



KICKER®



SOLO X

SUBWOOFER

LIVIN' LOUD

**OWNER'S MANUAL
S12X, S10X**



SoloX Subwoofer Owner's Manual

Models: S12X1, S12X2, S10X1, S10X2

Attention:

Please take a moment and record the information asked for below in the provided area. It is also a good idea to attach the original sales receipt or a copy of it to this page for future reference

If for any reason you require service on this subwoofer during the warranty period, you will need to provide this information and a copy of the receipt to KICKER to validate your warranty. Please read the special SoloX warranty page!

ALWAYS KEEP YOUR RECEIPT!

Congratulations!

You have just purchased one of the most advanced subwoofers in the history of car audio. Your KICKER SoloX is the latest in KICKER's trend-setting Solo-Baric line, designed and engineered to deliver the ultimate in low bass performance and unmatched durability.

Thanks for buying KICKER. Enjoy!

Dealer Where Purchased: _____

Purchase Date: _____

Model Number: _____

Serial Number: _____

FEATURES

Titanium Deposit Impregnated Cone An Ultra High Performance look that is more rigid for less cone flex and less distortion.

Advanced Cone Technology The outer edge of the cone has been rolled to increase cone rigidity to decrease cone flex under high excursion.

BAM (Basket And Motor) Assembly Cast Aluminum Basket featuring low profile/open design. Provides a solid anti-resonant foundation for the massive motor assembly.

SPAIR (Simple Pull Apart Insertable Replacement) A stamped steel removable cone assembly. (Patent Pending)

Uniplate V.2 with Vented Hyper-Extended Pole (Patent Pending)

1. Utilizes "X" Vent technology to insure proper dissipation of heat away from the voice coil during operation.
2. Provides enhanced heat transfer for cool operation and maximum power handling.
3. Increases the linear magnetic fields around the voice coil gap for superior cone motion control.
4. Releases pressure under ISD for freer cone motion and enhanced low bass.

SLAM (SPAIR Lockdown Attachment Mechanism) The aluminum frame attached to the SPAIR which properly secures the removable speaker assembly (SPAIR) to the BAM (Basket And Motor assembly).

SPLAT (Speaker Precise Location Alignment Tool) Locates and anchors the BAM to the baffle of your enclosure.

Locator Pin / Locator Hole The pin in the BAM along with the hole in the SPAIR allows the SPAIR to fit only one way into the BAM and is necessary to insure proper performance.

ARCTIC Cap (Aluminum Rapid Cooling Thermal Induction Centering Cap) Mounted on top of the extended pole-piece it is responsible for insuring the voice coil on the SPAIR is properly centered when inserted into the BAM, adds more mass for increased thermal transfer from the voice coil to the pole piece and channels air into the "X" Vent for increased cooling.

S3 Triple Spider Array 3 Poly nomex spiders keeps the voice coil properly centered under high excursion.

Double Stack Custom Tooled Magnets With a BAM this big, a single just wouldn't fill your appetite.

ISD (Inverted Structural Dome™) Further increases cone's resistance to flex under pressure.

Stitched Surround Prevents cone/surround separation at high excursions.

Dual Ultra-Length Voice Coils For high excursion and flexible wiring options.

Oversized 3" Voice Coil With bottom rolled out for increased retention capabilities.

Strain Relief Boots for Tinsel Lead Wires Large heavy gauge tinsel lead wire with strain relief boots.

Spring Loaded Binding Post Quick, easy and secure method for connecting the speaker wires to the driver.

WIRING

The SoloX woofers are available with dual 2 Ohm or dual 1 Ohm voice coils. The terminals without white dots are for voice coil one. The terminals with the white dots are for the second voice coil.

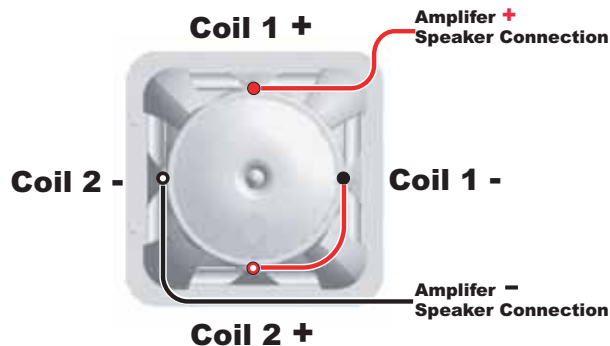
Both voice coils must be powered up. Choose a Series or Parallel wiring option that fits your system and amplifier's requirements. You can also wire each coil to a single amplifier.

