

# **KICKER**<sup>®</sup>

## **SOLO-BARIC™ SERIES**

**U.S.A.**

### **C-SERIES SUBWOOFERS**

*Congratulations. You have just purchased one of the car audio world's premier subwoofers. KICKER® Solo-Baric™ C-series subwoofer's unique design delivers all the performance advantages of isobaric pair enclosure technology in a single driver. The result is truly incredible levels of bass using enclosures only half the size of traditional boxes.*

## **SOLO-BARIC FEATURES**

Every element of the Solo-Baric's design is optimized for accurate reproduction of bass and sub-bass frequencies. The Solo-Baric has one of the most massive moving structures in speaker design history, yet it still has the ultra-low distortion and lightning-fast transient response essential for critical bass reproduction. The highly rigid cone features KICKER's Inverted Structural Dome™, a design exclusive which locks the cone and dome into a rigid unit. Voice coils are made from ribbon copper wire, wound in multiple layers on black Kapton® formers for superior heat-dissipation. The rest of the motor structure incorporates design/performance features that make Solo-Barics world-famous for performance and durability...UniPlate™ construction, one-piece extended pole, deep-bump backplate, stitched surround, heavy-duty terminals, high-power PVC-sleeved speaker leads, and more.

### **Solo-Baric C-Series Performance Enhancements include:**

- Cast aluminum basket for superior support and great looks
- Flat progressive-roll spider for superior control and linearity
- Perimeter Venting to release pressures between spider and top plate
- Heavy-duty nickel-plated terminals for positive connections

## **POWER HANDLING**

Power handling ratings on Solo-Baric subwoofers reflect the largest power amplifiers suitable for use on each model. We feel this rating is more useful to you than misleading "music power", "continuous", or other ratings often used.

The power ratings refer to the speaker's ability to dissipate heat from the voice coil, not the mechanical limits of cone excursion. Because the enclosure largely controls cone travel, we have provided enclosure designs that will best prevent problems due to cone over-excursion.

The minimum power rating suggests the least amount of RMS power per driver we recommend when designing a system using Solo-Barics. Too little power can result in low output and distorted sound. We recommend using as much power as possible, up to the maximum power ratings listed in the Specifications section.

# **AMERICA'S MUSIC MACHINES<sup>SM</sup>**

### ***A Note on Power Handling Capability:***

The S15c and S8c will handle full rated power in the recommended enclosure size. However, the S12c and S10c have specific excursion limited (not thermal limited) power ratings in their stock box sizes. For these models to handle their rated power they must be used in smaller boxes.

The S10c will easily handle up to 350 watts in the .66 cubic enclosure; if more power (up to 450 watts) is available, the box size should be reduced to .60 cubic feet.

The S12c will handle up to 425 watts in the .88 cubic enclosure; if more power (up to 600 watts) is available, the box size should be reduced to .66 cubic feet.

## **BUILDING YOUR ENCLOSURE**

Your enclosure should be made of 3/4" wood, minimum. Avoid low density material such as common particle board and low grades of plywood. The recommended materials are MDF (medium density fiberboard), high density particle board or high quality void free 7 to 13 ply plywood such as marine plywood. Because of the extreme pressures which can occur in the small enclosure your driver requires, use of material thinner than 3/4" may result in panel vibration and should be avoided.

When assembling the box, include glue blocks to strengthen corners and add cross-braces if you detect panel vibrations. Use a good grade of wood glue (such as Elmer's Professional or Titebond) on all joints. Do not use silicone, hot glue or caulk in place of glue. When the glue has set, seal all the inside joints with a liberal application of silicone sealer. This is important to ensure an airtight seal.

All the recommended enclosure specs require a 50% fill of polyester fiber. Commonly called fiberfill, it is normally used as pillow stuffing.

The use of terminal cups is the preferred means for getting wires to the woofer. If cups are not available drill a hole slightly larger than the wire used and carefully seal around the wire with silicone sealer. This is also very important to maintain a perfect seal in the box. Be sure to observe polarity when wiring up any speakers. Incorrect polarity will cause a loss of sound quality and in the case of woofers it can decrease output dramatically.

If the woofer mounting hole is not cut exactly to specifications there is a good chance that air can leak out through the screw holes. To remedy this problem you can use a non-hardening sealer such as rope caulk or plumber's putty. Do not use silicone products to seal the woofer to the enclosure as this will void your warranty.

### **NOTE: DO NOT USE SOLO-BARIC DRIVERS IN THE FOLLOWING ENCLOSURE DESIGNS:**

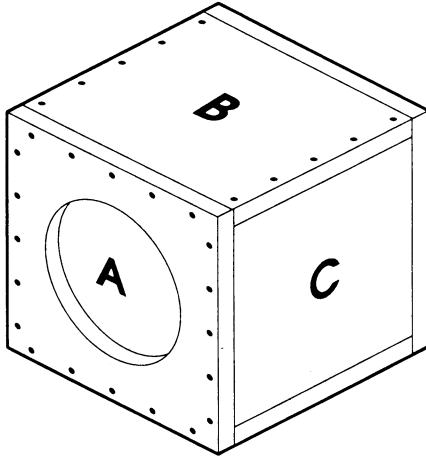
- Larger than recommended sealed enclosures
- Any vented or ported enclosure
- Free air or infinite baffle mounting
- "7th order" double-vented bandpass enclosures
- Passive radiator designs

*Use of the Solo-Baric in enclosures with improper sealed volume can result in driver failure that may not be covered under warranty.*

## RECOMMENDED ENCLOSURES

Solo-Baric drivers are designed to be used in small cabinets and behave very much as an isobaric pair of KICKER Competition™ drivers. They are optimized for excellent performance in a specific range of sealed or single reflex bandpass enclosures. Use of these drivers in non-recommended enclosures can result in driver damage and loss of warranty on the driver.

