

Installation assistance available at:

# RFTECH

[www.rockfordfosgate.com/rftech](http://www.rockfordfosgate.com/rftech)

# P R I M E <sup>TM</sup>



**R150X2 • R250X1**

**R250X4 • R300X4 • R400-4D**

**R500X1D • R600-4D • R600X5**

**R750-1D • R1200-1D**



Dear Customer,

Congratulations on your purchase of the world's finest brand of car audio products. At Rockford Fosgate we are fanatics about 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.

Great product and competent installations are only a piece of the puzzle when it comes to your system. Make sure that your installer is using 100% authentic installation accessories from Rockford Fosgate in your installation. Rockford Fosgate has everything from RCA cables and speaker wire to power wire and battery connectors. Insist on it! After all, your new system deserves nothing but the best.

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

Visit our web site for the latest information on all Rockford products; [www.rockfordfosgate.com](http://www.rockfordfosgate.com) or, in the U.S. call 1-800-669-9899 or FAX 1-800-398-3985. For all other countries, call +001-480-967-3565 or FAX +001-480-966-3983.

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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.

**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.

**PRATIQUEZ UNE ÉCOUTE SANS RISQUES**

Une exposition continue à des niveaux de pression acoustique supérieurs à 100 dB peut causer une perte d'acuité auditive permanente. Les systèmes audio de forte puissance pour auto peuvent produire des niveaux de pression acoustique bien au-delà de 130 dB. Faites preuve de bon sens et pratiquez une écoute sans risques

**PRACTIQUE EL SONIDO SEGURO**

El contacto continuo con niveles de presión de sonido superiores a 100 dB puede causar la pérdida permanente de la audición. Los sistemas de sonido de alta potencia para automóviles pueden producir niveles de presión de sonido superiores a los 130 dB. Aplique el sentido común y practique el sonido seguro.

**PRAKTIZIEREN SIE SICHEREN SOUND**

Fortgesetzte Geräuschdruckpegel von über 100 dB können beim Menschen zu permanentem Hörverlust führen. Leistungsstarke Autosoundsysteme können Geräuschdruckpegel erzeugen, die weit über 130 dB liegen. Bitte wenden Sie gesunden Menschenverstand an und praktizieren Sie sicheren Sound.

**OSSERVATE LE REGOLE DEL SUONO SENZA PERICOLI**

La costante esposizione a livelli di pressione acustica al di sopra dei 100dB possono causare la perdita permanente dell'udito. I sistemi audio ad alta potenza possono produrre livelli di pressione acustica ben superiori ai 130dB. Si consiglia il buon senso e l'osservanza delle regole del suono senza pericoli

Safety



**WARNING**

This symbol with "WARNING" is intended to alert the user to the presence of important instructions. Failure to heed the instructions will result in severe injury or death.



**CAUTION**

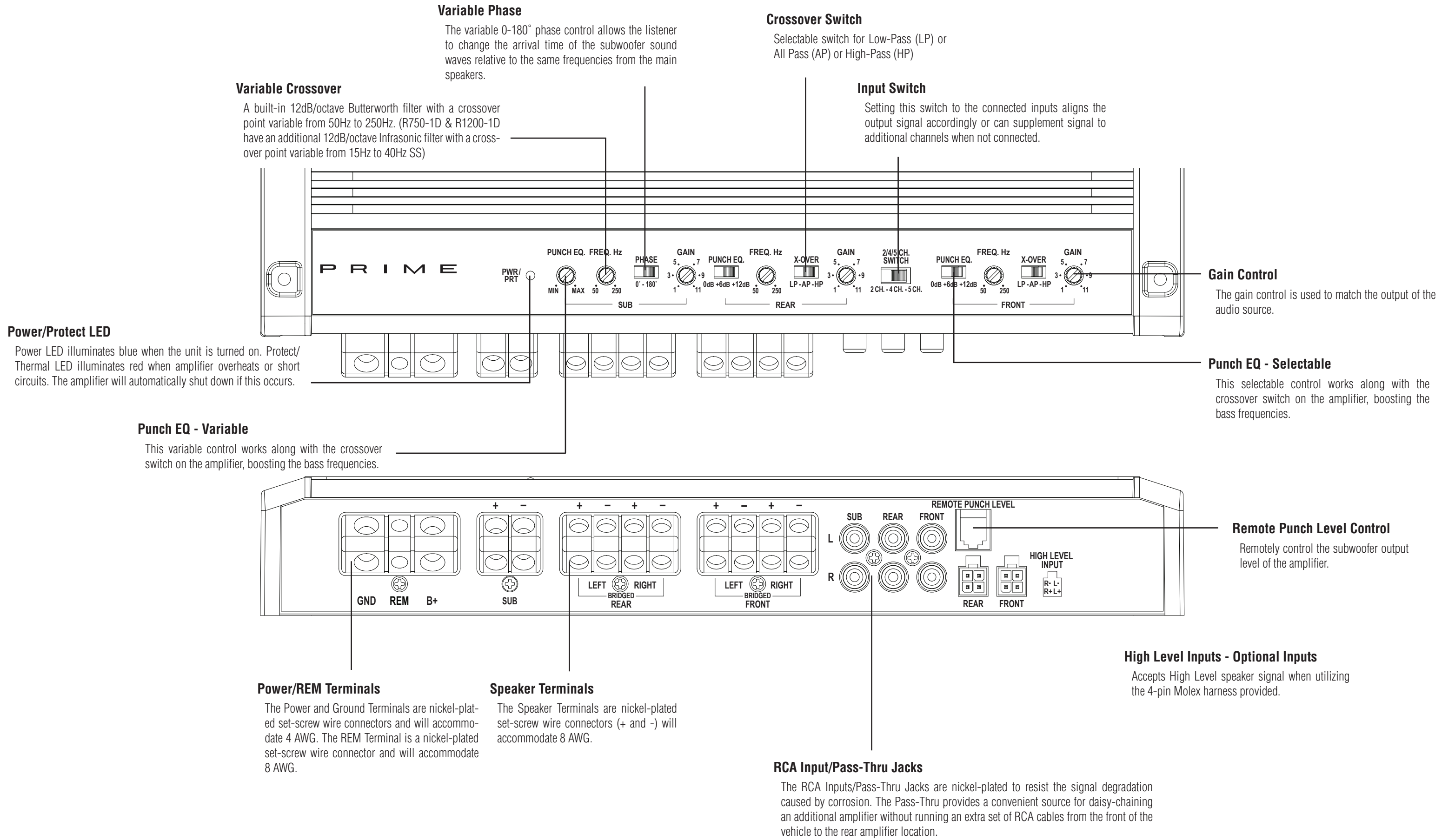
This symbol with "CAUTION" is intended to alert the user to the presence of important instructions. Failure to heed the instructions can result in injury or unit damage.

- To prevent injury and damage to the unit, please read and follow the instructions in this manual. We want you to enjoy this system, not get a headache.
- If you feel unsure about installing this system yourself, have it installed by a qualified Rockford Fosgate technician.
- Before installation, disconnect the battery negative (-) terminal to prevent damage to the unit, fire and/or possible injury.



Model	R150X2	R250X4	R300X4	R400-4D	R600-4D	R600X5	R250X1	R500X1D	R750-1D	R1200-1D
Rated Power - Continuous Power Rating (RMS) Measured @ 14.4V	50x2 @ 4 ohms 75x2 @ 2 ohms 150x1 @ 4 ohms*	40x4 @ 4 ohms 60x4 @ 2 ohms 125x2 @ 4 ohms*	50x4 @ 4 ohms 75x4 @ 2 ohms 150x2 @ 4 ohms*	75x4 @ 4 ohms 100x4 @ 2 ohms 200x2 @ 4 ohms*	100x4 @ 4 ohms 150x4 @ 2 ohms 300x2 @ 4 ohms*	50x4 @ 4 ohms 75x4 @ 2 ohms 150x2 @ 4 ohms* Sub: 200x1 @ 4 ohms Sub: 300x1 @ 2 ohms	150x1 @ 4 ohms 250x1 @ 2 ohms	300x1 @ 4 ohms 500x1 @ 2 ohms	250x1 @ 4 ohms 500x1 @ 2 ohms 750x1 @ 1 ohm	400x1 @ 4 ohms 800x1 @ 2 ohms 1200x1 @ 1 ohm
Crossover Slope	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct	12 dB/Oct
Crossover Frequency	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz	Variable 50Hz-250Hz SS: 15Hz-40Hz	Variable 50Hz-250Hz SS: 15Hz-40Hz
Punch EQ	Variable 0 -12dB @ 45Hz	Selectable 0/6dB/12dB @ 45Hz	Selectable 0/-18dB @ 45Hz	Variable 0 -18dB @ 45Hz	Selectable 0/6dB/12dB @ 45Hz Sub: Variable 0 -12dB @ 45Hz	Selectable 0/6dB/12dB @ 45Hz Sub: Variable 0 -12dB @ 45Hz	Variable 0 -12dB @ 45Hz	Variable 0 -12dB @ 45Hz	Variable 0 -18dB @ 45Hz	Variable 0 -18dB @ 45Hz
Operating Voltage	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC	9-16VDC
Frequency Response	20Hz-20kHz	20Hz-20kHz	20Hz-20kHz	20Hz-20kHz	20Hz-20kHz	20Hz-20kHz	20Hz-250Hz	20Hz-250Hz	20Hz-250Hz	20Hz-250Hz
Battery Fuse Rating (not supplied)	20A	50A	50A	50A	100A	80A	30A	50A	100A	150A
THD+N @ Rated Power	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	FR: <1.0% @ 4 ohms <1.0% @ 2 ohms Sub: <1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms	<1.0% @ 4 ohms <1.0% @ 2 ohms <1.0% @ 1 ohm	<1.0% @ 4 ohms <1.0% @ 2 ohms <1.0% @ 1 ohm
Input Sensitivity	150mV-4V Low Level 450mV-12V High Level	150mV-4V Low Level 450mV-12V High Level	150mV-4V Low Level 450mV-12V High Level	150mV-4V	150mV-4V Low Level 450mV-12V High Level	150mV-4V Low Level 450mV-12V High Level	150mV-4V Low Level 450mV-12V High Level	150mV-4V Low Level 450mV-12V High Level	150mV-4V	150mV-4V
Input Impedance	20k	20k	20k	20k	20k	20k	20k	20k	20k	20k
S/N Ratio CEA 2006	>80dB	>80dB	>80dB	>70dB	>80dB Sub: >80dB	FR: >80dB Sub: >80dB	>80dB	>80dB	>75dB	>75dB
S/N Ratio @ Rated Power	>100dB	>100dB	>100dB	>90dB	>80dB	FR: >100dB Sub: >100dB	>100dB	>100dB	>100dB	>100dB
Channel Separation	>50dB	>50dB	>50dB	>50dB	>50dB	>50dB	N/A	N/A	N/A	N/A
Common Mode Rejection Ratio	>40dB	>40dB	>40dB	>55dB	>55dB	>55dB	>40dB	>55dB	>55dB	>55dB
Damping Factor	>200dB	>200dB	>200dB	>200dB	>200dB	FR: >200dB Sub: >200dB	>200dB	>200dB	>200dB	>200dB
Dimensions (LxWxH)	11.2" x 6.8" x 2" (28.5cm x 17.2cm x 5.1 cm)	11.2" x 6.8" x 2" (28.5cm x 17.2cm x 5.1 cm)	13.2" x 6.8" x 2" (33.5cm x 17.2cm x 5.1 cm)	11.1" x 6.8" x 2" (28.2cm x 17.2cm x 5.1 cm)	11.1" x 6.8" x 2" (28.2cm x 17.2cm x 5.1 cm)	13.2" x 6.8" x 2" (33.5cm x 17.2cm x 5.1 cm)	11.2" x 6.8" x 2" (28.5cm x 17.2cm x 5.1 cm)	8.5" x 6.8" x 2" (21.6cm x 17.2cm x 5.1 cm)	9.1" x 6.8" x 2" (23.1cm x 17.2cm x 5.1 cm)	11.1" x 6.8" x 2" (28.2cm x 17.2cm x 5.1 cm)

