

# KENWOOD

## KAC-210MR

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SUBWOOFER POWER AMPLIFIER ► page 2-7

### INSTRUCTION MANUAL

AMPLIFICATEUR DE PUISSANCE DU SUBWOOFER

► page 8-13

### MODE D'EMPLOI

AMPLIFICADOR DE POTENCIA DEL ALTAVOZ DE SONIDO

ENVOLVENTE ► página 14-19

### MANUAL DE INSTRUCCIONES

KENWOOD CORPORATION

**Take the time to read through this instruction manual. Familiarity with installation and operation procedures will help you obtain the best performance from your new power amplifier. For your records**

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below.

Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on the product.

Model KAC-210MR

Serial number \_\_\_\_\_

## IMPORTANT SAFEGUARDS

**⚠ Read this page carefully to keep your safety.**

### **⚠ WARNING**

- Before mounting or wiring etc., be sure to remove the wire from the battery minus terminal. (Not doing so can cause shorts or fires.)
- When extending the ignition, battery, or ground wires, make sure to use automotive-grade wires or other wires with a 0.75mm<sup>2</sup> (AWG18) 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 speaker.
- **Abnormal smell** – In the event the unit generates smoke or abnormal smell, immediately switch the power OFF. After this, please contact your dealer or nearest service station as soon as possible.
- **Power supply voltage** – Be sure the unit is connected to a 12V DC power supply with a negative ground connection.
- **Modification** – Do not attempt to open or modify the unit, for this could cause fire hazard or malfunction.
- **Suffocation** – After taking the unit out of the polyethylene bag, be sure to dispose of the polyethylene bag out of the reach of children. Otherwise, they may play with the bag, which could cause hazard of suffocation.

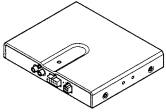

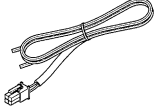

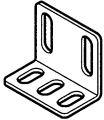

### **FCC WARNING**

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

### **⚠ CAUTION**

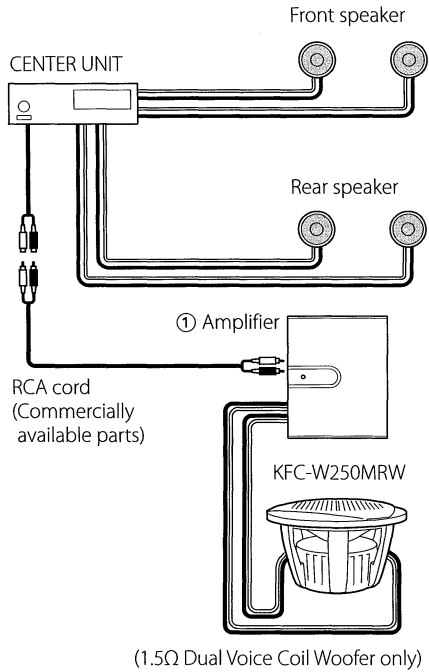
- **Dust and unstable locations** – Do not install the speakers in unstable locations or locations subject to dust.
- If the fuse blows, after checking to see if the wiring cord has shorted, be sure to replace with the stipulated size (amperage) fuse as displayed on the fuse box.  
(Using fuses other than the stipulated size can cause fires.)  
To replace the fuse, refer to the vessel instruction manual.
- To prevent a short circuit when replacing a fuse, disconnect the wiring harness at first.
- Do not use gasoline, naphtha, or any type of solvent to clean the speaker. Clean by wiping with a soft, dry cloth.
- Connect the speaker input wires to appropriate speaker connectors separately. Sharing the negative wire of the speaker or grounding speaker wires to the metal body of the car can cause this unit to fail.
- Do not connect cables and leads to both RCA cable input jacks and the speaker input terminals simultaneously, for this may cause malfunction or damage.
- When making a hole in the vessel, check that there is nothing hazardous on the opposite side such as a gasoline tank, or wiring harness, and be careful not to cause scratches or other damage.
- For ground wire mounting, do not fasten the wire to an steering or other critical safety unit bolts or nut.  
(Can cause accidents.)
- When mounting, be sure to mount in a place that will not interfere with driving or be dangerous to passengers during sudden movement etc.  
(Cause of injury or accidents.)
- After installing the unit, check to make sure that electrical equipment such as the turn signal lamps and gauges operate normally.

