connect the RCA outputs of the car component to the RCA inputs marked Single Input on the rear of the amplifier.
- Slide the drive mode switch to the left (Dynamic/Bridge).
- If the RCA input levels are adjusted, set input level controls A and B to the same position.

(Rear of amplifier)



(Front of amplifier)

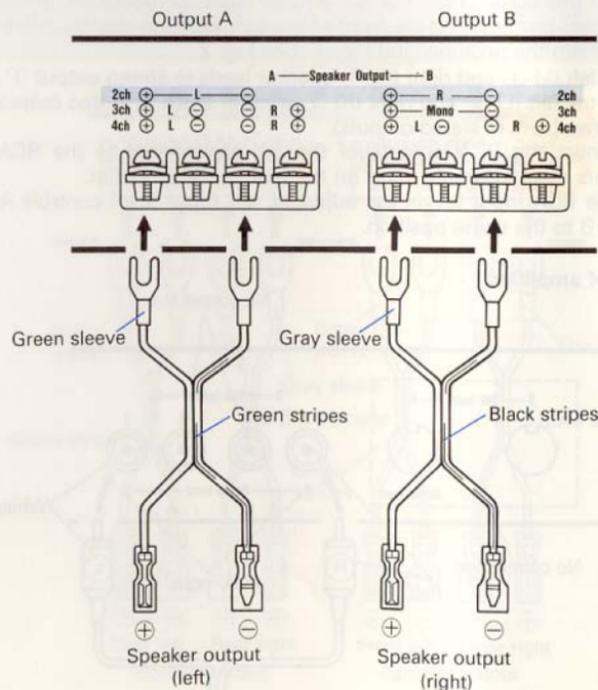
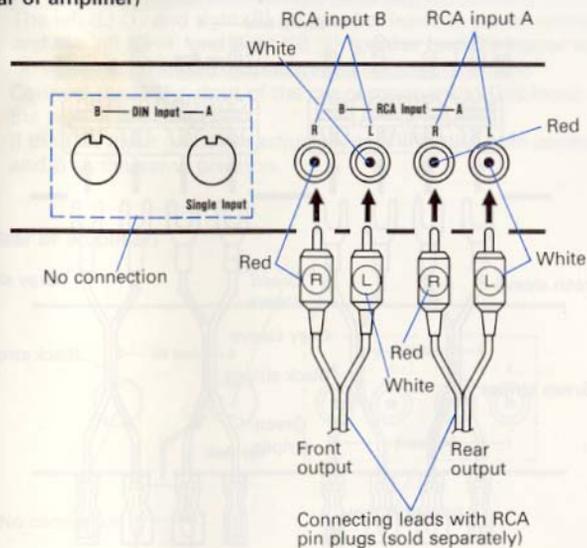


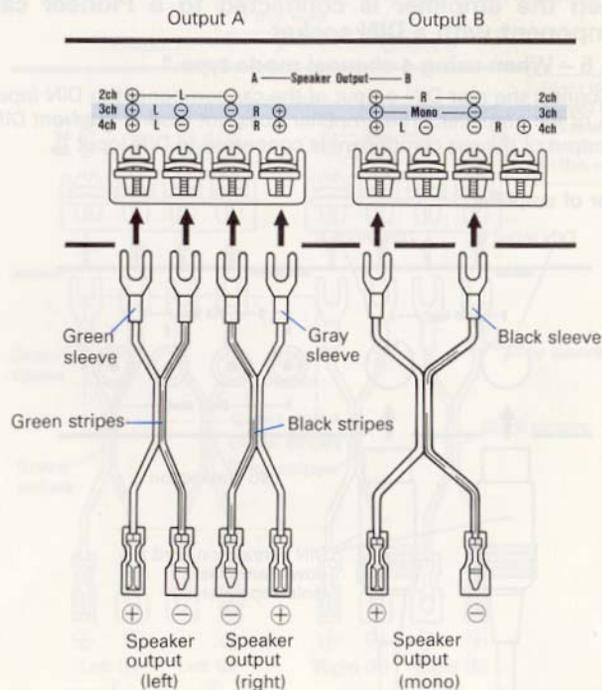
Fig. 4 – When using 3-channel mode

- Slide the drive mode switch to the left (Dynamic/Bridge).

