

Acoustics **Limited** Warranty

Kicker warrants this product to be free from defects in material and workmanship under normal use for a period of THREE (3) MONTHS from date of original purchase with receipt. When purchased from an Authorized KICKER Dealer it is warranted for ONE (1) YEAR from date of original purchase with receipt. 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 at no charge. 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, 5021 North Perkins Road, Stillwater, OK 74075

The RMA number must be clearly marked on the outside of the package. Please return only defective components (most likely the SPAIR). The return of functioning items increases your return freight charges. Non-defective 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:

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

HOW LONG WILL IT TAKE?

Kicker strives to maintain a goal of 24-hour 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.



KICKER®

SOLOX SUBWOOFER

S12X, S10X



Models: **S12X / S10X**

Congratulations on your KICKER purchase

Please record your purchase information and keep your sales receipt for validation of warranty.

Authorized Kicker Dealer: _____
 Purchase Date: _____
 Subwoofer Model Number: _____
 Subwoofer Serial Number: _____

The Kicker SoloX subwoofers were specially designed for "Livin' Loud" out in the harsh automotive competition environment. The SoloX is *the Legend*. SoloX subwoofers have all the latest technological enhancements available and surpass the competition in a sealed or vented box. They are made of advanced materials and construction techniques to maintain optimal performance for competition use and critical listening.

Performance

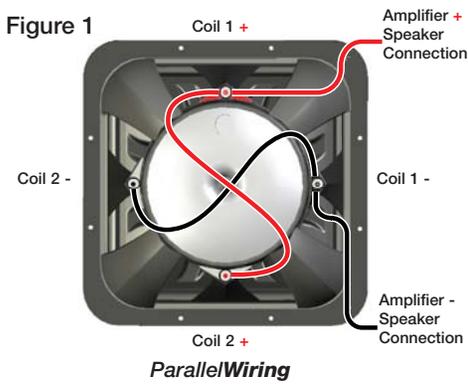
Model:	S10X4/2Ω	S12X4/2Ω
Nominal Impedance [Zn], ohm (2Ω model) [per coil]	4 (2)	4 (2)
Resonance Frequency [fs], Hz (2Ω model)	40.5 (36.237)	37.8 (37.81)
Sensitivity [SPLo], dB @ 1W, 1m (2Ω model)	85.95 (85.65)	87.80 (87.55)
Effective Piston Area [Sd], in ² (m ²)	74.4 (.048)	106.8 (.0689)
Power Handling Watts, Peak (RMS)	5000 (2500)	5000 (2500)
Effective Excursion [EXmax™], in (mm)	.906 (23)	.906 (23)
DC Resistance [Re], ohm (2Ω model) [coils in series]	7.06 (3.99)	7.17 (4.09)
Voice Coil Inductance [Le], mH (2Ω model)	6.600 (5.512)	6.833 (4.654)
Mechanical Q-Factor [Qms] (2Ω model)	9.954 (10.266)	9.441 (10.076)
Electrical Q-Factor [Qes] (2Ω model)	.497 (.393)	.550 (.458)
Total Q-Factor [Qts] (2Ω model)	.474 (.379)	.520 (.438)
Force Factor [BL], Tm (2Ω model)	30.99 (26.7089)	30.60 (27.6444)
Moving Mass [Mms], g (2Ω model)	265.8 (309)	302.6 (361)
Equivalent Volume [Vas], ft ³ (2Ω model)	.702 (.7216)	1.3949 (1.1696)
Equivalent Volume [Vas], L (2Ω model)	19 (20.4376)	39.50 (33.1245)
Net Displacement, in ³ (cc)	311.04 (5100)	328.32 (5380)
Mounting Depth, in (cm)	8 3/8 (21.3)	8 9/16 (21.7)
Weight, lb (kg)	46 (20.87)	47 (21.32)

Wiring Options

SoloX subwoofers are available with dual 4Ω (ohm) or dual 2Ω voice coils. Both coils must be connected to a source of amplification. The dual 4Ω woofer will generate a 2Ω load if the coils are wired in parallel or a 8Ω load in series. The dual 2Ω woofer will provide a 1Ω load wired in parallel or 4Ω load wired in series. The terminals with the white dots are for the first voice coil. The terminals with solid-red and solid-black markings are for the second voice coil. See Figures 1 and 2.