\* Rated power when amplifier is wired in a bridged configuration.



**Contents**

- Prime Amplifier
- Mounting Hardware
- Allen Wrench
- Punch Level Control
- 4-pin Molex Connector (if equipped)
- Installation & Operation Manual

**Installation Considerations**

The following is a list of tools needed for installation:

- Fuse-holder and fuse. (See specifications for fuse rating)
- Volt/Ohm Meter
- Wire strippers
- Wire crimpers
- Wire cutters
- #2 Phillips screwdriver
- Hand held drill w/assorted bits
- Assorted connectors
- Adequate Length—Red PowerWire
- Adequate Length—Remote Turn-onWire
- Adequate Length—Black GroundingWire
- Battery post wrench

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

If you feel unsure about installing this system yourself, have it installed by a qualified technician.

**CAUTION** Before installation, disconnect the battery negative (-) terminal to prevent damage to the unit, fire and/or possible injury.

**CAUTION** Before beginning any installation, follow these simple rules:

1. Be sure to carefully read and understand the instructions before attempting to install the unit.
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 unit 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 fuse holder 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. Seatbelt bolts should never be used for connecting to ground.

**Mounting Locations**

To ensure optimal performance, mount the amplifier with at least 1" (2.54cm) of air gap around the amplifier's heat sink to provide proper cooling.

**Trunk Mounting**

Mounting the amplifier vertically or inverted will provide adequate cooling of the amplifier. Mounting the amplifier on the floor of the trunk will provide the best cooling of the amplifier.

**Passenger Compartment Mounting**

Mounting the amplifier in the passenger compartment will work as long as you provide a sufficient amount of air for the amplifier to cool itself. If you are going to mount the amplifier under the seat of the vehicle, you must have at least 1" (2.54cm) of air gap around the amplifier's heatsink.

**CAUTION** Never mount this unit in the engine compartment. Mounting the unit in the engine compartment will void your warranty.

**Battery and Charging**

Amplifiers will put an increased load on the vehicle's battery and charging system. We recommend checking your alternator and battery condition to ensure that the electrical system has enough capacity to handle the increased load of your stereo system. Stock electrical systems which are in good condition should be able to handle the extra load of any Prime Series amplifier without problems, although battery and alternator life can be reduced slightly. To maximize the performance of your amplifier, we suggest the use of a heavy duty battery and an energy storage capacitor.

**Wiring the System**

**CAUTION** If you do not feel comfortable with wiring your new unit, please see your local Authorized Rockford Fosgate Dealer for installation.

**CAUTION** Before installation, disconnect the battery negative (-) terminal to prevent damage to the unit, fire and/or possible injury.

**CAUTION** Avoid running power wires near the low level input cables, antenna, power leads, sensitive equipment or harnesses. The power wires carry substantial current and could induce noise into the audio system.

1. Plan the wire routing. Keep RCA cables close together but isolated from the amplifier's power cables and any high power auto accessories, especially electric motors. This is done to prevent coupling the noise from radiated electrical fields into the audio signal. When feeding the wires through the firewall or any metal barrier, protect them with plastic or rubber grommets to prevent short circuits. Leave the wires long at this point to adjust for a precise fit at a later time.

2. Prepare the RED wire (power cable) for attachment to the amplifier by stripping 1/2" of insulation from the end of the wire. Insert the bared wire into the B+ terminal and tighten the set screw to secure the cable in place.

NOTE: The B+ cable MUST be fused 18" or less from the vehicle's battery. Install the fuseholder under the hood and ensure connections are water tight.

3. Trim the RED wire (power cable) within 18" of the battery and splice in a inline fuse holder (not supplied). See Specifications for the rating of the fuse to be used. DO NOT install the fuse at this time.

4. Strip 1/2" from the battery end of the power cable and crimp an appropriate size ring terminal to the cable. Use the ring terminal to connect to the battery positive terminal.

5. Prepare the BLACK wire (Ground cable) for attachment to the amplifier by stripping 1/2" of insulation from the end of the wire. Insert the bare wire into the GROUND terminal and tighten the set screw to secure the cable in place. 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 a star washer.

NOTE: Keep the length of the BLACK wire (Ground) as short as possible. Always less than 30".

6. Prepare the Remote turn-on wire for attachment to the amplifier by stripping 1/2" of insulation from the end of the wire. Insert the bared wire into the REMOTE terminal and tighten the set screw to secure the wire in place. Connect the other end of the Remote wire to a switched 12 volt positive source. The switched voltage is usually taken from the source unit's remote amp on lead. If the source unit does not have this output available, the recommended solution is to wire a mechanical switch in line with a 12 volt source to activate the amplifier.

7. Securely mount the amplifier to the vehicle or amp rack. Be careful not to mount the amplifier on cardboard or plastic panels. Doing so may enable the screws to pull out from the panel due to road vibration or sudden vehicle stops.

8. Connect from source signal by plugging the RCA cables into the input jacks at the amplifier.

NOTE: All "ACTIVE" inputs must have RCA jacks connected. Switch in 2CH. position, "ACTIVE" - Front channel inputs only. Switch in 4CH. position, "ACTIVE" - All Front and Rear channel inputs. Switch in 5CH position, "ACTIVE" - Sub inputs for sub output. When connecting to the 5-Channel inputs, be sure to route front, rear and sub RCA cables tightly together.

**CAUTION** Always ensure power is off or disconnected at the amplifier before connecting RCA cables. Failure to do so may cause damage to the amplifier and/or connected components.

Note: When the installation requires a High Level (Speaker) input, use the 4-pin Molex connector to tie into your vehicles speaker wiring.

9. Connect the speakers. Strip the speaker wires 1/2" and insert into the speaker terminal and tighten the set screw to secure into place. Be sure to maintain proper speaker polarity. DO NOT chassis ground any of the speaker leads as unstable operation may result.

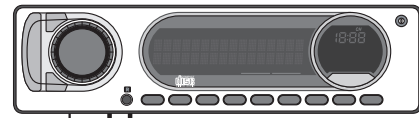
10. Perform a final check of the completed system wiring to ensure that all connections are accurate. Check all power and ground connections for frayed wires and loose connections which could cause problems. Install inline fuse near battery connection.

NOTE: Follow the diagrams for proper signal polarity.

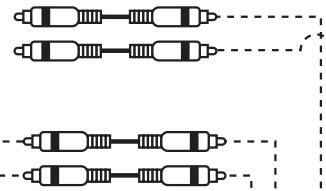
**CAUTION** This amplifier is not recommended for impedance loads below 2-Ohm stereo/4-Ohm bridged for the front/rear channels and 2-ohm for the sub channel. Models R750-1D and R1200-1D are not recommended for impedance loads below 1-Ohm.