## Parts included

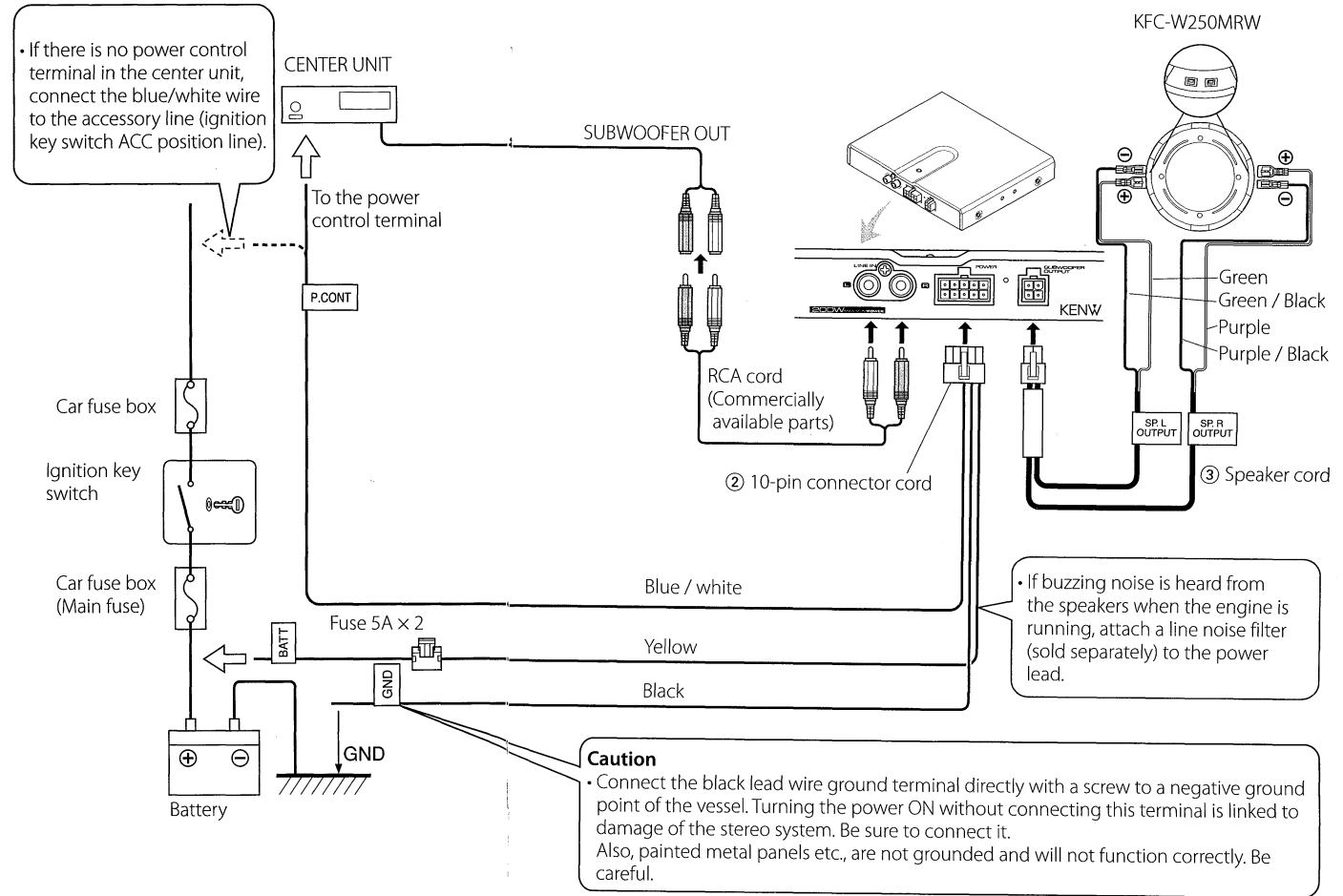
No.	Part Name	Outside Shape	Quantity
①	Amplifier		1
②	10-pin connector cord		1
③	Speaker cord (0.4m)		1
④	Machine screw (M4 × 8mm)		4
⑤	Bracket		2
⑥	Tap screw (Ø4 × 16mm)		4

