



KICKER ST-Series Square Mid Range And Bullet Tweeter Instruction Manual

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KICKER ST-Series Square Mid Range And Bullet
Tweeter Instruction Manual



Installation Manual

Street Series

Square Mid-Range
& Bullet Tweeter

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Overview

IMPORTANT SAFETY WARNING

PROLONGED CONTINUOUS OPERATION OF AN AMPLIFIER, SPEAKER, OR SUBWOOFER IN A DISTORTED, CLIPPED OR OVER-POWERED MANNER CAN CAUSE YOUR AUDIO SYSTEM TO OVERHEAT, POSSIBLY CATCHING FIRE AND RESULTING IN SERIOUS DAMAGE TO YOUR COMPONENTS AND/OR VEHICLE. AMPLIFIERS REQUIRE UP TO 4 INCHES (10CM) OPEN VENTILATION. SUBWOOFERS SHOULD BE MOUNTED WITH AT LEAST 1 INCH (2.5CM) CLEARANCE BETWEEN THE FRONT OF THE SPEAKER AND ANY SURFACE. KICKER PRODUCTS ARE CAPABLE OF PRODUCING SOUND LEVELS THAT CAN PERMANENTLY DAMAGE YOUR HEARING! TURNING UP A SYSTEM TO A LEVEL THAT HAS AUDIBLE

DISTORTION IS MORE DAMAGING TO YOUR EARS THAN LISTENING TO AN UNDISTORTED SYSTEM AT THE SAME VOLUME LEVEL. THE THRESHOLD OF PAIN IS ALWAYS AN INDICATOR THAT THE SOUND LEVEL IS TOO LOUD AND MAY PERMANENTLY DAMAGE YOUR HEARING. PLEASE USE COMMON SENSE WHEN CONTROLLING VOLUME.

The KICKER ST Street-series speakers are the latest step forward in KICKER's innovating line of full-range PA and mobile speakers. The horn-loaded bullet tweeters and 7 and 9-inch square mid-range drivers were engineered with custom installations and tough environments in mind. The hyper efficient square design of the speakers, and compression tweeters pushed through a horn, cut through ambient noise, crowds or anything that comes between you and the sound. Whether upgrading an existing audio system or decking out a new one, these speakers are designed to be mounted in free air locations and get LOUD! We hope you have the chance to combine these new speakers with our award-winning line of amplifiers and accessories to get the most out of your new system!

Specifications

ST Speakers	ST7MB	ST9MB	ST3TW	ST4TW
Woofer [in, mm]	7, 18	9, 23		
Tweeter [in, mm]			1, 25	1.5, 38
Peak Power Handling [Watts]	500	600	100	100
Recommended Amplifier Power [Watts RMS]	50–250	50–300	15–50	15–50
Sensitivity [1W, 1m]	92	94	106	108
Frequency Response [Hz]	80–7.5k	80–5.5k	3.5k–20k	3k–20k
Mounting Hole Diameter [in, mm]	5-7/16, 139	6-5/8, 168	4-5/8 X 6-9/16	148 X 167
Mounting Depth [in, mm]	3-3/16, 81	3-11/16, 93	3-3/8, 85	
Rated Impedance [Ω]	4 or 8	4 or 8	4	4
Magnet Material	Ferrite	Ferrite	Ferrite	Ferrite
Woofer Cone Material	Pressed Pulp	Pressed Pulp		
Woofer Surround Material	Treated Cloth	Treated Cloth		
Tweeter Dome Material			Aluminum	Aluminum
Tweeter Design			Bullet	Bullet

Note: All specifications and performance figures are subject to change. Please visit www.kicker.com for the most current information. To get the best performance from your new KICKER speakers, we recommend using genuine KICKER accessories and wiring. Please allow two weeks of break-in time for the speakers to reach optimum performance.

Pro Tip: You're a KICKER amplifier and a few cables away from a full system upgrade that will dominate any factory system! KICKER line of amplifiers make it easy to upgrade to solid bass with your existing or stock source unit. Also, ask your dealer about KICKER Subwoofer upgrades.

Installation

Wiring Configuration

We recommend using 16 gauge (or larger) wire. The ST Mid-range speakers are rated at 4 or 8 ohms and work with any source unit or amplifier designed to operate at the respective ohm load. Make sure your source unit or

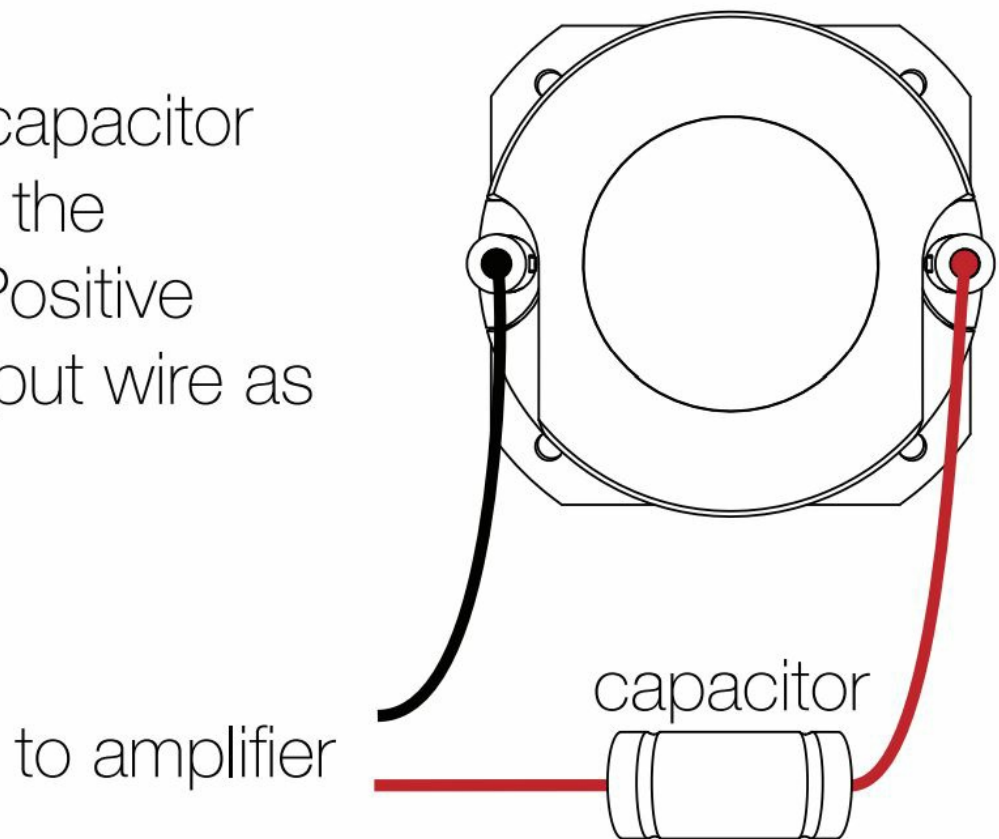
amplifier is rated at the correct ohm load for operation.

Carefully run the speaker wire in a location that is clear of vehicle or other mechanisms. If factory speaker wiring is not available in your desired location, it may be necessary to run speaker wire through the door jamb. The speaker wire should be kept away from sharp edges and avoid the possibility of getting pinched by the door. An existing grommet in the door jamb is the ideal place to run the speaker wire. If the factory hole and grommet do not exist or are inaccessible, you must drill a hole to run the speaker wire through the door jamb. Be careful not to drill into other wiring or existing door mechanisms. Any time a wire is run through a hole, it is necessary to insert a rubber or plastic grommet to protect the wire from damage.