2-Channel (Stereo)  
R150X2

Source Unit



PASS-THRU  
Connect to inputs  
of 2nd amplifier  
\*Installation option for  
multi-amp install

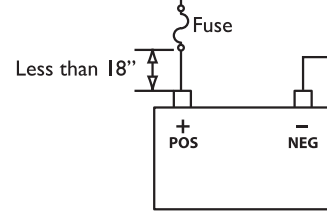


Switched 12V  
to REM

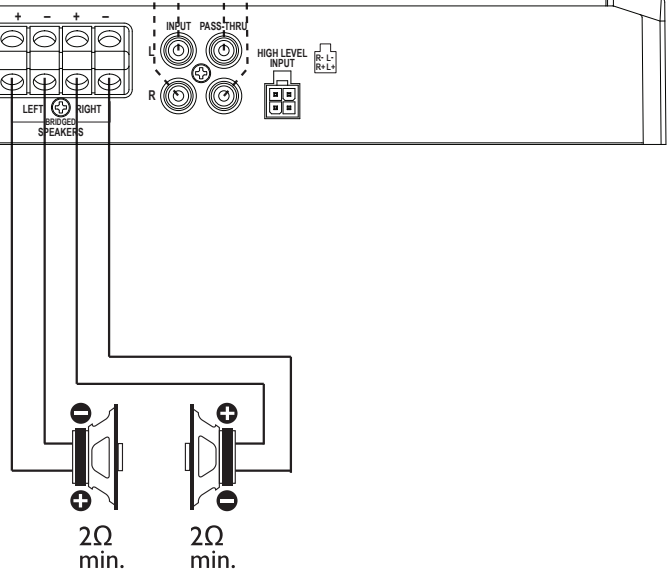
Amplifier

Connect to chassis  
ground of vehicle

\*Keep grounds as short  
as possible

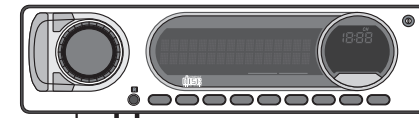


\*Keep grounds as  
short as possible

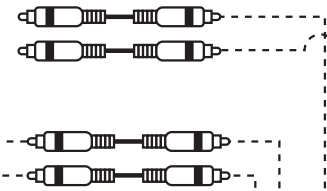


2-Channel (Mono)  
R150X2

Source Unit



PASS-THRU  
Connect to inputs  
of 2nd amplifier  
\*Installation option for  
multi-amp install