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

Figure 1



Parallel Wiring
 Dual 4Ω Voice Coils = 2Ω Load
 Dual 2Ω Voice Coils = 1Ω Load

Series Wiring

Dual 4Ω Voice Coils = 8Ω Load
 Dual 2Ω Voice Coils = 4Ω Load

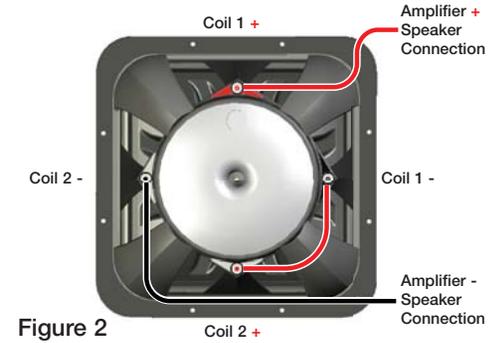


Figure 2

Sealed Enclosure Applications

The SoloX generates more sound pressure than competing subwoofers on the market and pounds down low when used in the recommended sealed boxes. If you are willing to give up maximum SPL for more sub-bass output, these sealed enclosure recommendations will be your thing. The sealed enclosure designs give the smoothest response with increased energy at the lowest frequencies, 20 to 30Hz. These designs deliver massive amounts of highly-accurate bass and can be driven with punishing levels of amplifier power.

The SoloX performance suspension system can operate in a larger sealed enclosure. This maximum enclosure volume application is ideal for SQ (ultra sound quality) installations. The SQ enclosure generates a very flat response curve and superbly extends the subbass response.

SoloX subwoofers perform well in any size sealed enclosure between the Compact and SQ volume recommendations. These systems will exhibit benefits of both designs: Compact produces high-impact bass, and SQ generates low bass frequency protraction. Overall, the system will sound more like the recommended enclosure design it is closest to in enclosure volume. These enclosure recommendations have been calculated with the airspace inside the enclosure and include the displacement of the woofer. All sealed-enclosure airspace should be filled to 50% loose poly-fill (polyester fiberfill) stuffing. Do not make the airspace greater than the SQ, maximum enclosure volume, recommendation.

Model:	Sealed Compact (Minimum Enclosure Volume)	Sealed SQ (Maximum Enclosure Volume)
S10X	1 ft ³ (28.3L) Power Handling = 2500W Peak Fb = 70.4 Hz, F3 = 40.9 Hz	2 ft ³ (56.6L) Power Handling = 2000W Peak Fb = 65.9 Hz, F3 = 36.1 Hz
S12X	1.5 ft ³ (42.5L) Power Handling = 2500W Peak Fb = 73.4 Hz, F3 = 42.3 Hz	3 ft ³ (85L) Power Handling = 2500W Peak Fb = 68.7 Hz, F3 = 36.7 Hz

Figure 3

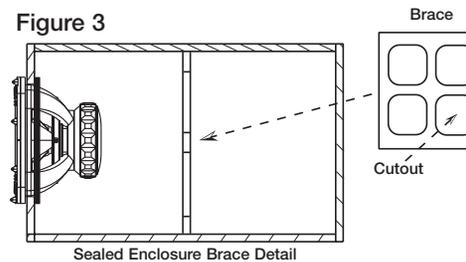
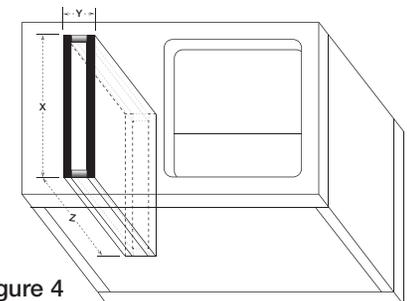


Figure 4



Note: The use of a subsonic filter will significantly increase the power handling. The power handling specifications in these charts are calculated using a 25Hz (68Hz for the Vented SPL enclosure), 24dB per octave sub-sonic (resonance frequency) filter.