(Rear of amplifier)



(Front of amplifier)

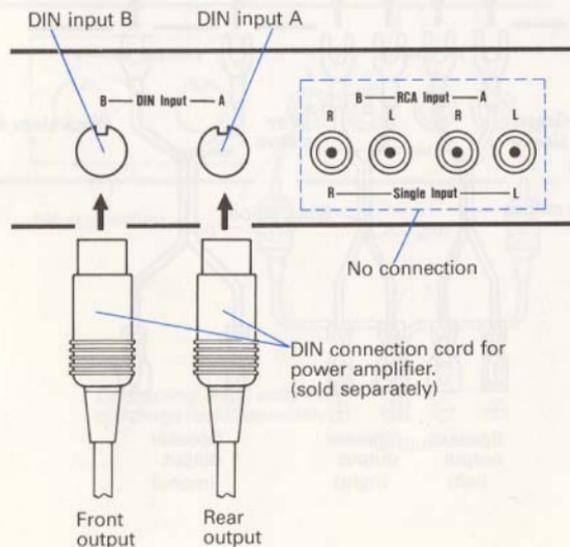


## Connection of speaker leads and DIN input cords when the amplifier is connected to a Pioneer car component with a DIN socket

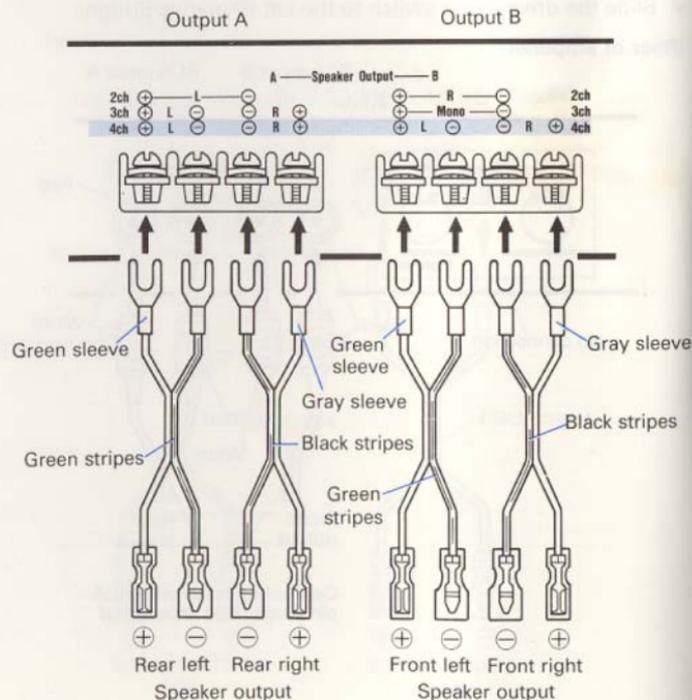
Fig. 5 - When using 4-channel mode type 1

- Connect the rear DIN output of the car component to DIN input A of the amplifier. The amplifier does not work if the front DIN output of the car component is connected to DIN input A.

(Rear of amplifier)



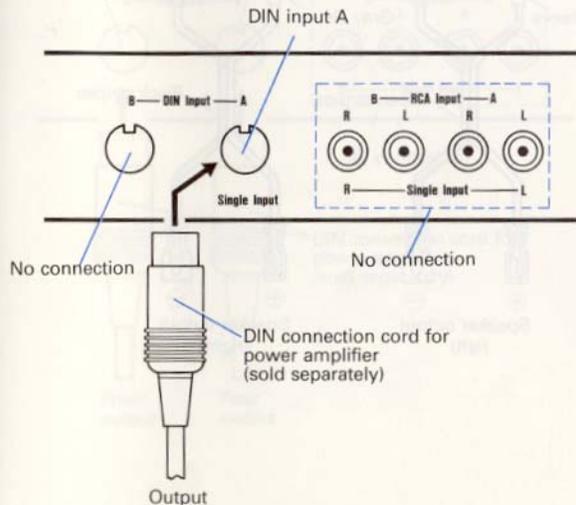
(Front of amplifier)