NOTE: Be sure your amplifier is NOT wired to a load below its minimum impedance specifications. Follow your amplifier manufacturer's recommendations.

Series Wired

Dual 1 Ω = 2 Ω Load

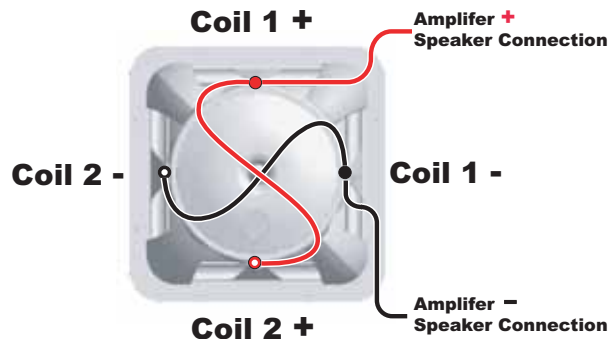
Dual 2 Ω = 4 Ω Load



Parallel Wired

Dual 1 Ω = .5 Ω Load

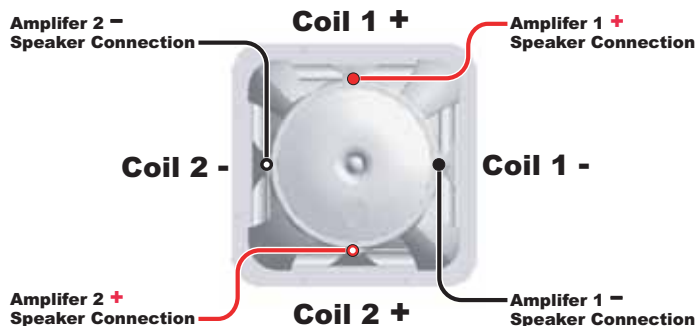
Dual 2 Ω = 1 Ω Load



Dual Amplifier

Dual 1 Ω = 1 Ω Load Per Amp

Dual 2 Ω = 2 Ω Load Per Amp



The SoloX is one of the most advanced subwoofers on the market, therefore, care must be taken when designing an enclosure. We will provide you with enough information for you to properly construct an enclosure. If you feel you are not capable of building it yourself, we highly recommend letting one of our Authorized Dealers build it for you. It will save you a lot of heartache and headaches. The SoloX subwoofer is capable of handling unheard of power. A simple enclosure will not be enough. The enclosure will need to be made of a minimum of 1" MDF and properly braced. You may use 4" x 4" (10.16cm x 10.16cm) triangular braces between each of the larger unsupported panels or a center brace (as seen on the next page). We also recommend using a good grade wood glue and silicone rubber to insure an airtight seal.

The wood support inside your SoloX shipping carton can be used as a template for cutting the speaker mounting hole in the enclosure. Since the wood cut out is the same size as the basket of the SoloX, when you make the cut along the line drawn through the template, make sure to cut right on the line to get the correct opening size.

All the cubic feet numbers given in the following pages include the displacement of the woofer. ***For the ported boxes the displacement of the port must be added to the final design.*** It will be impractical to use round ports for these designs. The rectangular port information given will yield the best results. Keep in mind the pressure inside of a ported enclosure at times can exceed that of a sealed enclosure.

Note: If you prefer an ultra-smooth bass response, you should loosely fill your SoloX Enclosure with polyfil. Ported designs will require covering the entrance to the port (inside the box) with hardware cloth, chicken wire, or expanded metal to prevent the polyfil from being blown out through the port. Use of polyfil will slightly decrease efficiency, but will deepen and extend low bass response.

Do not install a ported box with the port against a solid surface. The port opening must remain unobstructed. Use the smallest dimension of the rectangular port as the minimum amount of space required between the port and any surface to insure unrestricted airflow.