Vented Enclosure Applications

The SoloX was designed for a vented enclosure. Throw out every experience you have ever had with a vented speaker and prepare to be blown away! Our engineers have designed boxes that will intimidate and irritate everyone within a 3 mile radius. These enclosures incorporate massive slot-loaded (rectangular) ports with ultra low air velocity for ground pounding street bass that will make your "skin bounce on your bones!"

These boxes are the enclosure of choice for outrageous street bass and high performance SPL contests. If space is not a problem and you want to get the most from your SoloX, try one of these ported designs. You will not be disappointed.

The ported Compact design increases bass efficiency and fits in many space-limited applications. Although it is the smallest recommended ported enclosure, the output from 30 to 80 Hz will be considerably higher than that of any sealed box. The SUV design is the one to do if you have the room.

The SPL is the largest and most efficient enclosure design. The SPL delivers the sonic output needed to win SPL contests and it produces bass notes in a "Livin' Loud" manner. This design is intended for test tones above 68Hz; playing music with frequencies below 68Hz will result in subwoofer damage.

Model:	Vented Compact (Minimum Enclosure Volume)	Vented SPL (Maximum Enclosure Volume)
S10X	2.25 ft ³ (63.7L) + port displacement, Fb=44Hz Port: 42 in ² (271cm ²) area x 19.75" (50.2cm) long Power Handling = 1400W Peak	6 ft ³ (170L) + port displacement, Fb=68Hz Port: 250 in ² (1613cm ²) area x 9" (22.9cm) long Power Handling = 2500W Peak above 68Hz
S12X	3 ft ³ (85.0L) + port displacement, Fb=40Hz Port: 45 in ² (290cm ²) area x 18.75" (47.6cm) long Power Handling = 1400W Peak	6 ft ³ (170L) + port displacement, Fb=68Hz Port: 250 in ² (1613cm ²) area x 9" (22.9cm) long Power Handling = 2500W Peak above 68Hz

Model:	Vented SUV (The One To Do)
S10X	4.91 ft ³ (139L) + port displacement, Fb=45Hz Port: 60 in ² (387cm ²) area x 8.75" (22.2cm) long Power Handling = 1500W Peak
S12X	6 ft ³ (170L) + port displacement, Fb=45Hz Port: 60 in ² (387cm ²) area x 6" (15.2cm) long Power Handling = 2000W Peak

Box Building Notes

Use 3/4" (1.9cm) or thicker MDF (medium density fiberboard) and seal the joints with silicone. Use the wood "template" inside your SoloX's shipping carton to mark the mounting hole, then cut directly on the line. These designs need internal bracing. Add 4 x 4" (10x10cm) triangular bracing between each of the larger unsupported panels.

All the cubic feet (L) measurements in this manual include the displacement of the woofer. For the vented enclosures the displacement of the port must be calculated and added to the internal volume of the final design. Use the outer dimensions of the port and multiply "X x Y x Z", convert to cubic feet, for example the SoloX12 vented compact design's external port dimensions (45 in² port area could be a 15 x 3" port by 18.75" long) are, using 3/4" (1.9cm) MDF: [15" x (3" + 1.5" total MDF thickness) x 18.75"] x (1 ft³ / 1728 in³) = .732 ft³, and add this number to the internal volume of the enclosure, SoloX12's 3 ft³ + .732 ft³ = 3.732 ft³. See Figure 4. Due to the necessary length of these ports, you may want to fold the port along the bottom and back walls. It will be impractical to use round ports for these designs.

Do not install a port opening against a solid surface, such as an internal brace, back-panel or trunk wall, seat or interior panel of your vehicle. The port opening must remain unobstructed. Use the smallest dimension of the rectangular port as the minimum amount of space between the port opening and any solid surface to insure unrestricted airflow.