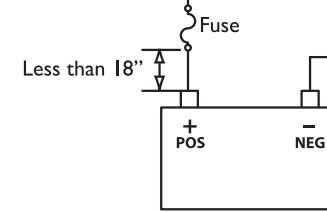


Switched 12V  
to REM

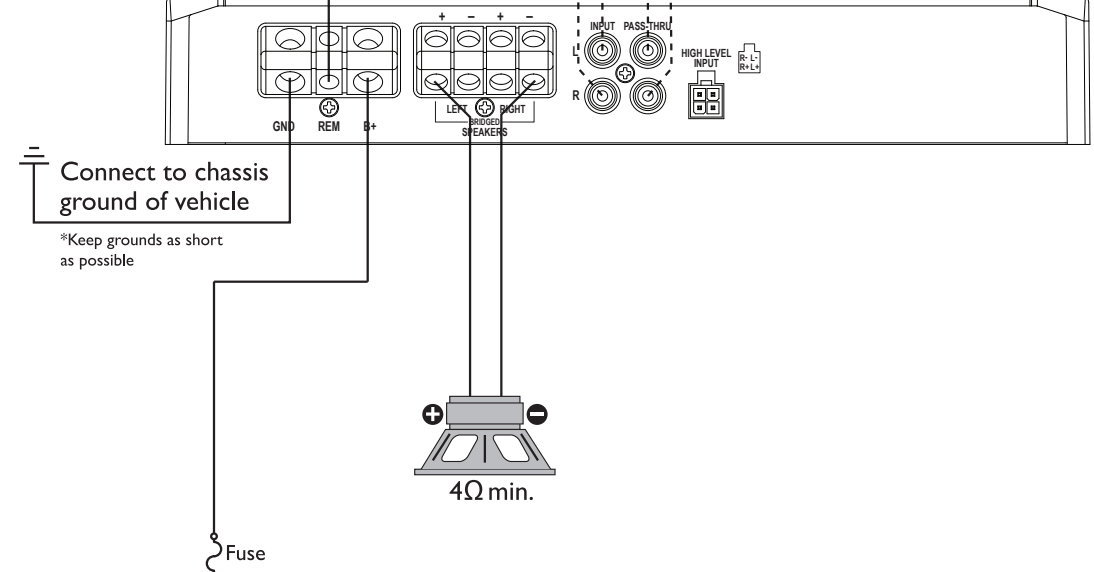
Amplifier

Connect to chassis  
ground of vehicle

\*Keep grounds as short  
as possible

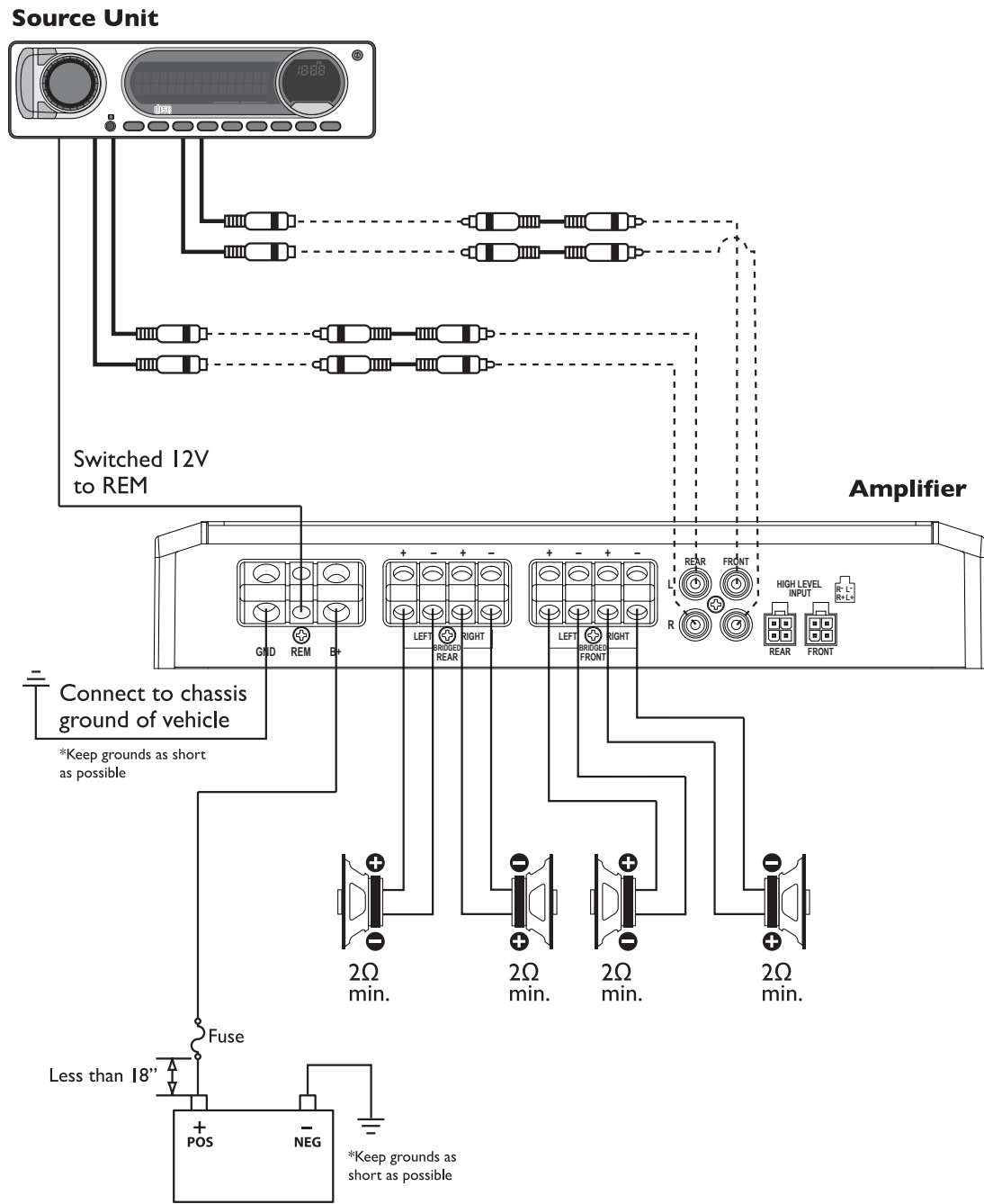


\*Keep grounds as  
short as possible



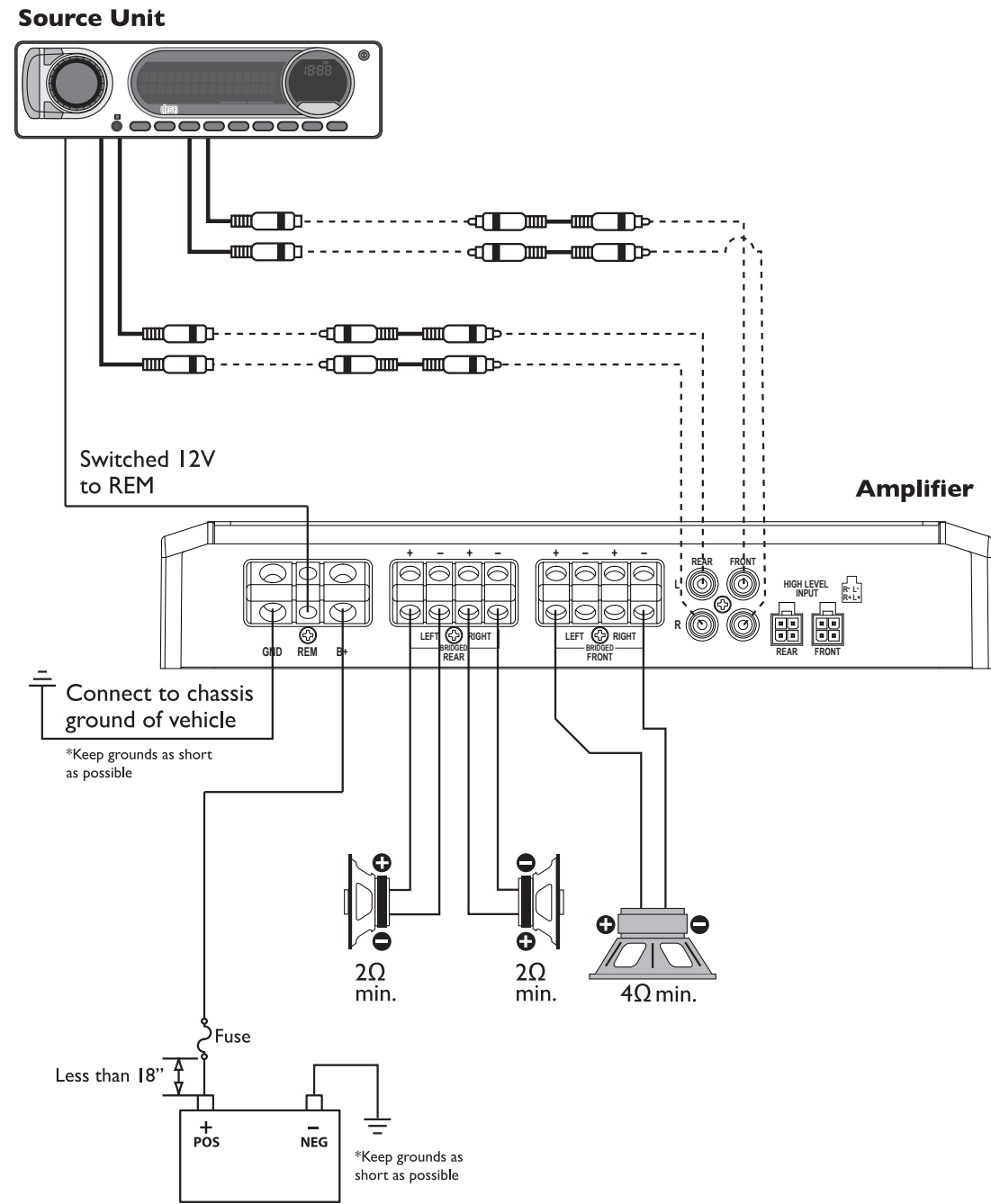
**4-Channel (Stereo)**

R250X4, R300X4, R400-4D & R600-4D



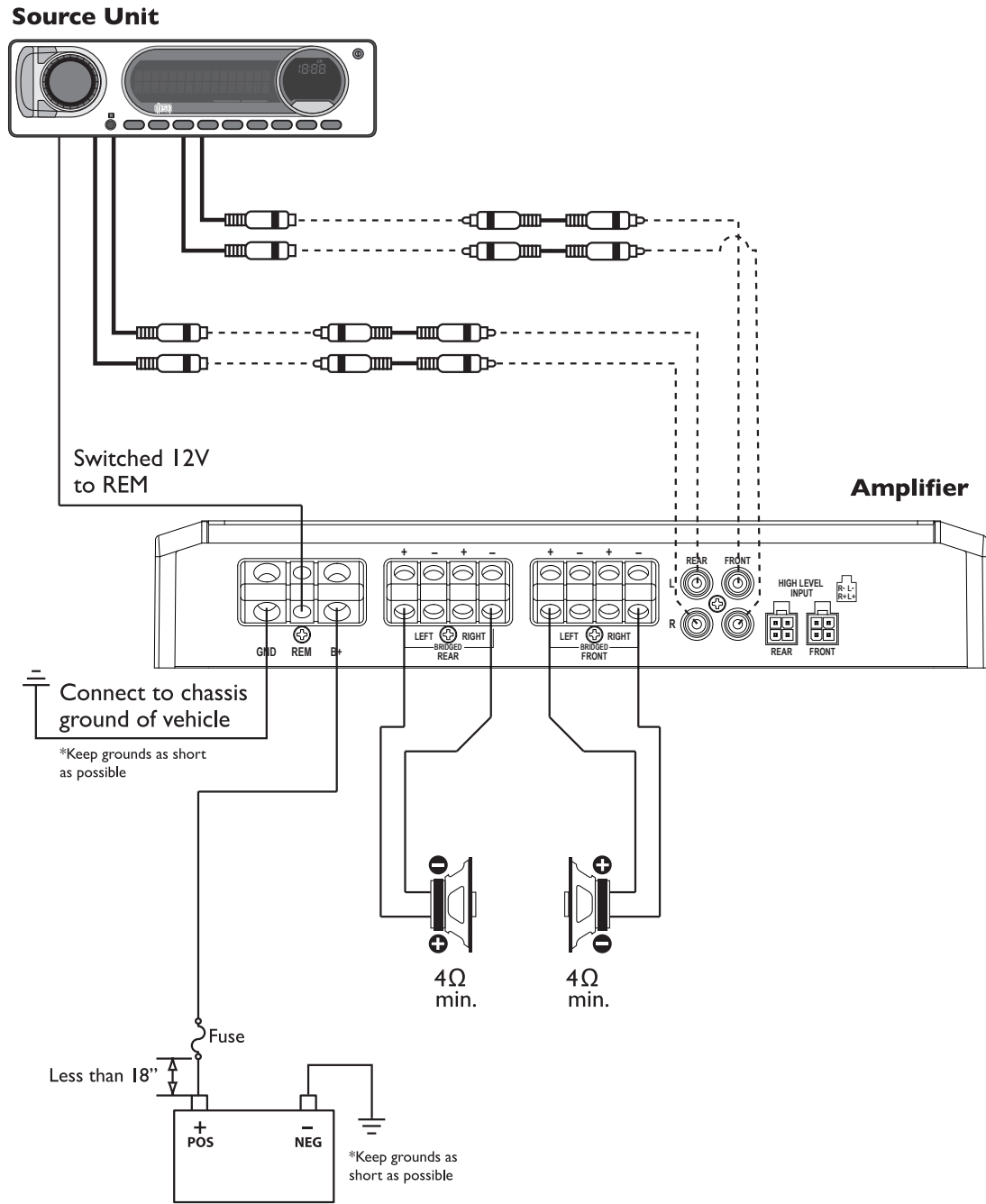
**4-Channel (2ch Stereo & 1ch Mono-Bridged)**

