KENWOOD

KAC-7205 KAC-7205M

STEREO/BRIDGEABLE POWER AMPLIFIER

INSTRUCTION MANUAL

使用说明书

Kenwood Corporation

© B64-4580-00/00 (MV/M2V)

▲ WARNING

Safety precautions

- To prevent injury or fire, take the following precautions: Mounting and wiring this product requires skills and experience. For safety's sake, leave the mounting and
- wiring work to professionals. When extending the ignition, battery, or ground wires, make sure to use automotive-grade wires or other wires
- with the range of 8 mm² (AWG 8) or more to prevent wire deterioration and damage to the wire coating.
- · To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your Kenwood dealer.
- Do not touch the unit during use because the surface of the unit becomes hot and may cause burns if touched.

▲ CAUTION

To prevent damage to the machine, take the following

- Be sure the unit is connected to a 12V DC power supply
- with a negative ground connection. • Do not open the top or bottom covers of the unit. • Do not install the unit in a spot exposed to direct sunlight
- much dust or the possibility of water splashing. • When replacing a fuse, only use a new one with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.

or excessive heat or humidity. Also avoid places with too

• To prevent a short circuit when replacing a fuse, first disconnect the wiring harness.

NOTE

- · If you experience problems during installation, consult your Kenwood dealer
- If the unit does not seem to be working right, consult your Kenwood dealer

Cleaning the unit

If the front panel gets dirty, turn off the power and wipe the panel with a dry silicon cloth or soft cloth.

▲ CAUTION

Do not wipe the panel with a hard cloth or a cloth dampened by volatile solvents such as paint thinner and alcohol. They can scratch the surface of the panel and/or cause the indicator letters to peel off.

To prevent battery rise

When the unit is used in the ACC ON position without turning the engine ON, it depletes the battery. Use it after

Protection function

protection function is activated in the following

This unit is equipped with a protection function for protecting this unit and your speakers from various

- accidents or problems that can occur. When the protection function is triggered, the power
- indicator goes off and the amplifier stops operating. • When a speaker wire may be short-circuited. When a speaker output contacts ground.
- When the unit malfunctions and a DC signal is sent to the speaker output.

■ Wiring

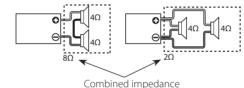
- Take the battery wire for this unit directly from the battery. If it's connected to the vehicle's wiring harness, it can cause blown fuses etc.
- If a buzzing noise is heard from the speakers when the engine is running, connect a line noise filter (optional) to each of the battery wire.
- · Do not allow the wire to directly contact the edge of the iron plate by using Grommets.
- Connect the ground wire to a metal part of the car chassis that acts as an electrical ground passing electricity to the battery's negative \bigcirc terminal. Do not turn the power on if the ground wire is not connected.
- Be sure to install a protective fuse in the power cord near the battery. The protective fuse should be the same
- capacity as the unit's fuse capacity or somewhat larger. • For the power cord and ground, use a vehicle type (fireproof) power wring cord. (Use a power wiring cord with the range of 8 mm² (AWG 8) or more.)
- When more than one power amplifier are going to be used, use a power supply wiring wire and protective fuse of greater current-handling capacity than the total maximum current drawn by each amplifier.

■ Speaker Selection

• The rated input power of the speakers that are going to be connected should be greater than the maximum output power (in Watts) of the amplifier. Use of speakers having input power ratings that are less than the output power of the amplifier will cause smoke to be emitted as well as damage.

