



1" NEODYMIUM TWEETER
WITH HIGH PASS CROSSOVER

ND4-XFM & ND8-XFM

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 602-967-3565 or FAX 602-967-8590 in the U.S. For Canada, call Korbon Trading at 416-567-1920. 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 100 dB MAY CAUSE PERMANENT HEARING LOSS. HIGH POWERED AUTO SOUND SYSTEMS MAY PRODUCE SOUND PRESSURE LEVELS WELL OVER 130 dB. USE COMMON SENSE AND PRACTICE SAFE SOUND.

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

Serial Number: _____

Model Number: _____

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SPECIFICATIONS

ND4

Power Rating	50 Watts
Impedance with crossover	4Ω
Sensitivity with input of 1 Watt measured at 1 meter	91dB
Resonance Frequency	1,500Hz
Frequency Response	3,000 - 20,000Hz

ND8

Power Rating	50 Watts
Impedance with crossover	8Ω
Sensitivity with input of 1 Watt measured at 1 meter	91dB
Resonance Frequency	1,500Hz
Frequency Response	3,000 - 20,000Hz

TX-184N/TX-188N

Crossover Network	3rd order Butterworth Alignment
Crossover Frequency	4,000Hz High Pass
Crossover Slope	18dB/octave
Connections	Polarized (.110" & .205") Faston Terminals

ND4-XFM/ND8-XFM

NEODYMIUM TWEETER CONTENTS

- 1 pair ND4/ND8 Neodymium Tweeters
- 1 pair Flush Mount Cups
- 1 pair of surface mounting plates
- 1 pair TX-184N/188N High Pass Crossovers
- Mounting Hardware

INTRODUCTION

This manual provides information on the features and installation of the ND4 and ND8 Neodymium Tweeters and high pass crossovers. We suggest you save this manual for future reference.

We strongly recommend you have your Authorized Rockford Fosgate Dealer install the ND4/ND8 Neodymium tweeters. If you do choose to install the tweeters yourself, please be sure to read the entire manual before beginning.

DESIGN AND FEATURES

This section describes the design and features of each component in the ND4-XFM/ND8-XFM system.

TX-184N / 188N High Pass Crossover

The TX-184N/TX-188N High Pass Crossover is designed to enhance the performance capabilities of the ND4 and ND8 Neodymium Tweeters. This compact crossover is designed to conform to the following criteria:

- High pass crossover network centered at 4kHz.
- Straight forward 3rd order (18dB/octave) filter with a Butterworth transfer function
- Small size, accomplished by inductors wound on a high temperature nylon bobbin with an air core.

Input and Output Connectors

Mounting the TX-184N and TX-188N is accomplished with the use of .110" & .205" Faston connectors. These connectors are gold-plated to eliminate the possibility of corrosion that can cause signal deterioration.

Mounting the TX-184N / 188N

The TX-184N/188N is mounted to relatively flat surfaces with sheetmetal screws inserted into the mount-

ND4 AND ND8 NEODYMIUM TWEETERS

ing holes on either side of the enclosure.

The ND4 and ND8 Neodymium Tweeters are designed for optimum smooth frequency response. This goal, as with all other Rockford Fosgate products, is achieved by utilizing "high quality, high-end" components.

Neodymium Magnets

The high ionic compound of neodymium enables a smaller tweeter magnet assembly to be used as opposed to the much larger ferrite magnets that are commonly used in speaker manufacturing.

Ferrofluid™ Cooling

The tight tolerances of the neodymium tweeter call for ferrofluid as the ideal cooling agent, thereby giving the tweeters an increased efficiency and power handling.

**Flush Mount/
Surface Mount**

The design of the ND4 and ND8 Neodymium Tweeter enables you to incorporate the tweeters in either a flush mount or surface mount installation.

