Rockford Fosgate
car audio for fanatics

PA2

1/2 DIN preamplifier

pa2

Dear Customer,

Congratulations on your purchase of the world's finest brand of car audio signal processors. At Rockford Fosgate we are committed to musical reproduction at its best, and we are pleased you chose our product. Through years of engineering expertise, hand craftsmanship and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.

For maximum performance we recommend you have your new Rockford Fosgate product installed by an Authorized Rockford Fosgate Dealer, as we provide specialized training through Rockford Technical Training Institute (RTTI). Please read your warranty and retain your receipt and original carton for possible future use.

To add the finishing touch to your new Rockford Fosgate image order your Rockford accessories, which include everything from T-shirts and jackets to hats and sunglasses.

To get a free brochure on Rockford Fosgate products and Rockford accessories, in the U.S. call 602-967-3565 or FAX 602-967-8132. For all other countries, call +001-602-967-3565 or FAX +001-602-967-8132.

PRACTICE SAFE SOUND™

CONTINUOUS EXPOSURE TO SOUND PRESSURE LEVELS OVER 100dB MAY CAUSE PERMANENT HEARING LOSS. HIGH POWERED AUTO SOUND SYSTEMS MAY PRODUCE SOUND PRESSURE LEVELS WELL OVER 130dB. USE COMMON SENSE AND PRACTICE SAFE SOUND.

If, after reading your manual, you still have questions regarding this product, we recommend that you see your Rockford Fosgate dealer. If you need further assistance, you can call us direct at 1-800-669-9899. Be sure to have your serial number, model number and date of purchase available when you call.

The serial number can be found on the outside of the box. Please record it in the space provided below as your permanent record. This will serve as verification of your factory warranty and may become useful in recovering your equipment if it is ever stolen.

Serial Number: _____

Model Number: _____

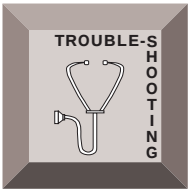
TABLE OF CONTENTS

GETTING STARTED

Welcome to Rockford Fosgate! This manual is designed to provide information for the owner, salesperson and installer. For those of you who want quick information on how to install this product, please turn to the ***Installation Section*** of this manual or refer to the icons listed below. Other information can be located by using the Table of Contents. We, at Rockford Fosgate, have worked very hard to make sure all the information in this manual is current. But, as we are constantly finding new ways to improve our product, this information is subject to change without notice.

Sections marked **ADVANCED OPERATION** include in-depth technical information

Sections marked **INSTALLATION** include "slam dunk" wiring connections



Sections marked **TROUBLESHOOTING** include recommendations for curing installation problems

INTRODUCTION

The PA2 is a stereo 4-band equalizer and preamplifier used to compensate for differences in music format and to correct for response problems associated with mobile audio installations.

Two different sources can be fed into the PA2 and independently selected using the front panel A/B input switch. All input and output connections are made via gold-plated RCA jacks. Inputs are monitored utilizing signal present and signal clipping LEDs and can be level matched using the input gain controls. Three pairs of outputs (Front, Rear and Subwoofer) can be adjusted using the front/rear fader and subwoofer volume controls. A master volume control adjusts the overall output level.

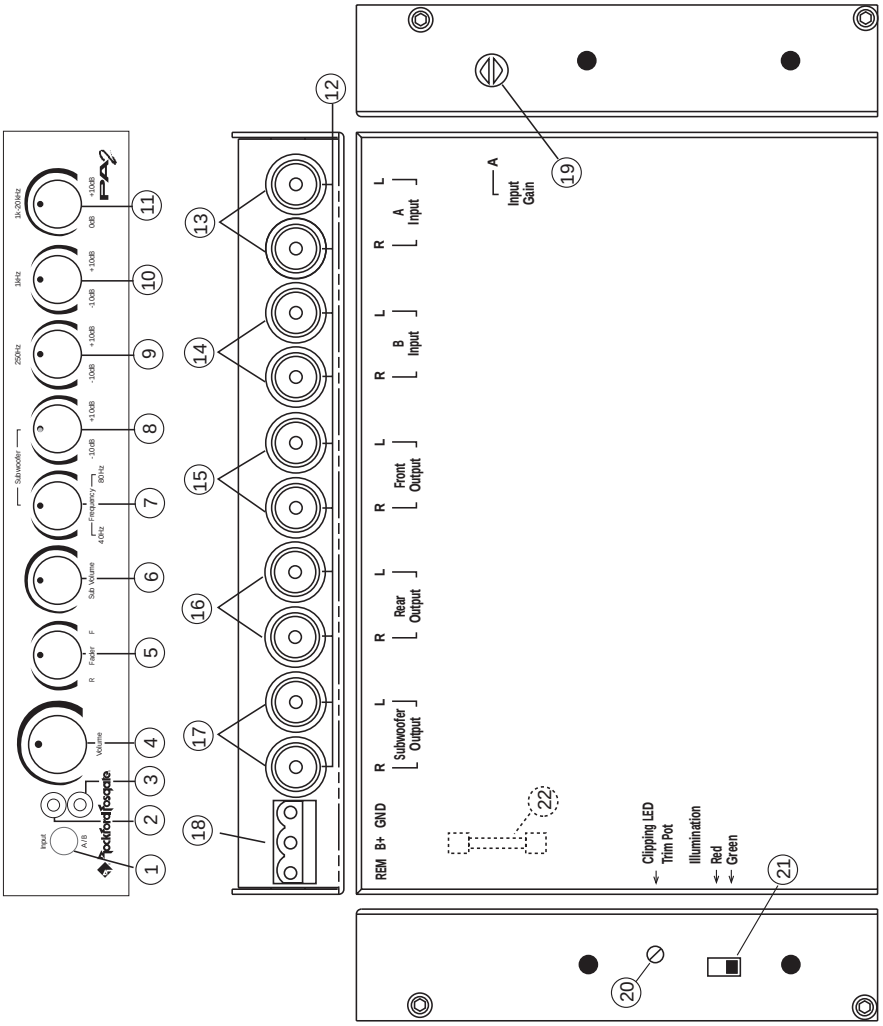
Each EQ band can accommodate up to 10dB boost or cut to compensate for insufficient bass response, excessive mid-bass, and high frequency roll off. The low frequency EQ center is variable from 40Hz to 80Hz, the midrange controls are centered at 250Hz and 1kHz, and a special high frequency hinge filter spans from 1kHz-20kHz.

The PA2 packs powerful features into its small but stylish 1/2 DIN size, and its red/green backlighting allows for easy integration into any automobile, making it a great addition for center consoles or in-dash use.

ACCESSORY PACK

Installation and Operation Manual
(2) Adjustable Mounting Brackets
(4) Phillips Bracket Screws (m5 x 0.88mm x 4mm)
(1) Removable Power Connector

DESIGN FEATURES



1. **A/B Input Switch –** Selects between two different sources fed into the preamp. Sources can be designated as CD/TAPE, CD/VCR AUDIO, CD/ VIDEO GAME AUDIO, etc.
2. **Signal Strength/Clipping LED –** Illuminates red when a predetermined threshold is reached. Refer to "clipping LED trim potentiometer" for setup options.
3. **Signal Present LED –** Illuminates green when signal is detected on any of the inputs.
4. **Master Volume Control –** Controls the overall output amplitude of the front/rear/subwoofer outputs. The control can be set to its full counter-clockwise position for zero output or its full clockwise position for maximum output.
5. **Front/Rear Fader –** Attenuates the front or rear outputs for the desired "front stage/rear fill" effect. When set to the rear position, the rear output level is maintained and the front output level is attenuated. When set to the front position, the front output level is maintained and the rear output level is attenuated.
6. **Subwoofer Volume Control –** Controls the signal amplitude of the subwoofer outputs.
7. **Subwoofer Frequency –** Selects the center frequency for the subwoofer boost/cut control.
8. **Subwoofer Boost/Cut –** Increases or decreases the amplitude of the subwoofer center frequency. The control is set to flat (0dB) when adjusted to its center detent position.
9. **250Hz Boost/Cut –** Increases or decreases the amplitude of the 250Hz center frequency. The control is set to flat (0dB) when adjusted to its center detent position.
10. **1kHz Boost/Cut –** Increases or decreases the amplitude of the 1kHz center frequency. The control is set to flat (0dB) when adjusted to its center detent position.
11. **1kHz-20kHz Hinge Filter –** Increases the amplitude of the high frequency hinge filter. The control is set to flat (0dB) when adjusted to its full counterclockwise position. Maximum boost at 20kHz occurs when adjusted to its full clockwise position.