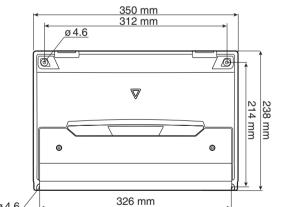
• The impedance of the speakers that are going to be connected should be 2Ω or greater (for stereo connections), or 4Ω or greater (for bridged connections). When more than one set of speakers are going to be

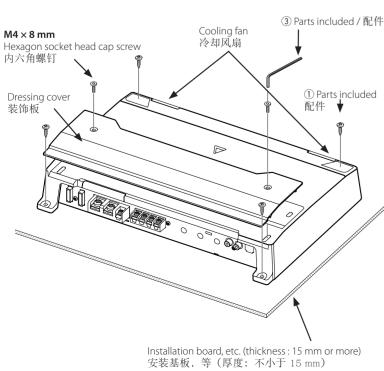
used, calculate the combined impedance of the speakers and then connect suitable speakers to the amplifier <Example>



Installation / 安装







Installation procedure

Since there are large variety of settings and connections possible according to applications, read the instruction manual well to select the proper setting and connection.

- Remove the ignition key and disconnect the negative \bigcirc terminal of the battery to prevent
- Set the unit according to the intended usage.
- Remove the Dressing cover.
- Connect the speaker wires. Connect the power wire, power control wire

9. Attach the Dressing cover.10. Connect the negative terminal of the

- **▲** CAUTION • Do not install in the below locations; (Unstable location, In a location that interferes with driving, In a location that gets wet, In a dusty location, In a place that gets hot, In a place
- that gets direct sunlight, In a location that gets hit by hot air) Do not install the unit under the carpet. Otherwise heat build-up occurs and the unit
- may be damaged. easily dissipate. Once installed, do not place any object on top
- The surface temperature of the amplifier will become hot during use. Install the amplifier in a place where people, resins, and other substances that are sensitive to heat will not come into
- contact with it. This unit has cooling fan to decrease the internal temperature. Do not mount the unit in a place where the cooling fan and ducts of the unit are blocked. Blocking these openings will inhibit the
- cooling of the internal temperature and result in malfunction. When making a hole under a seat, inside the trunk, or somewhere else in the vehicle, check that there is nothing hazardous on the opposite side such as a gasoline tank, brake pipe, or wiring harness, and be careful not to cause scratches or
- Do not install near the dashboard, rear tray, or air

other damage.

- bag safety parts. The installation to the vehicle should securely fasten the unit to a place in which it will not obstruct driving. If the unit comes off due to a shock and hits a person or safety part, it may
- After installing the unit, check to make sure that electrical equipment such as the brake lamps, turn signal lamps and windshield wipers operate

根据使用场合的不同,可能有多种不同的连接及设 定方式请务必仔细阅读使用说明书, 选择适当的连 接和设定。 1. 拔取点火钥匙,拆掉蓄电池负极⊖端子,以防短

- 根据使用目的,设置本机到妥当位置。 去掉装饰板。
- 连接本机的输入和输出缆线。
- 连接扬声器缆线。 连接电源线,电源控制缆线及地线,不可违反此 Connect the input and output wires of the

 - 向本机安装装配部件。 8. 安装本机。
- and grounding wire following this order. Install the installation fittings in the unit. 装上装饰板 10. 连接蓄电池的负极 ○。

▲ 注意

- 不得在下列位置安装; (不稳定的位置,妨碍驾驶车辆的位置,潮湿的 位置,灰尘较多的位置,受热的位置,阳光直射 的位置,热气接触的位置) ·不可将本装置安装在绒毯底下,否则,蓄热会
- 将本装置安装在热量容易发散的地点。 一旦安装完毕,不可在其上放置其它物品。 机器使用过程中,机体表面会发热升温。 所以 其安装地点应该是人体, 树脂及其它热敏感物质
- 不易触及的地方。 本装置设有冷却风扇用来降低内部温度。 请不 要安装在遮挡冷却风扇和风管的位置。 堵塞通风孔的后果是内部温度升高,引起系统故障。
- 在车座, 行李箱底部或车子其它部位打洞时, 应 确认其背面没有会受到损坏的物件, 诸如油箱 刹车用配管或线路管套等, 千万不可擦伤或损坏
- 不可安装在驾驶室仪表板,尾部底板或保险气囊 等部件之上
- 将本机安装在车内时,应确保固定牢靠,且不会 对驾车造成妨碍。 如果因为冲击造成本机脱落且撞及人体或保险部件, 就会导致伤害或事故。 在本装置安装之后,应该确认电气设备,比如刹 车灯、转向信号灯以及雨刷等操作正常。