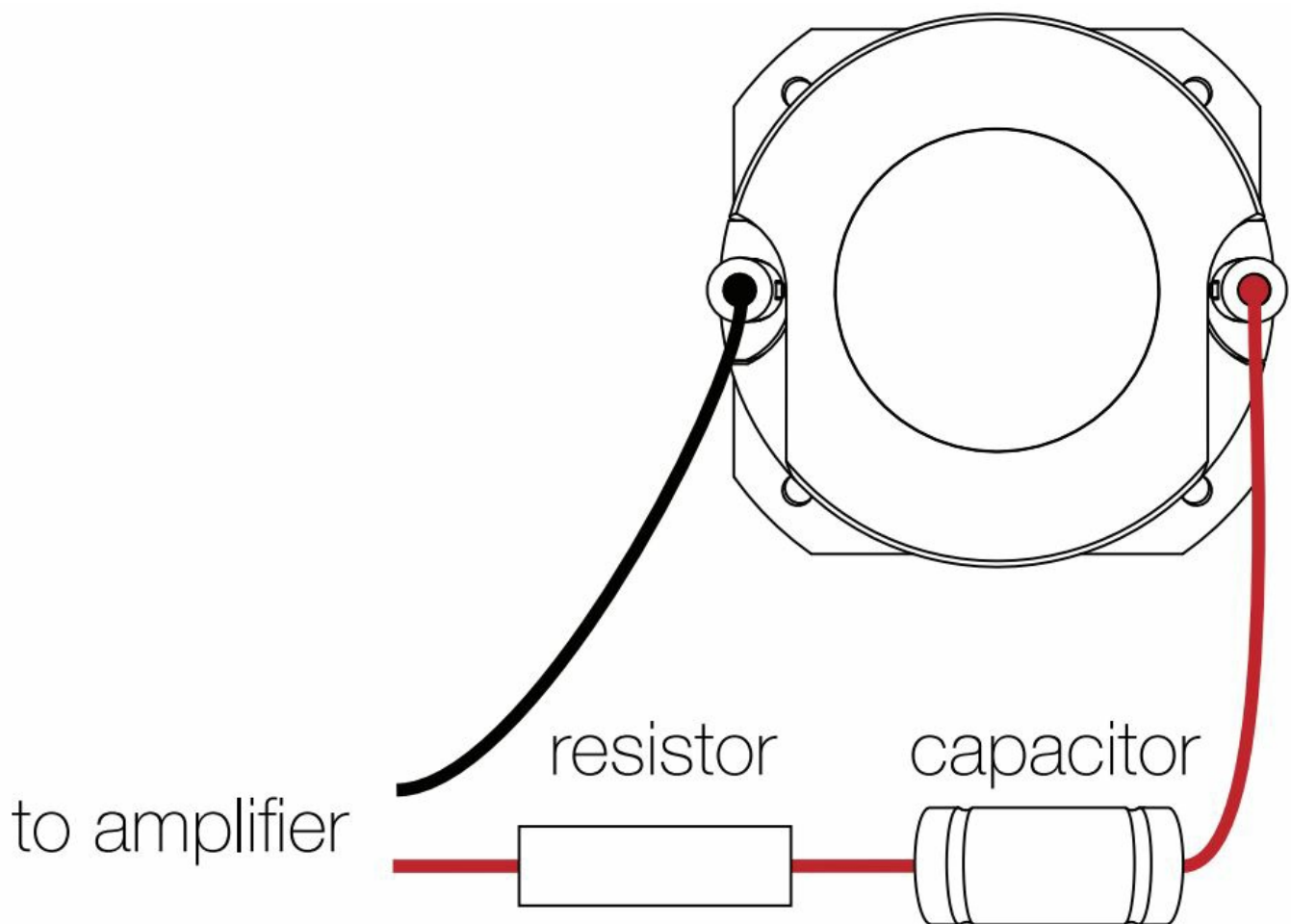
Tweeter Wiring

The ST-Series Tweeters include a capacitor for use as a passive high-pass crossover, protecting the tweeter from low frequencies and providing the best frequency response for the tweeter in relation to the mids.

Install the capacitor
in-line with the
tweeter's Positive
speaker input wire as
shown.



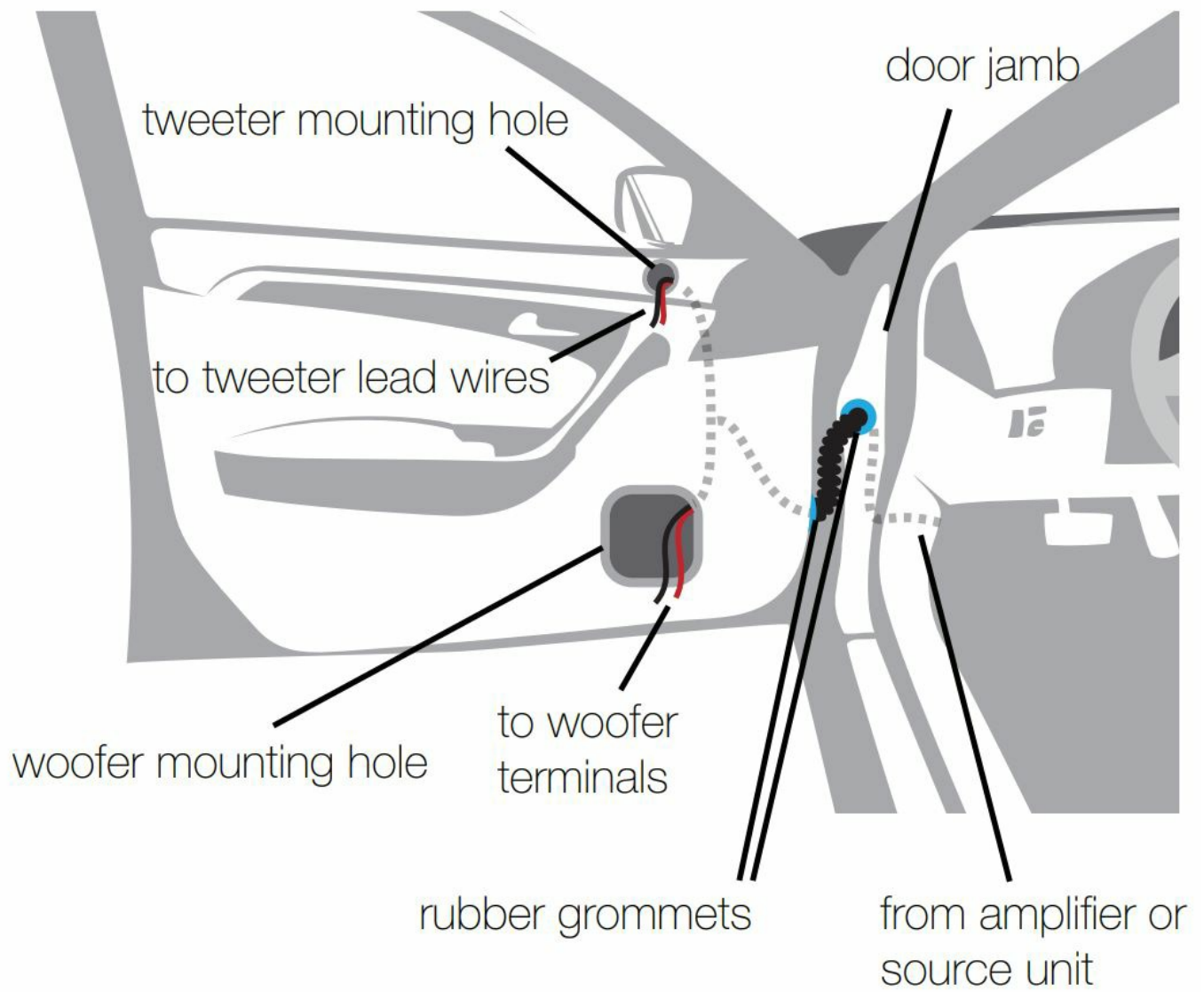
If the tweeter output is too loud, install the capacitor and resistor in series with the tweeter's Positive speaker input wire as shown.



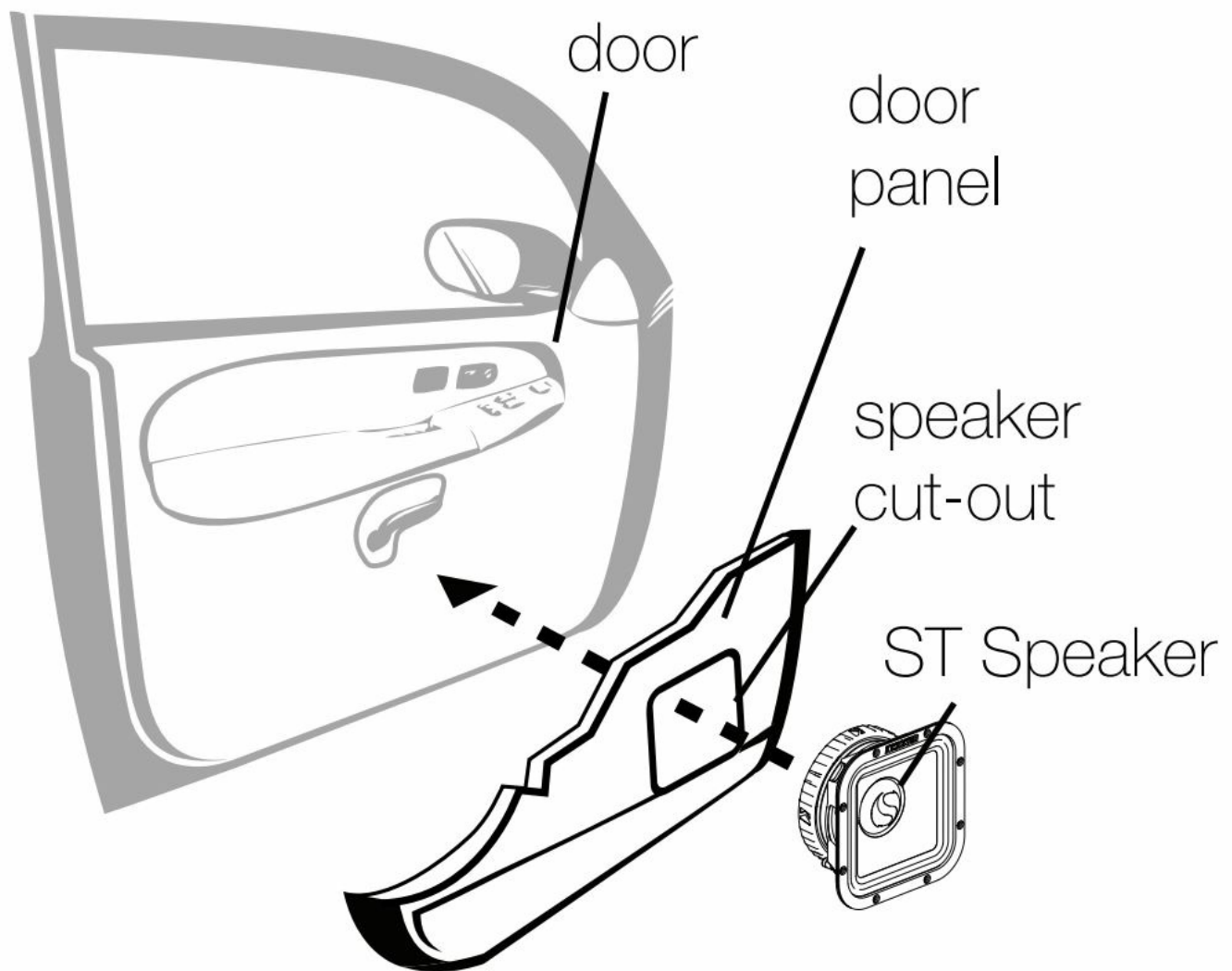
Speaker Mounting

The KICKER ST Speakers are designed for free-air applications in custom installations and do not require a sealed enclosure for optimum performance. It is important to isolate the sound coming from the front of the speaker from the sound radiating from the back of the speaker. This is most easily accomplished by mounting the speakers in a vehicle's factory locations or in a location with a semi-isolated rear chamber (like the rear deck of a car behind the rear seats).