For more advice on box building see your local dealer or the Choosing and Building Enclosures page in the Tech Tips & FAQs section of the Support area on the Kicker website, www.kicker.com.

A note on power handling capability

SoloX subwoofers will handle massive amounts of power in any of the recommended enclosures. The power ratings given are assuming that both voice coils are used. You should never hook up a dual voice coil woofer using only one coil.

Sealed Design

SoloX Series Sealed Enclosure Applications

The SoloX is designed for Vented enclosure/High SPL applications and that is where maximum output will be achieved. If you are willing to give up maximum SPL for more low bass output, then you can utilize our sealed enclosure recommendations.

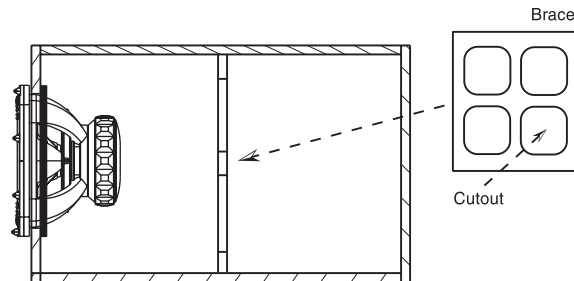
These sealed enclosure recommendations will give the smoothest response with the most energy at really low frequencies, around 20 to 30 Hz.

The recommended Tuner sealed box will deliver massive amounts of high impact bass and can be driven with punishing levels of amplifier power.

One of the benefits of the SoloX series high performance suspension system is that they can operate in larger sealed enclosures for ultra low bass performance (SUV applications) while still maintaining excellent control and power handling.

SoloX series woofers also perform well in any sealed enclosure between the Tuner and SUV sizes. These systems will exhibit some benefits of both (high impact and low extension) generally sounding more like the box to which they are most closely sized.

These enclosure volume recommendations are for the airspace inside the enclosure and include the displacement of the woofer. Do not make the airspace any greater than recommended.



S10X **Recommended Sealed Enclosures**

Model

Tuner: **1 cu.ft., Fb = 70.4 Hz**
F3 = 40.9 Hz, Pmax = 2500W

SUV: **2 cu.ft., Fb = 65.9 Hz**
F3 = 36.1 Hz, Pmax = 2000W

S12X **Recommended Sealed Enclosures**

Model

Tuner: **1.5 cu.ft., Fb = 73.4 Hz**
F3 = 42.3 Hz, Pmax = 2500W

SUV: **3 cu.ft., Fb = 68.7 Hz**
F3 = 36.7 Hz, Pmax = 2500W

For more enclosure choices see your local dealer or check out our website www.kicker.com.

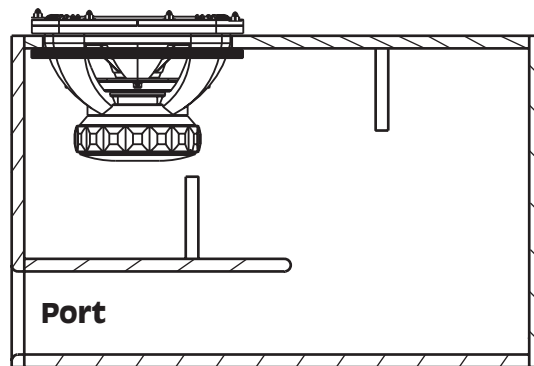
SoloX Series Vented Enclosure Applications

The Kicker SoloX is truly awesome in a vented enclosure as this is what it was designed for. Throw out every experience you have ever had with a vented speaker and prepare to be blown away! Our engineers have designed several boxes that will truly intimidate and irritate everyone within a 3 mile radius.

Because a woofer of this magnitude has never been produced, even we do not know the total capabilities of the SoloX. The following chart shows three recommended vented enclosures for the SoloX: Tuner, SUV, and SPL. Keep in mind, these enclosure volume recommendations are for the airspace inside the enclosure and include the displacement of the woofer. You will need to add the port displacement to this. Do not make the airspace any greater than recommended.

These enclosures are a great place to start your wicked adventure in 'retarded loud'* bass! Hit the website for the latest up-to-date info on new enclosure designs!