安全注意事项

发热会烫伤人体。

• 请勿打开顶部和底部的盖子

▲ 注意

进行更换。

装置的保养

保护功能

▲ 警告

为了防止受伤和火灾,请遵守下列注意事项。

· 为了防止短路等事故,请勿将金属物品(硬币,工具等)掉

· 万一装置冒烟或有异味时,请立即关闭电源,并与建伍经销

· 在使用中请尽量不要接触装置表面。因为装置在使用中表面

为了防止装置发生故障,请遵守下列注意事项,正确操作和

请勿将本装置安装在曝露于直射阳光, 高温或高湿, 水可

能飞溅的或有灰尘的地方。 更换保险丝时,请更换规定容量相同的保险丝, 如使用不

更换保险丝时,为了防止短路事故,请先拔下来电源线束再

· 请以负接地线的12V直流电源向本装置供电。

同容量的保险丝,可能会造成装置的故障

• 安装有困难时,请与建伍经销商洽谈。

外表面或将所附指示字符擦掉

在以下场合中保护功能被激活

• 当扬声器缆线短路时。

• 当扬声器的输出接地时。

的电量。请在开动了发动机之后使用。

防止蓄电池全部放电

• 如果仍不能恢复正常时,请与建伍经销商洽谈。

如果外表污脏时, 请关闭电源, 使用干燥的硅布或柔软的布

请勿使用硬布或涂料稀释剂,酒精等挥发性溶剂,以免损坏

当本机在ACC ON位置使用而不开动发动机时,将消耗蓄电池

本机装有保护功能,可以保护本机以及扬声器不会受到可能 发生的各种意外事故的损害。

当保护功能被触发时,电源指示灯将熄灭,放大器也停止

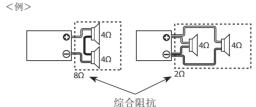
· 当本机出现误动作, 有 DC (直流) 信号传送到扬声器输出

- 请将本机的蓄电池连接线直接与蓄电池连接。 如果与汽车 的配线束连接,将产生烧毁保险丝等故障 安装本产品和连接导线需要一定的技能和经验。为了保证安
- 如果发动机运转时从扬声器中发出噪音, 可以在蓄电池的每 全,应请专业人员完成安装和连接导线作业。 根连线上加一个线路噪音滤波器(选购件) • 当延长蓄电池导线和接地导线时,请使用车辆 用导线或 8mm² (AWG 8) 以上的导线,以防 止导线劣化和被覆面的

 - 使用保护套,以防缆线直接接触铁板的边缘。
 - 将接地线连接到车架的金属部位,车架起到车辆电气接地的作用,将电流传递到蓄电池的负极⊖。 如果接地线没有连接就不要打开电源开关。
 - 应务必在蓄电池附近的电源连接线上设置保险丝。 保险丝 的规格应该与本机的保险丝容量相同或者略大。
 - 对于电源连接线和接地线,请使用汽车用(防火)电源连接 (请使用截面积为8mm² (AWG 8) 或者 以上的电源连
 - · 当使用多个功率放大器时,电源导线的电流容量及保险丝的容量要大于各个放大器的使用电流之和的最大值。

■ 扬声器选择

- 准备连接的扬声器的额定功率要大于放大器的最大输出功 如果扬声器的额定功率小于放大器的最大输出功率则 会导致扬声器冒烟以至损坏
- 所连接的扬声器的阻抗必须为2欧姆或更高(立体声连接 时):或者4欧姆或更高(桥路连接)。当使用一组扬声器时,必须在计算扬声器的总阻抗之后,再连接合适的扬



Connection / 连接

▲ WARNING

amplifier can deliver

A CAUTION

and check connections.

cause this unit to fail.

▲ 警告

外产生火花甚至燃烧。

▲ 注意

with one of the same rating.

connectors to prevent short circuits.

and windshield wipers work properly.

