

POWER MIDRANGE

PWR-34/38, PWR-44/48

PWR-54/58, PWR-64/68

PWR-408/808



OWNER'S MANUAL



Dear Customer,

Congratulations on your purchase of America's finest brand of car audio components. 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 1-602-967-3565 or FAX 1-602-966-3983 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 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 1-800-795-2385. 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 be sure to record it in the space provided below as your permanent record. This will serve as verification of your factory warranty and can become useful in recovering your product if ever stolen.

Serial Number: _____

Model Number: _____

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PUNCH POWER MIDRANGE CONTENTS

1 Pair of Midrange Speakers
Mounting Hardware Grilles (excluding 3")

INTRODUCTION

This manual contains information on the features, installation and operation of the Punch Power midrange speakers. We suggest you save this manual for future reference.

The Punch Power midrange speakers are designed and constructed to provide the discriminating listener the benefits of superb sonic accuracy and high levels of sonic output without compromising power handling. Modern engineering and manufacturing techniques, combined with the use of space age materials, allow us to offer a speaker which achieves performance and reliability previously unattained.

DESIGN FEATURES

Woven Kevlar® Cone – The Punch Power midrange speakers use a woven Kevlar® material. The woven Kevlar® is a lightweight, rigid material ideally suited to midrange speakers. The rigidity resists deformation in operation and the light cone mass allows quick response to the changing electrical signals. This combination makes for a speaker with low distortion, extended flat frequency response and clean sound.

Suspension – The suspension holds the cone to the basket and centers the voice coil in the magnetic gap. The suspension should allow the cone to move in and out freely but not allow side to side motion. The Punch Power midrange speakers all use a Thermo Plastic Rubber (TPR) surround for the front suspension and a flat design spider for the rear suspension (except for the PWR-34 AND PWR-38). This combination takes full advantage of the Kevlar® cone's stiffness allowing clean, uncolored reproduction even at high listening levels.

Ferrofluid Cooling – Ferrofluid is a magnetic liquid which adds to the speaker's thermal capacity. When injected into the speaker's magnet gap, it flows to fill the cavity and is held in place magnetically. This forms a thermally conductive path which prevents excessive heat build-up in the voice coil, allowing for increased power handling.

Kevlar® is a registered trademark of E.I. DuPont D.E. Nemours and Company.

Manifold Vented Pole Piece – A vented pole piece by design ensures adequate ventilation to cool the voice coil and maintain safe operating temperature. Our exclusive Manifold Venting technique prevents air pressure build-up that causes the splashing of Ferrofluid out of the voice coil gap.

Voice Coil – The construction of the voice coil is designed to maximize the speaker's power handling. The wire used is high temperature copper, wound in two layers on a black, anodized aluminum former. The wire itself will withstand high temperatures and the former will conduct the heat away from the coil.

Powder Coated Basket – The stamped steel baskets of the Punch Power speakers are finished with a powder coat process. This good looking finish helps reduce basket resonance, preventing basket vibration from coloring the sound. Unrelated to the sonic performance of the speakers, but equally important, the powder coating used is environmentally friendly since no toxic chemicals are released into the environment during the finishing process.

USING THE PUNCH POWER MIDRANGE SPEAKERS

Speakers are built in different sizes to optimize their performance in different frequency bands. Crossovers are used to route the different frequency bands for each appropriate speaker. There are two operational types of crossover, active and passive. An active crossover is an electronic filter which comes before the amplifier and separates the signal fed to different amplifiers in the system. A passive crossover is positioned after the amplifier and separates the signal fed to each speaker in the system. Each type of crossover offers its own advantages and disadvantages. Active crossovers offer the accuracy and flexibility needed for a sophisticated system and are used in expensive multiple amp designs. Passive crossovers, such as capacitors, resistors and inductors, allow the use of multiple speakers in a system which can easily be expanded over time. We offer passive crossovers with 6dB and 12dB per octave slopes. The 6dB per octave crossover requires only one component and the gentle slope allows for smooth transition between the speakers. The 12dB per octave crossover gives the speaker better power handling capacity outside the pass band of the crossover range.