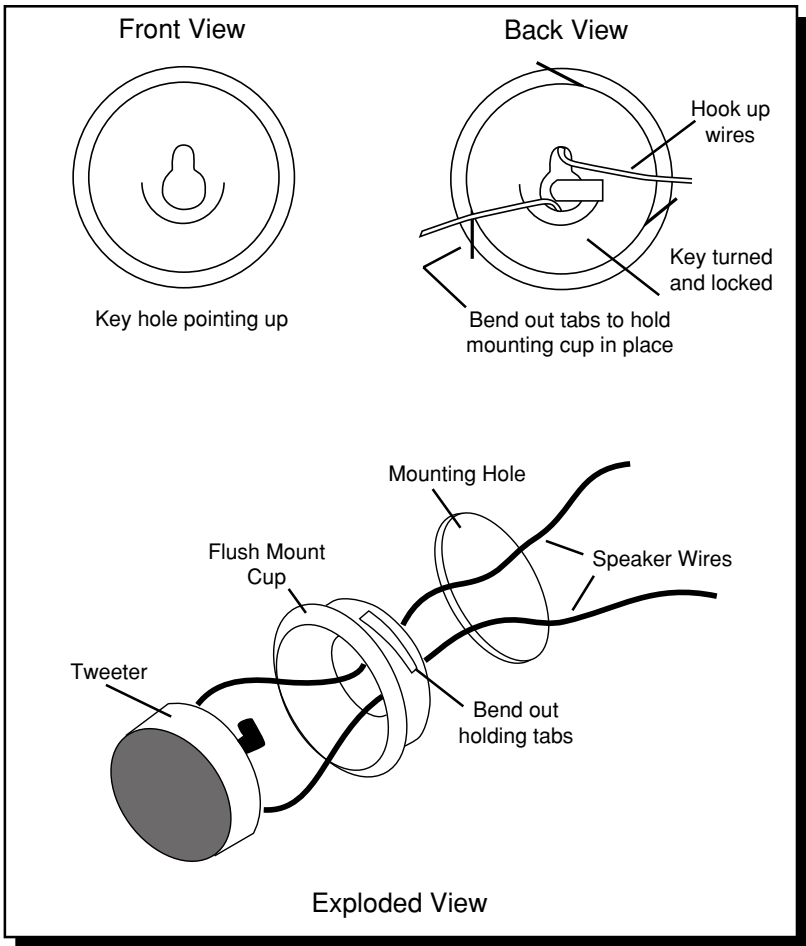
Replaceable Dome

The voice coil in the neodymium tweeter is replaceable if it should ever fail. Instructions for replacing the dome are found on page 7.

FLUSH MOUNTING THE ND4 /ND8 TWEETERS

The following instructions explain how to mount the ND4/ND8 Tweeters in a flush mount application.

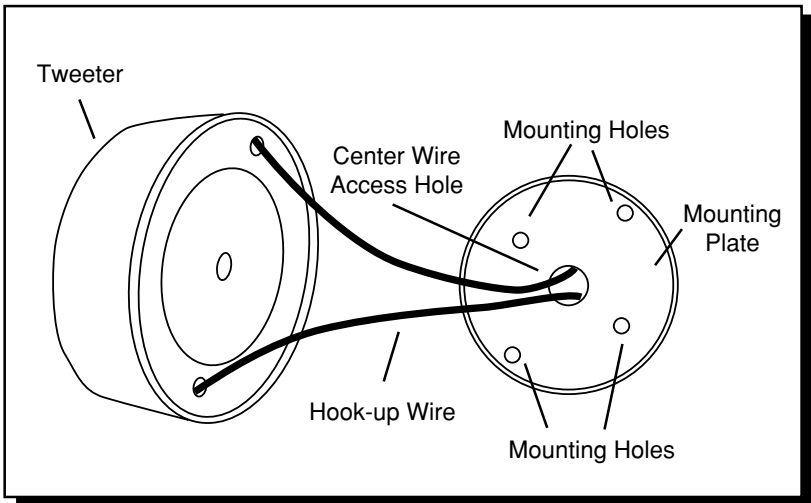
1. Cut a 2-1/8" (54mm) diameter mounting hole.
2. With the keyway pointing up, insert the flush mount cup into the hole as shown in the following diagram. Bend back the retaining tabs to secure in place. With the wires inserted through the key hole, insert the tweeter into the bracket and turn clockwise to