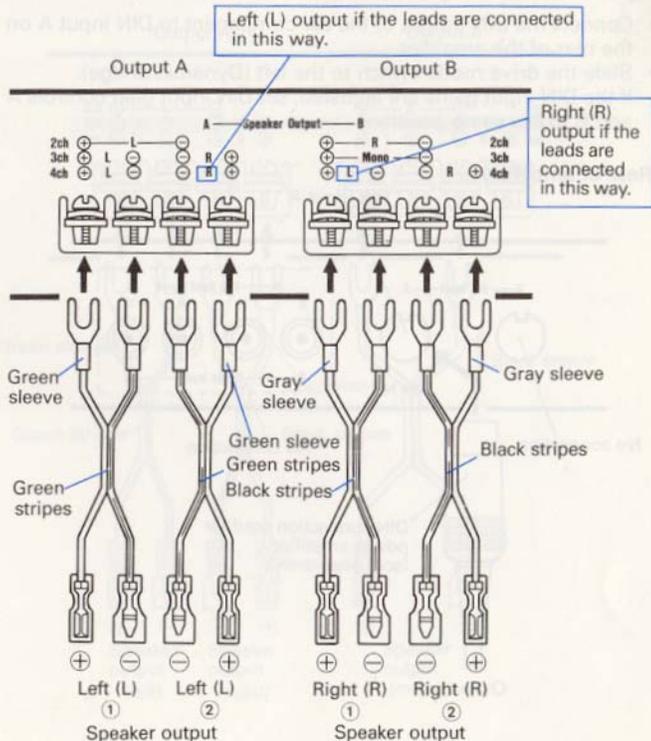
**Fig. 6 – When using 4-channel mode type 2**

- With this connection, the left (L) and right (R) positions of the speaker terminals on the front of the amplifier are slightly different from the positions indicated. See Fig. 6.
- The left (L) ① and right (R) ① speaker leads to stereo output ①, and the left (L) ② and right (R) ② speaker leads to stereo output ② (two sets of stereo outputs).
- Connect the DIN output of the car component to DIN input A on the rear of the amplifier.
- If the DIN input gains are adjusted, set DIN input gain controls A and B to the same position.

**(Rear of amplifier)**



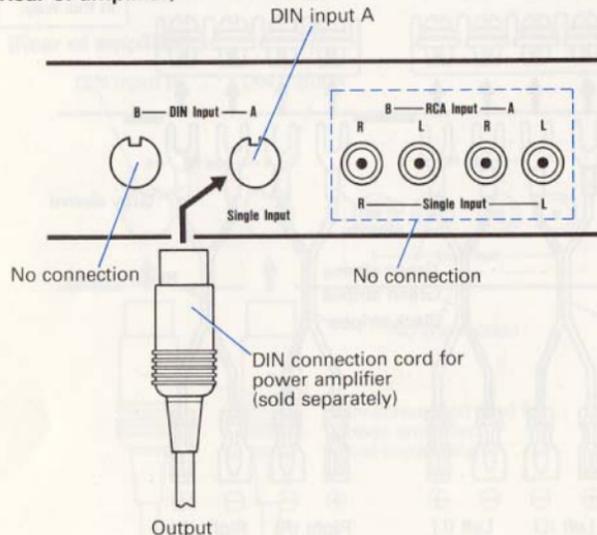
**(Front of amplifier)**



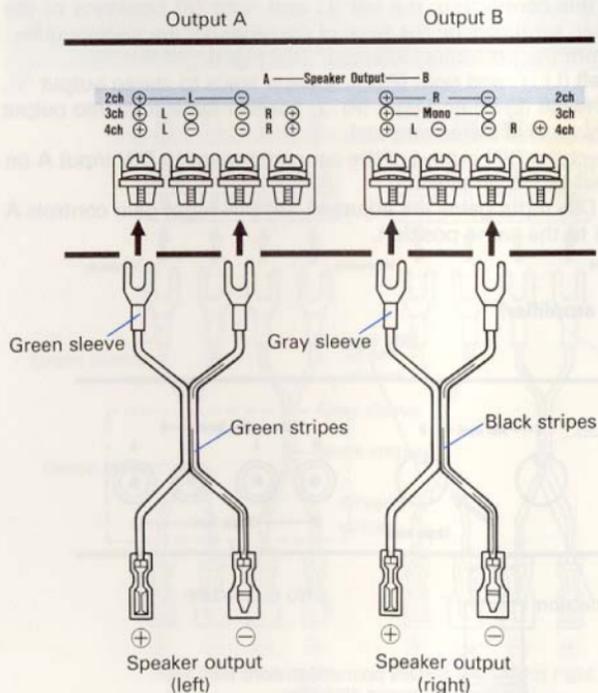
**Fig. 7 – When using 2-channel mode**

- Connect the DIN output of the car component to DIN input A on the rear of the amplifier.
- Slide the drive mode switch to the left (Dynamic/Bridge).
- If the DIN input gains are adjusted, set DIN input gain controls A and B to the same position.

