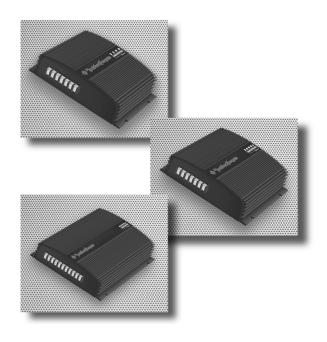
# Series 1 2300 / 2600x / 4600x AMPLIFIERS



OWNER'S MANUAL



Dear Customer,

Congratulations on your purchase of America's finest brand of car audio amplifiers. 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, please call 1-800-366-2349 or FAX 1-602-894-1528 in the U.S. For Canada, call Korbon Trading at 905-567-1920. For International orders FAX +001-1-602-967-8132 or call +001-1-602-967-3565.

# PRACTICE SAFE SOUND™

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

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 become useful in recovering your amplifier if it is ever stolen and serve as verification of your factory warranty.

Serial Number: _	
Model Number:	

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# SPECIFICATIONS

	Series 1 2300	Series 1 2600x	Series 1 4600x
Dynamic Power Rating (IHF 202 Standard) - Measured at 14.4 Voltage <sup>1</sup>	at 14.4 Voltage <sup>1</sup>		
Bridged/Mono into a 4 $\Omega$ Load	90 Watts	180 Watts	180 Watts x 2
Per channel into a $2\Omega$ Load	45 Watts	90 Watts	90 Watts x 4
Per channel into a $4\Omega$ Load	30 Watts	60 Watts	60 Watts x 4
Continuous Power Rating (IASCA Standard) - Measured at 12.6 Battery Voltage	d at 12.6 Battery Voltage	4)	
RMS continuous power $$ per channel, all channels driven into a $4\Omega$ load from 20 to 20,000 Hz with less than 0.08% Total Harmonic Distortion (THD)	15 Watts	30 Watts	30 Watts x 4
RMS continuous power <b>per channel</b> , all channels driven into a $2\Omega$ load from 20 to 20,000 Hz, with less than 0.3% Total Harmonic Distortion (THD)	30 Watts	60 Watts	60 Watts x 4
RMS continuous power <b>bridged/mono</b> into a $4\Omega$ load from 20 to 20,000 Hz with less than 0.3% Total Harmonic Distortion (THD)	60 Watts	120 Watts	120 Watts x 2
<sup>1</sup> See Appendix A - Dynamic Power Measurements for information on these specifications.	information on these spe	ecifications.	

	Series 1 2300	Series 1 2600x	Series 1 4600x
Signal-to-Noise Ratio	Ó	Over 105 dB A weighted	
Bandwidth	10	10 Hz to 100 kHz ± 3dB	
Damping Factor @ $4\Omega$	At on	At output connector - Over 200	00
Frequency Response	20	20 Hz to 20 kHz ± 0.5dB	
IM Distortion (IHF)		Less than 0.05%	
Input Impedance		20k ohms	
Input Sensitivity		(250 mV - 1 Volt)	
Protection In O	Internal analog-computer output protection circuitry limits power in case of overload. Thermal switch shuts down the amplifier in case of overheating.	utput protection circuitry shuts down the amplifier	y limits power in case of in case of overheating.
Crossover Card	N/A	12 dB/octave with selectable High-Pass, Low-Pass and Full Range	selectable and Full Range
Battery Fusing Rates (External to Amplifier)	10 Amps	20 Amps	30 Amps
Fuse Type	ATC	ATC	ATC
Dimensions	7.9" (20.07cm) W 5.1" (12.95cm) L 2" (5.08cm) H	7.9" (20.07 cm) W 6.1" (15.49cm) L 2" (5.08 cm) H	7.9" (20.07cm) W 9.1" (23.11cm) L 2" (5.08 cm) H

Specifications subject to change without notice.

# Introduction

This manual provides information on the features, installation and operation of the Series 1 2300, 2600x and 4600x Amplifiers. We suggest you save this manual for future reference.

We strongly recommend you have your Authorized Rockford Fosgate Dealer and Service Center install your new Series 1 amplifier. If you do choose to install your Series 1 amplifier yourself, please be sure to read the entire manual before beginning.