The following section has suggestions for use of the Punch Power Midrange Speakers in popular system designs. The information provided includes our model numbers for 6dB and 12dB per octave passive crossovers and the crossover frequency to use with active crossovers. These recommendations all offer a satisfactory level of performance; however, since individual tastes vary, your Authorized Rockford Fosgate Dealer can help tailor the system to your individual needs.

PWR-34/44 – Best used for midrange in a 3-way system with a woofer and tweeter. Model C-100 is the 6dB per octave crossover at 400Hz. Model MX-124 is the 12dB per octave crossover and allows use down to 275Hz.

PWR-38/48 – Best used for midrange in a 3-way system with a woofer and tweeter. Model C-47 is the 6dB per octave crossover at 400Hz. Model MX-128 is the 12dB per octave crossover and allows use down to 275Hz.

PWR-54/64 – Can be used as a woofer in a 3-way system or a woofer/midrange in a 2-way system. The crossover point for use as a woofer/midrange is determined by the tweeter crossover. Select a crossover that allows the two speakers to work together without overlapping. For use as a woofer, use Model TT-2.5 6dB per octave low-pass crossover at 250Hz.

PWR-58/68 – Can be used as a woofer in a 3-way system or a woofer/midrange in a 2-way system. The crossover point for use as a woofer/midrange is determined by the tweeter crossover. Select a crossover that allows the two speakers to work together without overlapping. For use as a woofer, use Model TT-5.0 6dB per octave low-pass crossover at 250Hz.

PWR-408/808 – Best used as midbass speakers in a 4-way system or as woofers in a 3-way system. In either instance, they require an enclosure in order to achieve optimum performance. To use for midbass a 0.25 cubic foot, sealed enclosure will fulfill the high-pass crossover function at around 100Hz. Use a passive low-pass crossover to establish the upper operating limit (usually near 275Hz.) Woofer operation depends upon a ported enclosure of 1 cubic foot (for each speaker) using a three inch diameter port, seven inches long for a 45Hz tuning. This is generally used with a 6dB per octave low-pass crossover at 100Hz.

INSTALLING THE PUNCH POWER MIDRANGE SPEAKERS

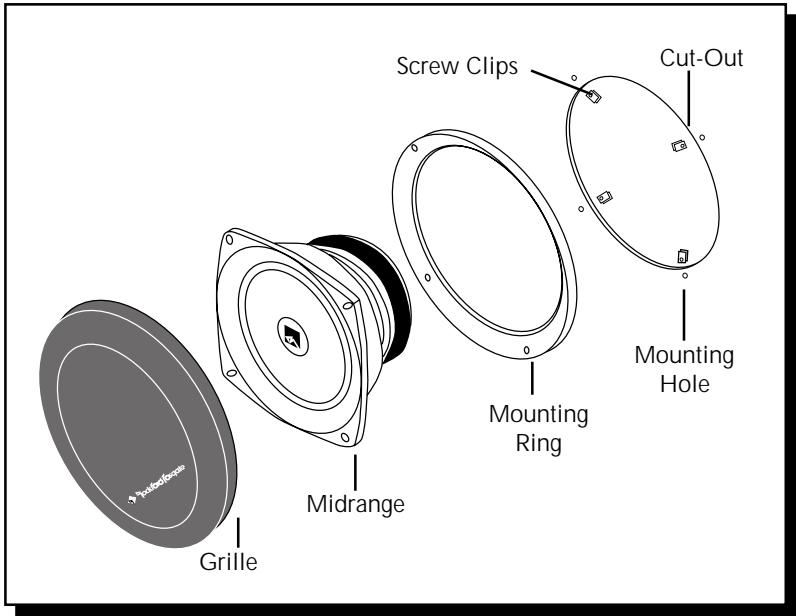
Since the PWR-34 and PWR-38 are most often used for direct replacement of stock speakers, some of the following instructions may not apply.

1. Determine where the speakers will be mounted. Ensure a flat area large enough for the speaker to mount evenly. Determine that the mounting location is deep enough for the speaker to fit; if mounting in a door, operate all functions (windows, locks, etc.) through their entire operating range to ensure there is no obstruction.
2. Refer to the chart below to determine the proper diameter hole to cut for your speaker model.