# Connection

## Examples of applications

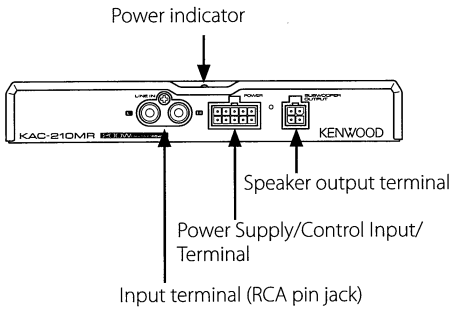


## Examples of Connections

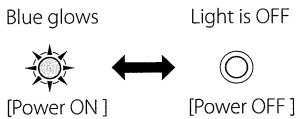


# Operation

## ■ Name of each part



## ■ Power Indicator

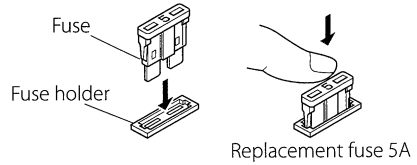
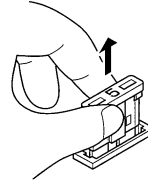


## ■ Fuse exchange

Exchange with the specified capacity fuse.

**Removal:** Grasp with your fingers and pull up.

**Insertion:** Insert the fuse gently into the fuse holder and push in all the way with your finger.



**Caution:** -----  
Be sure to replace with same capacity (amperage)  
as displayed on the fuse. This product is 5A.  
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## Amp mounting example

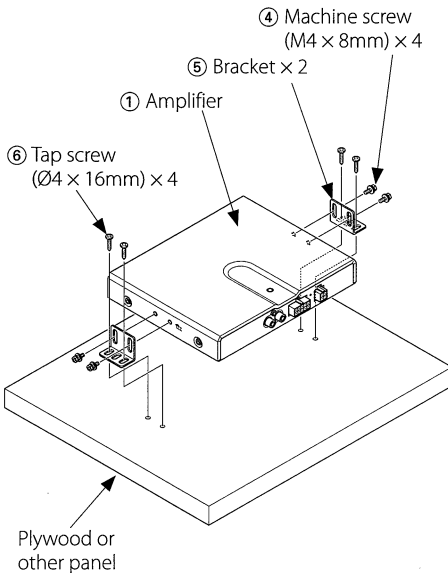
Use the provided ④ Machine screws (M4 × 8mm)  
⑤ Bracket ⑥ Tap screws (Ø 4 × 16mm) and  
mount the amp.

**Be Sure To:**

Fasten securely for safety.

**Caution:**

Install this unit in a location which allows heat to easily dissipate.  
Once installed, do not place any object on top of the unit.



## Specifications

**The following ratings and design are subject to change without notice.**

**[Amp unit]**

Maximum output

: 200W

S/N ratio

: 85dB

Low Pass Filter Frequency

: 80Hz

Sensitivity/ Input Impedance (RCA pin jack)

: 60mV / 10kΩ

Output Impedance

: (1.5Ω + 1.5Ω) = 0.75Ω

Power

: DC14.4V (Operational range 10.5 – 16V)

Maximum current consumption

: 10A

Fuse capacity

: 5A × 2

External size (Width × height × depth)

: 195mm × 30mm × 155mm

: 7-11/16" × 1-3/16" × 6-1/8"

Weight

: 800g (1.8lb)

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KENWOOD

# KENWOOD

**KFC-W254MRW**  
**KFC-W250MRW**

SUBWOOFER  
INSTRUCTION MANUAL

SUBWOOFER  
MODE D'EMPLOI

SUBWOOFER  
MANUAL DE INSTRUCCIONES

KENWOOD CORPORATION  
B61-1255-00

## Note:

Observe the following cautions to prevent damage to the speakers.

- You cannot input the same power as "peak power" continually.
- When the volume is set too high, the sound may be distorted or abnormal. Reduce the volume promptly in case of such phenomena.
- While the listening volume is set to a high level, do not load or eject a disc or cassette tape or operate the selector and power switches of the amplifier.