12. **RCA Input/Output Jacks –** The industry standard RCA jacks provide easy connection for low level preamp signals. They are gold-plated to resist the signal degradation caused by corrosion.

13. **Input "A" –** These L & R inputs feed the preamplifier when the front panel A/B input switch is set to input "A."

14. **Input "B" –** These L & R inputs feed the preamplifier when the front panel A/B input switch is set to input "B."

15. **Front Output –** These full range (20Hz to 20kHz) fadable stereo outputs connect to the amplifier driving the "front stage" speaker system.

16. **Rear Output –** These full range (20Hz to 20kHz) fadable stereo outputs connect to the amplifier driving the "rear stage" speaker system.

17. **Subwoofer Output –** These full range (20Hz to 20kHz) fadable stereo outputs connect to the amplifier driving the "subwoofer" speaker system.

    Technical Note: Creative installations can use the subwoofer outputs as a full range center channel with dedicated volume control. Just remember to keep the subwoofer boost/cut control to its flat (center) position and always think "center channel."

18. **Power Connector –** The power connector provides a convenient connection for ground, power and remote. The connector uses "screw lock" terminals to secure the power wires and is removable for quick disconnects.

19. **Input "A" Gain Control –** The input gain control is factory preset to match the output of most source units. It can be adjusted to match the source unit to tape/VCR audio/video game audio inputs.

20. **Clipping LED Trim Pot –** This potentiometer controls the threshold of the signal strength/clipping LED. It can be set to illuminate the LED when clipping occurs (0dB gain overlap) or when the desired amount of gain overlap (+5dB, +10dB, +15dB) is reached.

21. **Red/Green Illumination Switch –** Selects the backlighting color to red or green.

22. **B+ Fuse –** The internal B+ fuse protects the power supply and battery from short circuits and power failures.

INSTALLATION CONSIDERATIONS

The following is a list of tools you will need for installing the PA2.

Red power wire	Wire strippers
Blue remote turn-on wire	Wire cutters
Black grounding wire	Voltmeter
Electric hand drill w/assorted bits	Jeweler's slotted screwdriver
Battery post wrench	#2 screwdriver

This section focuses on some of the vehicle considerations for installing your new PA2. Pre-planning your system layout and best wiring routes will save installation time. When deciding how to lay out your new system, be sure that each component will be easily accessible for making adjustments.

Before beginning any installation, be sure to follow these simple rules:

1. Be sure to carefully read and understand the instructions before attempting to install the PA2.
2. **For safety**, disconnect the negative lead from the battery prior to beginning the installation.
3. For easier assembly, we suggest you run all wires prior to mounting your PA2 in place.
4. Route all of the RCA cables close together and away from any high current wires.
5. Use high quality connectors for a reliable installation and to minimize signal or power loss.
6. **Think before you drill!** Be careful not to cut or drill into gas tanks, fuel lines, brake or hydraulic lines, vacuum lines or electrical wiring when working on any vehicle.
7. Never run wires underneath the vehicle. Running the wires inside the vehicle provides the best protection.
8. Avoid running wires over or through sharp edges. Use rubber or plastic grommets to protect any wires routed through metal, especially the firewall.
9. **ALWAYS** protect the battery and electrical system from damage with proper fusing. Install the appropriate fuseholder and fuse on the +12V power wire within 18" (45.7 cm) of the battery terminal.
10. When grounding to the chassis of the vehicle, scrape all paint from the metal to ensure a good, clean ground connection. Grounding connections should be as short as possible and always be connected to metal that is welded to the main body, or chassis, of the vehicle.

MOUNTING LOCATION

The mounting location for the PA2 should allow easy access to the controls for making necessary adjustments. The PA2 will most likely be adjusted only at the time of installation and will not need further adjustment unless changes to the audio system are performed. To ensure optimum performance, care should be taken when mounting the preamplifier in the following locations:

Engine Compartment
Mounting the PA2 in the engine compartment will **void your warranty.** The only thing that should be mounted in the engine compartment is that big metal thing that makes the vehicle go fast.

Instrument Panel
Mounting the PA2 in the **instrument panel provides optimum access**. The unit should be securely mounted to ensure optimum safety.

Center Console
Mounting the unit in the **center console provides optimum access**. Be sure the installation does not interfere with the operation of the gear shift or parking brake.

Glove Box
Mounting the unit in the **glove box is adequate**, but does not provide easy access. Glove box mounting should only be done if "Instrument Panel" or "Center Console" mounting is not acceptable (i.e., maintaining integrity of older vehicles with metal dashboards).

Under Dash
Mounting the unit **under the dash is adequate,** but does not provide easy access. Under dash mounting should only be done if "Instrument Panel" or "Center Console" mounting is not acceptable. Mount the unit off to the side of the driver's area to reduce interference with the parking brake, gear shift or operating pedals.

WIRING THE SYSTEM

For safety, disconnect the negative lead from the car battery prior to beginning the installation.

1. Wire the Power Connector

The **B+** lead should be connected to a source of non-switched 12 volts DC. Prepare a length of cable from the constant +12V by stripping 3/8" of insulation from the end of the wire. Insert the bared wire into the B+ terminal of the power connector and fasten the screw.

NOTE: The B+ lead of the audio system MUST be fused 18" or less from the vehicle's battery. Install a fuseholder, along with the necessary fuse, under the hood. Connections should be water tight.

The **REM** lead should be connected to the remote turn-on or power antenna output from the source unit. Prepare a length of cable from the source of switched voltage by stripping 3/8" of insulation from the end of the wire. Insert the bared wire into the REM terminal of the power connector and fasten the screw. Total current consumption through this lead is negligible.

The **GND** lead should be connected to the chassis ground of the vehicle. Prepare a length of cable (approximately 12" long) to be used for the ground lead by stripping 3/8" of insulation from each end. Insert one end of bared wire into the GND terminal of the power connector and fasten the screw. Prepare the chassis ground by scraping any paint from the metal surface and thoroughly clean the area of all dirt and grease. Strip the other end of the wire and attach a ring connector. Fasten the cable to the chassis using a non-anodized screw and star washer.

2. Connect the Source Inputs

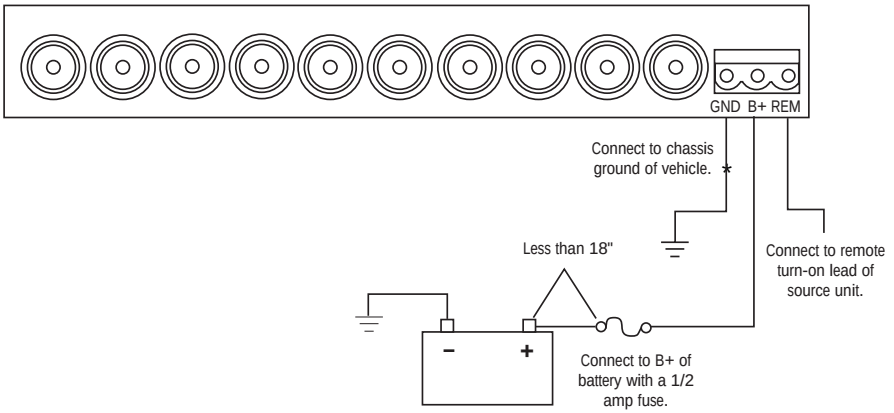
Connect the primary source unit cables to INPUT "A." If adding a secondary source (tape player, VCR audio, or video game audio), connect the primary source unit to INPUT "B" and the secondary source unit to INPUT "A" in order to take advantage of the variable input gain for matching both sources.

3. Connect the Outputs to the Amplifiers

Connect the appropriate outputs from the PA2 to the corresponding inputs on the amplifiers.