在变更开关的设定时, 必须首先切断电源。



Particular attention must be given to making good electrical

contact at the amplifier-output and speaker terminals.

Poor or loose connections can cause sparking or burning

If sound is not output normally, immediately turn power off

Be sure to turn the power off before changing the setting of

If the fuse blows, check wires for shorts, then replace the fuse

Check that no unconnected wires or connectors are touching

Connect the speaker wires to appropriate speaker connectors

After installation, check that the brake lamps, turn signal lamps

要特别注意放大器的输出口和扬声器端子处有良好的电气接触。

因为放大器要发出非常高的功率, 松弛或不良的连接可能在端子

如果声音输出不正常,应立即关断电源并检查连接是否正确。

当保险丝熔断后,要检查缆线是否有短路,并更换上相同规格

检查是否有尚未连接的缆线或与车体相接触的端头。 未连接缆

发及其端部的保护帽不可拆掉,以防短路。 · 扬声器的缆线要分别连接到各自的端子。 共用扬声器的负极缆

线或将扬声器端子接地到汽车的金属部分,都会导致本机停止

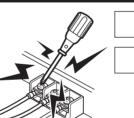
· 安装之后,请检查汽车的刹车灯、方向指示灯、雨刷等是否正

separately. Sharing the negative wire of the speaker or

arounding speaker wires to the metal body of the car cal

the car body. Do not remove caps from unconnected wires o

at the terminals because of the very high power that the



WARNING

Remove the ignition key and disconnect the negative — terminal of the battery to prevent short circuits.