**(Rear of amplifier)**



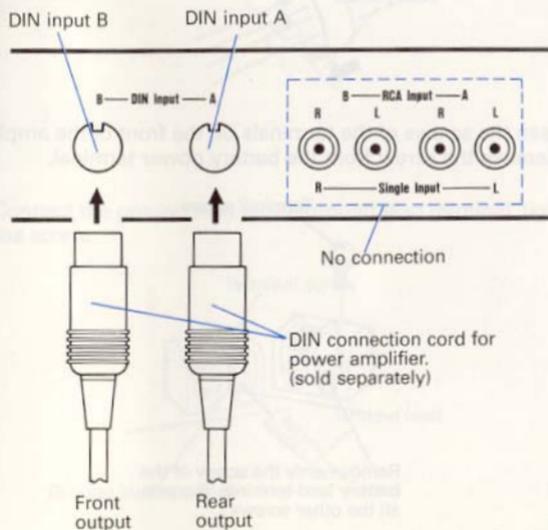
**(Front of amplifier)**



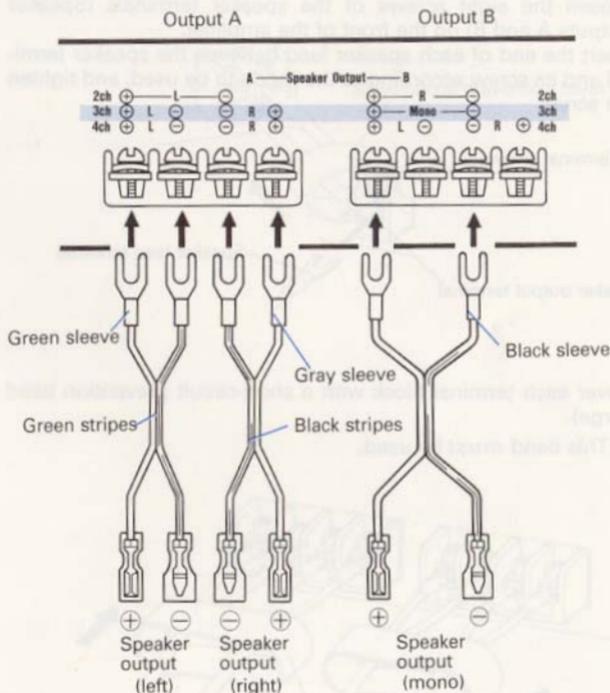
**Fig. 8 – When using 3-channel mode**

- Connect the rear DIN output of the car component to DIN input A on the rear of the amplifier. The amplifier does not work if the front DIN output of the car component is connected to DIN input A.
- Connect the front DIN output of the car component to DIN input B on the rear of the amplifier (mono output).
- Slide the drive mode switch to the left (Dynamic/Bridge).

**(Rear of amplifier)**

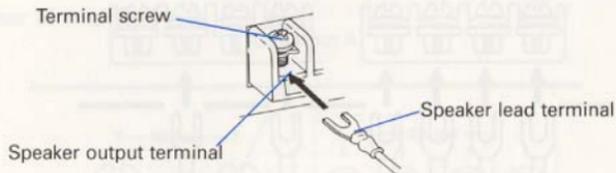


**(Front of amplifier)**



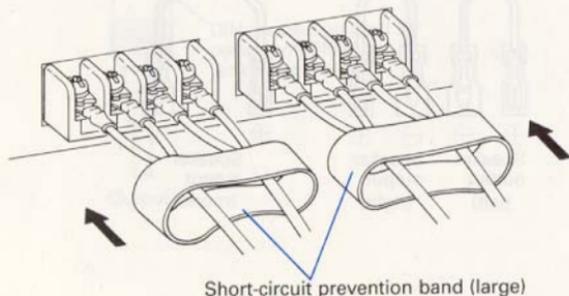
## Speaker lead connection procedure

1. Loosen the eight screws of the speaker terminals (Speaker Outputs A and B) on the front of the amplifier.
2. Insert the end of each speaker lead between the speaker terminal and its screw according to the mode to be used, and tighten the screw.