# **OPERATING FEATURES**

The Series 1 stereo power amplifiers provide state-of-the-art sound in cars, vans, boats, or wherever a high current 12 volt power source is available. Features include:

**Discrete Surface Mount Technology** – a manufacturing method that allows the packaging of complex circuitry in small areas, reducing noise and crosstalk for lower distortion.

**Active Electronic Crossover Module** – built into the 2600x and 4600x features 12dB/octave Butterworth filters. The independent crossover modes in these plug-in modules allow for various configuration possibilities.

**N-Type V-FET Output Drive Circuitry**— delivers music with lower noise and distortion while maintaining a higher slew rate, increased efficiency and higher power output capability than most amplifiers of this class.

**High Current/High Voltage Output** – delivers the power needed for all listening levels and music frequencies to hear every note.

**Pulse Width Modulated (PWM) DC/DC Non-Regulated Power Supply** – assures wider dynamic headroom than the more common regulated power supplies.

**High or Low Level Adjustable Input Sensitivity** – permits maximum compatibility with source units. This allows adjustment of the input sensitivity level of the power amplifier for RCA (preamp level) or speaker (high level) inputs.

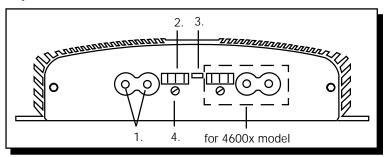
**Real Time Power Protection (R.T.P.P.)** – allows for the greatest power output under all load conditions. When output reaches an unsafe level it will be reduced, unlike current limiting which often causes premature protection or failure to protect at all.

**Gold-Plated Connectors** – of high quality to provide lower resistance and better reliability.

**Series 1 Housing** – The extruded aluminum heatsink design of the Series 1 was designed for high performance cooling.

# **DESIGN FEATURES**

# Input/LED Side



# 1. Low Level RCA Input Connectors

The amplifier's signal input female RCA pin jacks should be connected to the source unit's signal outputs with high quality RCA cables. The connectors are gold plated to eliminate the possibility of corrosion that can cause signal deterioration.

# 2. High Level Speaker Input Connectors

These connectors are used to connect to a source unit that does not provide low level RCA outputs. This connector accepts 1/8" spade lugs. Do not attempt to solder wires directly to this connector.

# 3. LED Power Indicator

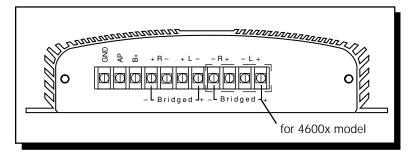
The LED illuminates when the unit is in operation.

# 4. Input Gain Control

This control is factory preset to 500 millivolts to match most radios and is variable from 250 millivolts to one volt. *(More than likely it will not need adjusting.)* 

If just a little movement of the volume control from the source unit drives the amplifier into distortion, reduce the input gain control so that the distortion doesn't start until the source unit volume control is at about 3/4 of its rotation.

# Power/Speaker Side



# 5. Power/Speaker Connectors

The gold-plated terminal block connectors are:

**GND** Supplies ground to the amplifier.

AP The amplifier is turned on by connecting the remote turnon wire to the source unit's "Auto Antenna" or remote turn-on lead, either of which should go to +12 volts when the source unit is activated.

**B+** Supplies power to the amplifier.

+R- Connect the Right and Left channel outputs to the

+L- speakers.

The terminal block connector accepts wire sizes from 10 gauge to 20 gauge. \*

Spade connectors are not needed because of the design of the connector. The installer should be careful not to allow wires to fray or touch. The recommended strip length is 1/4" (.635cm).

\*Rockford Fosgate's Perfect Interface line of accessories includes high quality power and speaker wire, gold-plated RCA interconnecting cables and other products to complete your installation. Ask your Authorized Rockford Fosgate Dealer about Perfect Interface.