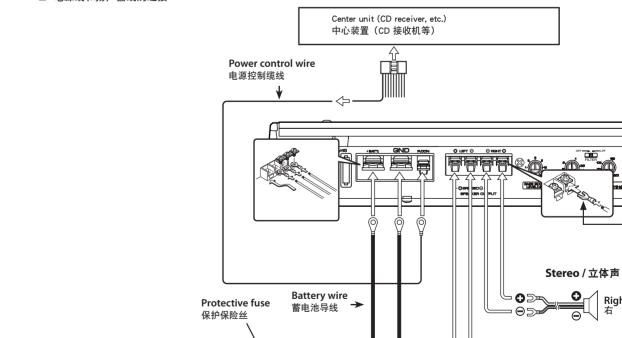
Bridged / 桥路

Lead terminal

引出端子

拔取点火钥匙,拆掉蓄电池负极⊝端子,以防短路。

■ Power wire and Speaker wire connection ■ 电源线和扬声器线的连接



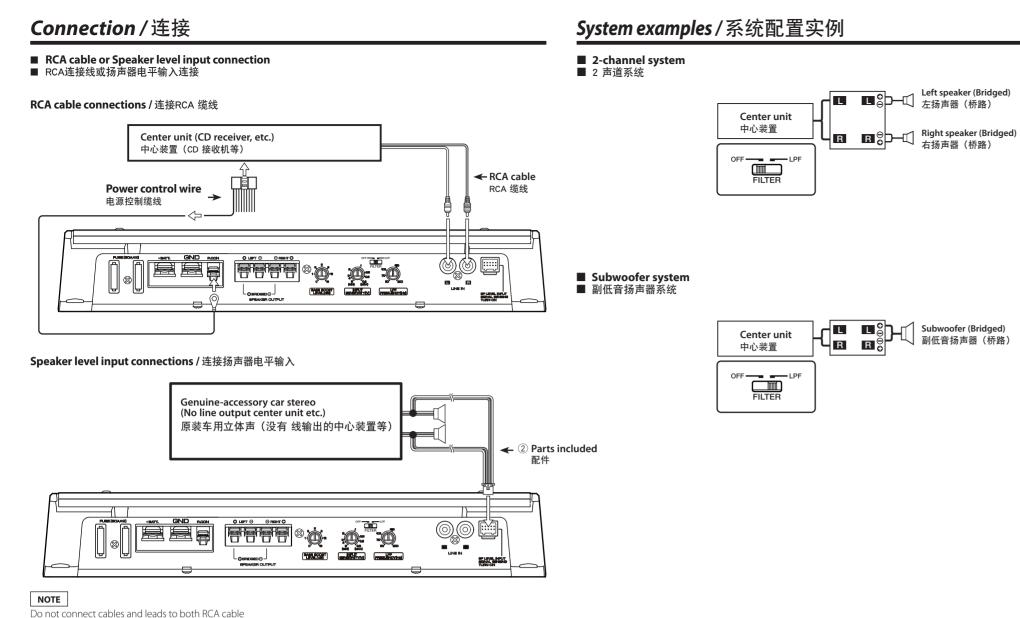
Ground wire

接地异线

蓄电池

▲ WARNING prevent fire caused by a short in the wirin nnect a fusible link or breaker nearby the tery's positive terminal.

的了防止短路所引起的火灾, 在蓄电池的正极附近



产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素						
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	
安装基板	×	0	0	0	0	0	
框架	×	0	0	0	0	0	
其他 (附件)	×	0	0	0	0	0	

〇: 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

· · · 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



该标识中表示的数字为自生产日期开始对环境的保护期限、表示不会因产品中含有的有毒 有害物质或元素的外泄造成环境污染、以及对人体或财产造成严重损害的年数。 该环境保护期限并不是对于性能、功能的保证期限。

在产品及电池等正常使用结束、进行废弃时,请遵守各地方政府的法律和规定予以处理。

For Turkey

Bu ürün 26891sayılı Resmi Gazete'de yayımlanan Elektrikli ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlandırılmasına Dair Yönetmeliğe uygun olarak üretilmiştir

This product complies with Directive, Number 26891 regarding "REGULATION ON THE RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT".

Troubleshooting Guide

What might appear to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

PROBLEM	POSSIBLE CAUSE	SOLUTION
No sound. (No sound from one side.)	Input (or output) cables are disconnected. Protection circuit may be activated.	Connect the input (or output) cables. Check connections by referring to Protection function>.
(Blown fuse.)	Volume is too high.The speaker cord is shorted.	 Replace the fuse and use lower volume. After check the speaker cord and fixing the cause of the short, replace the fuse.
The output level is too small (or too large).	 The input sensitivity adjusting control is not set to the correct position. 	Adjust the control correctly referring to <controls>.</controls>
The sound quality is bad. (The sound is distorted.)	 The speakers wire are connected with wrong ⊕/ ⊕polarity. A speaker wire is pinched by a screw in the car body. The switches may be set improperly. 	 Connect them properly checking the ⊕/⊝ of the terminals and wires well. Connect the speaker wire again so that it is not pinched by anything. Set switches properly by referring to <system examples="">.</system>

故障检修

有时被认为是故障的现象,其实是因微小的操作或配线失误而造成。 在要求维修之前,请参照下表稍事检查为盼。

现象	原因	排除方法
没有声音	· 输入(或输出)缆线未连接。	・连接输入(或输出)缆线。
(保险丝跳断)	· 保护线路可能被触发。	・参考 <保护功能> 一节, 检查连接状况。
	・音量过大。	· 请更换保险丝,减小音量。
	· 扬声器电线短路。	· 确认扬声器线,解除短路原因后,更换保险丝。
输出电平过低(或过高)	·输入灵敏度调节不当,没有位于妥当位置。	・ 调节该控制器。请参考 <控制>。
声音质量很差	·扬声器缆线的极性⊕/⊝连接错误。	· 请将缆线的极性⊕/⊝连接正确。
(声音失真)	扬声器缆线的一根被车体螺钉压迫。	重新连接缆线,使之不再受螺钉压迫。
	· 开关的设定可能不妥。	· 请参考 <系统配置实例>,将开关正确设置。

Controls / 控制

damage.