## Remarque:

Respecter les consignes suivantes pour éviter que les haut-parleurs ne soient endommagés.

- Vous ne pouvez pas régler une puissance identique à la "puissance crête" de façon continue.
- Si le niveau de sortie est trop puissant, les sons peuvent être déformés ou anormaux. Réduire le niveau de sortie aussitôt que l'on constate ce phénomène.
- Si le niveau de sortie a été réglé à une valeur élevée, ne pas mettre en place ou éjecter un disque ou une cassette, ne pas agir sur les sélecteurs ou l'interrupteur d'alimentation de l'amplificateur.

## Nota:

Tome las precauciones siguientes para evitar estropear los altavoces.

- No es posible suministrar la misma potencia como "potencia máxima" continuamente.
- Cuando ajuste un volumen demasiado alto, el sonido podrá distorsionarse o no ser normal. Reduzca rápidamente el volumen en este caso.
- Mientras el volumen de escucha esté ajustado a un nivel alto, no introduzca ni expulse un disco o un casete, ni utilice los selectores ni el interruptor de la alimentación del amplificador.

## Installation

1. Place the supplied template on the panel and then mark the hole positions.
2. Cut open a large hole and make screw holes.
3. Peel off the covering sheet from the spacer, and attach the spacer on the back of the speaker flange so that the flange is completely covered.

## Installation

1. Placer le gabarit fourni sur le panneau et marquer les positions des trous.
2. Découper un trou de grande dimension et percer trous pour les vis.
3. Retirez la feuille de protection placée sur la bande et fixez cette bande sur le bord arrière du haut-parleur de manière qu'il soit entièrement couvert.

## Instalación

1. Ponga la plantilla suministrada en el panel y luego marque las posiciones de los agujeros.
2. Haga un agujero grande y agujeros para los tornillos.
3. Desprenda la cubierta del espaciador y coloque el espaciador en la parte posterior de la brida del altavoz para que la brida quede cubierta completamente.

## Dimensions / Dimensions / Dimensiones

KFC-W254MRW / KFC-W250MRW

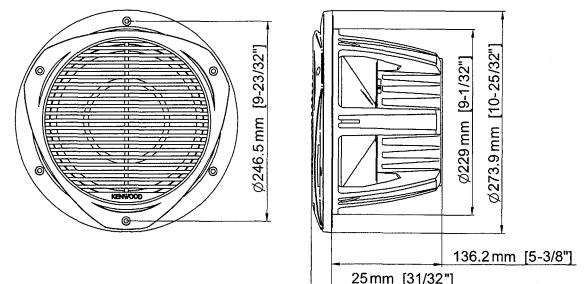


Fig. 1-1 Abb. 1-1 Afb. 1-1 Figura 1-1



# System connections

First, check the power of the amplifier. If the power of the amplifier is higher than the subwoofer's rated input power, increase the number of subwoofers so that the power fed to each subwoofer is lower than rated input power, or lower the sensitivity of the amplifier. Supplying power greater than its rated input power of the subwoofer will cause noise and/or breakage. Also, if using multiple subwoofers, be careful about the total impedance. Change the connecting pattern of the speakers according to the capable impedance of the amplifier.

## Raccordement de l'ensemble

Vérifier d'abord la puissance de l'amplificateur. Si la puissance de l'amplificateur est plus élevée que la puissance d'entrée nominale du subwoofer, augmenter le nombre de subwoofers de façon à ce que la puissance par subwoofer soit inférieure à la puissance d'entrée nominale, ou inférieure à la sensibilité de l'amplificateur. Le fait d'appliquer une puissance supérieure à la puissance d'entrée nominale du subwoofer va créer des parasites et/ou provoquer une panne. Aussi, en cas d'utilisation de plusieurs subwoofers, surveiller l'impédance totale. Modifier le schéma de connexion des haut-parleurs en fonction de l'impédance de l'amplificateur.