If you are replacing factory speakers in their original locations, you will likely need to modify the mounting hole as such that it will fit the speaker and required screw patterns. Use the included mounting hole cut-out templates. You will need to pre-drill new screw holes using a 7/64" (2.5mm) bit. Make sure that the speaker will not interfere with trunk and door opening and closing mechanisms and that the enclosed screws will not puncture the fuel tank, puncture wiring, or interfere with any other mechanical parts on the underside of the mounting surface. Cycle the windows all the way down and up.



If the speaker cut-out locations require you to cut metal, avoid structural metal and braces. If the door body and panel cannot support the weight of the speaker, an optional reinforcing ring made of suitable material may be fastened or adhered to the door body.



Tweeter Mounting

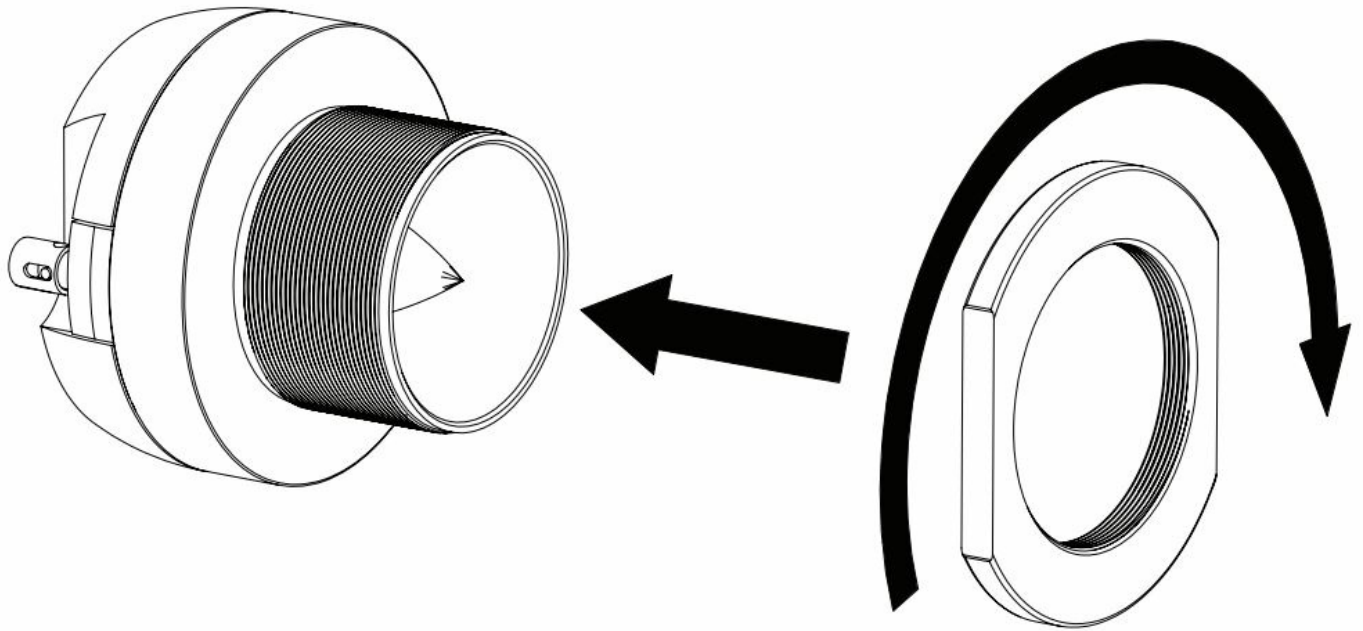
The tweeter may be through-mounted behind the mounting surface, or surface mounted on top.

For Through-Mounting, cut a circular hole in the mounting surface at 1.75" (45mm) for the ST3TW, and 2" (50mm) for the ST4TW.

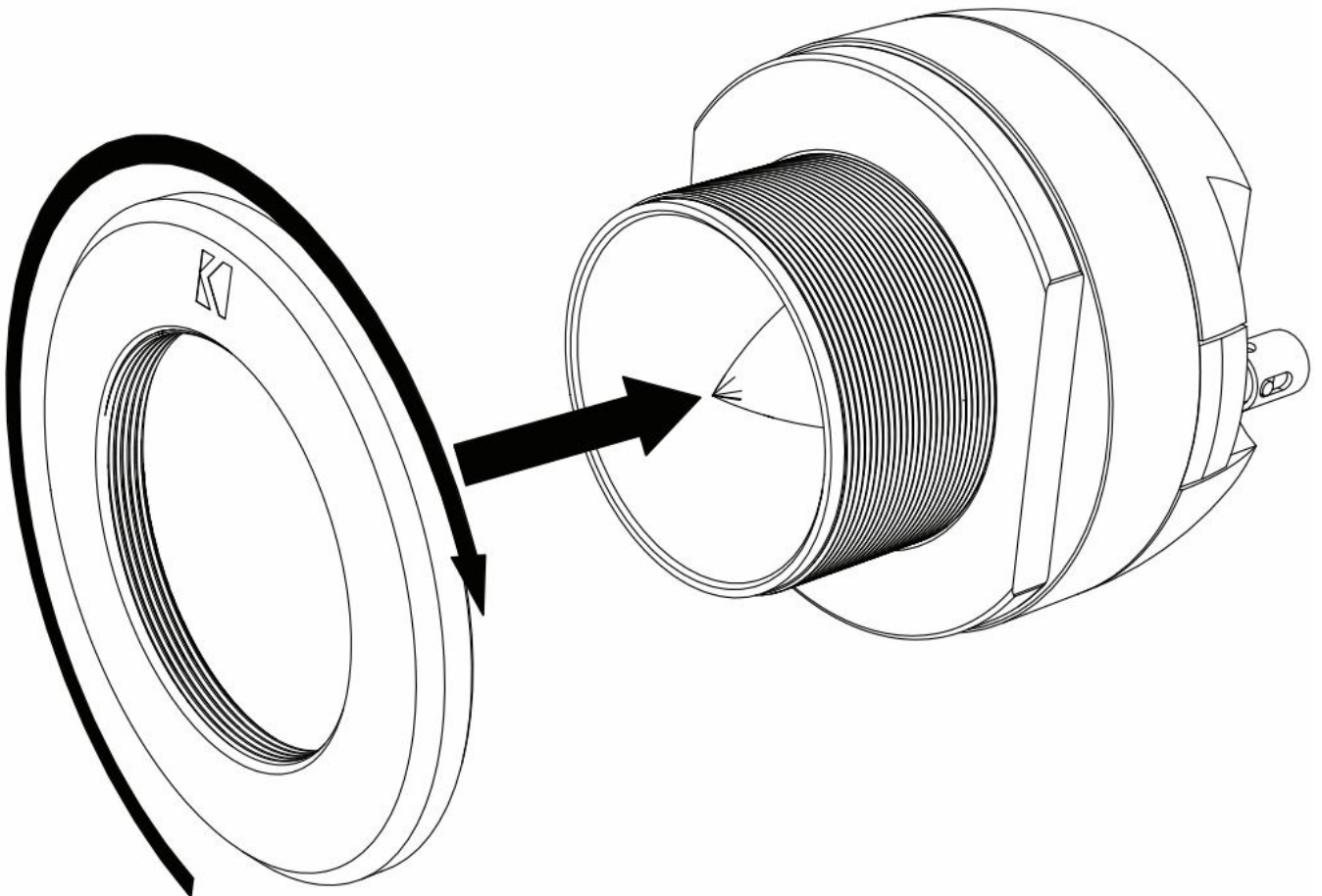
Choose a flat location on the panel with space behind the panel to allow room for the motor structure, and tweeter. After checking the

clearances, cut a mounting hole in the panel.

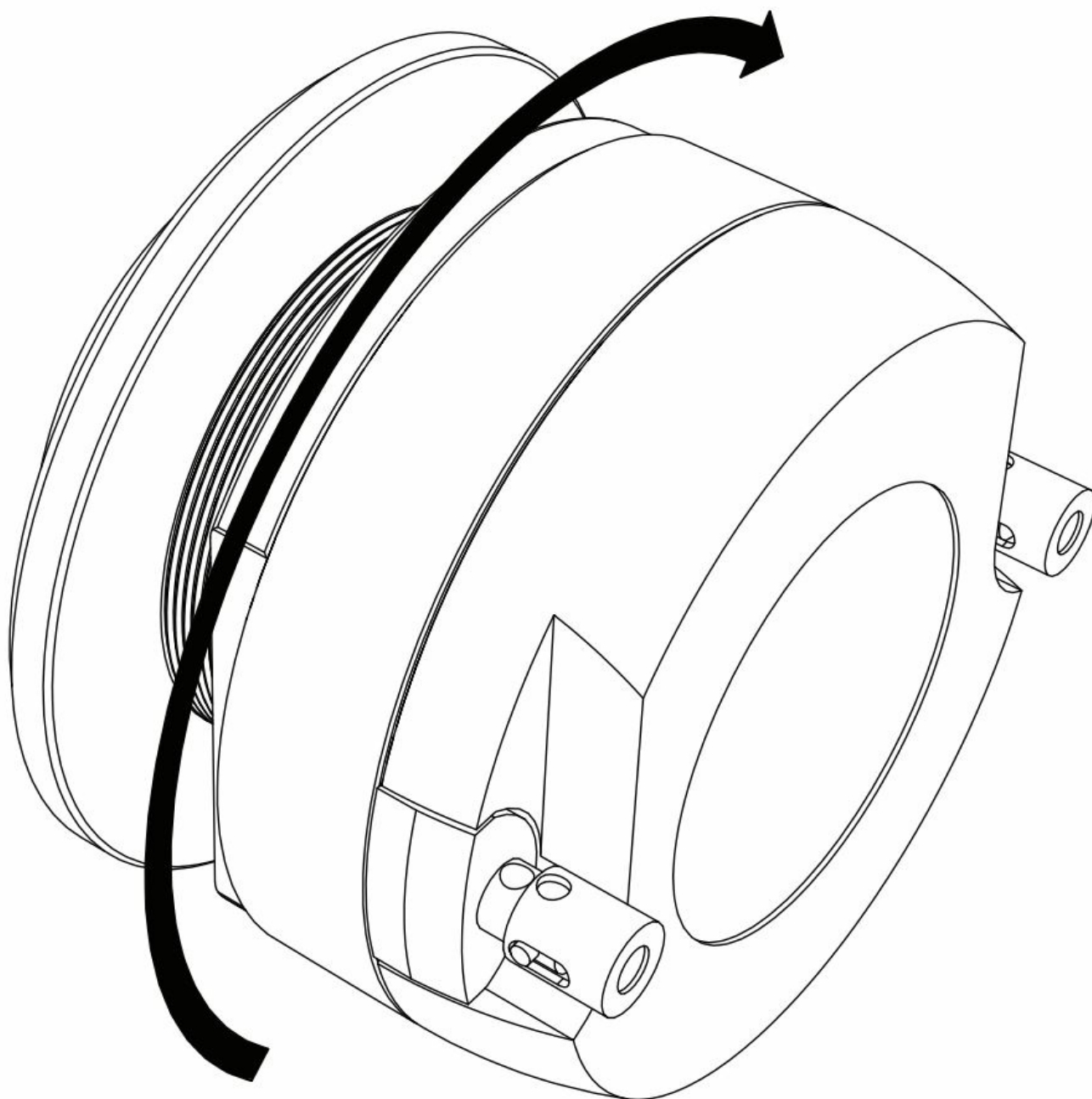
Install the Backing Nut onto the tweeter.