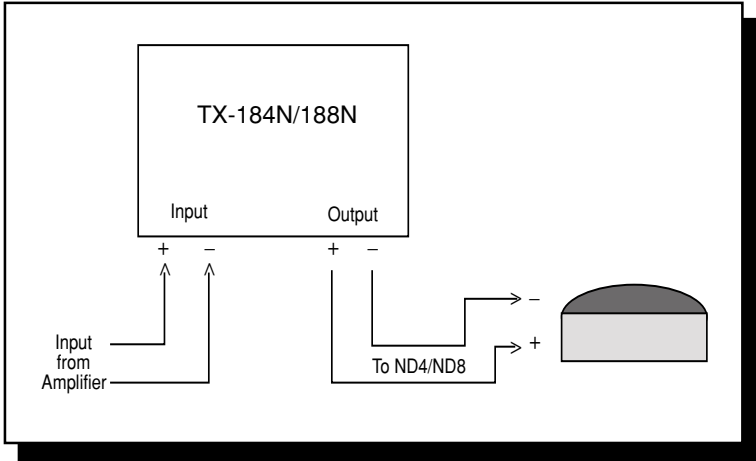
SURFACE MOUNTING THE ND4 /ND8 TWEETERS

The following instructions explain how to surface mount the ND4/ND8 Tweeters.

1. Place the mounting plate on the surface that the tweeter will be mounted to. Mark two (2) opposing mounting holes and the center wire access hole.
2. Drill a 1/4 inch (6.4mm) hole for the wire access. Drill two (2) 1/8 inch (3mm) holes for the mounting screws.
3. Route the hook up wire through the center hole.
4. Place the mounting plate in position by threading the hook-up wires through the center hole. Mount the mounting plate down using the provided screws.
5. Attach the hook-up wire to the tweeter. Note: Be sure to observe proper speaker polarity.
6. Snap the tweeter onto the mounting plate.



WIRING THE ND4/ND8 NEODYMIUM TWEETER



lock in place.

Note: The color coded wire is connected to the positive (+) terminal on

REPLACING THE ND4/ND8 DOME

Disassembly

both the ND4 and ND8.

1. Gently remove tweeter assembly from mounted location.
2. Disconnect the tweeter wire harness, at the .110 Fastons end, from the filter network wire harness.
3. Remove the "strain relief clip" from the back of the tweeter assembly.
4. Carefully grasp one of the wires leading into the Magnet Enclosure and gently pull it straight out. Repeat for the other wire.
5. Carefully remove the replacement Coil/Dome Assembly from the Transport/Tool.
6. Insert the spanner wrench detail of the Transport/Tool into two of the holes located on the bottom of the Magnet Enclosure. While holding the tweeter assembly firmly in one hand, unscrew the Magnet Enclosure until the Enclosure shell can be lifted off cleanly.
7. Place the Magnet Enclosure on a flat, hard surface. Gently insert the tip of a sharp, pointed object under the edge of the Adhesive Ring and lift up. The entire Coil/Dome Assembly should lift out cleanly. If it does not, re-insert a sharp, pointed object under the attached Gasket and lift up.
8. Clean off any excess adhesive from the Magnet Enclosure.