INSTALLATION

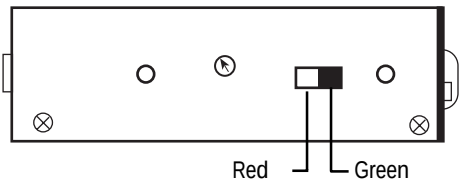
Power Connections



*Keep wire as short as possible

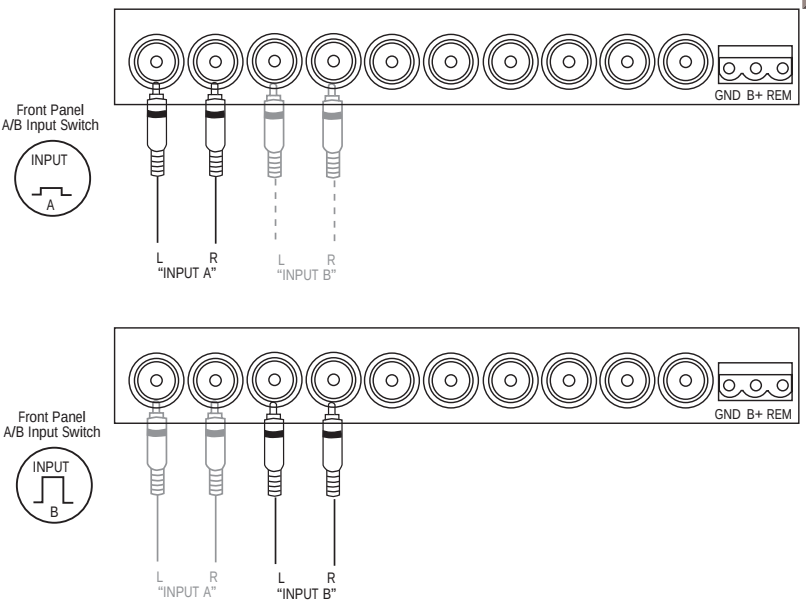
CAUTION: Always protect the battery and electrical system from damage with proper fusing.

Dual Color Illumination



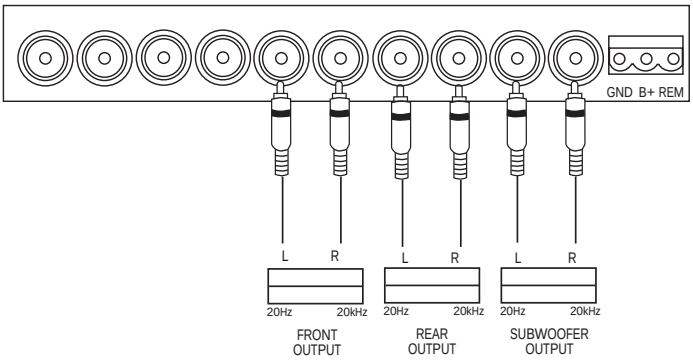
- **Green Illumination** – move switch to right position
- **Red Illumination** – move switch to left position

Input Connections



- **Input A** – Press A/B switch IN to use Input "A"
- **Input B** – Press A/B switch OUT to use Input "B"

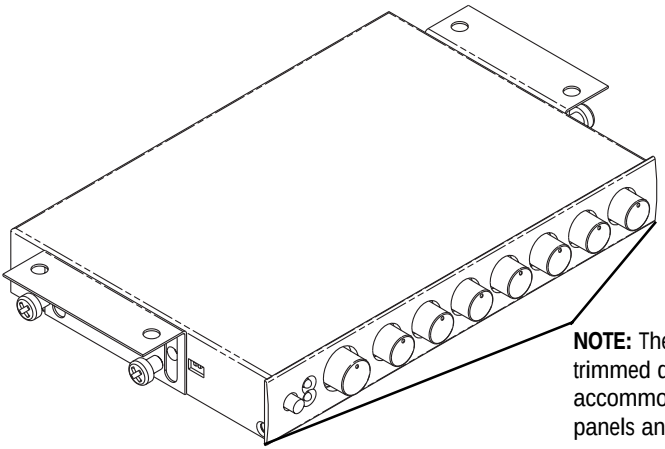
Output Connections



- **Front Output** feeds front stage amplifier
- **Rear Output** feeds rear stage amplifier
- **Subwoofer Output** feeds subwoofer amplifier
- **All Outputs** are Full Range (20Hz-20kHz)

Standard Mounting

The PA2 can be installed in a variety of ways. For installations where mounting brackets are needed, refer to the diagram below. If your dash or center console already has provisions for a 1/2 DIN preamp, you may use alternative installation methods.



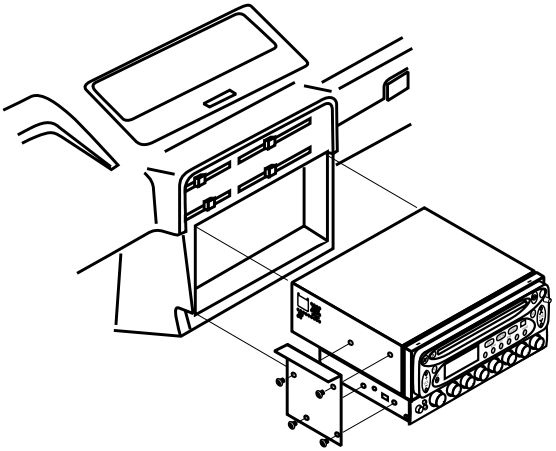
NOTE: The faceplate may be trimmed down on each side to accommodate various trim panels and installation kits.

WARNING: DO NOT use bracket screws longer than 4mm into the PA2

- Attach brackets to preamp using supplied screws
- Position preamp in desired location (brackets are adjustable)
- If needed, make holes using mounting bracket as a template
- Secure to dash or center console using appropriate screws (not included)

ISO-DIN + 1/2 Mounting

The PA2 is also sized to fit import vehicles that accept DIN +1/2 configurations. Using factory brackets or an installation kit, the PA2 can be coupled with standard DIN sized radios (like the Rockford Fosgate RFX-8115 CD player) and installed in the dash or center console.

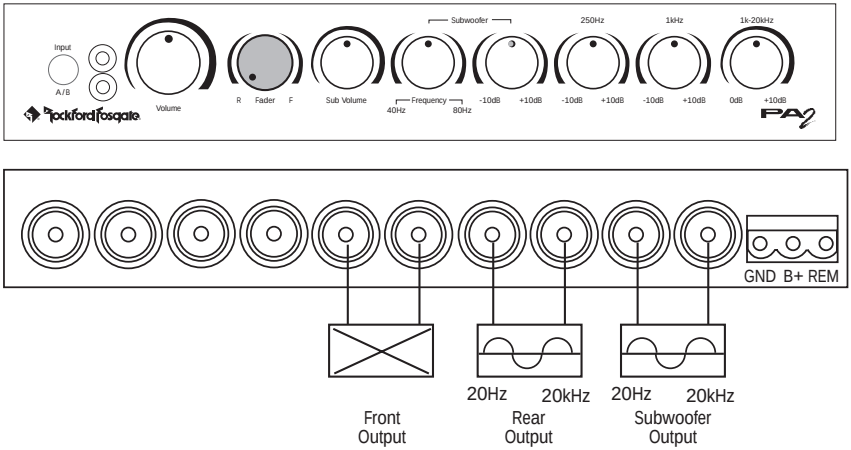


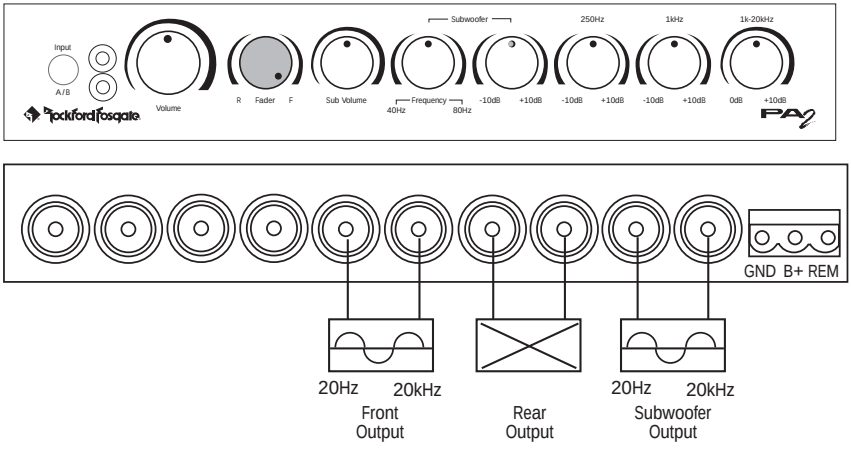
Master Volume

The master volume controls the overall output amplitude of the front/rear/subwoofer outputs. The control can be set to its full counterclockwise position for zero output or its full clockwise position for maximum output.