# Installation Considerations

This section focuses on some of the vehicle considerations for installing your new Series 1 amplifier. Checking your battery and current sound system, as well as 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 amplifier.
- 2. **For safety**, disconnect the battery ground cable prior to beginning the installation process.
- 3. For easier assembly, we suggest you run all wires prior to mounting your amplifier in place.
- Use only quality connectors for making connections. See your Authorized Rockford Fosgate Dealer for Perfect Interface wire enhancements.
- 5. **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.
- 6. Never run wires underneath the vehicle. Running the wires inside the vehicle provides for the best protection.
- 7. Avoid running wires over or through sharp edges. Use rubber or plastic grommets to protect wires routed through holes in metal.
- 8. ALWAYS protect the battery and electrical system from damage with proper fusing. Install a fuseholder and fuse within 18" (45.7 cm) of the battery terminal to safeguard from possible damage or injury. This fuse and fuseholder is included with the Series 1 amplifier. (See installation instructions on page 8.)
- Grounding connections should be as short as possible and always connected to metal that is welded to the main body, or chassis, of the vehicle.

# TOOLS & SUPPLIES NEEDED

Wire Cutters Phillips Screwdrivers
Wire Strippers Flat Blade Screwdrivers
Wire Crimpers Battery Post Wrench

Voltmeter Electric Hand Drill with assorted bits

Power Wire - [10-12 AWG; approx. 17' (518.72 cm)]

Grounding Wire - [10-12 AWG.; max. length 1.5' (45.72 cm)] Remote (AP) Turn-On Wire - [18 AWG; approx. 12' (365.76 cm)]

Assorted wire connectors

In-line butt connectors that match power and ground wire AWG

3/8" (.953cm) Battery Ring Terminal 1/4" (.635cm) Ground Terminal

1-1/2" (3.81cm) #8 Pan Head Mounting Screws (4)

# **BATTERY AND CHARGING**

Series 1 amplifiers will naturally put an extra load on your battery and charging system. We recommend you check your alternator capacity to ensure ample charging capability to handle the additional load of your new Series 1 equipment. Stock electrical systems in good condition will typically handle the extra load of any individual Series 1 unit without problems, although battery and alternator life may be slightly reduced. If problems arise, we suggest you first check the charging system, then use a heavy duty battery and/or a high output alternator.

# MOUNTING LOCATIONS

The mounting location and position of the Series 1 will have a great effect on its ability to dissipate the heat generated in normal operation. The Series 1 has a heatsink designed for heat dissipation and internal overheating shutoff circuitry to avoid overheating. The amplifier is reasonably tolerant of mounting variations, however, care should be taken to ensure adequate ventilation.

# Trunk Mounting

The temperature inside a trunk can reach as high as 175° F (80° C) during the summer months. Since the thermal shutoff point for the Series 1 is 195° F (90° C), it is easy to see that the amplifier must be mounted for maximum cooling capability. Mounting the amplifier on the floor or under the rear parcel tray prevents sufficient convectional air flow cooling. Mounting the unit vertically on a surface with the fin grooves running up and down usually results in the best cooling.

# Passenger Mounting

Under the seat or floor mounting will work as long as there is a minimum of 1" (2.5 cm) of air gap above the amplifier heatsink.

Vertical mounting of the amplifier is still the best.

# WIRING THE SERIES 1

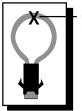
Caution! Be sure to avoid running the power wires near the low level input cables, antenna, sensitive equipment or harnesses. The power wires carry substantial currents and could induce noise.

Power – The gold B+ terminal must be connected *directly* to the positive (+) terminal of the battery with an appropriate size wire. (See the Specifications for more information.) This provides a power source with a low voltage drop and low noise.

Be sure to use the supplied fuse and fuseholder within 18" (45.7cm) of the battery's positive terminal. Failure to do so may cause damage to the vehicle and the amplifier.

Note: You will need to cut the wire loop that is attached to the fuse holder in half and splice the fuse into the power line using appropriate in-line butt connectors.

If the power wire must be extended beyond 17′ (518.16 cm), we recommend the use of 10 gauge stranded wire.