**Actual quote from Jason Krim of Stereo-In-Dash located in Dayton, Ohio (Authorized Kicker Dealer) when asked about the performance of SoloX drivers. No life-altering contracts or big-money payouts were involved to use his awe-inspiring quote but we are sure he will be 'down with it' for the props.*



S10X
Recommended Vented Enclosures

Tuner : **2.25 cu.ft. Port: 42 sq.in. x 9.75"**
Fb = 44 Hz, Pmax = 1400 W
(with 25 HZ subsonic filter)

SUV: **4.91 cu.ft. Port: 60 sq.in. x 8.75"**
Fb = 45Hz, Pmax = 1500 W
(with 25 HZ subsonic filter)

SPL: **6 cu.ft. Port: 250 sq.in. x 9"**
Fb = 68 Hz, Pmax = 2500
(Above tuning freq. only)
See below!

The SPL enclosure is intended for SPL ONLY!
It is designed to be used with test tones above 68 Hz!
Playing music with frequencies below 68 Hz will result in
very, very, very bad things happening!!

S12X Recommended Vented Enclosures

Tuner : **3 cu.ft. Port: 45 sq.in. x 18.75"**
Fb = 40 Hz, Pmax = 1400 W
(with 25 HZ subsonic filter)

SUV: **6 cu.ft. Port: 60 sq.in. x 6"**
Fb = 45 Hz, Pmax = 2000 W
(with 25 HZ subsonic filter)

SPL: **6 cu.ft. Port: 250 sq.in. x 9"**
Fb = 68 Hz, Pmax = 2500
(Above tuning freq. only)
See below!

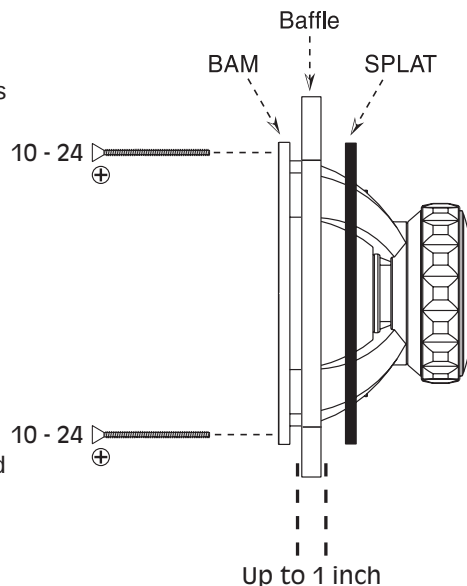
The SPL enclosure is intended for SPL ONLY!
It is designed to be used with test tones above 68 Hz!
Playing music with frequencies below 68 Hz will result in
very, very, very bad things happening!!

For more advice on box building see your local Kicker dealer or the Choosing and Building Enclosures page in the Tech Tips & FAQs section of the Support area on the Kicker website, www.kicker.com.

NOTE: The mounting hardware included with your SoloX subwoofer is designed to work with enclosure baffles up to 1" thick.

If you are using an enclosure with a baffle thicker than this then you will need to visit your local hardware store and get longer hardware.

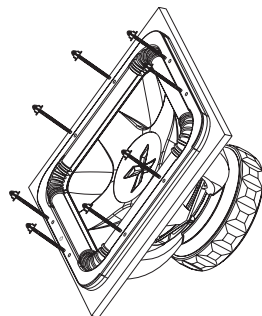
You can use whatever length required to suit your needs as long as it is 10-24 countersunk style as this is what the SPAIR and SPLAT are drilled and tapped to accept.



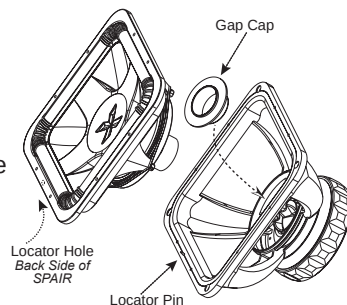
MOUNTING

Now that you have opened the box and read "The Adventures of Sam Stikman" and decided on which enclosure design to use, you may now remove the SoloX from it's box. Please follow the instructions lined out here to insure proper installation.