Fader

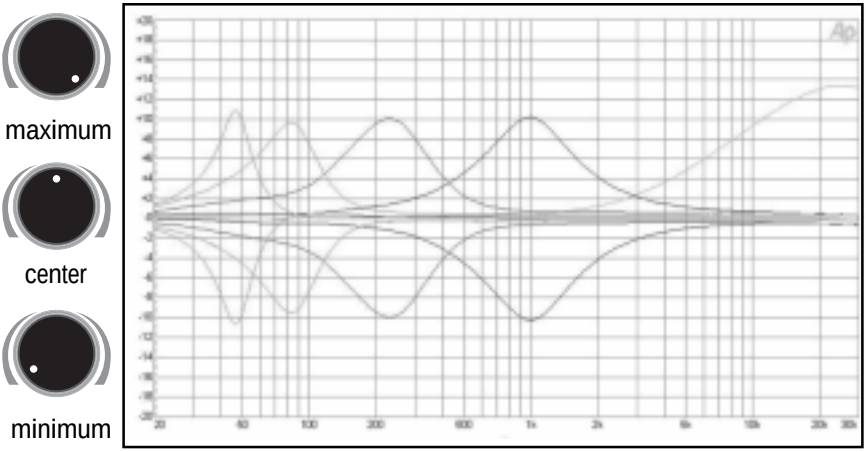
Attenuates the front or rear outputs for the desired “front stage/rear fill” effect. When set to the rear position, the rear output level is maintained and the front output level is attenuated. When set to the front position, the front output level is maintained and the rear output level is attenuated.





Subwoofer Volume
The subwoofer volume controls the output amplitude of the subwoofer outputs relative to the front/rear outputs. This allows the bass level to be properly matched with the front/rear speaker system.

Frequency Controls
The frequency controls are used to increase or reduce emphasis in a specific octave of music. Each control provides up to 10dB of boost or cut to the selected frequency. The following graph shows the effect of each control at the full boost (+10dB) and full cut (–10dB) positions. Note that the Subwoofer center frequency is variable and illustrated at its minimum (40Hz) and maximum (80Hz) positions.



- Graph illustrates each control adjusted to –10dB, 0dB, and +10dB
- Subwoofer Center Frequency is adjusted to its minimum (40Hz) and maximum (80Hz) positions

Setting System Gains

The following procedure will set the radio's volume control to a fixed level, allowing the PA2 to control the level of the audio system.

- Adjust the balance, fader, and tone controls on the source unit and PA2 to their center positions
- Turn input gains on PA2 and amplifiers to minimum
- Adjust source unit to 3/4 volume or maximum undistorted output

A. If adjusting by ear…
- Play a music track with high dynamic content
- Turn PA2 master volume and subwoofer volume to maximum
- Slowly increase gain control on the PA2 until distortion is barely audible
- If needed, gain controls on each amplifier may be adjusted for more gain overlap
- Before stopping the music track, proceed to "Setting the Signal Strength/Clipping LED"

B. If adjusting with the aid of test equipment…
- Connect test equipment (oscilloscope, Radio Shack speaker, etc.) to the output of the amplifier
- Play an "all bits high" (0dB) test tone[1]. NOTE: You may need to play different frequencies for systems utilizing crossovers. (i.e.: Play a 1kH 0dB test tone for high frequency amplifiers and a 40Hz 0dB test tone for low frequency amplifiers.)
- Turn PA2 master volume and subwoofer volume to maximum
- Slowly increase gain control on PA2 and set it for maximum unclipped output
- If needed, gain controls on each amplifier may be adjusted for more gain overlap
- Before stopping the test tone, proceed to "Setting the Signal Strength/Clipping LED"

Setting the Signal Strength/Clipping LED

This LED is used as a visual indicator for displaying signal strength or clipping level. We recommend performing the above procedure ("Setting System Gains") for properly adjusting the signal strength/clipping LED.
- Play the music track or test tone as described above in "Setting System Gains"
- Adjust the "Clipping LED Trim Pot" until the LED begins to flash

[1]Rockford Fosgate recommends using compact disc CD#104 from AUTOSOUND 2000. This "Ultimate Amplifier Level Setting Disc" is useful for setting the maximum level (clipping threshold) and gain overlap of electronic components. AUTOSOUND 2000 can be reached at 2563 Eric Lane, Burlington, NC 27215, USA, TEL: 919-570-0341, FAX: 919-570-1268

TROUBLESHOOTING

Symptom	Diagnosis	Remedy
PA2 does not turn on (Backlighting is off)	Voltage applied to the REM terminal of the PA2 is not between 5 and 15.5 volts.	Check the alternator, battery, fuse and wiring and repair as necessary. If the voltage is above 15.5 volts, have the electrical system inspected by an authorized car service center.
	Voltage to the B+ terminal of the PA2 is not between 5 and 15.5 volts or there is no voltage present.	Check the alternator, battery, fuse and wiring and repair as necessary. If the voltage is above 15.5 volts, have the electrical system inspected by an authorized car service center.
	Internal B+ fuse is blown.	Remove cover from the PA2 and replace with 1/2 Amp fuse.
	PA2 is not properly grounded.	Check wiring and repair as necessary.
PA2 has no sound (Power LED is on)	RCA Input from source unit is not connected or not functioning properly.	Check connections, substitute with known working source and cables, and repair or replace as necessary.
Turn-On Pop	Voltage spike from output of preceding component is entering PA2 through input signal.	Disconnect input signal to amplifiers and turn system on and off. If noise is eliminated, connect a delay module to remote turn-on lead feeding amplifiers.
Distorted or Low Output	Input gains are incorrectly set.	Readjust input gain of PA2 as necessary. Refer to Installation section of this manual for proper level adjustment.
	Source unit output too low or source unit has no output.	Check system with known working source and repair or replace original source as needed.

Symptom	Diagnosis	Remedy
Signal Present LED not illuminating	Source unit has no output.	Check system with known working source and repair or replace original source as needed.
	Front panel A/B input switch not selected to corresponding input.	Check switch position and adjust to corresponding input if necessary. Refer to Installation section for further information
Signal Strength/ Clipping LED not illuminating	Clipping LED trim potentiometer not calibrated to system's gain settings.	Adjust LED potentiometer as described in the Installation section of this manual.
Engine Noise	Noise is radiating into RCA cable.	Check connections and run the RCA cables on a different route away from sources of high current.
	Bad component in the signal chain.	Check connections and bypass additional components (crossovers and preamps) between the source unit and the amplifier. Connect one component at a time using muting plugs (RCA signal shorted to shield) at the input of each added component to determine the culprit. Repair or replace components as necessary.
	Multiple grounds in the audio system.	Check ground connections and connect amplifiers, signal processors, and other components to a central location or try a different grounding point on the chassis.

- **If noise persists, see your Authorized Rockford Fosgate Dealer**

SPECIFICATIONS

Frequency Response (EQ controls set to flat)	20-20kHz ±0.5dB
Signal-to-Noise Ratio	100dB (A-weighted)
Input Impedance	20kΩ
Input Sensitivity	Input "A" Variable from 550mV to 8.5Vrms Input "B" preset for 5.8V (+3dB gain) (A/B 1.7Vrms input for 10dB headroom)
Signal Present Illumination	≥25mVrms input signal
Output Impedance	50Ω
Output Voltage	Front 9.5Vrms max. Rear 9.5Vrms max. Subwoofer 9.5Vrms max.
EQUALIZER	
Number of EQ Bands	4
EQ Center Frequencies	Band 1 40Hz-80Hz (variable) Band 2 250Hz Band 3 1kHz Band 4 1kHz-20kHz (hinge filter)
Boost/Cut Range	Band 1 ±10dB Band 2 ±10dB Band 3 ±10dB Band 4 ±0dB/+12dB
Number of Inputs	2 (A/B)
Number of Outputs	3 (Front/Rear/Subwoofer)
Volume Control Range	26dB
Subwoofer Control Range	26dB
GENERAL	
Power Requirements	+10V to +15.5V DC
Current Consumption	<500mA
B+ Fuse Size (internal)	1/2A
Fuse Type	AGC
Dimensions	1"H x $6\frac{15}{16}$"W x $4\frac{3}{4}$"D (2.54cm x 17.62cm x 12.06cm)
Weight	1.2 lbs. (.544kg)

Specifications are subject to change without notice.