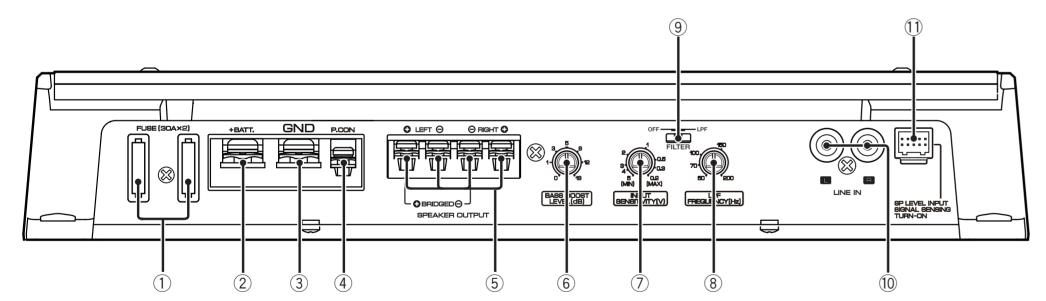
注

input jacks and the speaker level input terminals

simultaneously, for this may cause malfunction or

不可同时连接缆线和引线到 RCA 缆线输入端 子及扬

声器输入端子。否则,将造成误动作或损坏。



1) Fuse (30 A x 2)

NOTE If you can't find the specified capacity fuse at your store etc., consult your

② Battery terminal (BATT.)

③ Ground terminal (GND)

4 Power control terminal (P.CON) Controls the unit ON/OFF.

NOTE

Controls the unit power. Be sure to connect it with all the systems. **5** Speaker output terminals

• Stereo Connections:

When you wish to use the unit as a stereo amplifier, stereo connections are used. The speakers to be connected should have an impedance of 2Ω or greater. When multiple speakers are to be connected, ensure that the combined impedance is 2Ω or greater for each channel.

• Bridged Connections:

When you wish to use the unit as a high-output monaural amplifier, bridged connections are used. (Make connections to the LEFT channel and the RIGHT channel → SPEAKER OUTPUT terminals.)

The speakers to be connected should have an impedance of 4Ω or greater. When multiple speakers are to be connected, ensure that the combined impedance is 4Ω or greater.

6 BASS BOOST LEVEL control

Sets the low frequency level to be compensated.

◯ INPUT SENSITIVITY control

Set this control according to the pre-output level of the center unit connected with this unit.

NOTE For the pre-output level, refer to the <Specifications> in the instruction manual

8 LPF (Low-Pass Filter) FREQUENCY control This control adjusts the frequency band output from this unit.

9 FILTER switch

OFF position:

Cable color of the connector / 接头连接线颜色

Left / 左输入

R Right / 右输入

◆ White / 白色

Gray / 灰色

─ White-Black / 白色-黑色

─ Gray-Black / 灰色-黑色

The entire bandwidth is output without filtering.

LPF (Low-Pass Filter) position:

The filter outputs the band of lower frequencies than the frequency set with the "LPF FREQUENCY" control.

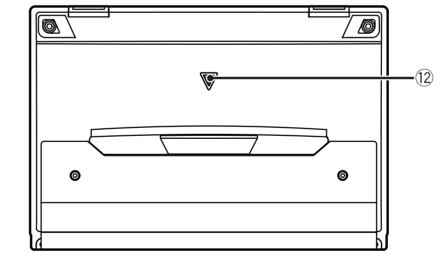
The speaker output is automatically switched to monaural (L+R).

10 LINE IN terminal

1) SP LEVEL INPUT terminal The genuine-accessory car stereo shall have a maximum power output of no more than 40 W.

The power is turned on and off as the unit detects input signal (SIGNAL SENSING TURN-ON). Therefore it is not necessary to connect the power control

When the power is turned on, the Power indicator lights.