Cut here

- 2. Ground The GND terminal grounds the amplifier and is connected to the chassis of the vehicle. When grounding, scrape paint off metal to ensure a good, clean ground connection. To prevent ground loops, we recommend you refrain from extending the ground wire beyond 18" (45.72 cm) in any installation.
- 3. Remote Turn-On The Series 1 amplifiers are turned on by supplying positive (+) 12 volts to the AP terminal. Usually the terminal is connected to the source unit's "Accessory" or "Auto Antenna" lead, either of which will go to +12 volts when the source unit is activated.

Although the majority of high quality automotive source units have an Accessory or Antenna output, there may be exceptions. If the source unit has no Auto Antenna lead (or if the Auto Antenna goes down during tape/CD operation), we recommend a switch in the car with one terminal connected to +12 volts and the other to the Series 1 AP lead. This will allow you to engage the amplifier manually.

**4. Input –** The amplifier's signal input RCA jacks should be connected to the source unit's signal outputs with high-quality braided or double-shielded interconnecting RCA cables.

Note: Be sure to route the Series 1 signal input cable away from the main power wire and the car's wiring harnesses to avoid noise coupling.

If the source unit does not utilize RCA cables, connect the left and right positive speaker output wires from the source unit to the amplifier's High Level Speaker Input Connector. The center pin is then connected to the chassis of the source unit.

- 5. Speakers Series 1 amplifiers are rated for safe operation into loads of  $2\Omega$  or greater in stereo mode, or  $4\Omega$  in bridged/mono configurations. The primary loads on any amplifier come from directly connected speakers without using capacitors. The measured resistance for each side should not be less than  $2\Omega$  stereo or  $4\Omega$  bridged/mono.
- **6. Bridged/Mono Configuration –** The Series 1 amplifiers are capable of bridged/mono configurations.

This configuration enables you to:

- Run a single woofer with stereo satellites
- Run two bridged amplifiers as a high power stereo system
- Run one amplifier with a bridged/mono woofer and another as a high-frequency stereo amp, etc.

**Note:** The 4600x allows the above 3 configurations all in one. For more information refer to the wiring diagrams beginning on page 14.

Note: To bridge the amplifier, use the L+ and R- speaker connectors.

CAUTION! Series 1 amplifiers are not recommended for impedance loads below  $2\Omega$  stereo or  $4\Omega$  bridged/mono.

Be sure to observe proper speaker terminal polarity throughout the system. It is critical for the Series 1 to use the correct negative terminal for right and left channels, since the RIGHT NEGATIVE (-) TERMINAL is the "hot" terminal for the right speaker. DO NOT chassis ground any of the speaker leads as unstable operation may result.

# ACTIVE CROSSOVER MODE SELECTIONS FOR THE 2600x AND 4600x

The Series 1 2600x and the 4600x amplifiers feature a selectable electronic crossover. One module controls two output channels that can be configured in a High-Pass, Low-Pass, or Full Range (factory default) position. (Note: The 4600x has 2 modules as it is a 4-channel amplifier). Selection is made by positioning a removable module card. Both the 2600x and 4600x are shipped with 100Hz 12dB per octave Butterworth aligned crossover modules. Additional crossover frequency modules are available from your Authorized Rockford Fosgate Dealer.

Note: The factory default setting is Full Range.

# CROSSOVER FREQUENCY SETTINGS

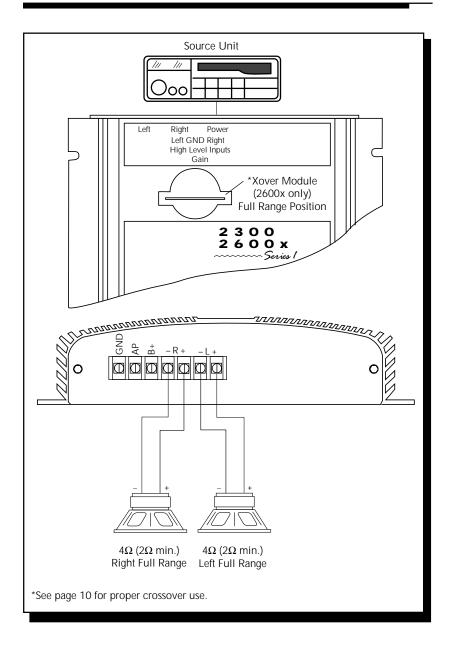
To change the crossover mode, remove the crossover module from the housing. Rotate the module to the desired setting and gently push the module back into the amplifier housing as shown on the diagram on the back of the amplifier.