LIMITED WARRANTY INFORMATION

Rockford Corporation offers a limited warranty on Rockford Fosgate products on the following terms:

- **Length of Warranty**
  3 years on electronics
  2 years on source units
  1 year on speakers
  90 days on electronic B-stock (receipt required)
  30 days on speaker B-stock (receipt required)

- **What is Covered**
  This warranty applies only to Rockford Fosgate products sold to consumers by Authorized Rockford Fosgate Dealers in the United States of America or its possessions. Product purchased by consumers from an Authorized Rockford Fosgate Dealer in another country are covered only by that country's Distributor and not by Rockford Corporation.

- **Who is Covered**
  This warranty covers only the original purchaser of Rockford product purchased from an Authorized Rockford Fosgate Dealer in the United States. In order to receive service, the purchaser must provide Rockford with a copy of the receipt stating the customer name, dealer name, product purchased and date of purchase.

- **Products found to be defective** during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Rockford's discretion.

- **What is Not Covered**
  1. Damage caused by accident, abuse, improper operations, water, theft
  2. Any cost or expense related to the removal or reinstallation of product
  3. Service performed by anyone other than Rockford or an Authorized Rockford Fosgate Service Center
  4. Any product which has had the serial number defaced, altered, or removed
  5. Subsequent damage to other components
  6. Any product purchased outside the U.S.
  7. Any product not purchased from an Authorized Rockford Fosgate Dealer

- **Limit on Implied Warranties**
  Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for Rockford Fosgate any other liability in connection with the sale of the product.

- **How to Obtain Service**
  Please call 1-800-669-9899 for Rockford Customer Service. You must obtain an RA# (Return Authorization number) to return any product to Rockford Fosgate. You are responsible for shipment of product to Rockford.

Ship to: **Electronics**
Rockford Corporation
Warranty Repair Department
2055 E. 5th Street
Tempe, AZ 85281
RA#:_____

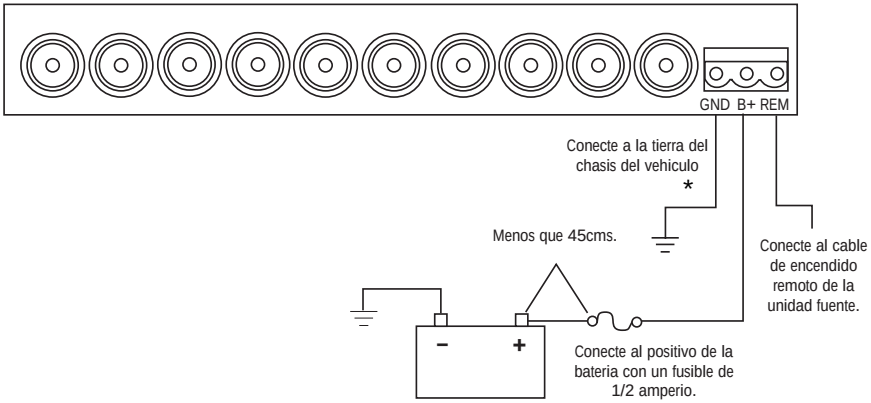
Ship to: **Speakers**
Rockford Acoustic Design
(Receiving-speakers)
609 Myrtle N.W.
Grand Rapids, MI 49504
RA#:_____


INTERNATIONAL
INFORMATION

Lea detenidamente las siguientes instrucciones de instalación del producto.

INSTALACION

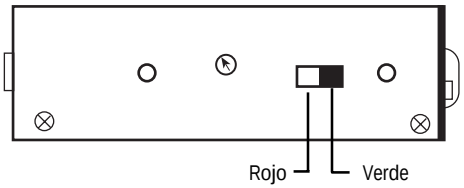
Conexiones de potencia



*Mantenga el cable tan corto como sea posible.

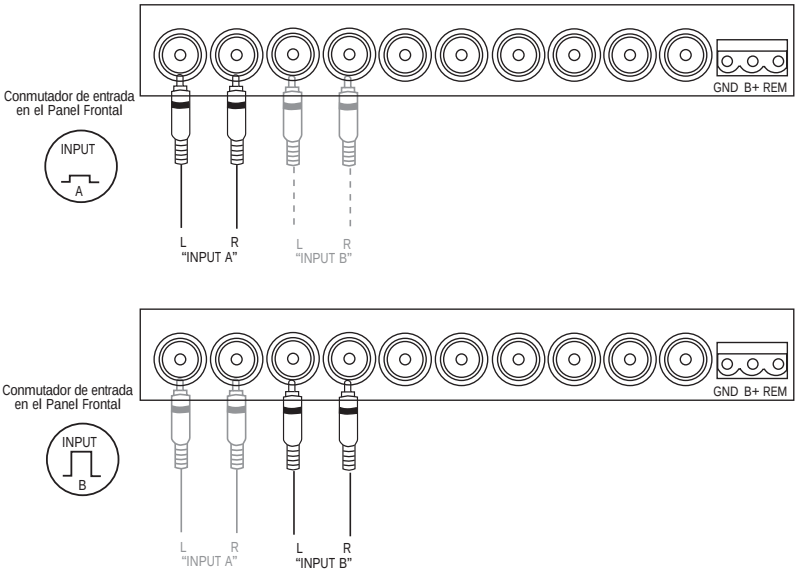
PRECAUCION: Proteja siempre el sistema eléctrico y la bateria usando fusibles adecuados.

Iluminación de Doble Color



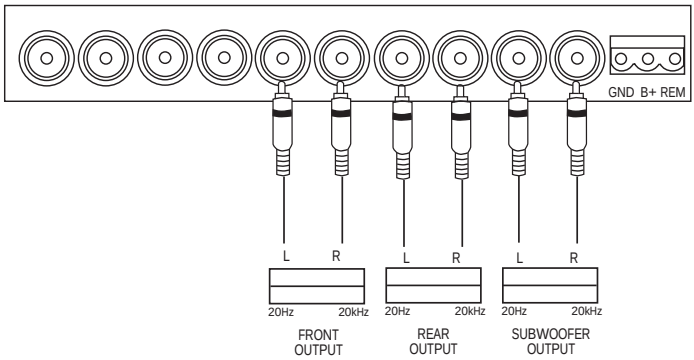
- **Iluminación Verde** – mueva el conmutador a la izquierda
- **Iluminación Rojo** – mueva el conmutador a la derecha

Conexiones de entrada



- **Entrada A** – Deje el botón A/B AFUERA para usar la entrada “A”
- **Entrada B** – Presione el botón A/B para usar la entrada “B”

Conexiones de salida



- **La Salida Frontal** alimenta al amplificador de la sección frontal
- **La Salida Trasera** alimenta al ampilficador de la sección trasera
- **La Salida de Sub-bajos** alimenta al amplificador de sub-bajos
- **Todas las salidas** son Rango Completo (20Hz-20kHz)

Ajustando las Ganancias del Sistema
El procedimiento siguiente colocará al control de volumen del radio en un nivel fijo, permitiendo que el PA2 controle el nivel de audio del sistema. Si dos entradas (A y B) son usadas, calibre cada entrada indpendientemente usando los siguientes procedimientos.

- Ajuste los controles de tono, balance y desvanecedor en la unidad fuente hasta quie estén centrados.
- Lleve las ganancias de entrada del PA2 y los amplificadores al mínimo.
- Ajuste la unidad de origen hasta 3/4 del volumen ó el máximo de salida sin distorsión.