1. With assistance, remove the SoloX from the cardboard facilitation chamber.

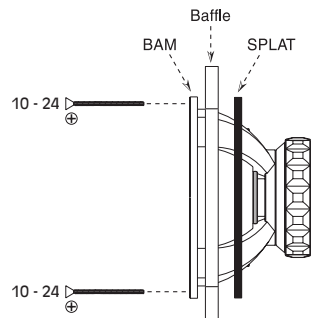
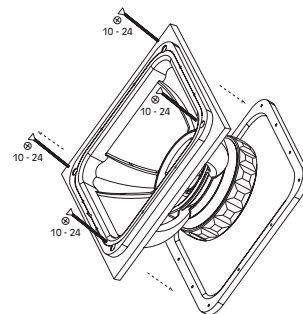


2. Once out of the carton remove the (8) eight bolts securing the SPAIR to the BAM and wood baffle assembly. Place SPAIR in safe clean location!



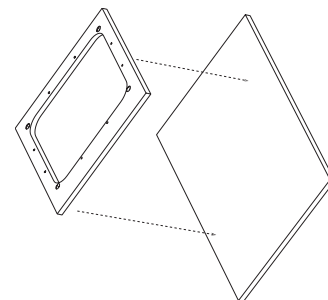
ATTENTION!
3. Install the Gap Cap into the BAM around the pole-piece to protect the motor assembly from debris while you are installing the woofer. *If any metal shavings were to fall into the gap, they would be next to impossible to remove! Please use the Gap Cap!*

4. With the Gap Cap now installed remove the (4) Phillips Head Machine Screws that lock the BAM to the wood baffle assembly.



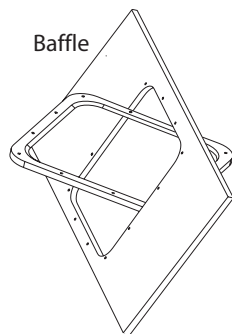
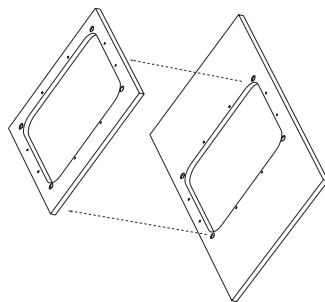
The SPLAT and wood baffle will now come free from the BAM. The baffle will now become your mounting template.

5. Place the wood template on your enclosure baffle to mark the holes for mounting.

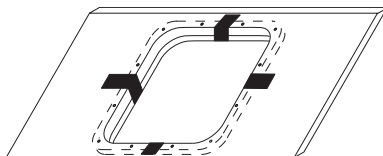


6. Once the holes are marked remove template. Using a jigsaw cut out the woofer hole and use a 1/4" drill bit for the mounting holes

NOTE: You will need assistance for the following steps!

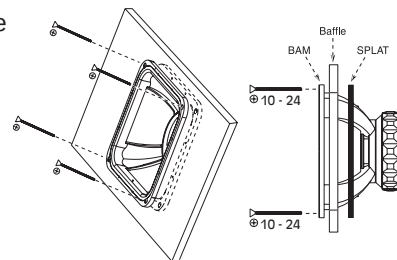


7. Insert the SPLAT into the cutout and move into position.

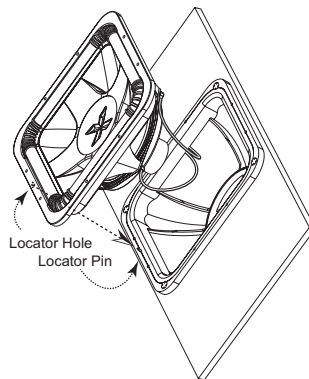


8. Use masking tape to temporarily hold the SPLAT in place while securing the BAM. This tape can be removed after the corner hardware has been started.