*Example:* The 2600x is shipped with a 100Hz module. With the module in the Full Range setting, the amplifier will pass through all 20Hz - 20kHz frequencies.

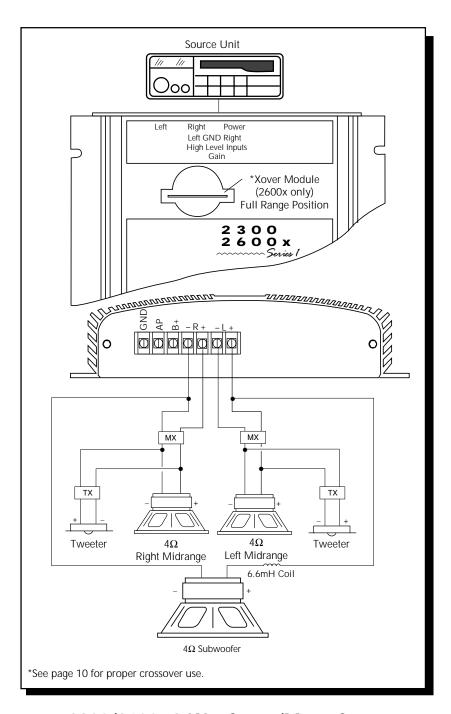
In the Low-Pass setting, only those frequencies below 100Hz will pass through the amplifier.

In the High-Pass setting, only those above 100Hz will pass through the amplifier.