The following shows suitable enclosures for Solo-Baric subwoofers. We highly recommend that custom enclosures varying from the dimensions...and especially bandpass enclosures...be designed and built by an Authorized KICKER Solo-Baric Dealer.



## PANEL DIMENSIONS

Model	Panel A (in.)	Panel B (in.)	Panel C (in.)	Enclosure Volume (cu. ft.)
S15c	16-1/2 x 16-1/2	16-1/2 x 11-1/2	15 x 11-1/2	1.5
S12c	13 x 13	13 x 11-1/2	11-1/2 x 11-1/2	.88
S10c	12 x 12	12 x 10-1/2	10-1/2 x 10-1/2	.66
S8c	10 x 10	10 x 8	8 x 8-1/2	.33

Note: Panels should be 3/4" MDF.

## SOLO-BARIC SPECIFICATIONS

Model	Impedance (Ω)	Max. Amp Power (watts)†	Sensitivity (dB 1w/1m)‡	Frequency Response	Fs (Hz)	Vas (cu. ft.)	Qts	Mounting Depth (in., mm)	Mounting Hole Diameter (in., mm)	Recommended Sealed Enclosure Volume
S15c	2, 4, 8	750	89.3	18-100	16	16.43	0.41	7.178	14-1/16, 357	1.5
S12c	2, 4, 8	600	87.7	20-100	18.5	7.51	0.32	5.5/8, 143	11-1/8, 283	.88
S10c	2, 4, 8	450	87.6	24-100	23	3.37	0.29	4-7/8, 124	9-3/8, 234	.66
S8c	2, 4, 8	300	86.2	28-100	34	0.89	0.39	3-7/8, 99	7-5/16, 186	.33

† Assumes typical music program with minimal amplifier clipping

‡ Methods used for deriving sensitivity vary widely; therefore, caution should be used when comparing the sensitivity ratings of various speakers. Solo-Baric ratings are based on a procedure called Theoretical Piston Efficiency, a measurement which reflects the performance of the speaker in real-world applications.

If you have more questions about the installation of your new KICKER component, see the Authorized KICKER Dealer where you purchased your component. You may also call our Technical Services Line at 405 624-8583 for technical assistance.

# SPEAKER SYSTEMS LIMITED WARRANTY

Stillwater Designs warrants this product to be free from defects in material and workmanship under normal use for a period of **one (1) year from date of original purchase**, unless this product is labeled "B Stock", in which case it is warranted for ninety (90) days from date of purchase. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction during the warranty period, Stillwater Designs will replace or repair (at its discretion) the defective merchandise at no charge.

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 must be returned to your local Authorized Stillwater Designs (Kicker/Impulse) Dealer for warranty. Assistance in locating an Authorized Dealer can be obtained by writing or calling Stillwater Designs direct. 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 send defective merchandise, package all defective items in the original container or in a package that will prevent shipping damage, and return to

**Stillwater Designs, 5021 North Perkins Road, Stillwater, OK 74075**

Return only defective components. Return of entire cabinets, system packs, pairs, etc. increases your return freight charges. Non-defective items received will be returned freight collect.

Include a dated proof-of-purchase from an Authorized Dealer. Warranty expiration on items returned without proof-of-purchase will be determined from the manufacturing date code. Coverage may be invalidated if this date is greater than one (1) year previous to the date item is sent in. Freight must be prepaid; items received freight collect will be refused.

Failure to follow these steps may void your warranty. Any questions can be directed to the Warranty Department at (405)624-8510.

## 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:

- Products purchased from an unauthorized dealer.
- Install slips (screwdriver holes) or damage due to improper installation
- Damage caused by exposure to water, 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.
- Freight damage.
- The cost of shipping product to Stillwater Designs Service.
- Items previously repaired or modified by any unauthorized repair facility.
- Items returned from unauthorized individuals or dealers.
- Return shipping on non-defective items.
- Speakers damaged or voice coils charred due to amplifier clipping or distortion.
- Speakers with silicon caulk used for gasket material.
- Products with tampered or missing barcode labels.

## HOW LONG WILL IT TAKE?

Stillwater Designs maintains a goal of 24-hour service for all returns. Delays may be incurred if lack of replacement inventory or parts is encountered.

## INTERNATIONAL WARRANTY

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

P.O. Box 459 • Stillwater, Oklahoma 74076 • U.S.A. • 405 624-8510

**STILLWATER**  
*Designs*®

# WARNING:

KICKER components 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!**