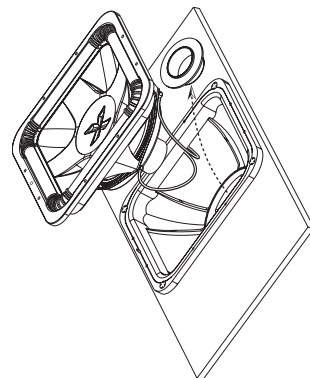
9. With your assistant, insert the BAM and start the corner hardware. Now is the time you remove the unidirectional bonding strip! (Tape) Tighten the Phillips Head Machine Screws to secure the BAM to the baffle.



10. Pull the wires out through the BAM and connect to the Binding Posts. *Make sure you are using proper polarity!* **The Locator Pin and Locator Hole will properly align the SPAIR to the BAM!**



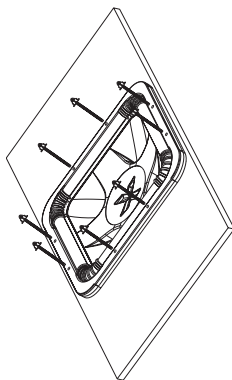
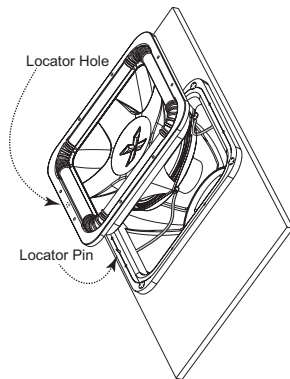
11. Remove the Gap Cap before inserting SPAIR.



12. Insert the SPAIR back into the BAM. **Be careful not to damage the voice coil.** The Locator Pin on the BAM and Locator Hole in the SPAIR must line up!

The ARCTIC Cap will help to center SPAIR as you lower it into the BAM. When properly aligned these assemblies slide together easily.

NOTE: Make sure the Locator Pin and Locator Hole are aligned correctly!



13. Using the 10-24 acorn head bolts secure the SPAIR to the BAM. Hand tighten the bolts following the pattern shown in the diagram to the right (Fig 1) and then go back using a wrench or socket to snug them up. This will insure a proper fit.

ATTENTION!

Follow the pattern, hand tightening each, then go back and tighten using the same pattern.

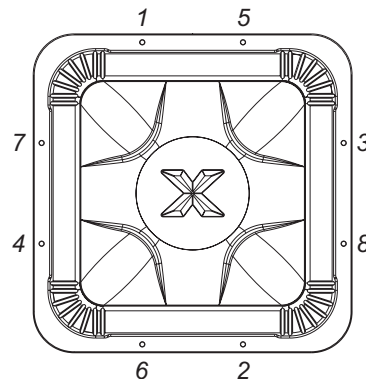
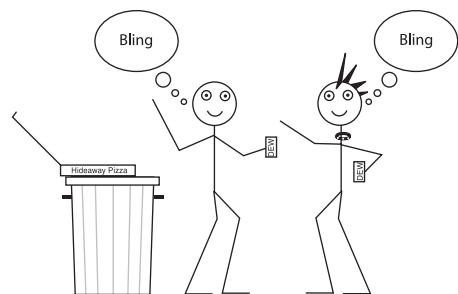


Fig 1

14. Pop open a cold beverage and admire your work!



PERFORMANCE

Model:	S12X1	S12X2	S10X1	S10X2
Nominal Impedance	1	2	1	2
<i>(Impedance per coil)</i>				
SPL 1W/1M	87.69	87.55	85.64	85.65
Displacement, cc	5380	5380	5100	5100
Displacement, Culin	328.32	328.32	311.04	311.04
Mounting Depth	8 9/16"	8 9/16"	8 3/8"	8 3/8"
Revc (coils in series)	2.73	4.090	2.73	3.99
VC Inductance, mH	3.55	4.654	3.58	5.512
Sd, SqM	.0689	.0689	.0480	.0480
BL	22.9	27.6444	22.6	26.7089
Vas, Liters	31.06	33.1245	19.9	20.4376
Vas, CuFt	1.097	1.1696	.702	.7216
Mms, gms	378	361	336	309
Fs	37.5	37.81	35.2	36.237
Qms	10.5	10.076	10.1	10.266
Qes	0.43	0.458	0.39	0.393
Qts	0.41	0.438	0.38	0.379
Pmax, Peak watts	5000	5000	5000	5000
RMS watts	2500	2500	2500	2500
EXmax, mm	23	23	23	23
<i>(Excursion maximum)</i>				
Weight, Pounds	47	47	46	46
Kilograms	21.32	21.32	20.87	20.87

WHAT IS NOT COVERED?