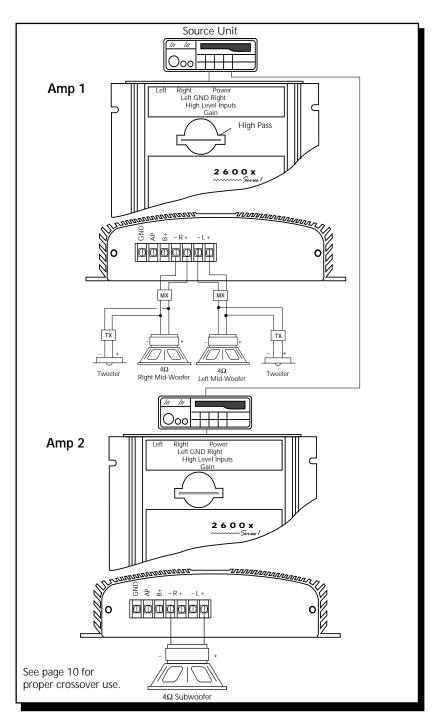
# WIRING DIAGRAMS - 2300 / 2600x



2300/2600x Basic System



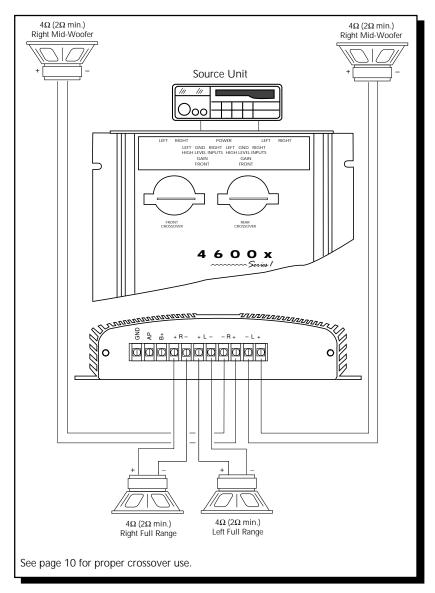
2300/2600x 3-Way Stereo/Mono System



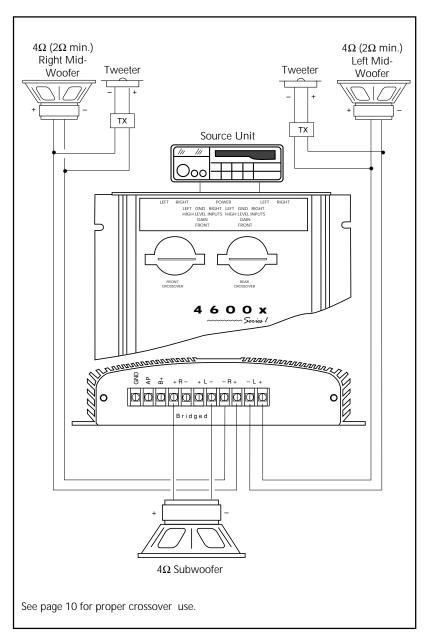
2600x 3-WAY BI-AMPLIFIED SYSTEM

# WIRING DIAGRAMS - 4600x

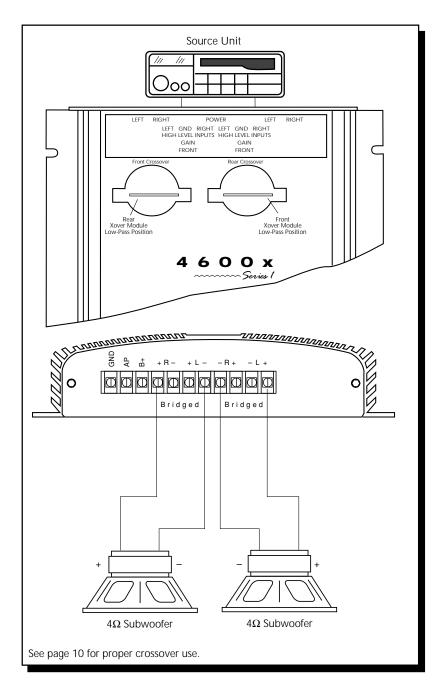
The following pages show some examples for wiring the Series 1 4600x amplifier to your vehicle's speaker system.



# 4600x Front/Rear Fading Full Range System



4600x 3-WAY MULTI-CHANNEL STEREO/BRIDGED MODE



4600x 2 Channel Bridged Low Pass

# **TROUBLESHOOTING**

This troubleshooting guide is intended to assist you with certain problems which may occur. If you still encounter problems, see your Authorized Rockford Dealer for assistance.

# **Problem**

Amplifier will not play — Remote Turn-on light is off.

# Solution

- Check the DC voltage at the amplifier's B+ terminal with a voltmeter. The voltage should measure between 11.5V - 15.5V.
   If voltage is *not* found, check the battery, fuse, fuse housing and wire connections. Fix, repair, or replace accordingly.
- 2. If the amplifier still does not play, check the voltage at the amplifier's remote turn-on lead. The voltage should measure between 11V 15V.
  - a. If voltage is above or below the prescribed measurements, check for proper connections and have the head unit checked by an Authorized Dealer or Service Center.
  - b. If the remote turn-on current draw from the head unit is connected to multiple amps and/or electronics, the current draw may be too great. Check for proper connections. (Use a relay to suppress the excessive current draw.)

# **Problem**

Amplifier will not play — Remote Turn-on light is on:

# Solution

- 1. Unplug the head unit and test the amplifier with another working source unit (i.e., bench-test radio, walkman, etc.). If the amplifier plays, check the in-dash leads for cuts, breaks and/or shorts.
- 2. If the amplifier still does not play, disconnect the existing speakers and connect a set of test speakers to the output of the amplifier (any type of speaker will do i.e., simple home box type, bookshelf, raw speaker, etc.). If the amp plays, check for shorts or blown voice coils in the vehicle's speaker system.

# Problem

Amplifier gets too hot.

# Solution

- 1. Be sure the amplifier is properly mounted. You should be able to place your hand a few inches above the amplifier housing and feel the heat rising when the unit is on.
  - Hot air rises. Consequently mount the amplifier with the heatsink fins aligned vertically. This allows the air to flow freely, carrying away the heat. Check to see that the heatsink fins are free of any obstruction (i.e., carpet, seats, etc.).
- If #1 does not solve the problem, check to see that the impedance of the overall system is not less than 2Ω stereo or 4Ω bridged/ mono. Using an AC impedance meter (such as the Perfect Interface IM-1), sweep from 20 Hz-20 kHz, and look for dips below 2Ω.