Pro Tip: You are one ZX Mono-Amplifier and a few cables away from a slamm'in system! The Kicker ZX line of mono-amplifiers make it easy to upgrade to rock-solid bass.

Please ask your dealer about the Kicker ZX Amplifier upgrades.

If you prefer an ultra-smooth bass response, you should loosely fill your SoloX enclosure with poly-fill stuffing. Ported designs will require covering the end of the port (located inside the box) with grill cloth, chicken wire, or expanded metal to prevent the poly-fill from exiting the port. The use of poly-fill will slightly decrease efficiency, but will deepen and extend the low frequency output.

For more advice on box building, refer to your Authorized Kicker Dealer, or click on the *Support* tab on the Kicker homepage, www.kicker.com. Choose the *Technical Manuals* link and then download or view the corresponding information. Please E-mail support@kicker.com or call Technical Services (405) 624-8583 for specific or unanswered questions.

Removal/Mounting Assembly

Please follow these instruction to insure proper installation.

With assistance, remove the SoloX from the cardboard box. See Figure 5.

Then remove the eight (8) Acorn Head Bolts securing the SPAIR (Simple Pull Apart Insertable Replacement cone assembly) to the BAM (Basket And Motor assembly) and to the wood "template". Place the SPAIR in a safe and clean location. See Figure 6.

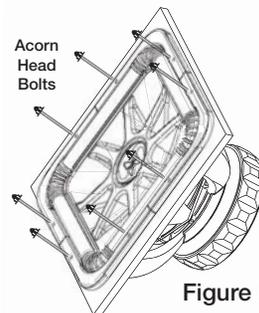


Figure 6

Install the Gap Cap around the BAM's pole-piece to protect the motor assembly from debris during the installation. Metal shavings would be nearly impossible to remove from the gap. Please protect your purchase, use the Gap Cap. See Figure 7.

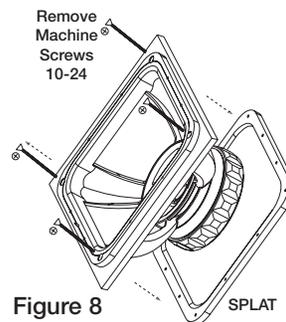


Figure 8

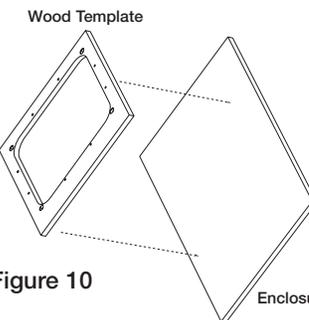


Figure 10

Place the wood "template" on the enclosure baffle and mark the holes for mounting hardware and for the woofer cutout. See Figure 10.

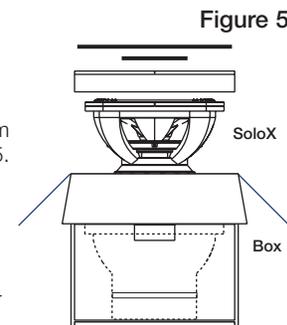


Figure 5

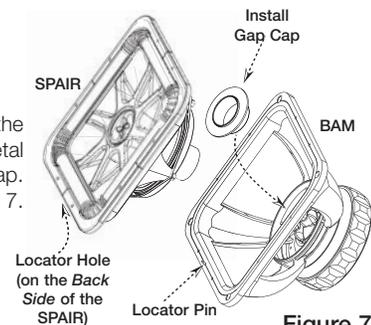


Figure 7

With the Gap Cap installed, remove the four (4) 10-24 Phillips Head Machine Screws that lock the BAM to the wood "template". See Figure 8.

The SPLAT (Speaker Precise Location Alignment Tool) and wood "template" will now come free from the BAM. See Figure 9.

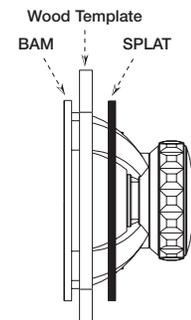


Figure 9

Removal Mounting Assembly (Continued)

Please follow these instruction to insure proper installation.