## Conexiones del sistema

Primero, compruebe la potencia del amplificador. Si la potencia del amplificador es mayor que la potencia de entrada nominal del altavoz de frecuencias ultrabajas (subwoofer), aumente el número de altavoces de frecuencias ultrabajas de manera tal que la potencia por cada altavoz sea menor que la potencia de entrada nominal, o menor que la sensibilidad del amplificador. El suministro de una potencia mayor que la potencia de entrada nominal del altavoz de frecuencias ultrabajas causará ruido y/o ruptura. Asimismo, si usa múltiples altavoces de frecuencias ultrabajas, tenga cuidado con la impedancia total. Cambie el patrón de conexión de los altavoces según la capacidad de impedancia del amplificador.

- Series Wiring
- Montage en série
- Cableado en serie

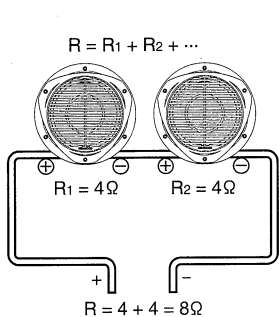


Fig. 2-1 Abb. 2-1 Afb. 2-1  
Figura 2-1

- Parallel Wiring
- Montage en parallèle
- Cableado en paralelo

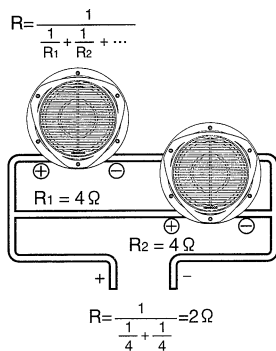


Fig. 2-2 Abb. 2-2 Afb. 2-2  
Figura 2-2

- Use a crossover network of your choice with an appropriate cut-off frequency.
- Utiliser un réseau de recouvrement de votre choix ayant une fréquence de coupure appropriée.
- Use una red divisora con una frecuencia de corte apropiada.

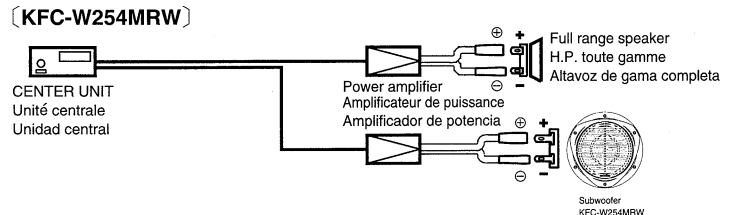


Fig. 3-1 Abb. 3-1 Afb. 3-1 Figura 3-1

### Caution

The sensitivity of the power amplifier should be set to the same value as the pre-output volume of the CD player or Tuner.

### Attention

La sensibilité de l'amplificateur de puissance doit être réglée au même niveau que le volume de sortie du lecteur de CD ou du tuner.

### Precaución

La sensibilidad del amplificador de potencia debe ajustarse al mismo volumen de la salida de preamplificador del reproductor de CD o sintetizador.

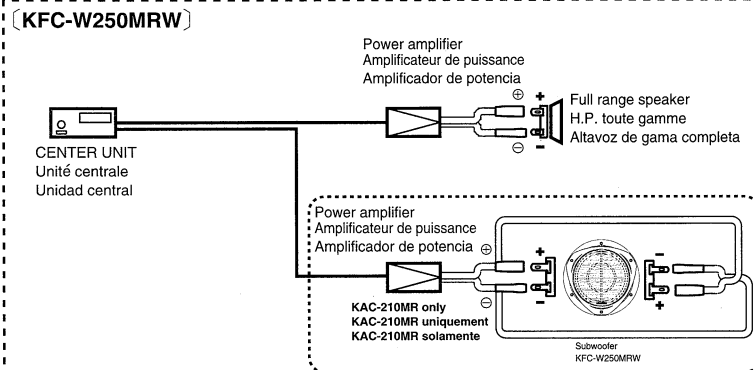
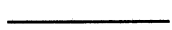

