

## Rockford Fosgate R2-300X4

# Rockford Fosgate R2-300X4 Prime 300-Watt 4-Channel Amplifier User Manual

Model: R2-300X4 | Brand: Rockford Fosgate

## INTRODUCTION

The Rockford Fosgate R2-300X4 is a full-range Class-D 4-channel amplifier designed for automotive audio systems. It provides 300 Watts of RMS power, offering efficient operation by reducing demand on the vehicle's electrical system. Key features include C.L.E.A.N. circuitry for precise gain adjustment, a P.O.W.E.R. Supply for stable output, and integrated Punch EQ for bass enhancement. The amplifier also features adjustable 12 dB/octave high and low pass Butterworth crossovers, balanced differential inputs with RCA pass-through outputs, high-level input capability, and a defeatable auto turn-on circuit. Controls are conveniently located on the top panel for ease of use.



Figure 1: Front view of the Rockford Fosgate R2-300X4 Amplifier.

## SETUP

Proper installation is crucial for optimal performance and safety. It is recommended to have this amplifier installed by a professional car audio technician.

### Wiring Connections

- **Power (B+):** Connect to the positive terminal of the vehicle's battery using an appropriate gauge power cable and an inline fuse.
- **Ground (GND):** Connect to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid connection for stable operation.
- **Remote (REM):** Connect to the remote turn-on output of your head unit. This activates the amplifier when the head unit is turned on.
- **Speaker Outputs:** Connect your speakers to the designated speaker terminals. The amplifier supports 4-channel operation or 2-channel bridged operation.
- **Input Connections:** Use RCA cables for low-level inputs or the high-level input feature for direct connection to factory head units.

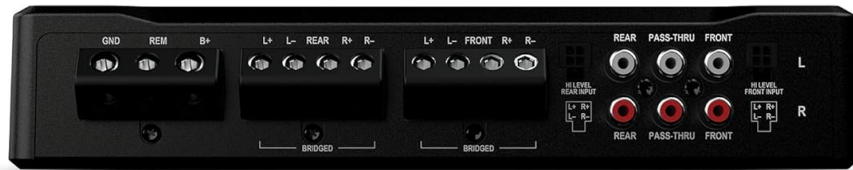


Figure 2: Rear view showing power, ground, remote, and speaker connections.

### Gain Adjustment with C.L.E.A.N. Circuitry

The C.L.E.A.N. (Calibrated Level Eliminates Audible Noise) circuitry assists in setting the amplifier's gain levels accurately. This system uses indicator LEDs to signal when the input signal is clean and optimized, preventing distortion. Refer to the operating section for detailed gain setting instructions.

### Mounting

The amplifier is designed for through-hole mounting. Select a secure location that allows for adequate ventilation and protects the amplifier from moisture and excessive heat. Ensure the mounting surface is stable and can support the amplifier's weight.

## OPERATING

Once installed, configure the amplifier settings using the top-mounted controls to match your audio system and preferences.

### Top-Mounted Controls



Figure 3: Top view showing the control panel for gain, crossover, and frequency adjustments.

- **Gain Control:** Adjusts the input sensitivity of the amplifier to match the output of your head unit. Use the C.L.E.A.N. indicator LEDs to set the gain without distortion.
- **Crossover (X-OVER):** Select between Low Pass (LP), All Pass (AP), or High Pass (HP) filter modes. This allows you to direct specific frequency ranges to your speakers.
- **Frequency (FREQ. Hz):** Adjusts the cutoff frequency for the selected crossover mode.
- **Punch EQ:** This feature provides bass enhancement. Adjust as desired to correct for acoustic deficiencies and boost low frequencies.
- **Auto Turn-On Circuit:** If using high-level inputs, this circuit can automatically turn the amplifier on and off with the head unit's signal. It can be defeated if not needed.

## Video Overview

Video 1: An official overview of the Rockford Fosgate R2 Prime Amplifier series, highlighting key features and design.

## MAINTENANCE

To ensure the longevity and optimal performance of your amplifier, follow these general maintenance guidelines:

- **Cleaning:** Periodically clean the exterior of the amplifier with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from obstructions to allow for proper heat dissipation.
- **Environment:** Avoid exposing the amplifier to extreme temperatures, direct sunlight, or excessive moisture.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.

## TROUBLESHOOTING

If you experience issues with your amplifier, consult the following basic troubleshooting steps:

- **No Power:** Check the main power fuse, ground connection, and remote turn-on wire. Ensure the vehicle's battery has sufficient charge.
- **No Sound:** Verify all RCA or high-level input connections. Check speaker wiring for proper polarity and secure connections. Ensure the head unit is functioning correctly.
- **Distorted Sound:** Reduce the gain setting. Check speaker impedance and ensure it matches the amplifier's capabilities. Verify that the C.L.E.A.N. indicator is not showing distortion.
- **Amplifier Overheating:** Ensure adequate ventilation around the amplifier. Check for proper impedance matching with speakers.

For persistent issues, contact Rockford Fosgate customer support or a qualified technician.

## SPECIFICATIONS

Feature	Specification
Model Number	R2-300X4
RMS Power (4Ω)	50 Watts x 4 channels
RMS Power (2Ω)	75 Watts x 4 channels
RMS Power (4Ω Bridged/Mono)	150 Watts x 2 channels
Dimensions (H x W x L)	1.9" x 6.8" x 10.1"
Maximum Supply Voltage	16 Volts (DC)
Minimum Supply Voltage	9 Volts (DC)
Mounting Type	Through-Hole Mount
ASIN	B07X8QVRJW
Date First Available	September 3, 2019

## WARRANTY

The Rockford Fosgate R2-300X4 Prime 300-Watt 4-Channel Amplifier comes with a full 1-year warranty. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, refer

to the documentation included with your product or visit the official Rockford Fosgate website.

## **SUPPORT**

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For technical assistance, installation questions, or warranty service, please contact Rockford Fosgate customer support. You can find contact information on the official Rockford Fosgate website or through your authorized dealer.