R250X4, R300X4, R400-4D & R600-4D



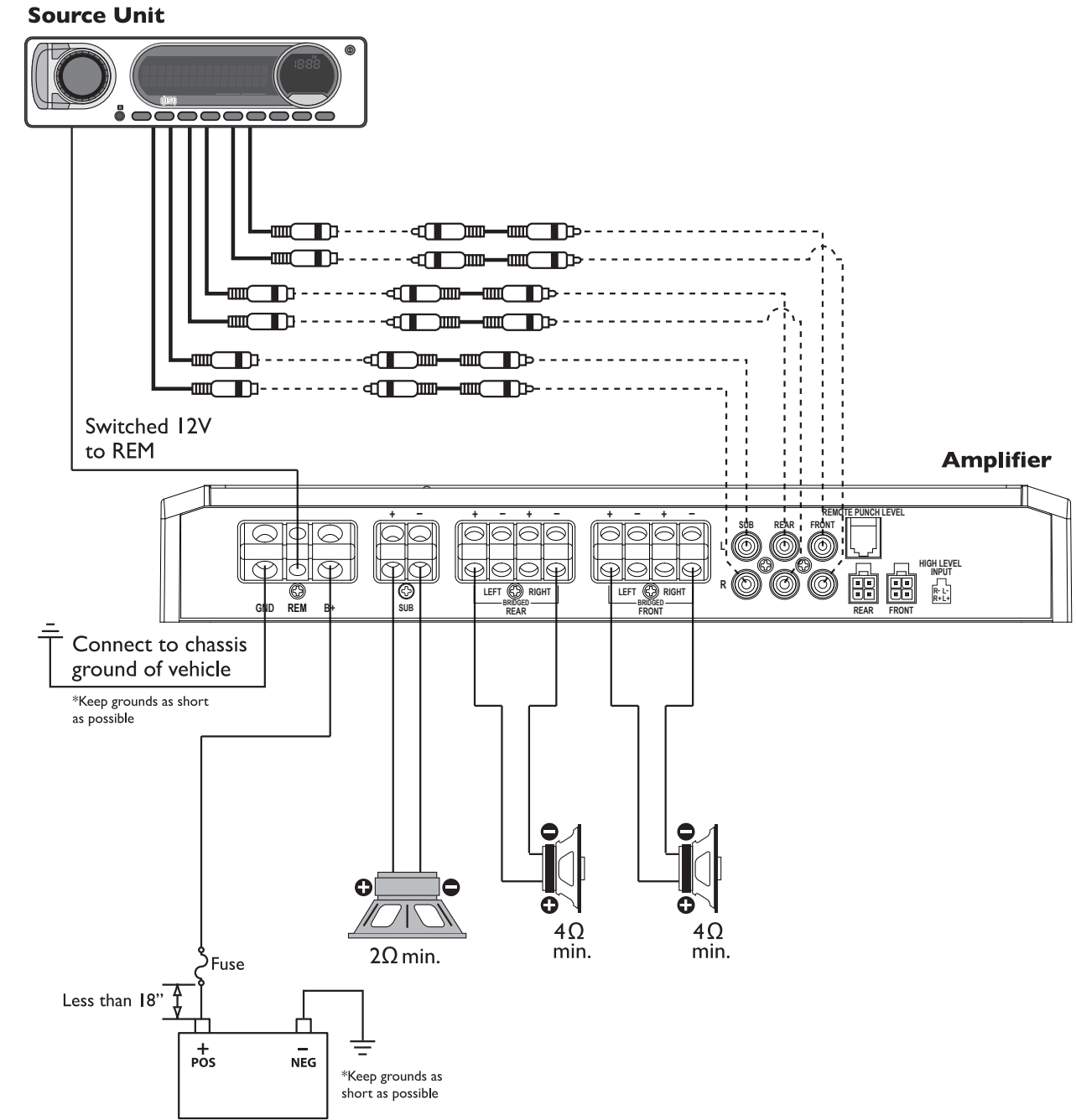
**4-Channel (2ch Mono-Bridged)**

R250X4, R300X4, R400-4D & R600-4D

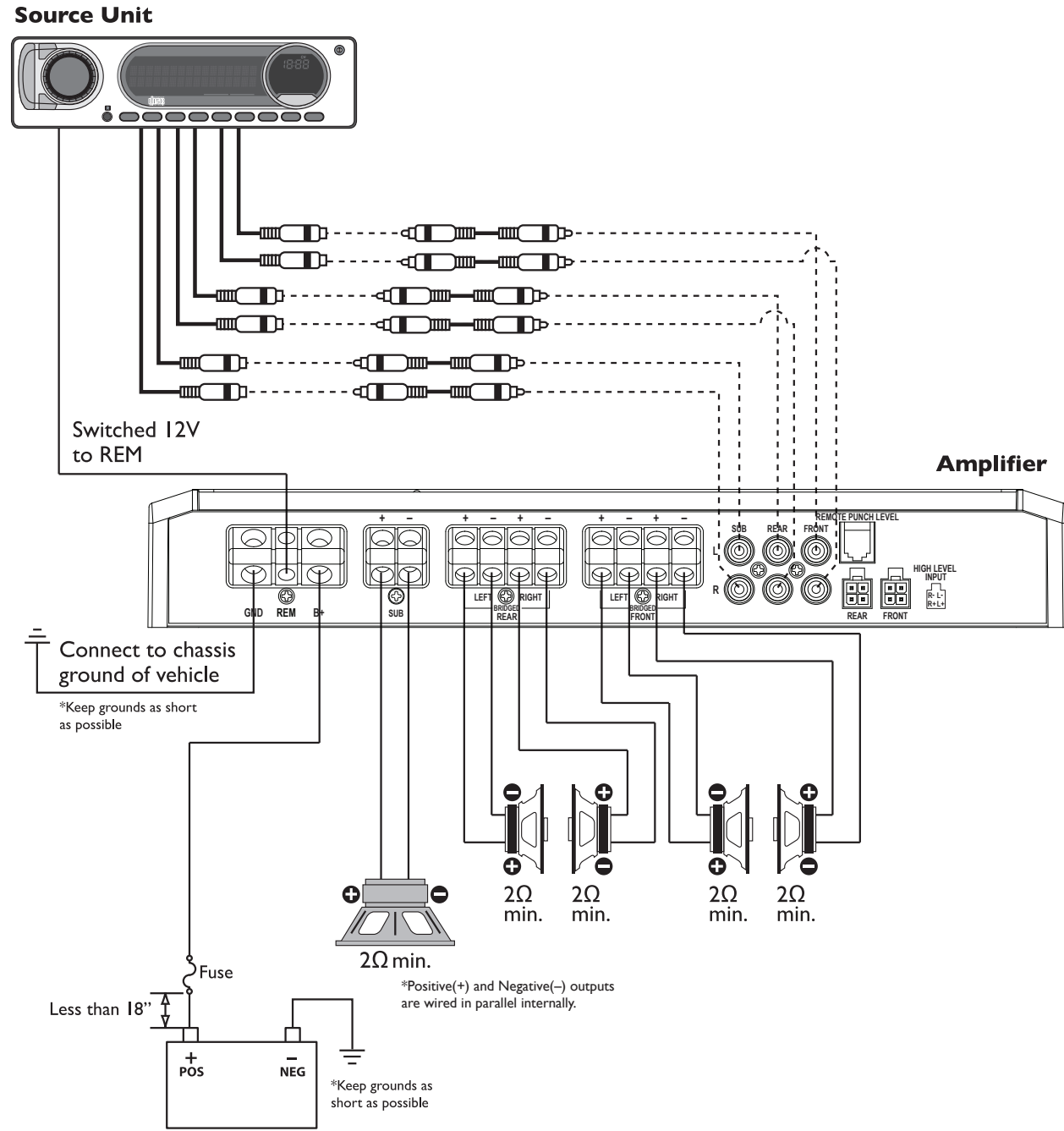


**3-Channel (2ch Bridged & 1ch Parallel)**

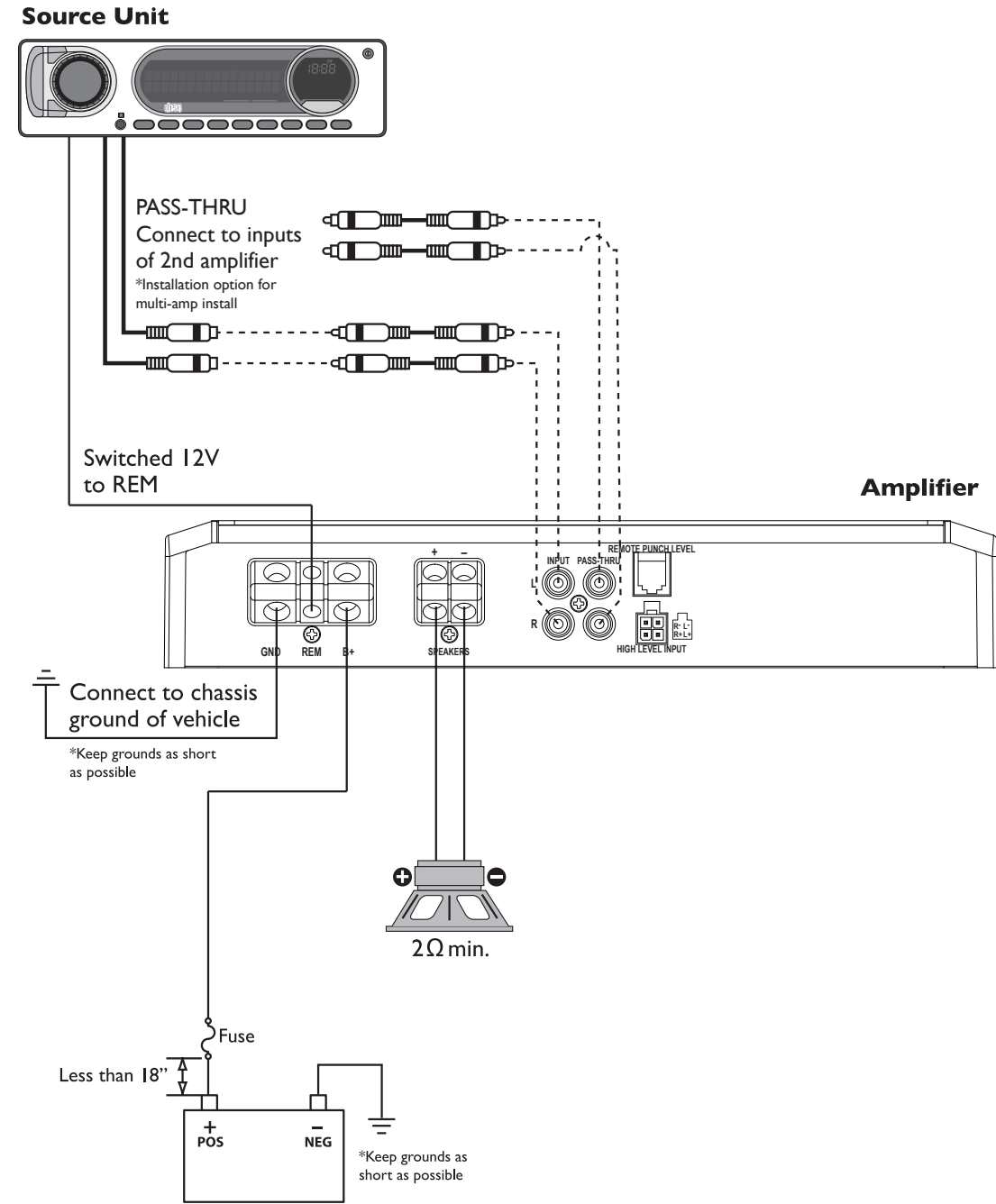
R600X5



**5-Channel (4ch Stereo & 1ch Mono)**  
R600X5



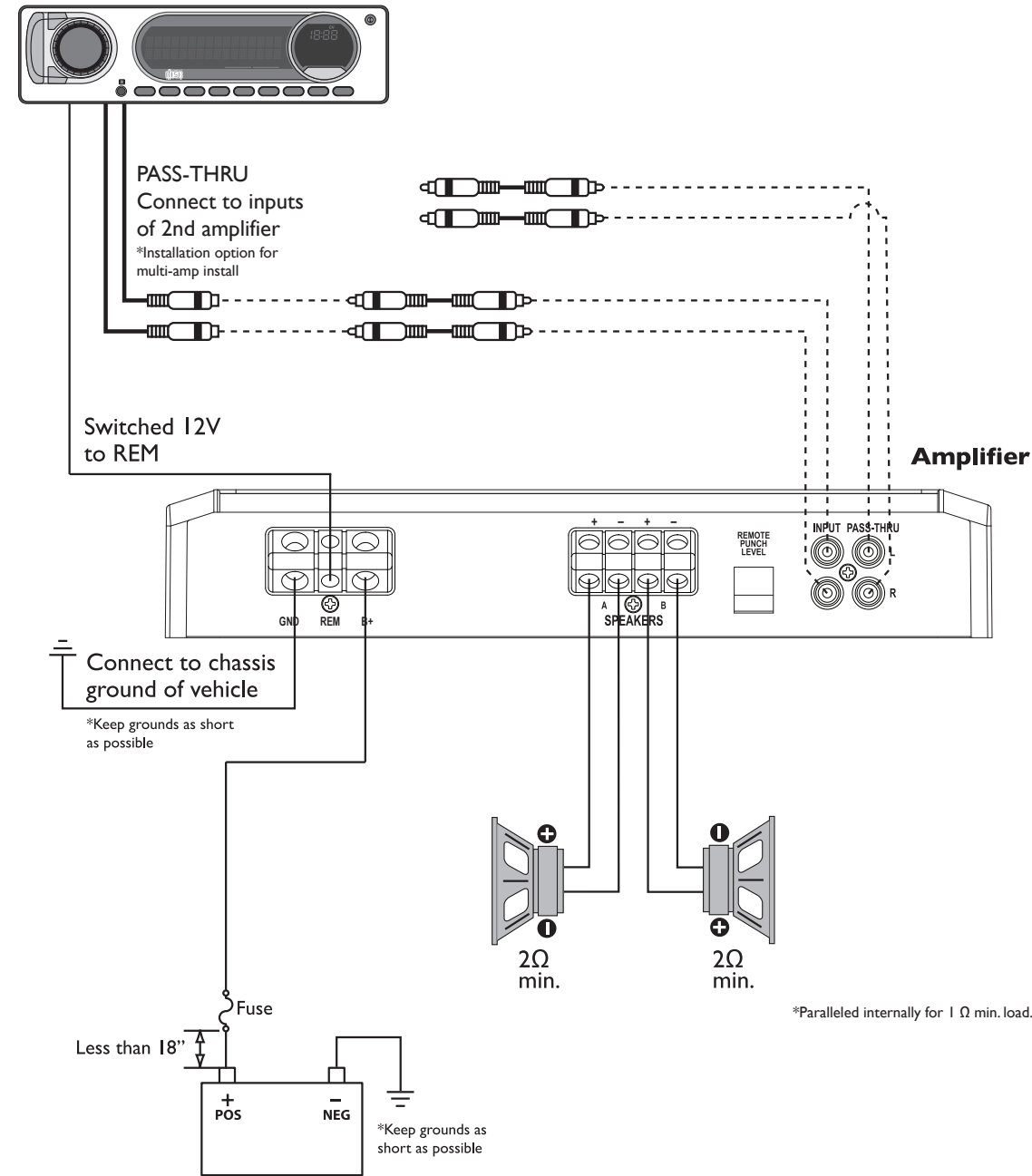
**Mono Wiring**  
R250X1 & R500X1D





**Parallel Wiring\***  
R750-1D & R1200-1D

**Source Unit**



illus.-2.9

**Adjusting Gain**

1. Turn amplifier gains to minimum (counter-clockwise).
2. Turn the source unit volume up to 7/8 maximum (or when distortion is just inaudible).
3. Slowly increase amplifier gain control until adequate volume is achieved.

NOTE: Best signal to noise and dynamic range are realized with gain set to minimum. For a more in depth setting procedure, contact Rockford Technical Support.

**CAUTION** Avoid setting amplifier gain high as noise and distortion will greatly increase.

**Adjusting Crossover Frequency**

Do the following individually for each channel.

Placing the crossover switch in the HP position sets the amplifier to the High Pass mode, enabling frequencies above the cut-off point to pass, adjustable between 50-250Hz.

Placing the crossover switch in the AP position sets the amplifier to the All Pass mode, preventing any crossover adjustment, allowing all frequencies to pass.

Placing the crossover switch in the LP position sets the amplifier to the Low Pass mode, enabling frequencies below the cut-off point to pass, adjustable between 50-250Hz.

Turn the crossover adjustment knob all the way down. With the system playing, turn the crossover adjustment knob up slowly until the desired crossover point is achieved.

**Input Switch**

Setting this switch to the 2CH. position, switches the inputs to a 2-channel mode, allowing connection to only the front inputs with a 4-channel output.

Output controls function the same as if the amplifier was in 4-channel mode.

All "ACTIVE" inputs must have RCA jacks connected.

Switch in 2CH. position, "ACTIVE" - Front channel inputs only.

Switch in 4CH. position, "ACTIVE" - All Front and Rear channel inputs.

Switch in 5CH. position, "ACTIVE" - All Front, Rear and Sub channel inputs.

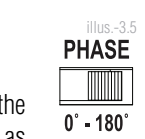
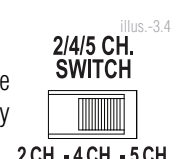
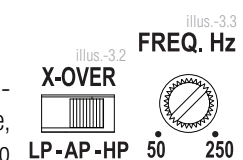
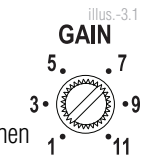
NOTE: When connecting to the 4-Channel inputs, be sure to route both front and rear RCA cables tightly together.

**Variable Phase**

Allows you to conveniently switch the output phase of the amplifier between 0° and 180°. This has the same effect as physically reversing the Positive (+) and Negative (-) speaker wires.

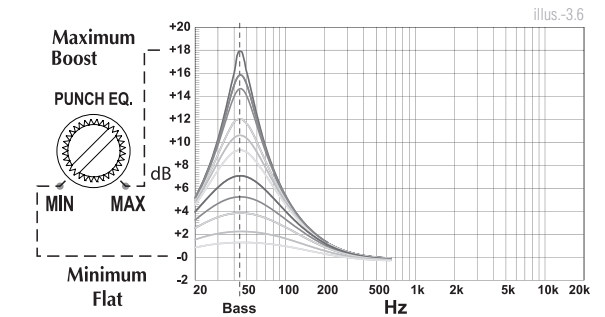
**High Level Input**

High Level Inputs are used when you want to connect an amplifier to your factory radio or an aftermarket radio that does not have low-level (RCA) inputs. It allows you to use the signal coming from the speaker outputs as an input source for the amplifier.

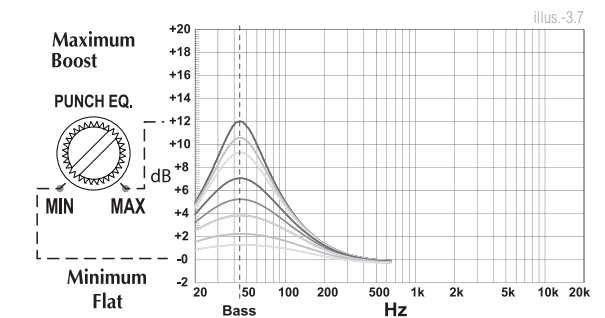


**Punch EQ**

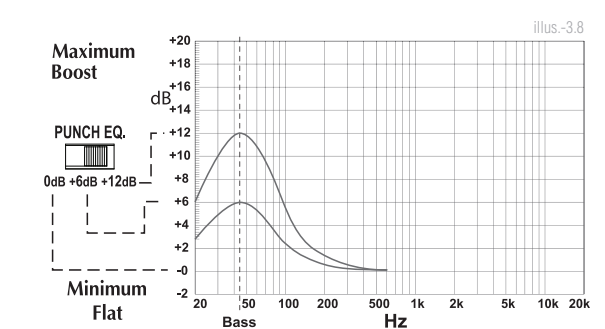
This works along with the crossover switch on the amplifier. When set to Low-Pass (LP) operation, this is a variable Bass Boost. When set to High-Pass (HP) operation, this is a variable Mid-Bass and Treble Boost. When set to All-Pass (AP) operation, both the Bass and Treble frequencies are boosted. Set this to your personal preference while listening to the system.