This warranty is valid only if the product is used for the purpose for which it was designed.

Caution: Burnt voice coils are not covered under warranty!

In addition, the warranty does not cover:

- * Damaged Spiders.
- * Damaged Surrounds.
- * Damaged Cones.
- * Damaged Tinsel Leads.
- * Damaged Voice Coils.
- * 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.
- * Any cost or expense related to the removal or reinstallation of the product.
- * Speakers damaged due to amplifier clipping or distortion.
- * Speaker with any foreign caulk used for gasket material.
- * Items previously repaired or modified by any unauthorized repair facility.
- * Return shipping on non-defective items.
- * Products with tampered or missing barcode labels.
- * Products returned without a Return Merchandise Authorization (RMA) number.
- * Freight damage.
- * The cost of shipping the product to your Kicker Dealer or Distributor.
- * Service performed by anyone other than Kicker.

International Warranty

Contact your International Stillwater Designs (KICKER) 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 drivers 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!

SOLOX LIMITED WARRANTY

Ok, you have read all the fine print on the previous page describing the warranty on a Solo X Subwoofer, (enough there to make even Judge Judy happy) but what does it all mean? Well, let's just lay it all out in as simple of terms as possible.

The Solo X is a high performance machine that is built to take gobs of power, play extremely loud and create enough low bass to rattle the fillings out of your friend's teeth who lives in the next county. It is built using the finest materials and highest degree of workmanship we have available. It is the NASCAR of subwoofers...designed to be driven hard into all four corners...and we are sure you will drive it just that way!

With all that being said...we know some of you will still be able to break this product...it is a plain and simple fact. When you build an extreme product to be used by extreme people these people can and will find the breaking point...just like Tony Stewart snapping a rod in a motor.

That is why we designed the Solo X to have a permanently mounted BAM (Basket And Motor) assembly with a replaceable soft parts assembly, the SPAIR (Simple Pull Apart Insertable Replacement), so that when you find the breaking point (and if you can still hear or feel) you can re-build it on the spot. If you read the big poster that came with your woofer (you did...right?) you know Sam & Sid told you this thing weighs more than a Mini Cooper (well...really it weighs in at near 50 pounds/22.68 Kg). The BAM which is about 90% of the weight in a Solo X stays mounted in your enclosure AND in your car; you simply exchange the much lighter SPAIR. This saves you all the fun of wrestling with the entire Solo X and the ENORMOUS costs of shipping a 50 pound (22.68 kg) woofer to your dealer or distributor.

The SPAIR and all the parts contained within it are not warranted for:

- Burnt, Shucked, Bent, Unraveled or Open Voice Coils.
- Torn, Ripped or Punctured Surrounds.
- Torn, Ripped or Punctured Cones.
- Torn, Ripped or Punctured Spiders.
- Burnt or Frayed Tinsel Leads.

We also do not warranty the SPAIR for:

- Wear and Tear under normal use.
- Product damaged due to abuse.
- Damage to Vehicle and/or other components of the sound system.
- Scattered, Smothered, Covered and Chunked units.

The SPAIR and BAM are not covered under warranty for any damage due to shipping or improper packaging.

So what will KICKER cover under warranty?

- Poor or misaligned glue joints.
- Poor or misaligned parts.
- Material, Machining or Assembly flaws with the BAM.

So in a nut-shell if and when you break it (which takes A LOT) you simply return the soft parts assembly (the SPAIR) to your local dealer and purchase another SPAIR. If there is a problem with the SPAIR and you feel it should be covered under warranty, you will need to contact your International Stillwater Designs (KICKER) dealer or distributor

Special Note: OK that all sounds pretty black and white but we are KICKER and we know stuff happens. If your Solo X stops working and after pulling the SPAIR you find a failure other than that mentioned above that you feel is a manufacturing defect or poor workmanship you may contact your International Stillwater Designs (KICKER) dealer or distributor) for details.