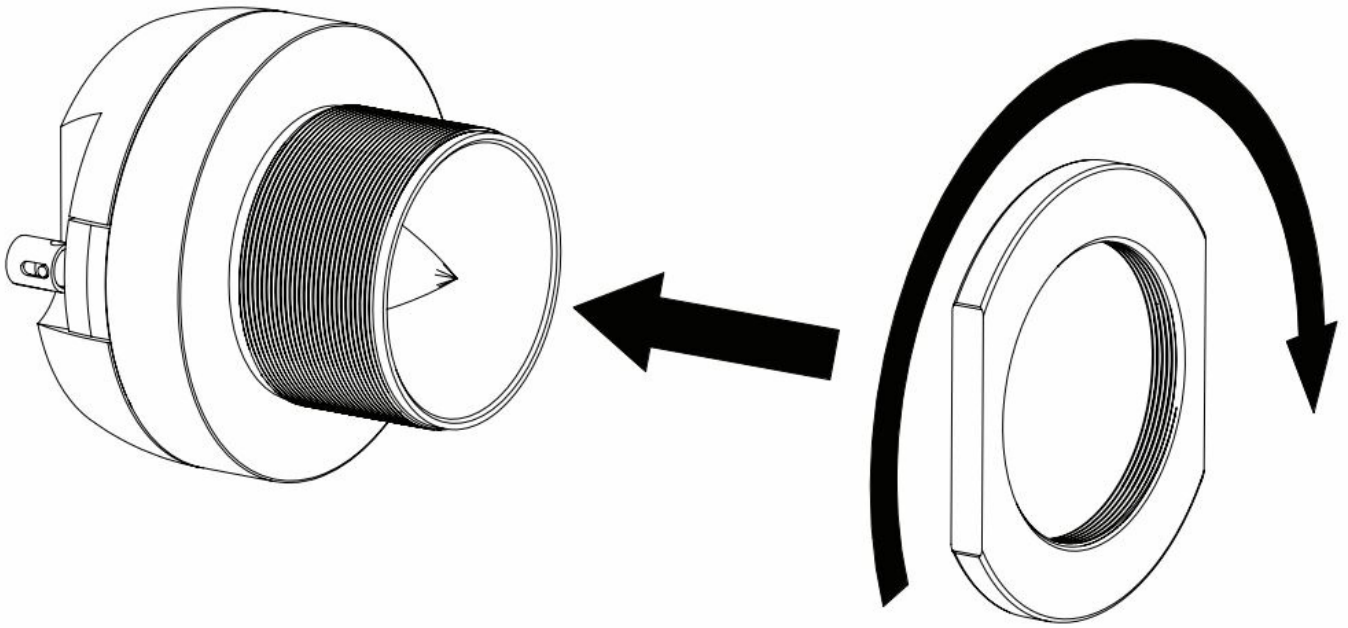
Place the tweeter in the mounting hole and install the Round or Square Mounting Flange onto the Tweeter, orienting the tweeter and flange as desired.



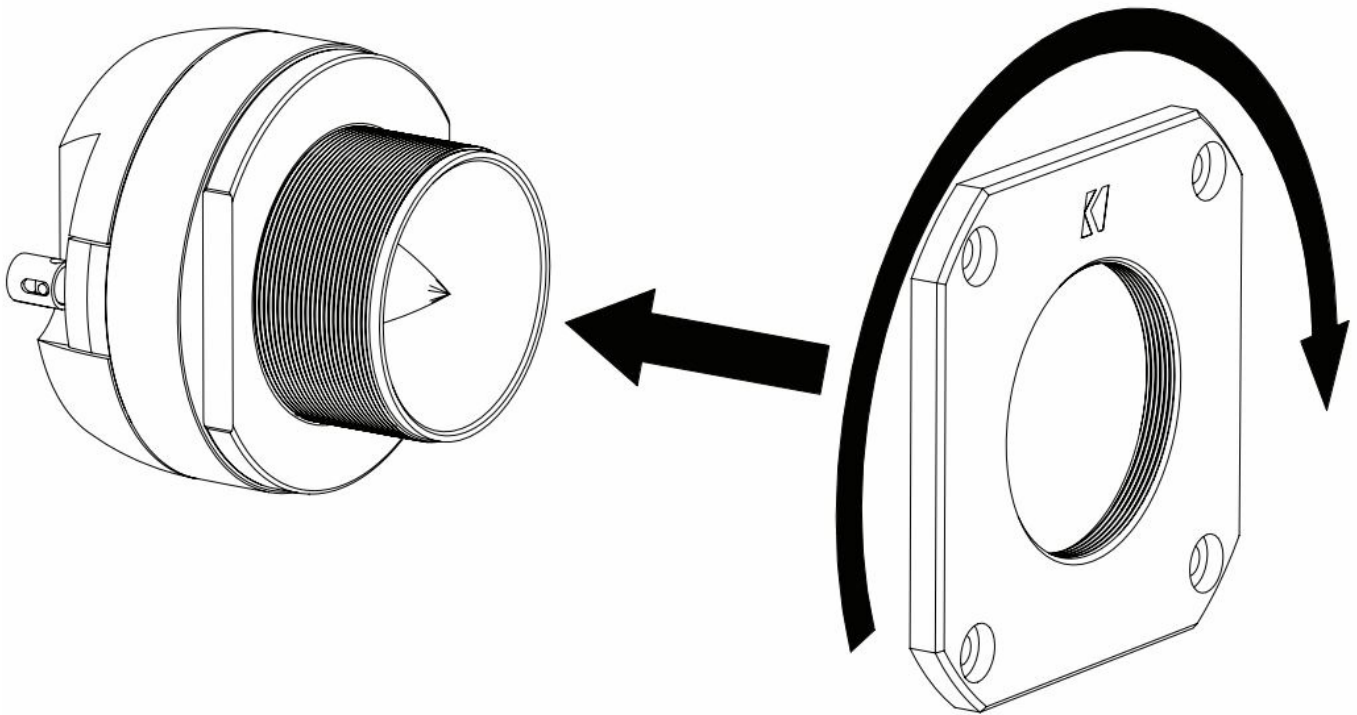
Tighten the Backing Nut towards the mounting surface to secure the Tweeter.