Be sure to test the bass region (20 Hz - 150 Hz) of your system. If the amplifier is bridged to those speakers, the load the amp sees is one-half (1/2) of the reading on the AC impedance meter.

If the impedance level is below  $2\Omega$ , check for a bad speaker and/ or crossover, proper usage of passive crossovers or shorted wires, or try rewiring the entire system.

### Problem

Amplifier noise (Turn-On Pop)

# Solution

- Disconnect the RCA plugs from the amplifier and recheck the amp by turning it on and off with the source unit. If turn-on pop goes away, connect a delay turn-on module (Perfect Interface DT-1) to the amplifier. See your Authorized Rockford Fosgate Dealer for more information.
- 2. If the noise persists, disconnect the turn-on wire from the head unit and use a different +12 volt power source to turn on the amplifier (i.e., battery direct). If the noise is gone, use a relay to switch +12 volts auto power from the clean power source.

# **Problem**

Engine Noise (Whine)

# Solution

- 1. Disconnect the speakers from the amplifier. Connect a test speaker to the amplifier output terminals. If the noise goes away, check your speaker leads, speakers and crossovers.
- 2. If the noise persists, use a "shorting plug" to mute the input signal at the amplifier. If the noise goes away:
  - a. Bypass all of the other equipment (i.e., crossovers and equalizers) and connect the head unit directly to the amp. If the noise disappears, reconnect the equipment one piece at a time, being sure to test for noise after each piece is installed. Logic indicates that the last unit installed when the noise returns is the culprit. Refer to the unit's owner's manual for more information.
  - b. If the noise persists, run a new RCA line from your head unit to the amplifier. If there is no noise, replace the RCA cable.
  - c. If the noise is still present after replacing the RCA cable, run the RCA cable on a different route.
  - d. Isolate the grounds on the head unit so that there is only one grounding point. If the noise disappears, install the radio, using only one (1) grounding point. Isolate the radio chassis from the grounding on the dash, and use an antenna grounding loop isolator on the antenna.

If noise persists, see your Authorized Rockford Fosgate Dealer.

# DYNAMIC POWER MEASUREMENTS

# **About the Dynamic Power Measurements**

The Audio Graph PowerCube is a test instrument used to measure the output of an amplifier. It makes measurements in accordance with IHF-202 standards. The IHF-202 standard is a Dynamic power measurement. It was developed as a means of measuring power in a manner that best represents the Real World operation of an amplifier. Many manufacturers, including Rockford Fosgate, at times will measure amplifier power into a fixed resistor (4 Ohm, 2 Ohm). While this method is useful in some types of evaluation and testing, it is not representative of an amplifier that is hooked up to a speaker and playing music.

# Music

Music is dynamic; sound waves are complex and constantly changing. In order to simulate this, the IHF-202 standard calls for the input signal to the amplifier to be a 1kHz bursted tone. This signal is input (on) for a short period of time and then off for a "rested" period. The signal is gradually increased in level until the amplifier's output exceeds 1% Total Harmonic Distortion (THD). At 1%, distortion becomes audible therefore, any power produced above that level is considered *unusable*. Many manufacturers represent their amplifier's output power in excess of 10% distortion. They use many names for the measurement, such as Total Maximum Power or Maximum Output Power. This is not indicative of the *actual usable output power*.

# Listening to Loudspeakers - Not Resistors

A loudspeaker is not a resistor. A resistor's value (resistance) is fixed. A loudspeaker's impedance is dynamic. It is constantly changing in value, dependent upon the frequency of the input signal. Therefore, measuring power with the amplifier loaded to a 4 Ohm resistor is not the same as measuring power with the amplifier hooked to a 4 Ohm speaker. Most people do not listen to music through a resistor.