万一在销售店等找不到指定容量的保险丝的话,请与建伍专销公司联系。

② BATT. (蓄电池) 端子

① 保险丝 (30 A x 2)

③ GND (接地) 端子

④ P.CON (电源控制) 端子 控制本机的接通 / 关闭。

注 控制本机电源。 应务必与全部系统连接。

⑤ SPEAKER OUTPUT (扬声器输出) 端子 • 立体声连接端子:

当您希望本机作为立体声放大器时,必须使用立体声连接端子。 所连接的扬声器的阻抗必须为 2 欧姆或更高。 当多个扬声器被连接时,必须保证每声道的综合阻抗大于或等于 2 欧姆。

• 桥路连接端子:

当您希望本机作为大功率单声道放大器使用时,可以进行桥路连接。 (连接 LEFT声道 ◆ 、RIGHT声道 → 及SPEAKER OUTPUT 端子) 所连接的扬声器的阻抗必须为 4 欧姆或更高。 当多个扬声器被连接时,必须保证每声道的综合阻抗大于或等于 4 欧姆。

⑥ BASS BOOST LEVEL(低音提升)控制 设定进行补偿的低音电平。

⑦ INPUT SENSITIVITY (輸入灵敏度) 控制 根据与本放大器连接的中心装置的前置输入水评调节本控制钮。

注

关于中心装置的前置输出电平,请参考其使用说明书。

⑧ LPF FREQUENCY (高通滤波频率) 控制 可以调节本机的输出频带。 ⑨ FILTER (滤波器) 开关

• OFF (关闭) 位置: 滤波器将不进行任何滤波处理,输出整个波段。

• LPF (低通滤波器) 位置: 滤波器将输出低于 LPF FREQUENCY控制设定值的波段。 扬声器的输出将自动切换单声道(L+R)。

⑩ LINE IN (线输入) 端子

① 扬声器电平输入端子 车内原装立体声的最大输出功率不得大于 40 瓦。 本装置检测输入信号(SIGNAL SENSING TURN-ON),接 通或切断电源。因此, 无需连接电源控制缆线。

当电源打开时, 电源指示灯点亮。

Specifications

Signal to Noise Ratio.....

Input Impedance..

输入阻抗

Specifications subject to change without notice.				
Audio Section				
Max Power Output	1000 W (500			
Rated Power Output $(+B = 1)$	4.4V)			

Normal (4 Ω) (20 Hz – 20 kHz, \leq 0.08 % THD)... 170 W \times 2 $(2 Ω) (1 \text{ kHz}, \le 0.8 \% \text{ THD})$ $...250 W \times 2$ Bridged (4 Ω) (1 kHz, \leq 0.8 % THD).... ...500 W × 12 Ω – 8 Ω $4 \Omega - 8 \Omega$ (Bridged) Frequency Response (+0, -3 dB).....5 Hz – 50 kHz Sensitivity (rated output) MAX... .. 0.2 V

MIN.

....95 dB

....10 kΩ

..10 kΩ

重量

.....50 Hz – 200 Hz (variable)) W \times 2) Bass Boost Control (40 Hz).....0 – +18 dB (variable) General Operating Voltage......14.4 V (11 – 16 V allowable) Current Consumption Dimensions (W \times H \times D)......350 \times 59 \times 238 mm $13-3/4 \times 2-5/16 \times 9-3/8$ inch Weight3.2 kg (7.1 lbs)

Low Pass Filter Frequency (-24 dB/oct.)

规格

规格可能会变更, 恕不另行通知。 音频部

最大输出功率 .1000 W (500 W × 2) 额定输出功率 (+B = 14.4V) 普通 (4 欧姆) (20 Hz — 20 kHz, ≤ 0.08 % THD)

... 170 W × 2 (2 欧姆) (1 kHz, ≤ 0.8 % THD)......250 W × 2 桥路(4 欧姆)(1 kHz,≤0.8 % THD)......500 W × 1 扬声器阻抗 4Ω - 8Ω (桥路) 频率响应 (+0, -- 3 dB).....5 Hz — 50 kHz 灵敏度(额定输出) 最大 最小5.0 V 信噪比

低通滤波器过滤频率 (-24 dB/oct.)...50 Hz — 200 Hz (可变) 低音增强控制 (40 Hz)0 - +18 dB (可变) 使用电压 . 消耗电流 安装尺寸 (宽×高×深)350 × 59 × 238 mm