Use a jigsaw or router to cut the woofer cutout. Use a 5/16 or 11/32" (8 - 8.8mm) drill bit for the mounting holes. See Figure 11.

Note: The following steps require the assistance of another person.

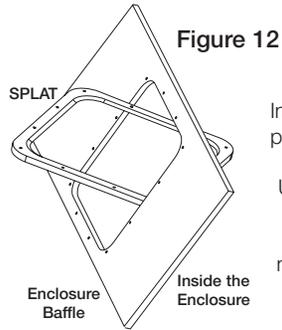


Figure 12

Insert the SPLAT into the cutout (inside the enclosure) and move it into position. See Figure 12.

Use masking tape to temporarily hold the SPLAT in place inside the enclosure. This will be necessary for securing the BAM. This tape can be removed after the corner fastening hardware has been installed. See Figure 13.

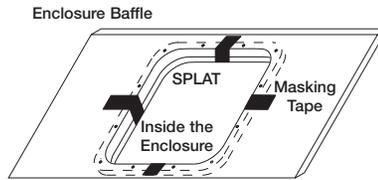


Figure 13

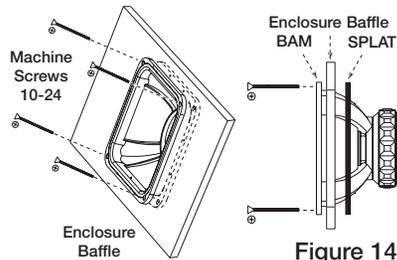


Figure 14

With the help of an assistant, insert the BAM and start fastening the corner hardware. Remove the masking tape. Tighten the Phillips Head Machine Screws to secure the BAM to the enclosure baffle. See Figure 14.

Figure 15

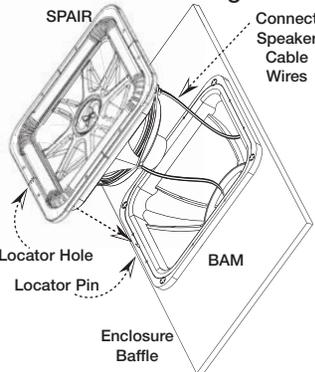


Figure 15

Pull the speaker cable wires (used to connect the subwoofer to the amplifier) through the BAM and connect them to the SPAIR's Binding Posts. The Locator Pin and Locator Hole will properly align the SPAIR to the BAM. See Figure 15.

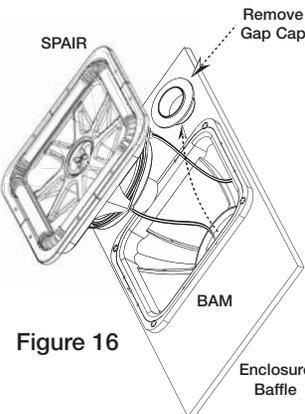


Figure 16

Remove the Gap Cap before inserting the SPAIR. See Figure 16.

Carefully insert the SPAIR back into the BAM; do not damage the voice coil. The Locator Pin on the BAM and the Locator Hole in the SPAIR must line up. The ARCTIC (Aluminum Rapid Cooling Thermal Induction Centering) Cap, located on the top of the extended pole piece of the SPAIR, will help to center the SPAIR as you lower it into the BAM. When properly aligned these assemblies easily slide together. See Figure 17.