Variable 0+18dB @ 45Hz (R400-4D, R600-4D, R750-1D & R1200-1D)



Variable 0+12dB @ 45Hz (R150X2, R250X1, R500X1D & R600X5)



Selectable: 0/+6dB/+12dB @ 45Hz (R250X4, R300X4 & R600X5)

**CAUTION** Over excursion and subsequent damage may occur at high levels of boost.

**Remote Punch Level Control (Option)**

**Quick Install:**

1. Using the screws supplied, install the mounting clip.
2. Slip the remote onto the mounting clip until it snaps into place.
3. Route and connect the cable to the remote and amplifier.

**Operation:**

4. When connected, the "Level Control" is linked and allows you to remotely control the output level of the amplifier from the dash or center console.

## Troubleshooting

NOTE: If you are having problems after installation follow the Troubleshooting procedures below.

Check Amplifier for proper connections. Verify that POWER light is on. If POWER light is on skip to Step 3, if not continue.

1. Check in-line fuse on battery positive cable. Replace if necessary.
2. Check fuse(s) on amplifier. Replace if necessary.
3. Verify that Ground connection is connected to clean metal on the vehicle's chassis. Repair/replace if necessary.
4. Verify there is 9 to 14.4 Volts present at the positive battery and remote turn-on cable. Verify quality connections for both cables at amplifier, stereo, and battery/fuseholder. Repair/replace if necessary.

Protect light is on.

1. If the Protect light is on, this is a sign of a possible short in the speaker connections. Check for proper speaker connections and use a volt/ohm meter to check for possible shorts in the speaker wiring. Too low of a speaker impedance may also cause Protect to light.

Check Amplifier for audio output.

1. Verify good RCA input connections at stereo and amplifier. Check entire length of cables for kinks, splices, etc. Test RCA inputs for AC volts with stereo on. Repair/replace if necessary.
2. Disconnect RCA input from amplifier. Connect RCA input from test stereo directly to amplifier input.

Check Amplifier if you experience Turn-on Pop.

1. Disconnect input signal to amplifier and turn amplifier on and off.
2. If the noise is eliminated, connect the REMOTE lead of amplifier to source unit with a delay turn-on module.

OR

1. Use a different 12 Volt source for REMOTE lead of amplifier.

Check Amplifier if you experience excess Engine Noise.

1. Route all signal carrying wires (RCA, Speaker cables) away from power and ground wires.

OR

1. Bypass any and all electrical components between the stereo and the amplifier(s). Connect stereo directly to input of amplifier. If noise goes away the unit being bypassed is the cause of the noise.

OR

1. Remove existing ground wires for all electrical components. Reground wires to different locations. Verify that grounding location is clean, shiny metal free of paint, rust etc.

OR

1. Add secondary ground cable from negative battery terminal to the chassis metal or engine block of vehicle.

OR

1. Have alternator and battery load tested by your mechanic. Verify good working order of vehicle electrical system including distributor, spark plugs, spark plug wires, voltage regulator etc.

### Caractéristiques de conception (illus. 1.1)

#### Phase variable

Le contrôle de phase variable 0-180° permet à l'auditeur de modifier le temps d'arrivée des ondes sonores du subwoofer par rapport aux mêmes fréquences à partir des enceintes principales.