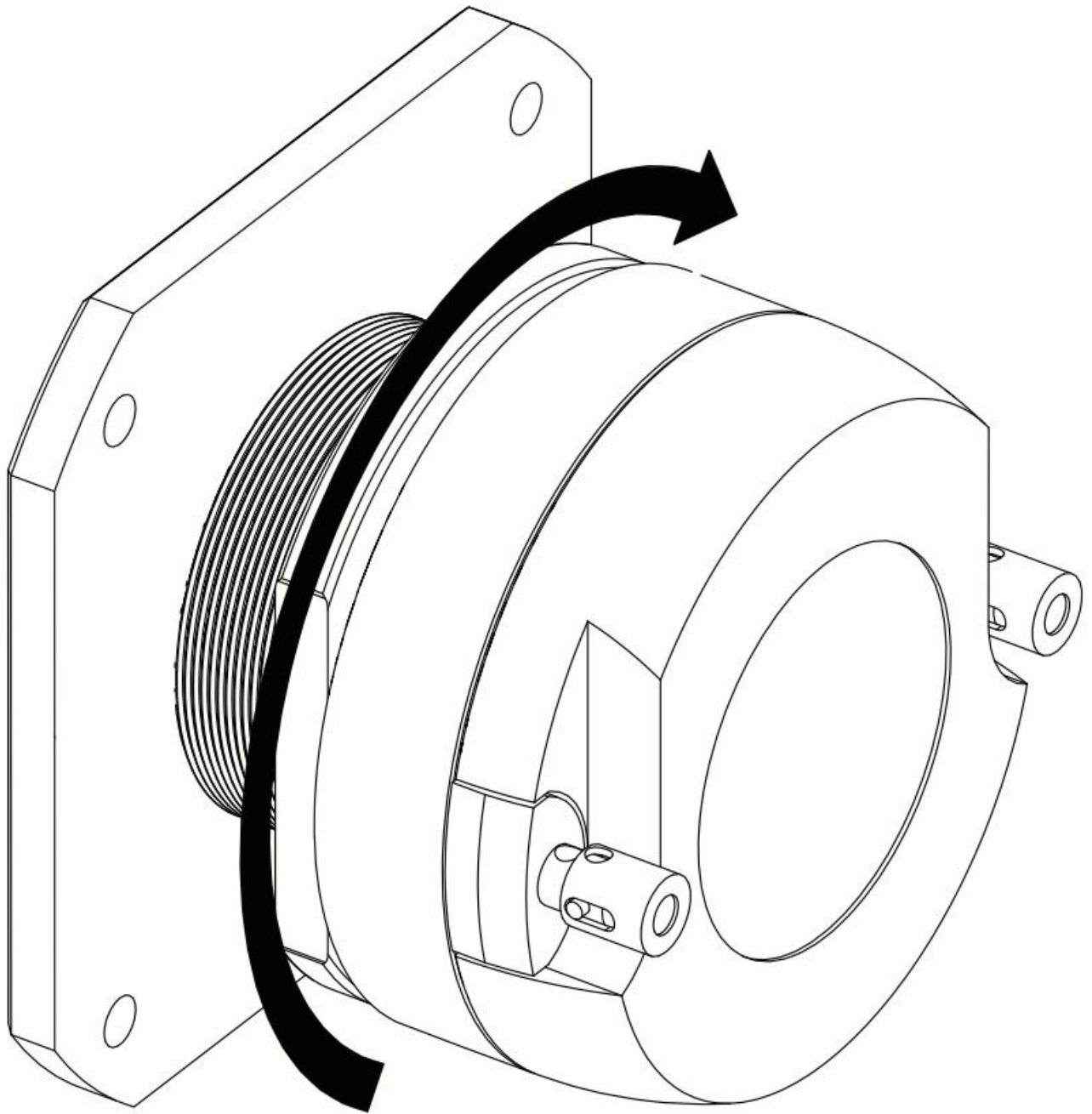
For Surface-Mounting, cut a circular hole in the mounting surface at 2.375" (60mm) for the ST3TW, and 3" (75mm) for the ST4TW. Feed the wire through the mounting hole in the panel. Install the Backing Nut onto the tweeter.



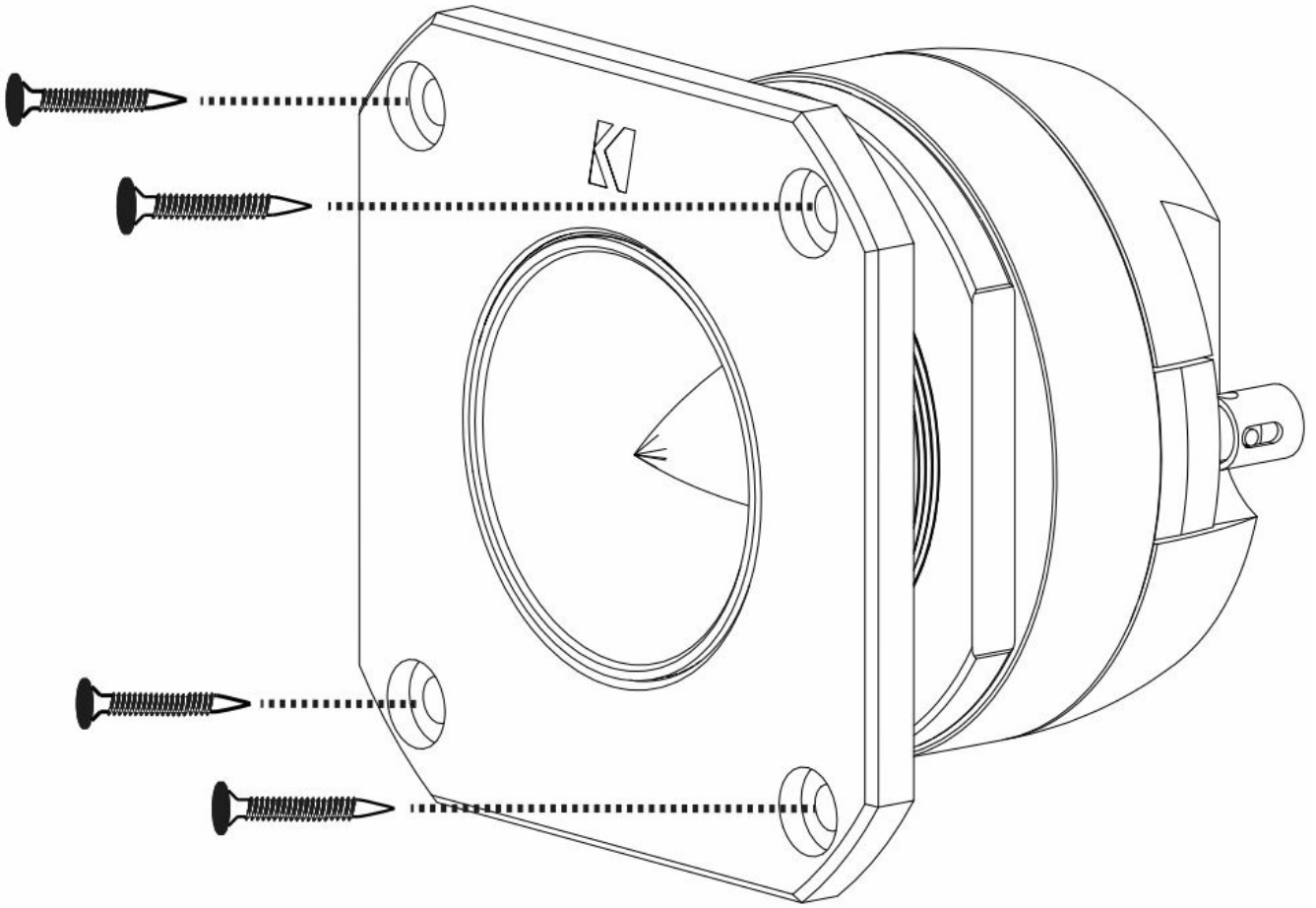
Install the Square Mounting Flange onto the Tweeter, orienting the tweeter and flange as desired.



Tighten the Backing Nut to lock the Square Mounting Flange in place.



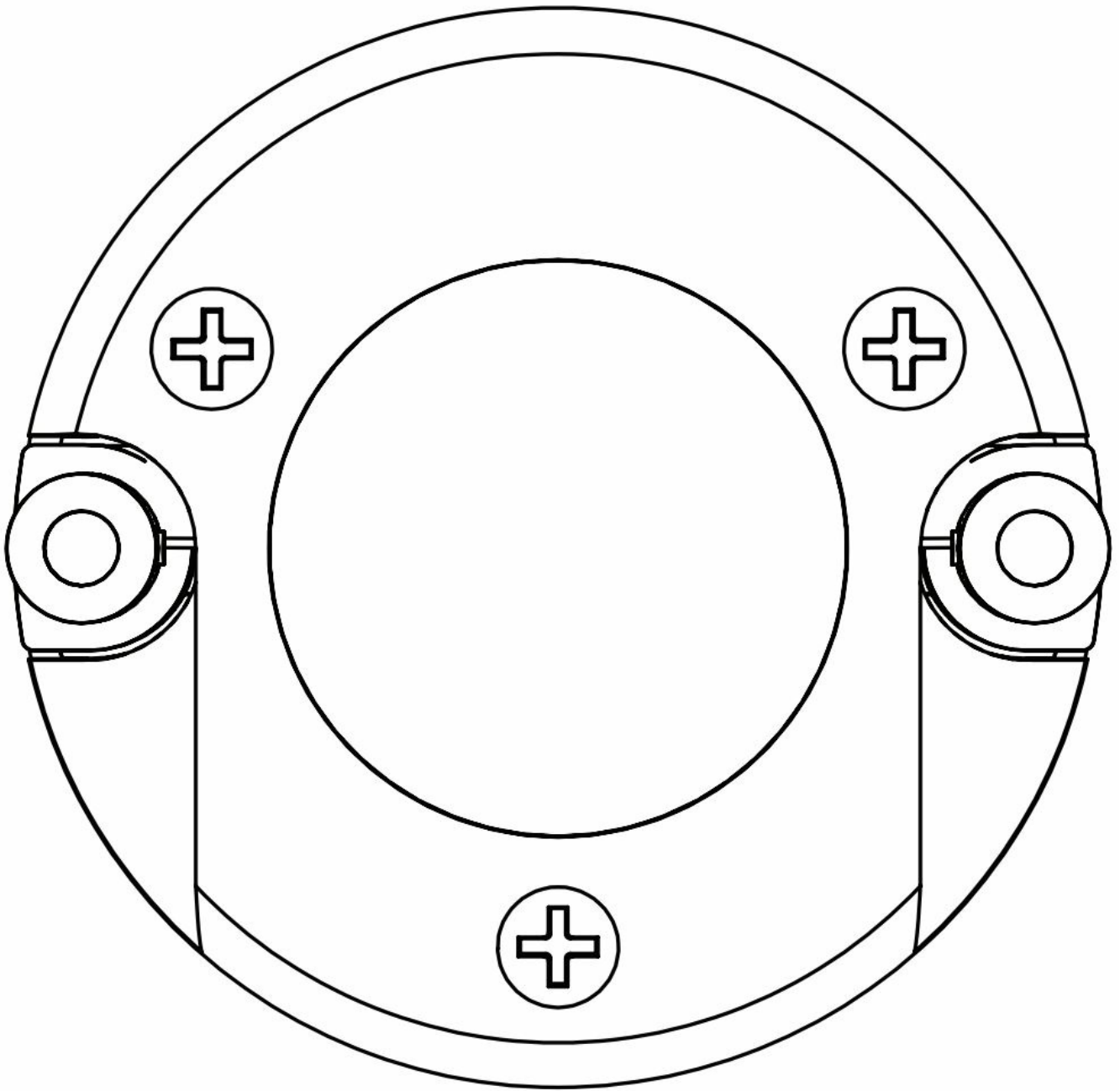
Place the Tweeter in the Mounting Hole and after finding the desired orientation, mark the mounting screw holes to be drilled by a 7/64" (2.5mm) drill bit. Secure the Tweeter to the surface using the provided screws.