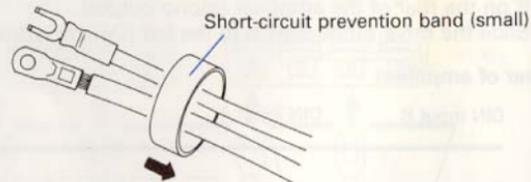
3. Cover each terminal block with a short-circuit prevention band (large).

- This band *must* be used.

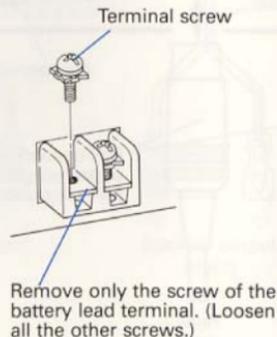


## Connection of the battery power and ground leads

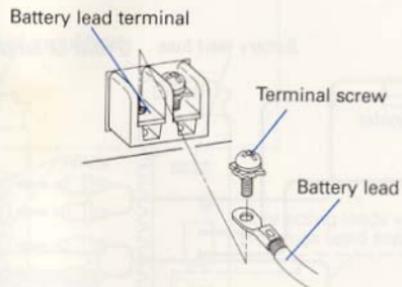
1. Pass the battery power and ground leads through a short-circuit prevention band (small).
  - This band *must* be used.



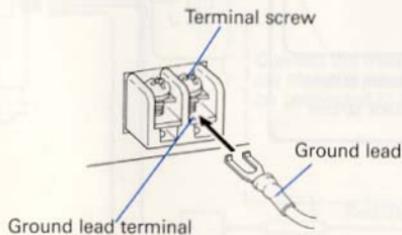
2. Loosen the screws of the terminals on the front of the amplifier.
  - Remove the screw from the battery power terminal.



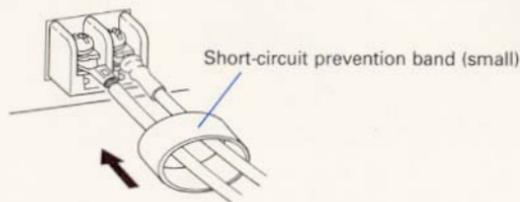
3. Connect the battery lead to the battery lead terminal, reinserting and tightening the screw.



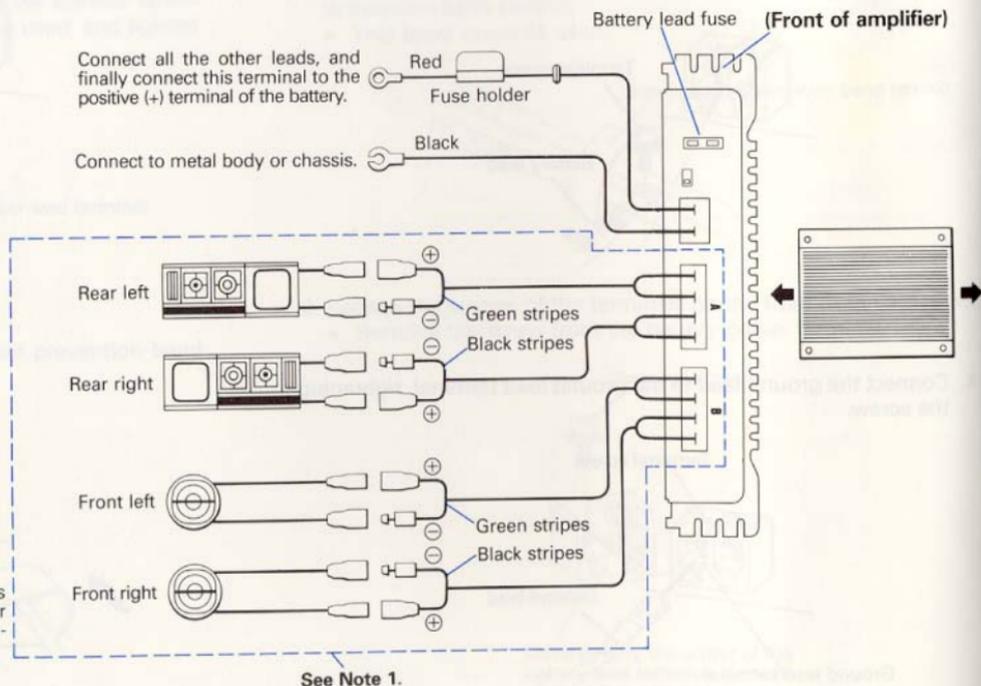
4. Connect the ground lead to the ground lead terminal, tightening the screw.