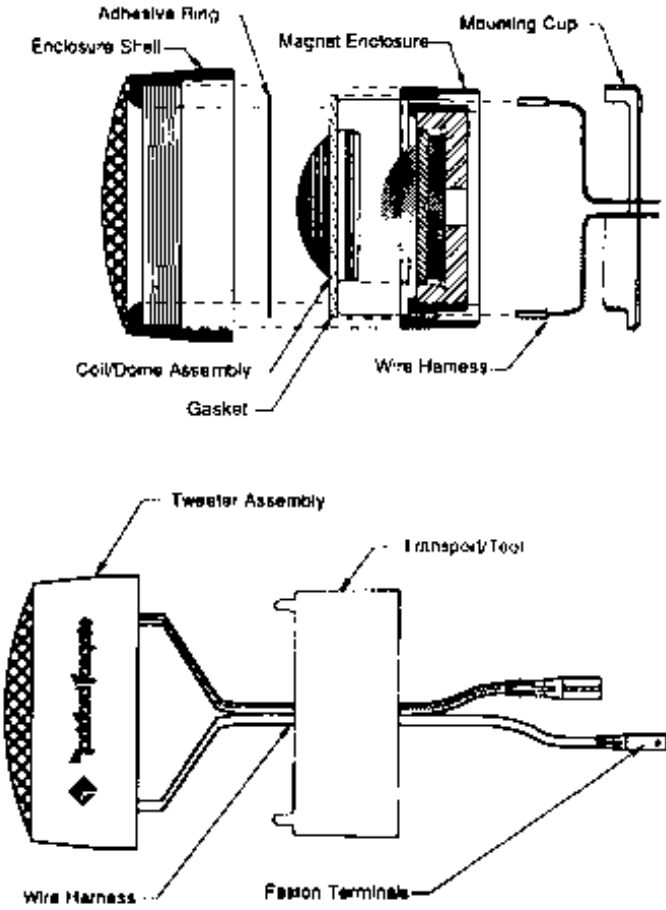
Reassembly

1. Grasp the replacement Coil/Dome Assembly with your thumb and forefinger, and extend the protruding voice coil wires such that they extend straight down from the Coil/Dome Assembly.
2. Hold the Magnet Enclosure with your free hand, and line up the polarity dot on the Gasket with one of the holes marked with a "+" on the Magnet Enclosure. Slowly insert the wire into the hole on the Magnet Enclosure. Once the wire enters the hole, insert the other wire into the opposite hole marked with a "-", and bring the two pieces together, being very careful not to touch the

dome.

3. Once the replacement Coil/Dome Assembly and Magnet Enclosure are together, gently pull the voice coil wires extending out from the bottom of the Magnet Enclosure until any extra slack has been eliminated. Wrap the voice coil wires around the edge of the Magnet Enclosure away from the metal parts. Make sure that the Coil/Dome Assembly is seated firmly in place by pressing lightly on the Gasket along its perimeter.
4. Affix the replacement Adhesive Ring around the Gasket, extending it onto the plastic edge of the Magnet Enclosure. Press lightly on the Adhesive Ring along its perimeter to ensure that it is sealed in place.
5. Place the Enclosure Shell over the Magnet Enclosure and screw it on as far as possible. When it becomes difficult to continue, insert the Transport/Tool into the two holes in the Magnet Enclosure that do not contain wires, and screw the two pieces together tightly.
6. While holding the voice coil wires against the sides of the Enclosure shell, insert the positive (coded) lead of the replacement Wire Harness into the hole used as "+" in step 2 above. Carefully push the wire up into the hole as far as it will go. Insert the other wire into the hole used as "-" in step 2.
7. Once the replacement Wire Harness is in place, trim off the excess voice coil wire that extends out of the Magnet Enclosure. Trim the wire as far down as possible to prevent it from touching any metal parts or the metal Mounting Cup.
8. Replace the strain relief clip onto the back of the tweeter to hold the wires in place.
9. Test completed tweeter assembly to verify continuity and correct operation.
10. Re-connect and re-mount the tweeter assembly.

ND4/ND8 NEODYMIUM ASSEMBLY DIAGRAM



WARRANTY

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 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. Speakers must be returned prepaid to Grand Rapids, MI.

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 should 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.

Prices are subject to change without notice.

1-800-669-9899

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