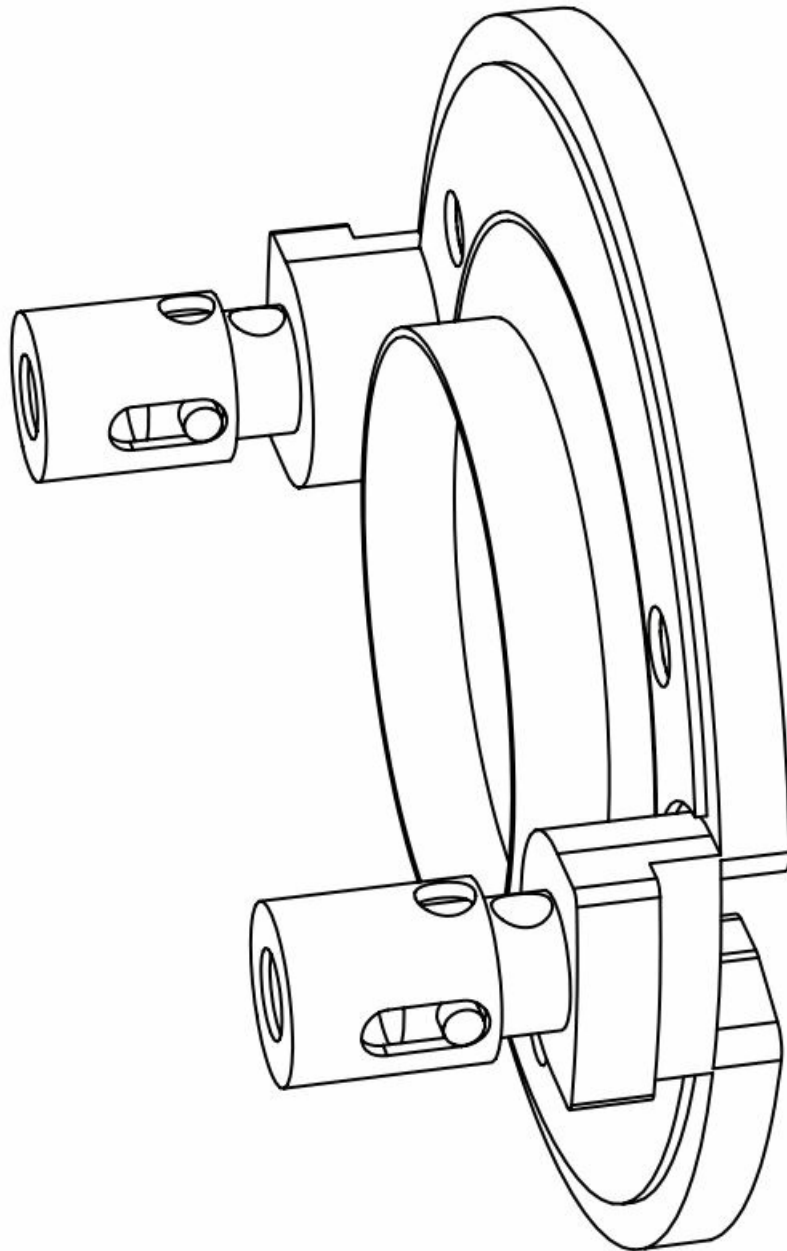
Tweeter Repair

The ST3TRK and ST4TRK can be rebuilt if failure occurs. Use the following steps to replace the diaphragm.

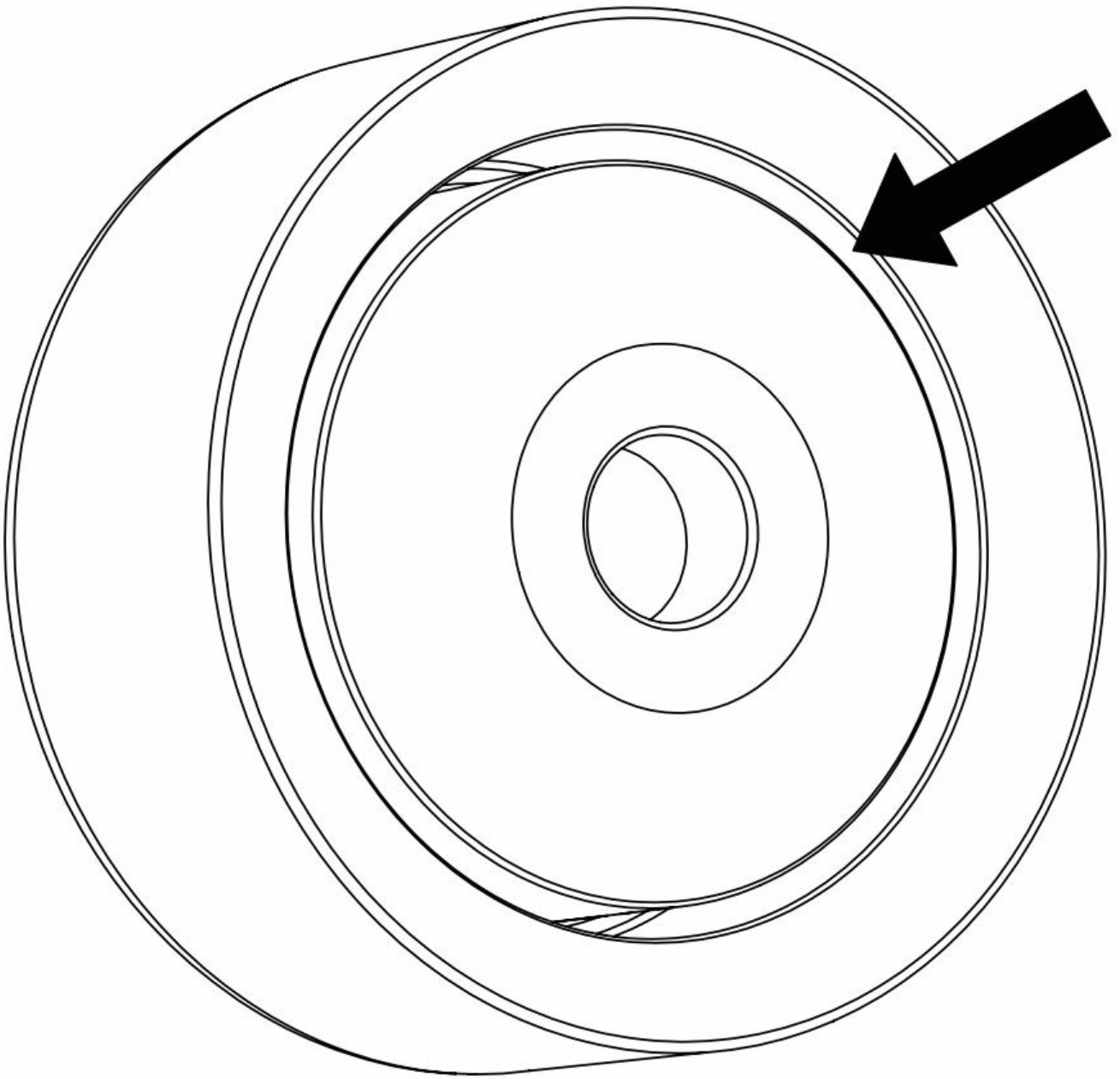
Begin by removing the three Phillips-head screws on the back of the tweeter. Note: The ST4 uses Allen-head screws on the front of the tweeter.



Disassemble the tweeter and discard the damaged diaphragm assembly.

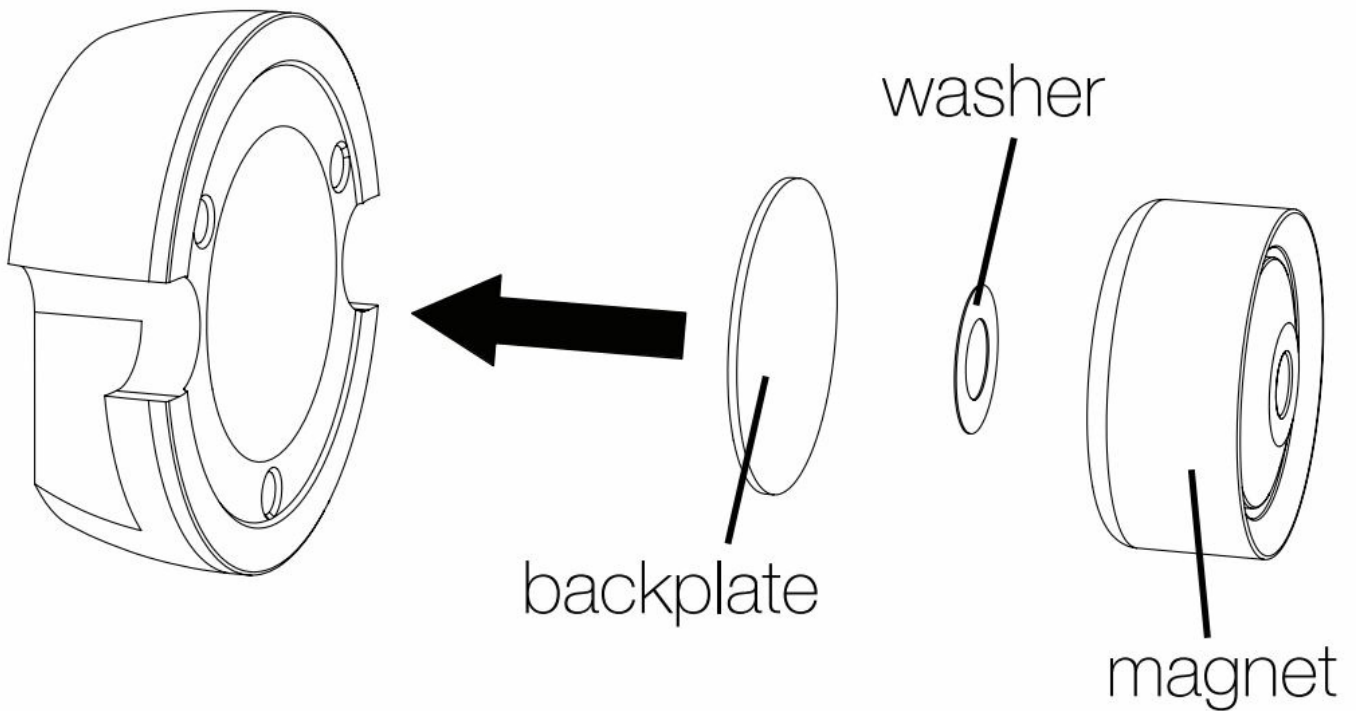


Clean the motor magnet of any debris, focusing on the voice coil gap.