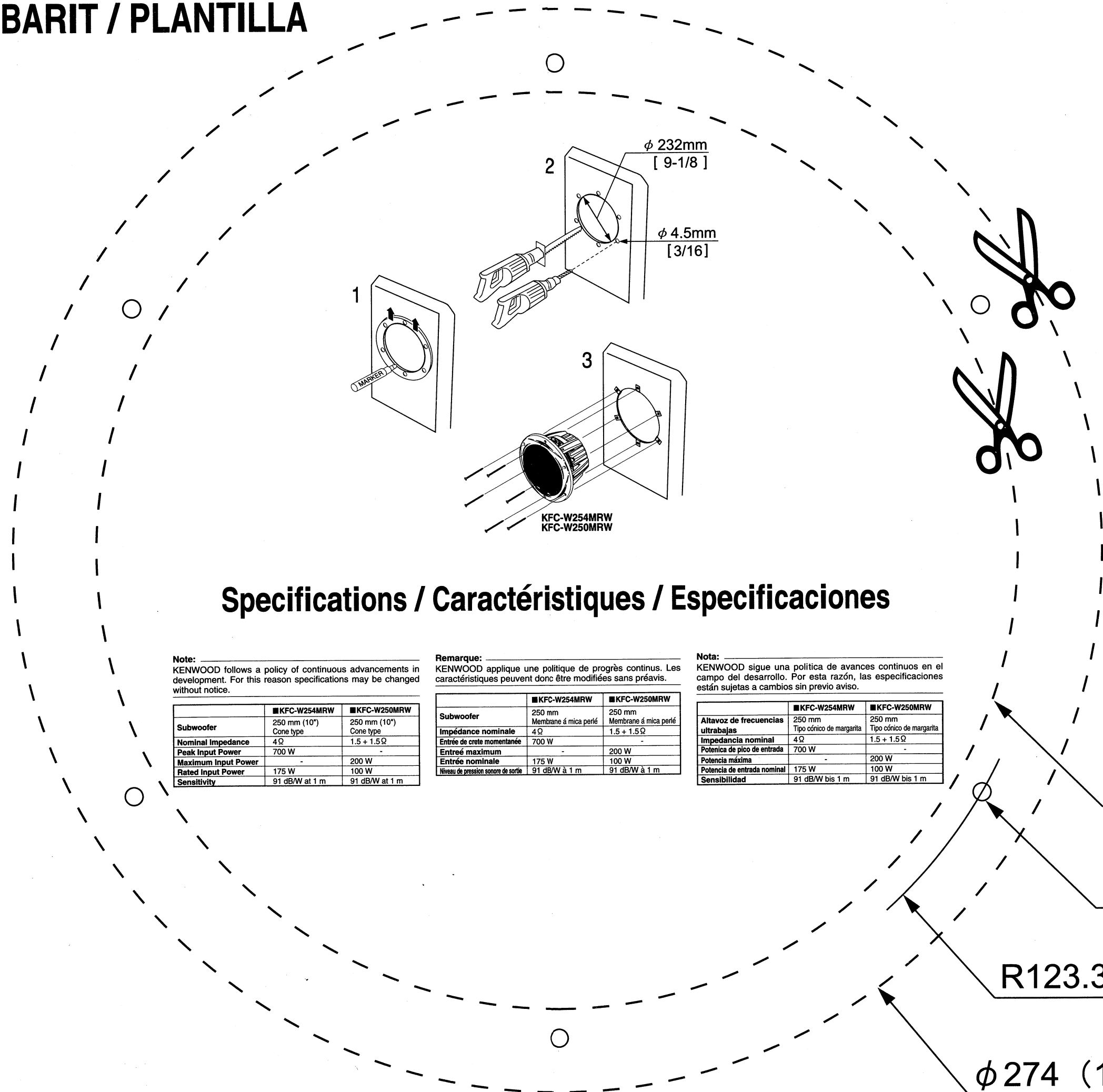


Fig. 3-2 Abb. 3-2 Afb. 3-2 Figura 3-2

# TEMPLATE / GABARIT / PLANTILLA

Parts Included  
 Pieces comprises  
 Parti incluse

Screw  × 6  
 Speed Nut  × 6



## Specifications / Caractéristiques / Especificaciones

**Note:**  
 KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

	■KFC-W254MRW	■KFC-W250MRW
<b>Subwoofer</b>	250 mm (10") Cone type	250 mm (10") Cone type
<b>Nominal Impedance</b>	4 Ω	1.5 + 1.5 Ω
<b>Peak Input Power</b>	700 W	-
<b>Maximum Input Power</b>	-	200 W
<b>Rated Input Power</b>	175 W	100 W
<b>Sensitivity</b>	91 dB/W at 1 m	91 dB/W at 1 m

**Remarque:**  
 KENWOOD applique une politique de progrès continus. Les caractéristiques peuvent donc être modifiées sans préavis.