A. Si el ajuste es a oído…
- Toque una pista musical con un contenido altamente dinámico
- Lleve el volumen Master y de Subwoofer del PA2 al máximo
- Lentamente aumente el control de ganancia (gain) del PA2 hasta que la distorsión apenas se escuche
- Si es necesario, los controles de ganancia en cada amplificador pueden ser ajustados para mayor solape de ganancia
- Antes de parar la pista musical, proceda a "Ajustando el LED de Signal Strength/ Clipping"

B. Si el ajuste es con la ayuda de un equipo de prueba…
- Conecte el equipo de prueba (osciloscopio, parlante Radio Shack, etc.) a la salida del amplificador
- Toque un tono de pruebas de 0dB[1]. NOTA: Puede que necesite tocar varias frecuencias para sistemas utilizando divisores de frecuencia. (Ej.: Genere un tono de 1kHz 0dB para amplifacadores de alta frecuencia y un tono de 40Hz 0dB para amplificadores de baja frecuencia)
- Lleve al máximo los controles de volumen y del subwoofer del PA2
- Lentamente aumente el control de ganancia del PA2 y ajústelo para una salida máxima sin distorsión
- Si es necesario, los controles de ganancia en cada amplificador pueden ser ajustados para mayor solape de ganancia
- Antes de parar la pista musical, proceda a "Ajustando el LED de Signal Strength/ Clipping"

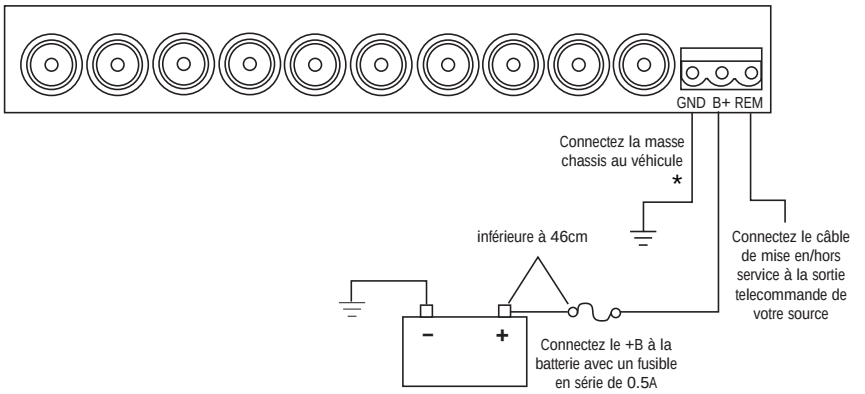
Ajustando el LED de Signal Strength/Clipping
Este LED es usado como inidcador visual para mostrar la fuerza de la señal ó el nivel de distorsión. Recomendamos desempañar el proceso arriba mencionado ("Ajuste de Ganancias del Sistema") para poder ajustar correctamente el LED.
- Toque la pista musical o tono de prueba como se describe en "Ajustando las Ganancias del Sistema"
- Ajuste el potenciómetro del LED de clipping hasta que el mismo empiece a parpadear

[1]Rockford Fosgate recomienda usar el disco compacto CD#104 de AUTOSOUND 2000. Este excelente disco para al ajuste de niveles es muy útil para ajustar el máximo nivel (Umbral de distorsión) y solape de ganancias de componentes electrónicos.

Veuillez lire les instructions suivantes pour l'installation de ce produit. Ne pas les suivre pourrait causer des domages componets ou endommager le véhicule.

INSTALLATION

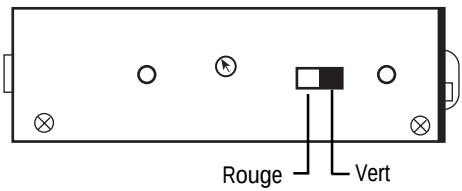
Connection de l'alimentation



*Cette connection doit être la plus courte possible

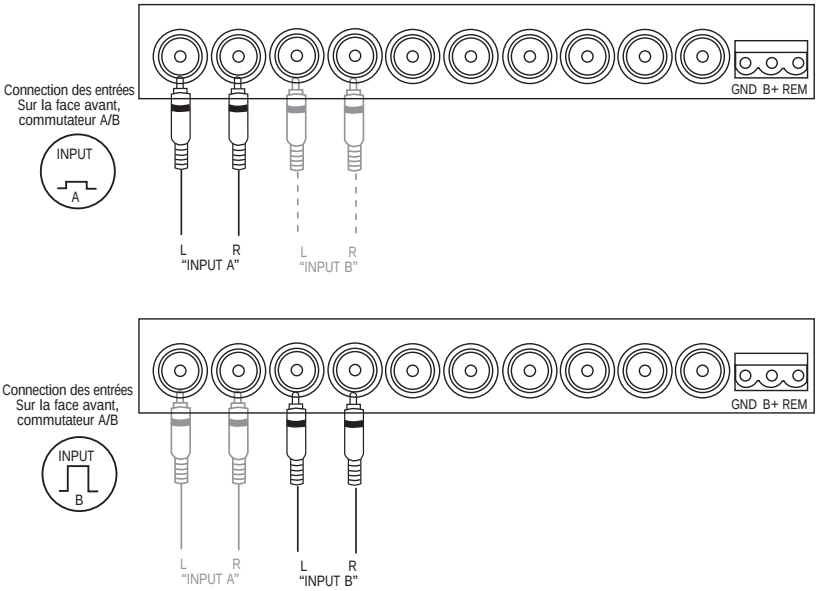
Attention: Chaque élément du système électrique doit être protégé par son propre fusible.

Eclairage bi-colore



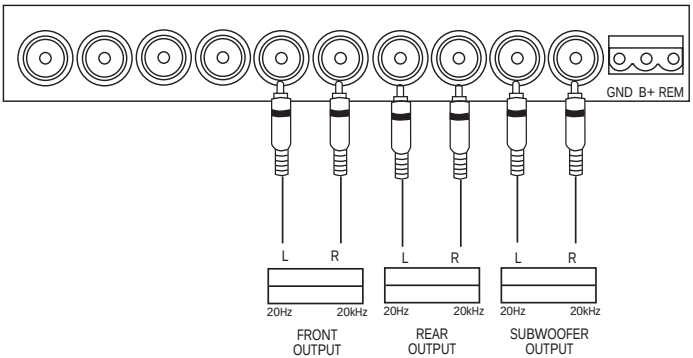
- **Eclairage vert** – déplacez le commutateur sur le côté gauche
- **Eclairage rouge** – déplacez le commutateur sur le côté droit

Connection des entrées



- **Entrées A** – appuiyez le commutateur pour utiliser les entrées A
- **Entrées B** – dépressez sur le commutateur pour utiliser les entrées B

Connections des sorties



- **Les sorties (front) avant** sont à relier à l'amplificateur avant
- **Les sorties (rear) arrière** sont à relier à l'amplificateur arrière
- **La sortie (subwoofer)** est à relier à l'ampificateur de grave
- **Toute les sorties** fonctionnent en mode large-bande (20Hz à 20kHz)

Réglage du gain du système

Cette procédure vous permet d'ajuster le contrôle de volume de l'unité PA2 par rapport au niveau injecté par la source.

- Réglez la balance gauche droite, la balance avant arrière et les réglages de tonalitées de la source et du PA2 à leur position médiane.
- Ajustez la sensibilité d'entrée du PA2 et des amplificateurs au minimum.
- Réglez le niveau de sortie de la source au maximum de niveau sans entendre la moindre trace de distortion. Généralement cette position se situe deux hiers de la plage de réglage.

A. Réglage à l'oreille…

- Ecoutez un passage musical contenant une importante échelle dynamique. Mettre le contrôle de volume du subwoofer au maximum sur le PA2.
- Réduisez doucement le contrôle de gain général sur le PA2 pour ne plus percevoir la moindre trace de distorsion.
- L'ajustement de la sensibilité de tous les amplificateurs doit être faite pour une bonne cohérence.

B. Réglage avec des appareiles de mesures.

- Connectez les appareiles de mesures (oscilloscope, voltmètre etc.) à la sortie de l'amplificateur.
- Lissez une plage quantifiée à 16 Bits (0dB) en régime sinusoïdal Note: vous devez lire différentes plages de fréquences pour les systèmes utilisant un filtre actif (écoutez une plage de 40Hz pour le réglage de l'amplificateur de grave, une plage de 1kHz pour le réglage du médium, et 5.5kHz pour le réglage de l'amplificateur aigu).
- Tournez le réglage de volume général et subwoofer du PA2 au maximum.
- Doucement faite décroître le niveau du PA2 pour obtenir le niveau maximal sans déformation.
- Le réglage de la sensibilité d'entrée de chaque amplificateur, devra être ajusté pour minimiser la déformation.
- Après avoir terminé cette procédure, le réglage de la D.E.L. de signalisation, (Strength ou Clipping) doit être fait.