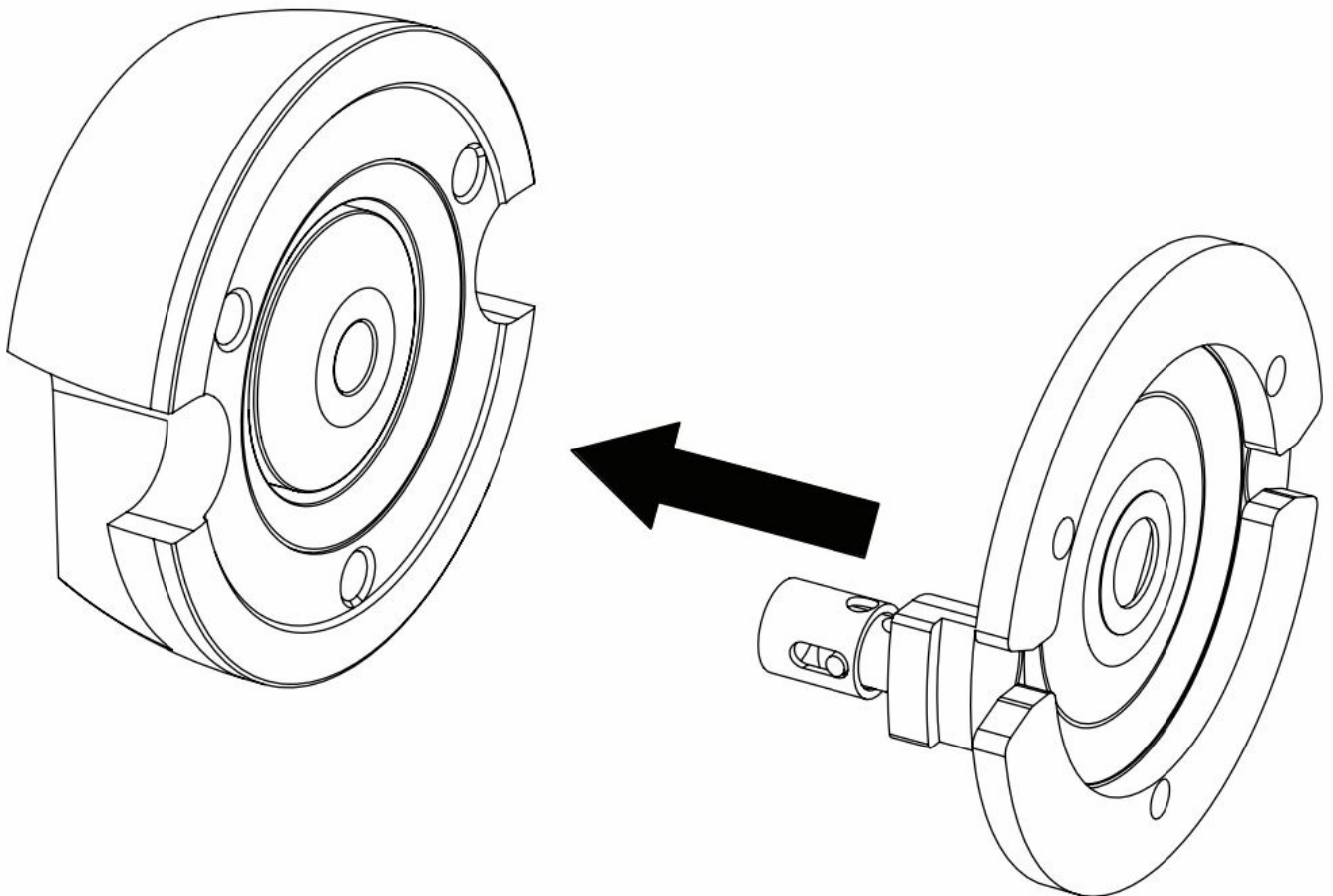


Install the back plate, washer, and motor magnet into the motor housing. Make sure the magnet is inserted with the voice coil gap out.

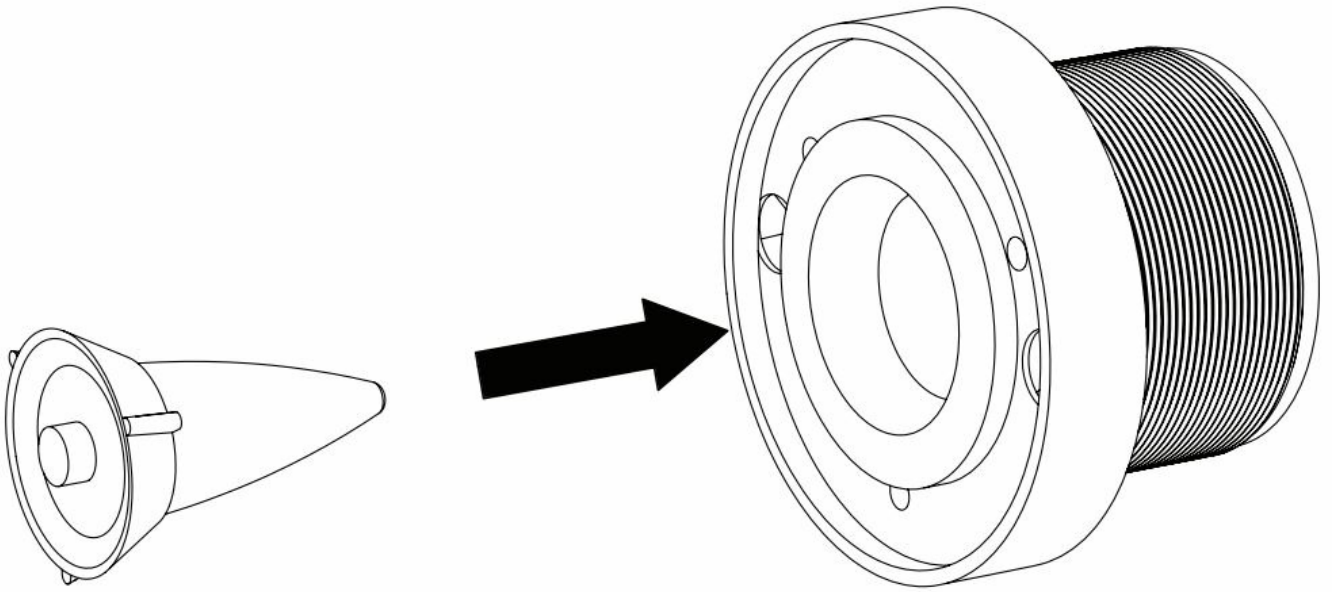
motor housing



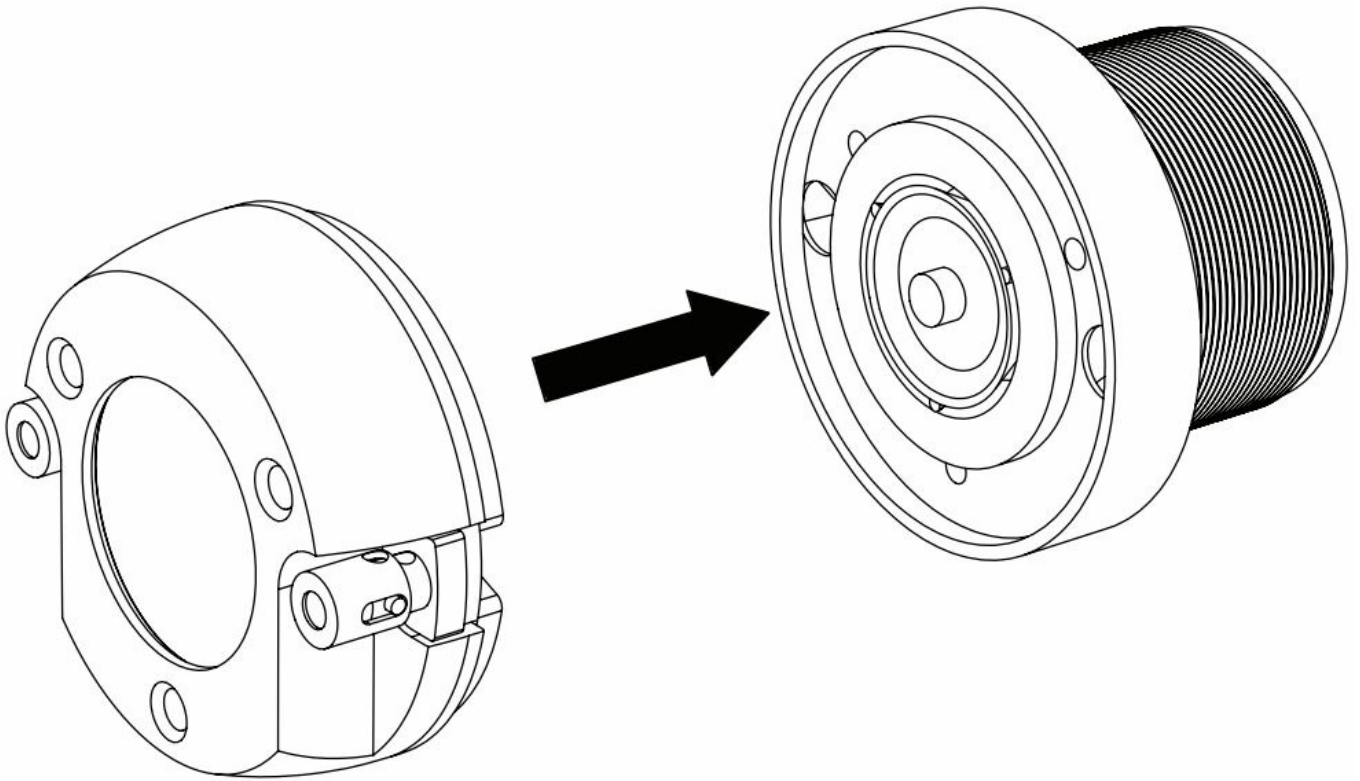
Carefully install the new diaphragm assembly into the motor housing by gently aligning the voice coil of the diaphragm with the voice coil gap of the magnet. The screw holes of the housing and diaphragm should also align.