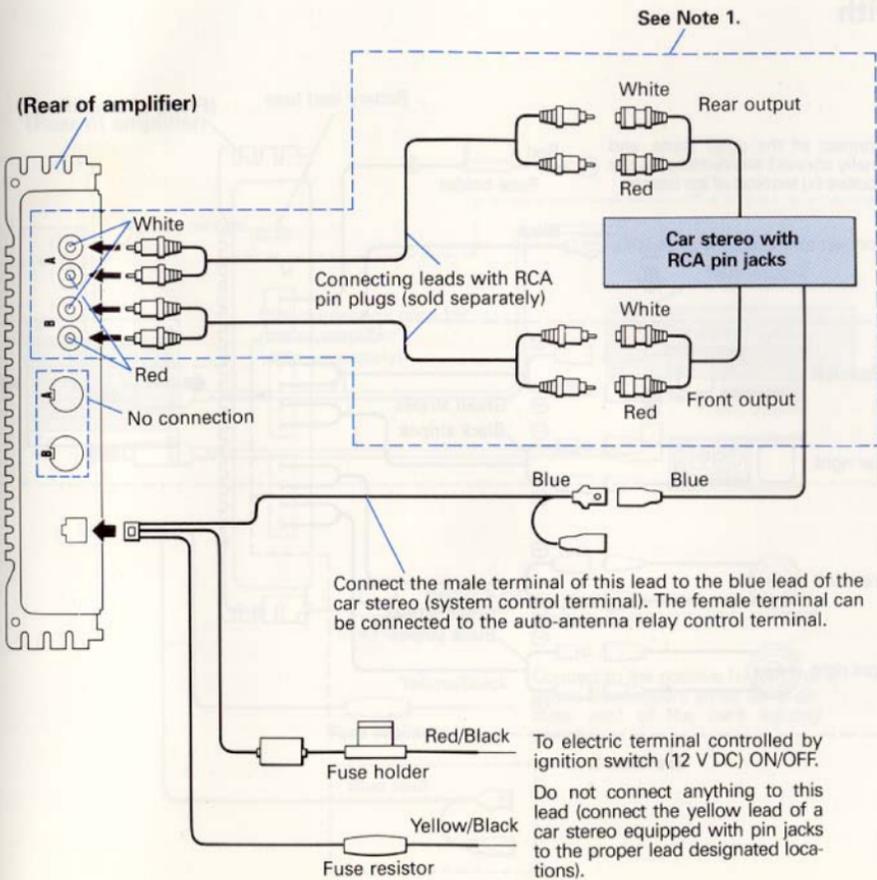
5. Cover the terminals with a short-circuit prevention band (small).



## When Combined with a Car Stereo with RCA Pin Jacks



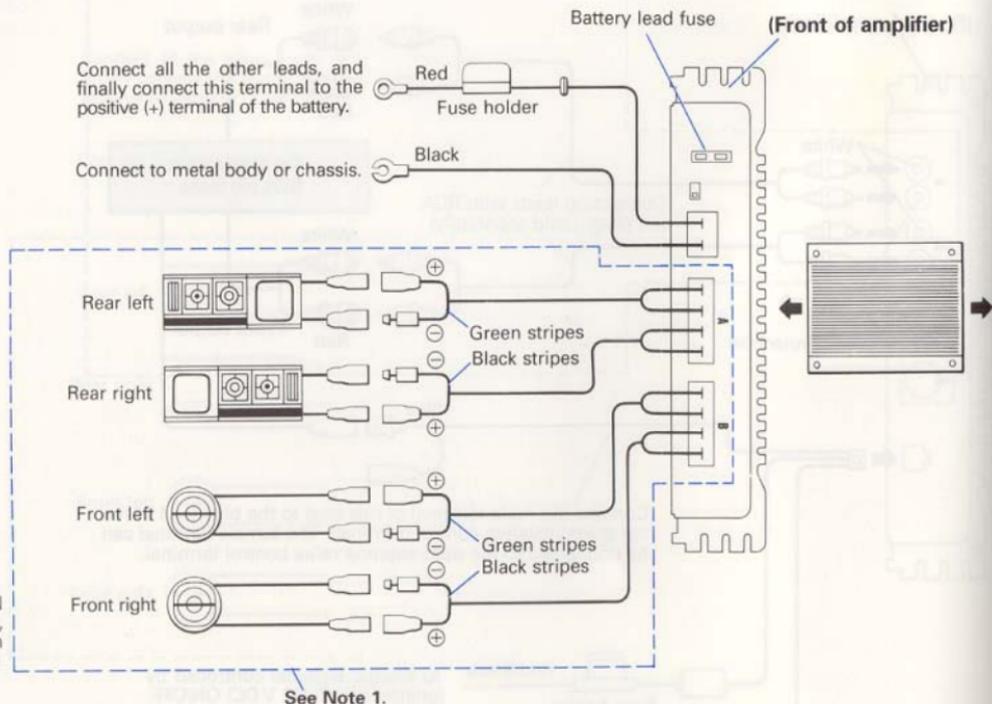
**Note 1:**  
The connection method for the speaker and RCA leads differs according to the mode (4-channel, 3-channel, or 2-channel). See Page 7 for details. [This connection diagram is for the 4-channel mode (2 inputs/4 speakers).]