Réglage de la D.E.L. de signalisation

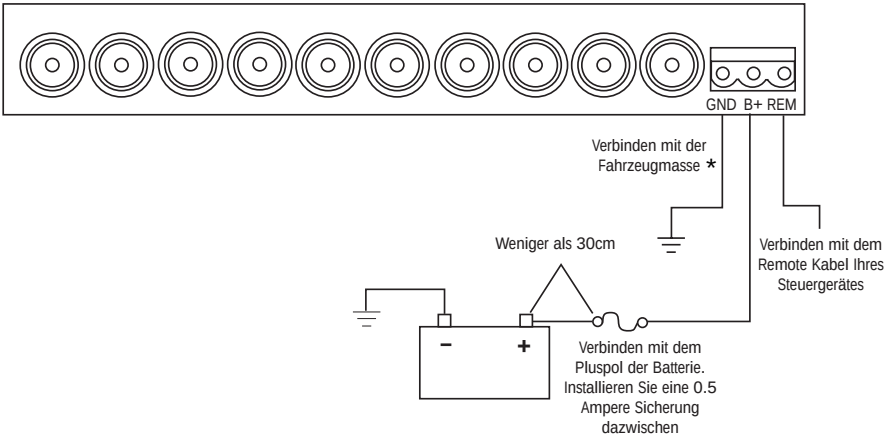
Cette D.E.L. est un système de visualisation du niveau de sortie de votre PA2, elle vous donne deux informations (Strength ou Clipping)compression ou écrétage.
Il est recommandé de contrôler la procédure faite précédemment.(Réglage du gain du système).
Lire un passage musical et régler le potentiomètre ajustable pour que la D.E.L. s'illumine uniquement sur les crêtes des signaux les plus élevés.

[1]Rockford Fosgate recommande l'utilisation du compact disque Autosound 2000 C.D. #104. L' "Ultimate Amplifier level setting disc AUTOSOUND 2000: 2563 Eric Lane, Burlington, NC 27215, USA, TEL: 919-570-0341 FAX 919-570-1268

Bitte lesen Sie die folgende Gebrauchsanleitung sorgfältig durch. Dies kann Sie und das Produkt vor Fehlern oder sogar vor Beschädigung schützen.

EINBAU

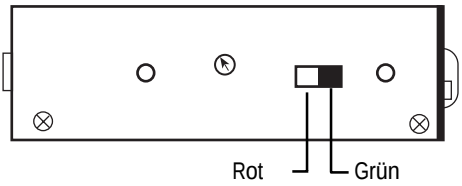
Anschluβplan



*Das Kabel sollte so kurz wie môglich sein

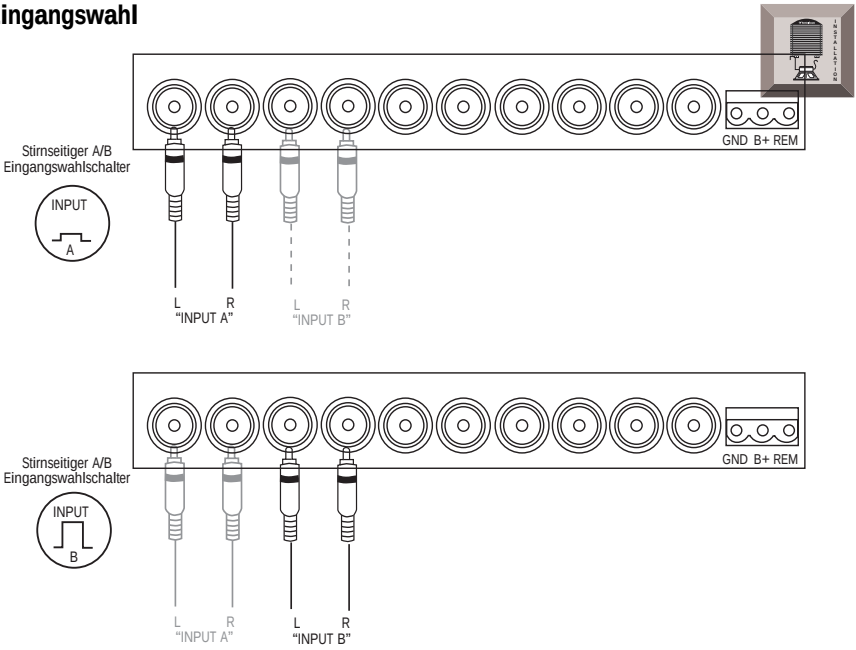
Achtung: Schützen Sie die Batterie und das elektrische System immer mit einer entsprechenden Sicherung

Zweifarbige Beleuchtung



- **Grün Beleuchtung** – schieben Sie den Schalter auf die linke Position
- **Rot Beleuchtung** – schieben Sie den Schalter auf die rechte Position

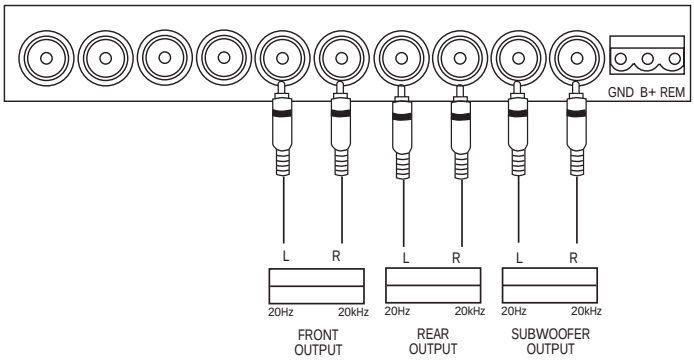
Eingangswahl



- **Eingang A** – Drücken Sie den Schalter (A/B) rein, um Eingang A zu wählen
- **Eingang B** – Drücken Sie den Schalter (A/B) raus, um Eingang A zu wählen

---

Ausgangs Verbindungen



- **Front Ausgang** mit dem Verstärker verbinden, der für das Frontsystem zuständig ist
- **Rear Ausgang** mit dem Verstärker verbinden, der für das Rearsystem zuständig ist
- **Subwoofer Ausgang** mit dem Subwooferverstärker verbinden
- **Alle Ausgänge** sind Vollbereichsausgänge (20Hz-20kHz)

Einstellen der Eingangsempfindlichkeit

Die folgende Prozedur wird die Lautstärke des Steuergerätes fixieren, so daβ die Kontrolle des Audio Systems vom PA2 übernommen wird. Wenn zwei Quellen (A&B) benutzt werden, kalibrieren Sie beide Eingänge unabhängig voneinander.

- Die Balance, Fader und Tonkontrollen sollten sich bei dem Steuergerät und dem PA2 in Mittelstellung befinden. Stellen Sie die Eingangsempfindlichkeit der Verstärker und des PA2 auf ein Minimum. Drehen Sie den Ausgangspegel des Steuergerätes auf max. unverzerrte Lautstärke (meiβtens 3/4 des Vollanschlages).

A. Wenn Sie nach Gehör einstellen…

- Wählen Sie einen Musiktitel mit einem hohen Dynamischen Umfang.
- PA2 master Volume und Subwoofer Volume auf Maximum stellen.
- Drehen Sie die Eingangsempfindlichkeit des PA2 hoch, bis Sie die Verzerrungen gerade hören und drehen dann wieder ein kleines Stück zurück, bis die Verzerrungen verschwinden.
- Wenn nötig, verstellen sie die Eingangsempfindlichkeit der einzelnen Verstärker, um eine höhere Lautstärke zu erzielen.
- Stoppen Sie den Musiktitel und fahren Sie fort mit “Einstellen der Signalstärke/ Clipping LED.”

B. Wenn Sie mit entsprechender Testausrüstung einstellen…

- Verbinden Sie die Ausrüstung (Oscilloscope, Radio Shack, etc.) mit dem Ausgang des Verstärkers.
- Benutzen Sie einen max. ausgesteuerten (0dB) Testton. Beachten Sie: Möglicherweise müssen Sie verschiedene Frequenzen wählen, wenn Sie aktive Frequenzweichen benutzen. (Wählen Sie einen 1kHz 0dB Testton für die hochfrequenten Verstärker und einen 40Hz 0dB Testton für die tieffrequenten Verstärker)
- PA2 master Volume und Subwoofer Volume auf Maximum stellen.
- Drehen Sie die Eingangsempfindlichkeit des PA2 so ein, daβ Sie maximale unverzerrte Signale erhalten.
- Wenn nötig, verstellen Sie die Eingangsempfindlichkeit der einzelnen Verstärker, um eine höhere Lautstärke zu erzielen.
- Stoppen Sie den Musiktitel und fahren Sie fort mit “Einstellen der Signalstärke/ Clipping LED.”