MODEL	DIAMETER
PWR-34/38	2-31/32" (75.4mm)
PWR-44/48	4" (101.6mm)
PWR-54/58	4-15/16" (133.35mm)
PWR-64/68	5-27/32" (148.4mm)

3. Using the plastic mounting ring as a template, mark the locations for the mounting screws. Drill the holes with a 1/8" bit.
4. Slip the screw clips over the holes that were just drilled with the flat side on the outer face.
5. Feed the speaker wires through the cutout and the plastic mounting ring (from the flat side) and connect to the speaker terminals. Be sure to observe proper polarity when connecting the wires. The speaker's positive terminal is indicated with a dot. On the 4Ω speaker the dot is violet and on the 8Ω it is red.
6. Fit the ring and speaker to the cutout. Mount them using the enclosed screws. Fit the grille over the ring and press gently but firmly into place.

EXPLODED VIEW



In Conclusion

Special care has been taken to ensure your satisfaction with the Punch Power Midrange speakers. The materials and workmanship have been carefully selected to guarantee performance equal to the needs of the most demanding conditions. If you have any further questions or advanced system needs, your Authorized Rockford Fosgate Dealer will be happy to assist you.

SPECIFICATIONS

Model	PWR-34	PWR-38	PWR-44	PWR-48	PWR-54	PWR-58	PWR-64	PWR-68	PWR-408	PWR-808
Nom. Imped.	4	8	4	8	4	8	4	8	4	8
FS (Hz)	150	150	85	87	70	72	65	68	40	42
RE (Ohm)	3.6	6.9	3.9	7.8	3.8	7.6	3.3	6.6	3.5	7
LE (mH)	0.15	0.23	0.16	0.26	0.3	0.46	0.43	0.67	.69	1.09
OMS	1.99	2.36	1.43	1.63	1.52	1.71	1.57	1.45	2.44	2.35
OES	2.02	2.29	0.47	0.61	0.37	0.42	0.34	0.42	.3	.37
OTS	1	1.16	0.36	0.44	0.3	0.34	0.28	0.33	.27	.32
VAS (cu.ft)	0.035	0.035	0.145	0.145	0.198	0.198	0.445	0.445	1.059	1.059
VAS (liter)	1	1	4.1	4.1	5.6	5.6	12.6	12.6	30	30
Power (Watts RMS)	80	80	100	100	120	120	120	120	200	200
SPL (dB @ 1w/1m)	84.5	84.5	89	89	89	89	93	93	90	90
X-MAX (inches)	0.02	0.02	0.05	0.05	0.06	0.06	0.09	0.09	0.19	0.19
X-MAX (mm)	0.4	0.4	1.2	1.2	1.6	1.6	2.4	2.4	4.8	4.8
Rec.Box Vol.	—	—	—	—	—	—	—	—	1.0	1.0
Port Dia. and Length	—	—	—	—	—	—	—	—	3" x 7"	3" x 7"
Mntg. Dia. (in.)	3	3	3-13/16	3-13/16	4-7/8	4-7/8	5-5/8	5-5/8	6-31/32	6-31/32
Mntg. Dia. (mm)	75.40	75.40	96.80	96.80	123.80	123.80	142.90	142.90	170	170
Mntg. Depth (in.)	1-3/8	1-3/8	2-5/32	2-5/32	2-2/3	2-2/3	3	3	4-3/16	4-3/16
Mntg. Depth (mm)	34.90	34.90	54.80	54.80	67.50	67.50	75.40	75.40	106.4	106.4

WARRANTY INFORMATION

Rockford Fosgate warrants all loudspeakers to the original purchaser for a period of two (2) years parts and labor, providing the product was purchased from an Authorized Rockford Fosgate Dealer. Speakers found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Rockford Fosgate's discretion. ***Repaired or replaced speakers will cover the balance of the original warranty period only.*** Warranty applies only to original purchaser and is non-transferable. Warranty does not cover abuse or installation error. If a determination is made that the product has been abused or is out of the warranty period, it will be repaired, exchanged, and billed. Parts not covered under warranty will be repaired or replaced and billed. For speaker boxes, please return the speaker only. Serial number must be intact to obtain warranty. Speakers must be returned prepaid to Grand Rapids, Michigan.

GENERAL

Electronics and speaker warranties do 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.

The 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 address below, 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.

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