To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

Do not connect anything to this lead (connect the yellow lead of a car stereo equipped with pin jacks to the proper lead designated locations).

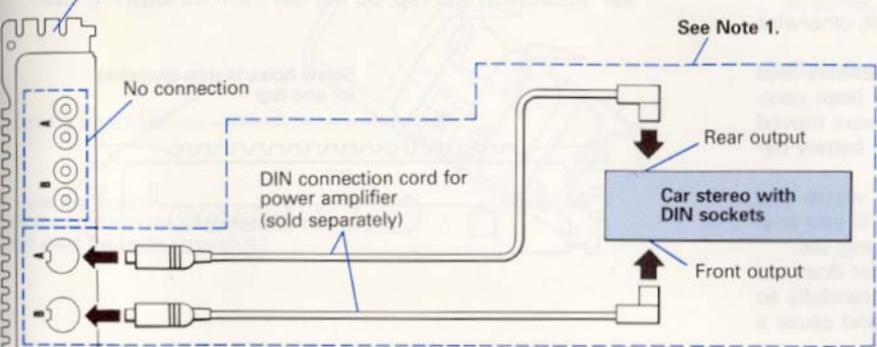
## When Combined with a Car Stereo with DIN Sockets



### Note 1:

The connection method for the speaker leads and DIN cords differs according to the mode (4-channel, 3-channel, or 2-channel). See Page 7 for details. [This connection diagram is for the 4-channel mode (2 inputs/4 speakers).]

(Rear of amplifier)



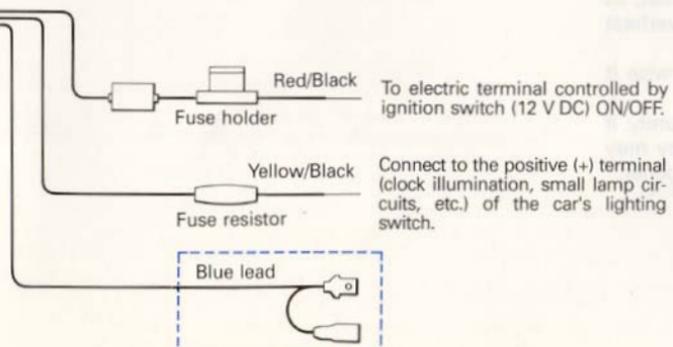
DIN connection cord for power amplifier (sold separately)

See Note 1.

Rear output

Car stereo with DIN sockets

Front output



To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

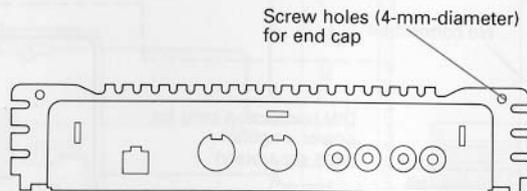
Connect to the positive (+) terminal (clock illumination, small lamp circuits, etc.) of the car's lighting switch.

Blue lead  
Do not connect anything to this terminal.