#### Répartiteur variable

Le filtre incorporé 12 dB/octave Butterworth avec point de première convergence variable de 50 Hz à 250 Hz. (R750-1D et R1200-1D) ont un filtre infrasonique 12 dB/octave additionnel avec un point de première convergence variable de 15 Hz à 40 Hz SS)

#### DEL alimentation/protection

La DEL alimentation s'allume en bleu lorsque l'unité est activée. La DEL protection/thermique s'allume en rouge lorsque l'ampli surchauffe ou en présence de courts-circuits. Si cela se produit, l'ampli s'arrêtera automatiquement.

#### EQ Punch - Variable

Ce contrôle de variable fonctionne avec l'Interrupteur de répartiteur sur l'amplificateur, en stimulant les graves.

#### Bornes d'alimentation/REM

Les bornes d'alimentation et de terre sont des connecteurs câblés nickelés à vis de blocage et accepteront un calibre 4 AWG. Les bornes d'alimentation et de terre sont des connecteurs câblés nickelés à vis de blocage et qui accepteront un calibre 8 AWG.

#### Bornes d'enceinte

Les bornes d'enceinte sont des connecteurs câblés nickelés à vis de blocage (+ et -) et qui accepteront un calibre 8 AWG.

#### Interrupteur de répartiteur

Commutateur sélectionnable pour High-Pass (HP) ou All Pass (AP) ou Low-Pass (LP)

#### Phase variable

Le contrôle de phase variable 0-180° permet à l'auditeur de modifier le temps d'arrivée des ondes sonores du subwoofer par rapport aux mêmes fréquences à partir des enceintes principales.

#### Répartiteur variable

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#### Bornes d'enceinte

Les bornes d'enceinte sont des connecteurs câblés nickelés à vis de blocage (+ et -) et qui accepteront un calibre 8 AWG.

#### Installation

##### Contenu

- Amplificateur principal
- Visserie de montage
- Clé Allen
- Contrôle de niveau Punch
- Connecteur à 4 broches Molex (le cas échéant)
- Manuel d'installation et de fonctionnement

##### Considérations d'installation

Voici une liste d'outils nécessaires pour l'installation:

- Porte-fusible et fusible. (Voir spécifications pour calibre de fusible)
- Voltmètre/Ohmmètre
- Pince à dénuder
- Pince à sertir
- Coupe-fils
- Tournevis cruciforme n° 2
- Clé de bornes de batterie
- Perceuse à main avec mèches assorties
- Connecteurs assortis
- Longueur adéquate — Fil d'alimentation rouge
- Longueur adéquate — Fil d'allumage à distance
- Longueur adéquate — Fil de masse noir

Cette section traite de points concernant le véhicule dont il faut tenir compte pour l'installation de votre nouvel ampli. Planifier à l'avance la disposition du système et les meilleurs acheminements de câblage permettra de gagner du temps pour l'installation. Lors de l'aménagement de votre nouveau système, assurez-vous que chaque composant est facilement accessible pour les réglages.

En cas de doute sur l'installation de ce système vous-même, faites-le installer par un technicien qualifié.

Attention: Avant l'installation, déconnectez la borne négative (-) de batterie pour prévenir tout dommage matériel, tout incendie et/ou toute blessure éventuelle.

Attention: Avant de commencer toute installation, suivez ces simples règles :

1. Prenez soin de lire attentivement et de comprendre les instructions avant d'essayer d'installer l'appareil.
2. Par mesure de sécurité, déconnectez le fil négatif de la batterie avant de commencer l'installation.
3. Pour faciliter l'assemblage, il est recommandé d'acheminer tous les fils avant de monter l'appareil en place.
4. Acheminez tous les câbles RCA de façon groupée et à l'écart des fils à courant élevé.
5. Utilisez des connecteurs de haute qualité pour une installation fiable et pour minimiser la perte de signal ou de puissance.
6. Réfléchissez avant de percer ! Faites attention de ne pas couper ou percer dans les réservoirs d'essence, les conduites de carburant, les conduites de frein ou hydrauliques, les lignes de vide ou le câblage électrique lors de tout travail sur un véhicule.

7. Ne faites jamais passer les fils sous le véhicule. Il vaut mieux les installer à l'intérieur du véhicule pour assurer une meilleure protection.
8. Évitez d'acheminer les fils sur ou à travers des chants coupants. Utilisez des passe-câbles en caoutchouc ou en plastique pour protéger tout fil acheminé à travers le métal, en particulier le pare-feu.
9. Protégez TOUJOURS la batterie et le circuit électrique des dommages potentiels à l'aide de fusibles appropriés. Installez les porte-fusible et fusible appropriés sur le câble d'alimentation de +12 V à moins de 45 cm de la borne de batterie.
10. Lors de la mise à la masse au châssis du véhicule, grattez toute trace de peinture de la surface métallique pour assurer une bonne connexion à la terre propre. Les connexions de masse doivent être aussi courtes que possible et toujours connectées à du métal soudé à la carrosserie ou au châssis du véhicule. Les boulons de ceinture de sécurité ne doivent jamais être utilisés pour la mise à la masse.

#### Emplacements de montage

Pour assurer une performance optimale, montez l'ampli avec un espace d'air d'au moins 2,5 cm autour du dissipateur thermique de l'ampli et ce, pour fournir un refroidissement satisfaisant.

#### Montage dans le coffre

Un montage vertical ou à l'envers de l'ampli assure un refroidissement adéquat. Le montage de l'ampli sur le plancher du coffre fournira le meilleur refroidissement de l'ampli.

#### Montage dans l'habitacle

Le montage de l'ampli dans l'habitacle est acceptable à condition qu'il reçoive suffisamment d'air pour se refroidir. Si vous comptez installer l'ampli sous le siège du véhicule, prévoyez un écartement d'air d'au moins 2,5 cm autour du dissipateur thermique de l'ampli.

Attention: Ne montez jamais cet appareil dans le compartiment moteur. Cela entraînerait l'annulation de la garantie.

#### Batterie et charge

Les amplificateurs exercent une charge accrue sur la batterie et le système de charge du véhicule. Nous vous conseillons de vérifier l'état de l'alternateur et de la batterie pour vous assurer que le circuit électrique peut supporter la charge accrue de votre système stéréo. Les systèmes électriques ordinaires en bon état sont normalement capables de fournir sans problème la charge supplémentaire requise par un ampli de série. Toutefois, la durée de vie de la batterie et de l'alternateur peut s'en trouver légèrement diminuée. Pour maximiser la performance de votre ampli, nous vous suggérons d'utiliser une batterie à usage intensif et un condensateur de stockage d'énergie.

#### Câblage du système

Attention: Si vous ne vous sentez pas à l'aise pour effectuer vous-même le câblage de votre nouvel appareil, veuillez confier son installation à votre distributeur local agréé Rockford Fosgate.

Attention: Avant l'installation, déconnectez la borne négative (-) de batterie pour prévenir tout dommage matériel, tout incendie et/ou toute blessure éventuelle.

Attention: Évitez de faire passer les fils d'alimentation à proximité des câbles d'entrée de niveau bas, de l'antenne, des câbles d'alimentation, des équipements ou faisceaux sensibles. Les fils d'alimentation transportent un courant élevé et peuvent produire du bruit dans le système audio.

1. Planifiez l'acheminement des fils. Gardez les câbles RCA ensemble mais en les isolant des câbles d'alimentation de l'ampli et des autres accessoires automobiles de forte puissance, en particulier les moteurs électriques et ce, pour éviter que le signal audio ne subisse d'interférence de bruit provenant des champs de rayonnement électriques. Si vous faites passer les fils par un pare-feu ou toute autre barrière métallique, protégez-les à l'aide de bagues en plastique ou en caoutchouc pour éviter les courts-circuits. Conservez toute la longueur des fils pour l'instant. Vous l'ajusterez plus tard.
2. Préparez le fil ROUGE (câble d'alimentation) qui devra être relié à l'ampli en dénudant 1 cm d'isolant de son extrémité. Insérez la partie dénudée dans la borne B+, puis fixez le fil en vissant la vis sans tête.

REMARQUE : Le câble B+ DOIT comporter un fusible à 45 cm ou moins de la batterie du véhicule. Installez le porte-fusible sous le capot et assurez-vous que les connexions sont étanches.

3. Coupez le fil ROUGE (câble d'alimentation) à moins de 45 cm de la batterie et épissez un porte-fusible en ligne (non fourni). Voir les Spécifications en ce qui concerne la capacité du fusible à utiliser. N'installez pas le fusible pour le moment.
4. Dénudez 1 cm de l'extrémité de batterie du câble d'alimentation et sertissez une cosse à anneau de taille appropriée sur le câble. Connectez la cosse à borne positive de la batterie.
5. Préparez le fil NOIR (câble de mise à la masse) qui devra être relié à l'ampli en dénudant 1 cm d'isolant de son extrémité. Insérez la partie dénudée dans la borne GROUND [masse], puis fixez le fil en vissant la vis sans tête. Préparez la masse du châssis en grattant toute trace de peinture de la surface métallique et en nettoyant soigneusement la surface pour éliminer tout dépôt de saleté et de graisse. Dénudez l'autre extrémité du fil et fixez un connecteur en anneau. Fixez le câble au châssis à l'aide d'une vis non anodisée et d'une rondelle en étoile.

REMARQUE : Gardez le fil NOIR (masse) aussi court que possible. Toujours inférieur à 75 cm.

6. Préparez le fil d'allumage à distance qui devra être relié à l'ampli en dénudant 1 cm d'isolant de son extrémité. Insérez la partie dénudée dans la borne REMOTE [à distance], puis fixez le fil en vissant la vis sans tête. Connectez l'autre extrémité du fil à distance à une source positive commutée de 12 volts. La tension commutée provient généralement du câble d'ampli à distance de l'unité source. Si l'unité source ne dispose pas de cette sortie, il est recommandé de raccorder un interrupteur mécanique en ligne avec une source de 12 volts pour activer l'ampli.

REMARQUE : Lors de l'utilisation du haut niveau pour signal d'entrée, la fonction d'allumage automatique est active. Une fois l'allumage automatique activé, la REM devient une sortie pour allumer/éteindre jusqu'à deux amplis additionnels ou autres accessoires.