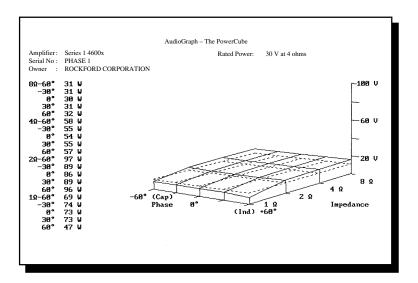
A 4 Ohm speaker may experience a drop in impedance 4-6 times lower than its nominal (printed) impedance. A speaker will also cause phase shifts in the signal that is passed through it. These phase shifts happen because a speaker is an inductor (voice coil), a capacitor (compliance of the surround/spider), as well as a resistor (voice coil wire).

To simulate a speaker the *Audio Graph PowerCube* measures output power into 20 different loads. It tests at 8 Ohms, 4 Ohms, 2 Ohms and 1 ohm. Each of these impedances is also tested at -60°, -30°, 0°, +30° and +60° phase angles. These different impedances and phase angles represent the shifts in impedance and phase that can occur in a typical loudspeaker.

# Information Cubed

The data acquired in the testing procedure is then graphed in the form of a 3-dimensional cube, hence the name *PowerCube*.

The *Phase Angle* is expressed on the horizontal axis, the *Output Voltage* is presented on the vertical axis and the *Impedance* is displayed on the Z axis. *Output Power*, in watts, is listed on the left hand side for each impedance at each phase angle.



# What is an Amplifier?

An amplifier by definition is a voltage generating device, recreating the signal input which is identical but in a larger or *amplified* form. It will be connected to a reactive load (the speaker). The impedance of this load and the phase of the signal passing through the load will vary, dependent upon the frequency and amplitude of the input signal (music).

Therefore, a perfect amplifier will be able to maintain the same output voltage regardless of load characteristics and will not alter the signal it is reproducing. A perfect amplifier when measured by the *Audio Graph PowerCube* would present data that forms a perfect cube. Unfortunately, amplifiers are not perfect. The laws of physics generally prevent it. A great amplifier is about the best one can hope to attain.

As you can see by the *PowerCube* and as you will experience by listening, your Series 1 amplifier is a GREAT AMPLIFIER!

# WARRANTY INFORMATION

Rockford Fosgate warrants all electronics to the original consumer/purchaser to be free from defects in materials or workmanship for a period of three (3) years. We will cover parts and labor provided the product was purchased from an Authorized Rockford Fosgate Dealer. This warranty does not apply to any product on which the seals and/or serial number have been broken, removed, tampered with, defaced or altered in any manner. This warranty applies only to the original consumer/purchaser and is not transferable.

Electronics found to be defective during the warranty period will be repaired or replaced at Rockford Fosgate's discretion. Repaired or replaced electronics will be covered by the balance of the original warranty period only. Rockford Fosgate shall not be responsible for any incidental or consequential damages resulting from a defect in electronics. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the previous limitation may not be applicable.

The warranty does not cover any appearance item, any cost or expense related to the removal or reinstallation of the product, any accessory used in conjunction with the product, damage to the product resulting from alteration, accident, misuse or abuse, or improper installation. This warranty does not apply if the parts or labor, which would otherwise be provided without charge under this warranty, are obtained from any source other than Rockford Fosgate or an Authorized Rockford Fosgate Service Center.

This warranty is the only express warranty and does not create any implied warranties. Rockford Fosgate limits its obligations under any implied warranties under state laws to a period not to exceed the written warranty period. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply. This warranty applies only to products sold in the United States of America or its possessions. For warranty outside the U.S.A., please contact the nearest Authorized Rockford Fosgate Dealer. This warranty gives the consumer specific legal rights, and the consumer may have other rights which vary from state to state.

A defective product must be shipped prepaid to the Authorized Rockford Fosgate Dealer from which the consumer purchased the product or to the Rockford Fosgate factory in Tempe, Arizona in the original factory carton or equivalent. Any shipping loss or damage will be borne by the consumer or the consumer's shipper. A consumer returning a product to the factory must call (800) 669-9899 for a Return Authorization Number. All shipments shall be clearly marked with the Return Authorization Number on the outside of the shipping carton.

Ship to:	
Rockford Corporation	
Warranty Repair Department	
2055 E. 5th Street	
Tempe, AZ 85281 U.S.A.	
Return Authorization Number:	

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