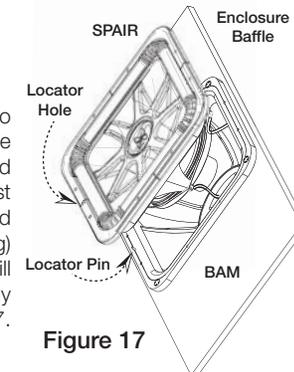


Figure 17

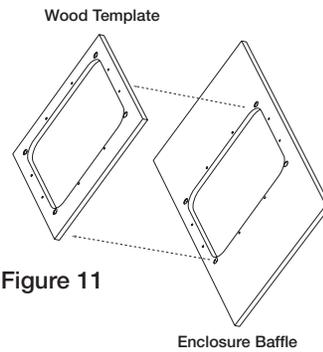


Figure 11

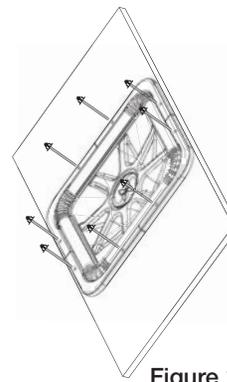


Figure 18

Fit the SPAIR to the BAM with the 10-24 Acorn Head Bolts. We have enclosed four (4) extra Acorn Head Bolts. See Figure 18.

Hand tighten the 10-24 Acorn Head Bolts in the order shown in Figure 19. Then use a wrench or socket driver to securely fasten the bolts. This will ensure a proper fit and alignment.

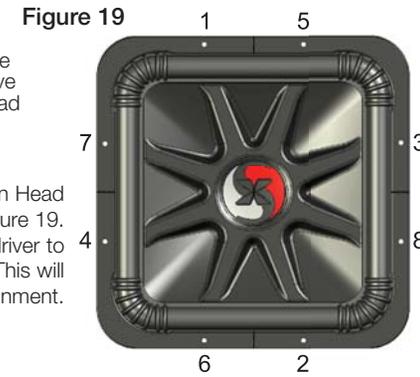


Figure 19

A Note on Power-Handling Capacity SoloX subwoofers will handle massive amounts of power in any of the recommended enclosures, minimum or maximum. The smaller enclosures are best for use in limited-space applications. The larger recommended enclosures will yield more bass at the resonate frequency of the enclosure. The listed Power Handling capacities assume that both voice coils are in use with the appropriate sub-sonic/resonate frequency filter. Always connect both coils in a dual voice-coil speaker.

International Warranty

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

WARNING: 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.

GARANTÍA INTERNACIONAL Versión Español

Comuníquese con su concesionario o distribuidor Kicker internacional para obtener información sobre procedimientos específicos relacionados con las normas de garantía de su país.

ADVERTENCIA: Los excitadores Kicker son capaces de producir niveles de sonido que pueden dañar permanentemente el oído. Subir el volumen del sistema hasta un nivel que produzca distorsión es más dañino para el oído que escuchar un sistema sin distorsión al mismo volumen. El dolor es siempre una indicación de que el sonido es muy fuerte y que puede dañar permanentemente el oído. Sea precavido cuando controle el volumen.

INTERNATIONALE GARANTIE Deutsche Version

Nehmen Sie mit Ihren internationalen Kicker-Fachhändler oder Vertrieb Kontakt auf, um Details über die Garantieleistungen in Ihrem Land zu erfahren.

WARNUNG: KICKER-Treiber können einen Schallpegel erzeugen, der zu permanenten Gehörschäden führen kann! Wenn Sie ein System auf einen Pegel stellen, der hörbare Verzerrungen erzeugt, schadet das Ihren Ohren mehr, als ein nicht verzerrtes System auf dem gleichen Lautstärkepegel. Die Schmerzschwelle ist immer eine Anzeige dafür, dass der Schallpegel zu laut ist und zu permanenten Gehörschäden führen kann. Seien Sie bei der Lautstärkeinstellung bitte vernünftig!

GARANTIE INTERNATIONALE Version Française

Pour connaître les procédures propres à la politique de garantie de votre pays, contactez votre revendeur ou distributeur International Kicker.

AVERTISSEMENT: Les haut-parleurs Kicker ont la capacité de produire des niveaux sonores pouvant endommager l'ouïe de façon irréversible ! L'augmentation du volume d'un système jusqu'à un niveau présentant une distorsion audible endommage davantage l'ouïe que l'écoute d'un système sans distorsion au même volume. Le seuil de la douleur est toujours le signe que le niveau sonore est trop élevé et risque d'endommager l'ouïe de façon irréversible. Réglez le volume en faisant preuve de bon sens !