7. Montez solidement l'ampli sur le véhicule ou le rack d'ampli. Prenez soin de ne pas fixer l'ampli sur des panneaux en carton ou en plastique. Les vis pourraient en effet se décoller des panneaux sous l'effet des vibrations de la route ou des arrêts soudains du véhicule.
8. Connectez le signal source en branchant dans les prises d'entrée RCA au niveau de l'ampli. Les plages de sensibilité d'entrée vont de 150 mV - 12 V sont capables d'accepter un signal du haut niveau (enceinte) à bas niveau (RCA).

REMARQUE : Toutes les entrées « ACTIVES » doivent avoir des prises RCA connectées. Commutateur en position 2CH, « ACTIVE » - Entrées de canal avant uniquement. Commutateur en position 4CH, « ACTIVE » - Toutes les entrées de canaux avant et arrière. Commutateur en position 5CH, « ACTIVE » - Entrées de subwoofer pour sortie de subwoofer. Lors de la connexion aux entrées 5 canaux, prenez soin d'acheminer les câbles RCA avant, arrière et sub bien groupés.







### Regolazione del guadagno (illus. 3.1)

- Ruotare il comando del guadagno sull'amplificatore al minimo (in senso antiorario)
- Ruotare il comando del volume dell'unità sorgente sino a 7/8 del massimo (o sino a quando la distorsione diviene udibile).

- Aumentare lentamente il comando di guadagno dell'amplificatore sino a ottenere un volume adeguato.

NOTA: il miglior rapporto segnale-rumore e la massima gamma dinamica si ottengono con il guadagno al minimo. Per una procedura d'impostazione più dettagliata, contattare il servizio assistenza tecnica di Rockford.

Avvertenza: Si consiglia di non selezionare un guadagno troppo alto per non avere troppo rumore e distorsione.

#### Regolazione della frequenza di crossover (illus. 3.2,3.3)

Eeguire quanto segue separatamente per ciascun canale.

Posizionando l'interruttore di crossover sulla posizione HP (passa alto), l'amplificatore viene impostato sulla modalità passa alto regolabile tra 50 e 250 Hz, permettendo il passaggio di frequenze sopra la frequenza di interruzione.

Posizionando l'interruttore di crossover sulla posizione AP (passa tutto), l'amplificatore viene impostato in modalità passa tutto, evitando eventuali regolazioni di crossover e permettendo il passaggio di tutte le frequenze.

Posizionando l'interruttore di crossover sulla posizione LP (passa basso), l'amplificatore viene impostato sulla modalità passa basso regolabile tra 50 e 250 Hz, permettendo il passaggio di frequenze al di sotto della frequenza di interruzione.

Ruotare la manopola di regolazione del crossover del tutto in basso. Con il sistema in funzione, ruotare la manopola di regolazione per aumentare la frequenza di crossover lentamente fino a raggiungere il punto di crossover desiderato.

#### Interruttore d'ingresso (illus. 3.4)

Impostando questo interruttore sulla posizione 2CH (2 canali), si commutano gli ingressi alla modalità a 2 canali, permettendo il collegamento solo agli ingressi anteriori con un'uscita a 4 canali.

I comandi di uscita funzionano allo stesso modo di quando l'amplificatore era impostato su modalità a 4 canali.

Tutti gli ingressi "ATTIVI" devono avere jack RCA collegati.

Interruttore in posizione 2CH. "ATTIVO": solo ingressi canali anteriori.

Interruttore in posizione 4CH. "ATTIVO": tutti gli ingressi canali anteriori e posteriori.

Interruttore in posizione 5CH "ATTIVO": tutti gli ingressi canali anteriori e posteriori e canale sub.

NOTA: quando ci si collega agli ingressi 4-canali, accertarsi di tenere assieme strettamente i cavi RCA anteriori e posteriori.

#### Fase variabile (illus. 3.5)

Consente di selezionare comodamente la fase in uscita dell'amplificatore tra 0° e 180°. L'effetto è lo stesso dello scambio fisico dei conduttori positivo (+) e negativo (-) dei diffusori.

#### Ingressi livello alto

Gli ingressi di livello alto sono usati quando si desidera collegare l'amplificatore alla radio di serie o a una radio di mercato dei ricambi non dotata di ingressi di basso livello (RCA). Ciò consente di utilizzare il segnale proveniente dall'uscita del diffusore come ingresso all'amplificatore.

#### Equalizzatore Punch

Questo funziona assieme all'interruttore di crossover sull'amplificatore. Quando è impostato su operazione Low-Pass (LP), passa basso, questo rappresenta un valore variabile di aumento dei bassi. Quando è impostato su operazione High-Pass (HP), passa alto, questo rappresenta un valore variabile di aumento dei bassi intermedi e dei toni acuti. Quando è impostato su operazione All Pass (AP), passa tutto, sia le frequenze dei bassi che quelle dei toni acuti sono aumentate. Impostare il comando sul valore preferito mentre si ascolta.

Variabile 0→+18 dB a 45 Hz (R400-4D, R600-4D, R750-1D e R1200-1D) (illus. 3.6)

Variabile 0→+12 dB a 45 Hz (R150X2, R250X1, R500X1D e R600X5) (illus. 3.7)

Selezionabile: 0/+6 dB/+12 dB a 45 Hz (R250X4, R300X4 e R600X5) (illus. 3.8)

Avvertenza: A livelli elevati di intensità si potrebbe raggiungere il limite della corsa, causando danni all'unità.

#### Comando a distanza di livello Punch

Installazione rapida:

- Usando le viti fornite, installare la graffa di montaggio.
- Fare scivolare il comando a distanza sulla graffa di montaggio fino a farlo scattare in posizione.
- Portare il cavo dal comando a distanza all'amplificatore e collegarlo.

Funzionamento:

- Una volta connesso, il "comando di livello" è collegato e consente di comandare a distanza il livello in uscita dell'amplificatore dalla console centrale o dal cruscotto.

#### Individuazione e risoluzione dei problemi

NOTA: se si incontrano difficoltà dopo l'installazione, seguire le procedure sottostanti per l'individuazione e la risoluzione dei problemi.

**Controllare che le connessioni dell'amplificatore siano corrette.** Verificare che la spia POWER (ALIMENTAZIONE) sia accesa. Se la spia POWER (ALIMENTAZIONE) è accesa passare al punto 3, altrimenti continuare.

- Controllare il fusibile in linea sul positivo della batteria. Sostituire se necessario.
- Controllare il fusibile (o fusibili) sull'amplificatore. Sostituire se necessario.
- Verificare che la connessione di massa sia collegata a una piastra metallica pulita dell'autotelaio. Riparare/sostituire secondo necessità.
- Verificare che vi è tensione tra 9 e 14,4 V al positivo della batteria e al cavo di accensione a distanza. Verificare la qualità delle connessioni sia dei cavi dell'amplificatore che di quelli dello stereo, della batteria e del portafusibili. Riparare/sostituire secondo necessità.

**La spia di protezione è accesa.**

- La spia di protezione accesa può indicare la presenza di cortocircuito nei collegamenti dei diffusori. Controllare che i diffusori siano collegati correttamente e servirsi di un voltmetro/ohmetro per verificare che non ci sono cortocircuiti nei loro collegamenti. Anche un'impedenza dei diffusori troppo bassa può causare l'accensione della spia di protezione.

**Controllare l'uscita audio dell'amplificatore.**

- Verificare che le connessioni d'ingresso RCA siano buone sia all'amplificatore che allo stereo. Controllare i cavi per tutta la loro lunghezza per accertare che non ci siano piegature, giunzioni, ecc. Sottoporre a prova gli ingressi RCA per tensione a corrente alternata con lo stereo acceso. Riparare/sostituire secondo necessità.
- Scollegare gli ingressi RCA dall'amplificatore. Collegare gli ingressi RCA dallo stereo di prova direttamente all'ingresso dell'amplificatore.

**Controllare l'amplificatore se si verifica uno schiocco all'accensione.**

- Scollegare il segnale in ingresso all'amplificatore e accendere e spegnere l'amplificatore.
- Se il disturbo sparisce, collegare il conduttore REMOTE (A DISTANZA) dell'amplificatore all'unità sorgente con un modulo di ritardo all'accensione.

0

- Usare ona fonte 12 V diversa per il conduttore REMOTE (A DISTANZA) dell'amplificatore.

**Controllare l'amplificatore se si verificano disturbi eccessivi dovuti al motore.**

- Far passare i cavi dei segnali (RCA, diffusori) lontano da quelli di alimentazione e messa a terra.

0

- Bypassare qualsiasi e tutti i componenti elettrici tra lo stereo e l'amplificatore (o amplificatori). Collegare lo stereo direttamente all'ingresso dell'amplificatore. Se il disturbo sparisce, l'unità che si è bypassata è la causa del disturbo.

0

- Togliere i fili di massa esistenti di tutti i componenti elettrici. Mettere a terra in un punto diverso. Verificare che i punti di messa a terra siano puliti con il metallo lucido senza vernice, ruggine, ecc.

0

- Aggiungere un cavo di massa secondario dal terminale negativo della batteria al metallo del telaio o al blocco motore del veicolo.

0

- Chiedere al meccanico di testare l'alternatore e il carico della batteria. Verificare che l'impianto elettrico del veicolo sia in buone condizioni, compreso il distributore, le candele, i cavi delle candele, il regolatore di tensione, ecc.

## Warranty

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

### **Length of Warranty**

Speakers, Signal Processors, PRIME and PUNCH Amplifiers – 1 Year  
POWER Amplifiers – 2 Years  
Any Factory Refurbished Product – 90 days (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, shipping.
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**

Contact the Authorized Rockford Fosgate Dealer you purchased this product from. If you need further assistance, 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.

### **EU Warranty**

This product meets the current EU warranty requirements, see your Authorized dealer for details.