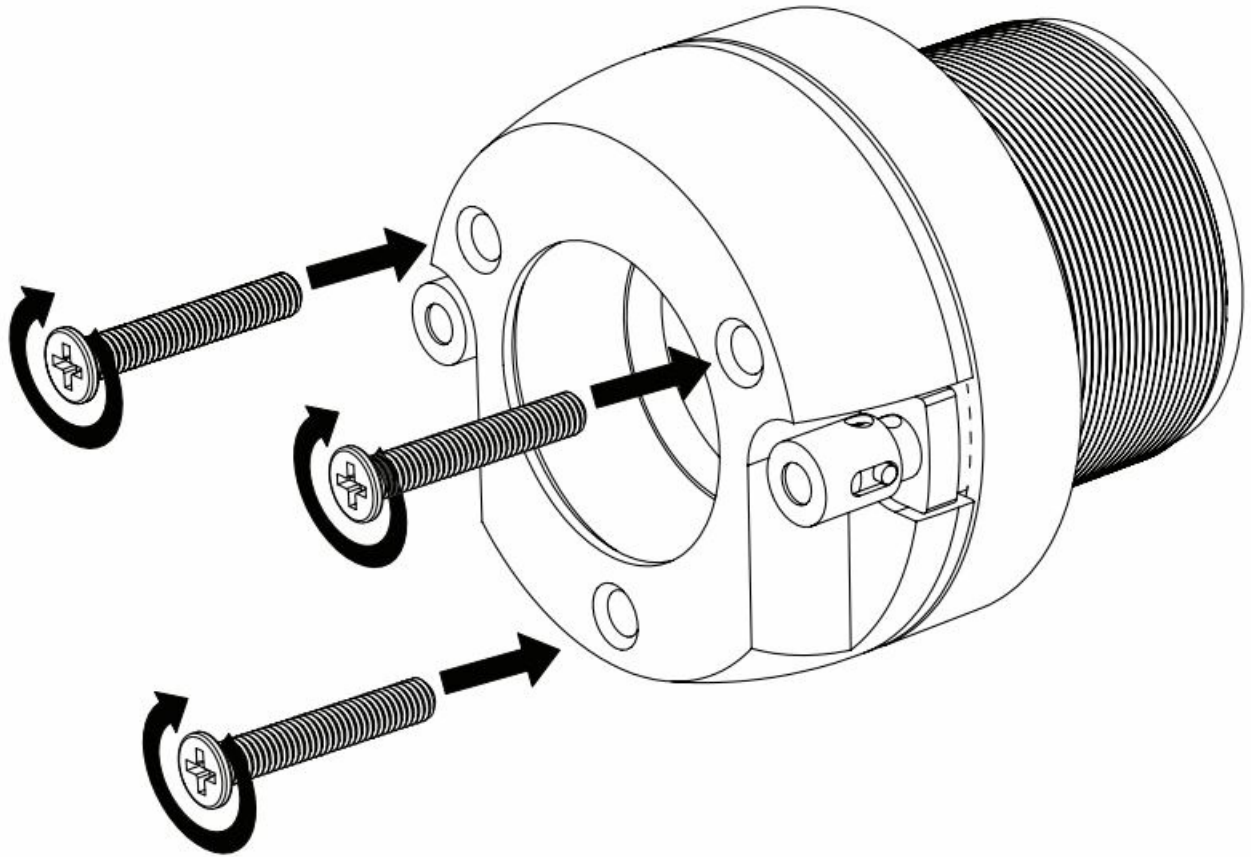
Insert the phase plug into the horn.



Install the motor house assembly into the horn assembly, making sure the three screw holes for both are aligned.



Insert and tighten the three screws.



Warranty

When purchased from an Authorized KICKER Dealer, KICKER warrants this product to be free from defects in material and workmanship under normal use for a period of TWO (2) YEARS from date of original purchase with receipt. If this product is identified as "Refurbished" or "B Goods", the warranty is limited to a period of THREE (3) MONTHS from the date of original purchase. In all cases you must have the original receipt. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction during the warranty period, KICKER will repair or replace (at its discretion) the defective merchandise with equivalent merchandise. Warranty replacements may have cosmetic scratches and blemishes. Discontinued products may be replaced with more current equivalent products. This warranty is valid only for the original purchaser and is not extended to owners of the product subsequent to the original purchaser. Any applicable implied warranties are limited in duration to a period of the express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether express or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties; therefore, these exclusions may not apply to you. This warranty gives you specific legal rights; however you may have other rights that vary from state to state.

WHAT TO DO IF YOU NEED WARRANTY OR SERVICE:

Defective merchandise should be returned to your local Authorized Stillwater Designs (KICKER) Dealer for warranty service. Assistance in locating an Authorized Dealer can be found at www.KICKER.com or by contacting Stillwater Designs directly. You can confirm that a dealer is authorized by asking to see a current authorized dealer window decal.

If it becomes necessary for you to return defective merchandise directly to Stillwater Designs (KICKER), call the KICKER Customer Service Department at (405) 624-8510 for a Return Merchandise Authorization (RMA) number. Package only the defective items in a package that will prevent shipping damage, and return to:

Stillwater Designs 3100 North Husband St Stillwater, OK 74075

The RMA number must be clearly marked on the outside of the package. Please return only defective components. The return of functioning items increases your return freight charges. Nondetective items will be

returned freight collect to you. For example, if a subwoofer is defective, only return the defective subwoofer, not the entire enclosure. Include a copy of the original receipt with the purchase date clearly visible, and a "proof-of-purchase" statement listing the Customer's name, Dealer's name and invoice number, and product purchased. Warranty expiration on items without proof-of purchase will be determined from the type of sale and manufacturing date code. Freight must be prepaid; items sent freight-collect, or COD, will be refused.

WHAT IS NOT COVERED?

This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover:

- Damage due to improper installation
- Subsequent damage to other components
- Damage caused by exposure to moisture, excessive heat, chemical cleaners, and/or UV radiation
- Damage through negligence, misuse, accident or abuse. Repeated returns for the same damage may be considered abuse
- Any cost or expense related to the removal or reinstallation of product
- Speakers damaged due to amplifier clipping or distortion
- Items previously repaired or modified by any unauthorized repair facility
- Return shipping on non-defective items
- Products with tampered or missing barcode labels
- Products with tampered or missing serial numbers
- Products returned without a Return Merchandise Authorization (RMA) number
- Products purchased from an UNAUTHORIZED dealer
- Freight Damage
- The cost of shipping product to KICKER
- Service performed by anyone other than KICKER

HOW LONG WILL IT TAKE?

KICKER strives to maintain a goal of one-week service for all acoustics (subwoofers, midrange drivers, tweeters, crossovers, etc) returns. Delays may be incurred if lack of replacement inventory or parts is encountered. Failure to follow these steps may void your warranty. Any questions can be directed to the KICKER Customer Service Department at (405) 624-8510. Contact your International KICKER dealer or distributor concerning specific procedures for your country's warranty policies.

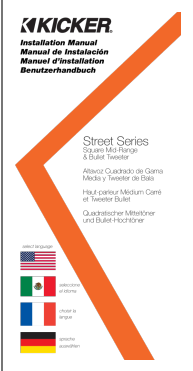
Guarantee

Contact your International KICKER dealer or distributor concerning specific procedures for your country's warranty policies.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

P.O. Box 459
Stillwater, Oklahoma 74076
USA
(405) 624-8510

Documents / Resources

 <p>KICKER Installation Manual Manual de Instalación Manuel d'installation Benutzerhandbuch</p> <p>Street Series Square Mid Range & Bullet Tweeter</p> <p>Altavoz Cuadrado de Gama Media y Tweeter de Bala</p> <p>Høj og lavt Midt om Række af Tweeter Balle</p> <p>Quadratischer Mitteltöner und Bullet-Hochtöner</p> <p>USA Mexico Canada Europe Japan Australia</p>	<p>KICKER ST-Series Square Mid Range And Bullet Tweeter [pdf] Instruction Manual</p> <p>ST-Series Square Mid Range And Bullet Tweeter, ST-Series, Square Mid Range And Bullet Tweeter, Mid Range And Bullet Tweeter, Bullet Tweeter, Tweeter</p>
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References

-  [Car Audio, Home & Personal Audio | KICKER®](#)
- [User Manual](#)