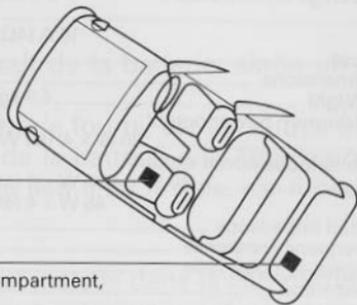
# Installation

- Install the amplifier where it will not get in the way of driving, and will not be a danger to passengers during an emergency stop.
- If the amplifier is installed in the passenger compartment, fix it securely, otherwise it may break free while the car is moving, and cause an injury or an accident.
- Do not install the amplifier anywhere that can get wet, otherwise it may give an electric shock if touched.
- To prevent a short circuit, disconnect the negative battery lead before beginning installation. After installation has been completed and checked, reinstall any components that were moved or removed, then reconnect the lead to the negative battery terminal.
- Before drilling any mounting holes, check behind where you want to make the hole to make sure you do not drill into anything, such as the gas line, brake lines, electrical wiring, etc.
- If installed under a front seat, make sure the amplifier does not obstruct seat movement. Route all leads and cords carefully so the sliding seat mechanism does not pinch them and cause a short circuit.
- Do not install the amplifier under the carpet or a floor mat, as this will impede air circulation, causing the amplifier to overheat and possibly fail.
- Do not install the amplifier near the heater outlet, otherwise it may overheat and fail.
- Use only the parts supplied, and install the amplifier securely. If parts other than those supplied (specified) are used, they may come loose or cause damage to internal parts of the amplifier.
- Consult your dealer before making any holes in the car.

- If mounting the amplifier vertically, buy some 5-mm-diameter screws and nuts, and use them to secure the amplifier firmly, so that it cannot be dislodged by the vibration of the car.
- There are 4-mm-diameter screw holes on the right and left at the rear of the amplifier. These are used to fit an optional amplifier installation end cap. Do not use them for anything else.

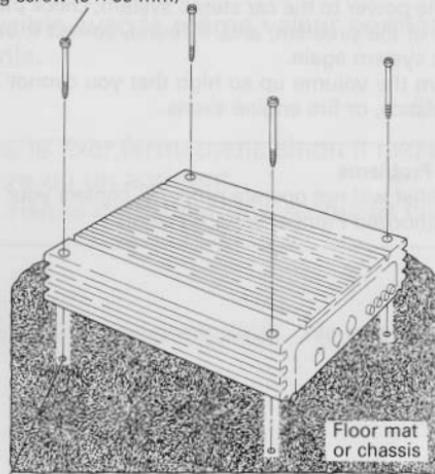


## Example of Installation Positions



1. Put the amplifier where it is to be installed, insert the supplied self-tapping screws (5 × 65 mm) into the screw holes, and push on them with a screwdriver so they make marks where the installation holes are to go.
2. Drill 3-mm-diameter holes at the points marked, and install the amplifier, either on the floor mat or directly on the chassis.

Self-tapping screw (5 × 65 mm)



# Care and Maintenance

- When replacing the fuse, replace it with one with the correct rating. If the correct fuse is not used, the amplifier may be damaged or there may be a fire.
- Do not use the amplifier at high volume for a long time with the engine stopped or idling. It may make the battery go flat, making it difficult to start your engine.
- The protection circuitry will operate instantaneously if a malfunction occurs, turning off the amplifier. If this happens, disconnect the power to the car stereo system, check the wiring for the cause of the problem, and, if found, correct it before using the stereo system again.
- Do not turn the volume up so high that you cannot hear police car, ambulance, or fire engine sirens.

## In Case of Problems

If the amplifier will not operate properly, contact your dealer or nearest authorized Pioneer service station.

# Specifications

Power source .....	14.4 V DC (10.8 - 15.6 V allowable)
Grounding system .....	Negative type
Current consumption .....	17 A (at continuous power, 4Ω)
Average current drawn * .....	8 A (4Ω for four channels) 10 A [4Ω for two channels (2Ω position)]
Fuse .....	30 A
Dimensions .....	264 (W) × 52 (H) × 335 (D) mm
Weight .....	4.9 kg (Leads for wiring not included)
Maximum power output .....	80 W × 4/180 W × 2/60 W × 2 + 180 W × 1 (EIAJ)
Continuous power output .....	40 W × 4/90 W × 2 (at 4Ω, 20 - 20,000 Hz, 0.05% THD) 45 W × 4 (at 2Ω, 20 - 20,000 Hz, 0.05% THD)
Load impedance .....	4Ω (2 - 8Ω allowable)
Frequency response .....	10 - 50,000 Hz (+0 dB, -1 dB)
Signal-to-noise ratio .....	103 dB (IEC - A network)
Distortion .....	0.003% (at 10 W, 1 kHz)
Separation .....	60 dB (1 kHz)
Input level .....	RCA: 0.4-4 V/8 kΩ DIN: 70-500 mV/22 kΩ

## 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.

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