Einstellen der Signalstärkek/Clipping LED

Die LED wird als visueller Indikator benutzt, um die Signalstärke oder ein Clipping anzuzeigne. Wir empfeheln das System zuvor wie o.a. einzustellen, bevor die LED angepaβt wird.

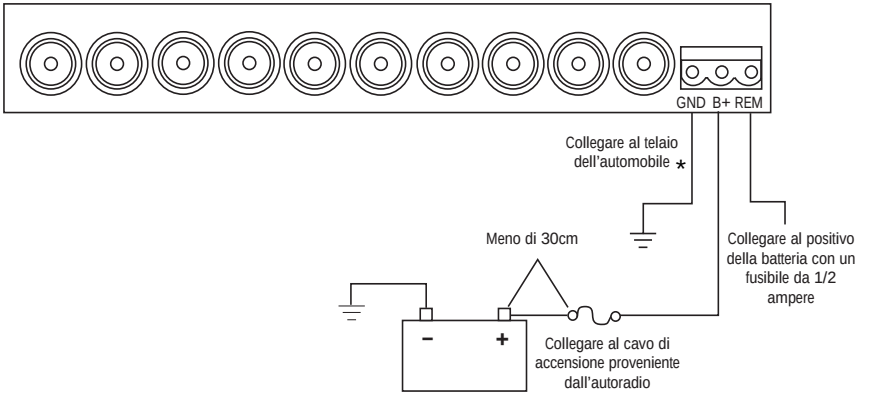
- Wählen Sie einen Musiktitel, wie o.a.
- Drehen Sie das “Clipping LED Potentiometer” bis die LED anfängt zu flackern.

[1]Rockford Fosgate empfiehit die CD#104 von Autosound 2000. Diese CD ist mit allen erforderlichen Testtönen ausgestattet und kann über jeden autorisierten Rockford Fosgate Händler bezogen werden.

Leggere attentamente le istruzioni riportate in questo manuale. Non osservare le correte procedure di impiego puó provacare danni al veicolo o a voi stessi.

INSTALLAZIONE

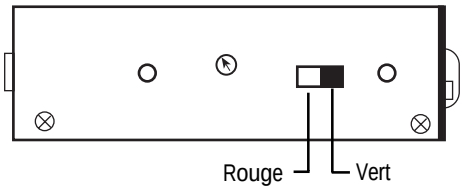
Connettori di alimentazione



*Mantenere il cavo il piu corto possibilie

Attenzione: proteggere sempre la batteria e l'impianto elettrico impiegando i fusibili adeguati

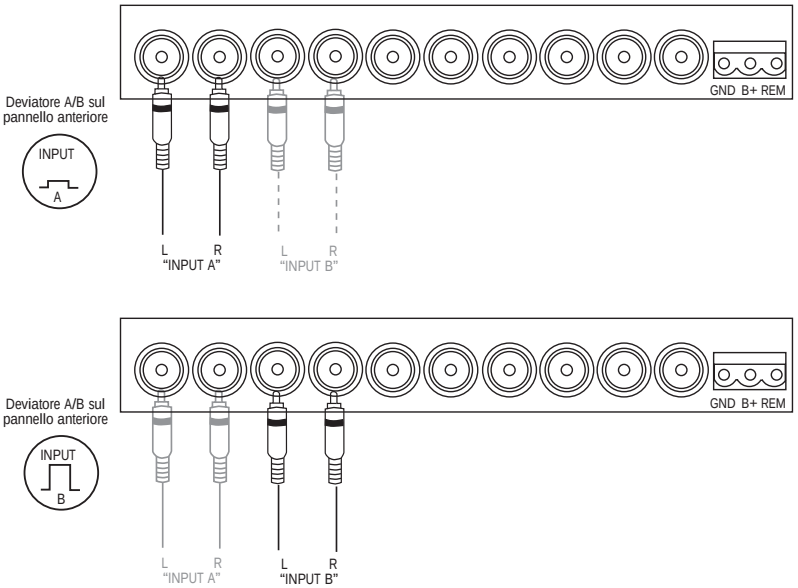
Illuminazione bi-colore



- **Illuminazione verde** – spostare interruttore verso sinistra
- **Illuminazione rosso** – spostare l'interruttore verso destrat

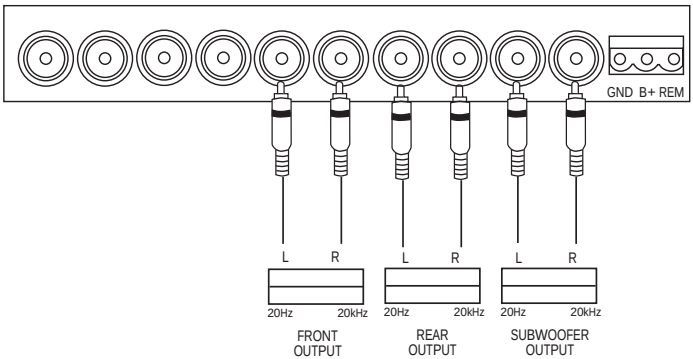
ITALIANO

Connessiono di ingresso



- **Ingresso A** – Portare il deviatore verso l'interno per usare l'ingresso A
- **Ingresso B** – Portare il deviatore verso l'esterno per usare l'ingresso B

Connessioni di uscita



- **Uscita anteriore alimento** gli amplificatori per il fronte anteriore
- **Uscita posteriore alimenta** gli amplificatori per il fronte posteriore
- **L'uscita subwoofer alimenta** gli amplificatori per il subwoofer
- **Tutte le uscite** sono a gamma intera (20Hz à 20kHz)

Regolazione delle sensibilita

La procedura seguente fissera un volume dell'autoradio, permettendo al PA2 di controllare il livello del sistema.

- Portare il bilanciamento, fader e controlli di tono alla loro posizione centrale
- Sensibilita di intresso del PA2 e degli amplificatori al minimo
- La sorgente a 3/4 del volume o al massimo livello indistorto

A. Se si regola ad orecchio…

- Suonare una traccia musicale con elevato contenuto dinamico
- Portare il volume principale e del subwoofer al massimo
- Aumentare la sensibilita del PA2 fino ad udire un minimo di distorsione
- Se necessario, le sensibilita degli ampkificatori possono essere aumentate
- Interrompere la traccia musicale e continuate dalla sezione “Regolare l'intensita del led di segnalemassimo/clipping”

B. Se si regola con l'ausilio di apparecchiature di prova…

- Collegare le uscite dell'amplificatore agli strumenti test (oscilloscopio o altoparlante prova)
- Impiegare una traccia test (1) incisa a 0dB. Nota: potrebbero essere necessaria tracce a diverse frequenze per sistemi impieganti un crossover elettronico (es. impiegare una traccia a 1000Hz per le medio alte e 40Hz per il subwoofer)
- Portare il controllo di volume principale e del subwoofer al massimo
- Aumentare la sensibilita di ingresso del PA2 fino a raggiungere la massima uscita indistorta
- Se necessario, le sensibilita degli amplificatori possono essere aumentate
- Interrompere la traccia musicale e continuate dalla sezione “Regolare l'intensita del led di segnalemassimo/clipping”

Regolare l'intensita del led di segnalemassimo/clipping

Questo led e impiegato per visualizzare la massima intensita del segnale od il suo clipping.

- Consigliamo di impiegar la procedura sopra descritta per un corretto funzionamento del LED
- Regolare il potenziometro “Clipping LED Trim Pot) fino a quando il LED lampeggia

[1]Rockford Fosgate consiglia di impiegare il compact disc CD 104 di AUTOSOUND 2000. Questo CD e il massimo per la taratura dei livelli di segnale di un sistema audio. AUTOSOUND 2000: 2563 Eric Lane, Burlington, NC 27215, USA, TEL: 919-570-0341 FAX 919-570-1268

MADE IN THE USA

This product is designed, developed and assembled in the USA by a dedicated group of American workers. The majority of the components used in the construction of this product are produced by American companies. However, due to the global nature of their manufacturing facilities and the loudspeaker parts industry in general, some parts may be manufactured in other countries.

Rockford Fosgate
Rockford Corporation
546 South Rockford Drive
Tempe, Arizona 85281 U.S.A.
In U.S.A., (602) 967-3565
In Europe, Fax (49) 8503-934014
In Japan, Fax (81) 559-79-1265

4/98
MAN-1909-B