	■KFC-W254MRW	■KFC-W250MRW
<b>Subwoofer</b>	250 mm Membrane à mica perlé	250 mm Membrane à mica perlé
<b>Impédance nominale</b>	4 Ω	1.5 + 1.5 Ω
<b>Entrée de crête momentanée</b>	700 W	-
<b>Entrée maximum</b>	-	200 W
<b>Entrée nominale</b>	175 W	100 W
<b>Niveau de pression sonore de sortie</b>	91 dB/W à 1 m	91 dB/W à 1 m

**Nota:**  
 KENWOOD sigue una política de avances continuos en el campo del desarrollo. Por esta razón, las especificaciones están sujetas a cambios sin previo aviso.

	■KFC-W254MRW	■KFC-W250MRW
<b>Altavoz de frecuencias ultrabajos</b>	250 mm Tipo cónico de margarita	250 mm Tipo cónico de margarita
<b>Impedancia nominal</b>	4 Ω	1.5 + 1.5 Ω
<b>Potencia de pico de entrada</b>	700 W	-
<b>Potencia máxima</b>	-	200 W
<b>Potencia de entrada nominal</b>	175 W	100 W
<b>Sensibilidad</b>	91 dB/W bis 1 m	91 dB/W bis 1 m

Unit:mm(inch)

φ 232 (9-1/8")

8-φ 4.5 (3/16")

R123.3 (4-7/8")

φ 274 (10-13/16")

This warranty will be honored only in the U.S.A.

## **KENWOOD LIMITED WARRANTY FOR CAR STEREO COMPONENTS**

### **HOW LONG IS THE WARRANTY**

Kenwood U.S.A. Corporation ("Kenwood") warrants this product for a period of one (1) year from the date of original purchase.

### **WHAT IS COVERED AND WHAT IS NOT COVERED**

Except as specified below, this warranty covers all defects in material and workmanship in Kenwood car stereo components. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. by Kenwood or which is not purchased in the U.S.A. from an authorized Kenwood car stereo dealer or an automobile dealer, unless the product is purchased through the U.S.A. Military Exchange Service.
2. Any product on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
  - a. Any shipment of the product (claims must be presented to the carrier).
  - b. Installation or removal of the product.
  - c. Accident, acts of nature, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions supplied with the product.
  - d. Repair or attempted repair by anyone not authorized by Kenwood.
  - e. Any other cause which does not relate to a product defect.

### **WHO IS PROTECTED**

This warranty is enforceable only by the original purchaser.

### **WHAT WE WILL PAY FOR**

We will pay for all labor and material expenses for covered items. Payment of shipping charges is discussed in the next section of this warranty.

### **HOW TO OBTAIN WARRANTY SERVICE**

If your KENWOOD product ever needs service:

1. Take or ship it to any KENWOOD Authorized Service Center in the U.S.A. along with a complete description of the problem. (if you are uncertain as to whether a Service Center is authorized, please call **1-800-KENWOOD** for the nearest Service Center. **1-800-536-9663**).
2. Although you must pay any shipping charges if it is necessary to ship the product for warranty service, we will pay the return shipping charges if the repairs are covered by the warranty within the United States.
3. Whenever your units are taken or sent for warranty service, you must include a copy of the original dated sales receipt as proof of warranty coverage.

### **LIMITATION OF IMPLIED WARRANTIES**

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

### **EXCLUSION OF DAMAGES**

KENWOOD'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT OUR OPTION. KENWOOD SHALL NOT BE LIABLE FOR:

1. INSTALLATION OR REMOVAL CHARGES, DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN KENWOOD CAR STEREO COMPONENTS, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT; OR
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If a problem develops during or after the Limited Warranty Period, or if you have any questions regarding the operation of the product, you should contact your KENWOOD Authorized Dealer or Authorized Service Center. If the problem or your question is not handled to your satisfaction, please contact our Customer Relations Department at the address listed below:

**KENWOOD USA CORPORATION**  
P.O. Box 22745, 2201 East Dominguez Street, Long Beach, CA 90801-5745  
Tel: (310) 639-5300