



"I give a standing ovation to Jim Thiel and the gang at THIEL Audio for not only conceiving of the SmartSub and its ancillaries, but making them a reality. THIEL has taken a well-known product [category], addressed its deficiencies, improved its performance and made it more intuitive to use. Voilà—they've re-engineered the status quo."

—Marc Mickelson,
SoundStage

*O*ur goal in developing a subwoofer system was to produce a product that achieves a very high sonic quality but does not exhibit the sonic problems typical of subwoofers. In particular, conventional subwoofer systems usually do not integrate well sonically with other speakers in the system and our SmartSub products were originally inspired by the now patented idea of an electronic means of generating subwoofer crossover characteristics that could be made to perfectly match any main speaker. In addition, unbalanced response caused by placement near walls has also been solved in our SmartSub designs. We believe that the major problems of subwoofers have been effectively eliminated in our THIEL SmartSub subwoofer products.

Jim Thiel

THIEL Awards and Honors



21 CES *Innovations* Design & Engineering Awards



6 Audio/Video International Grand Prix "Product of the Year" Awards



5 *The Absolute Sound* or *Perfect Vision* "Editors' Choice" Awards



4 *SoundStage* "Reviewers' Choice" Awards



4 *Stereophile* "Speaker of the Year" & "Runner-up" Awards



3 *StereoSound* COTY- "Components of the Year" Awards



2 *Electronic House* "Product of the Year" Awards

2000 *image hifi*

IMAGE Hi-Fi "Speaker of the Millennium" Award



THIEL SmartSub[®] Subwoofer Systems

Your one-step solution to better sound



ADDING A THIEL SMARTSUB SUBWOOFER

to your current music or home theater system is the *one-step solution* to experiencing the ultimate in high-performance sound. THIEL's patented SmartSub Technology delivers awe-inspiring bass to bring you all of the emotional impact and extreme realism that comes with full and complete sonic reproduction. Reach your system's true potential with THIEL's SmartSub bass components, regardless of your current brand of main speakers.

"...the SmartSub doesn't merely add bass, but effectively upgrades the performance of the entire system ...an excellent investment. "

—John Potis

6Moons.com, November 2004

SmartSub[®] Subwoofers

- Each of the four subwoofers can be easily adjusted to accurately eliminate room interaction problems for any placement.
- Unique electronic circuitry in the SS2, SS3, and SS4 corrects for compression distortion due to heating of the drivers' voice coils for more dynamic and effortless reproduction.
- Very high power amplification
- Short-coil, long gap, copper-stabilized driver motor systems for ultra-low distortion
- Beautiful cabinetry is available in a variety of real wood finishes
- Provides great realism for both music and movies



THIEL subwoofers extend the boundaries of performance. The full, rich and complete enjoyment of your favorite music or movies can easily be realized with the addition of one of the four powerful THIEL SmartSub subwoofers. Use as either a powered, stand alone system for reproducing the “point one” channel in a home theater system, or combined with either the companion SmartSub Integrator or the THIEL PX02 or PX05 Passive Subwoofer Crossovers for full system bass reproduction. The SS1, SS2, SS3, and SS4 all share several innovative design features that provide exceptionally deep, uniform, dynamic and low distortion bass down to 10 Hz for incredible sonic realism.

“I know of no better way to add great low bass than THIEL’s SmartSub lineup...”

—Marc Mickelson
SoundStage, November 2004

“The SS2 equaled the best subs I’ve tried in my system in almost every way...it’s one hell of a sub.”

—Daniel Kumin
Sound and Vision, September 2004

THIEL’s Award-winning sound



- Soundstage’s “Innovation in Design” Award for 2004
- Electronic House 2004 “Product of the Year” with THIEL PCS
- Soundstage’s “Reviewers’ Choice” Award with THIEL system
- Innovations Design & Engineering Award for 2001



SS4

The model SS4 employs two long-throw 15" woofers in a 51" H x 19" W x 26.5" D, 290 pound cabinet with up to 113 dB of output at 20 Hz and up to 120 dB at 30 Hz to meet the needs of consumers who desire extraordinary amounts of bass output for their home theater or music systems.

LFE Input response: 16 Hz-300 Hz, ± 3 dB

Normal input response: 10 Hz-300 Hz, ± 3 dB

Acoustic Output: up to 113dB @ 20Hz, 120dB @ 30Hz

Sensitivity: 1 volt for 120 dB@1m

Amplifier: Switching, Class D

Amplifier Power: 1000 watts, RMS



SS3

The model SS3 employs two long-throw 12" woofers in a 34" H x 16" W x 20.75" D, 167 pound cabinet with up to 109 dB of output at 20 Hz and up to 116 dB at 30 Hz.

LFE Input response: 16 Hz-300 Hz, ± 3 dB

Normal input response: 10 Hz-300 Hz, ± 3 dB

Acoustic Output: up to 109dB @ 20Hz, 116dB @ 30 Hz

Sensitivity: 1 volt for 120 dB@1m

Amplifier: Switching, Class D

Amplifier Power: 1000 watts, RMS



SS2

The model SS2 employs two long-throw 10" woofers in a 23.5" H x 11" W x 20" D, 108 pound cabinet with up to 105dB of output at 20 Hz and up to 112dB at 30 Hz.

LFE Input response: 16 Hz-300 Hz, ± 3 dB

Normal input response: 10 Hz-300 Hz, ± 3 dB

Acoustic Output: up to 105dB @ 20Hz, 112dB @ 30 Hz

Sensitivity: 1 volt for 120 dB@1m

Amplifier: Switching, Class D

Amplifier Power: 1000 watts, RMS



SS1

The model SS1 utilizes one long throw 10" woofer in a compact 20" H x 11" W x 15.5" D, 55 pound cabinet with up to 99dB of output at 20 Hz and up to 106 dB at 30 Hz, an exceptional amount of output for a subwoofer its size.

LFE Input response: 16 Hz-300 Hz, ± 3 dB

Normal input response: 10 Hz-300 Hz, ± 3 dB

Acoustic Output: up to 99dB @ 20Hz, 106dB @ 30 Hz

Sensitivity: 1 volt for 120 dB@1m

Amplifier: Tracking Power, Class A-B

Amplifier Power: 500 watts, RMS

SmartSub[®] Integrator

using THIEL's patented SmartSub Technology

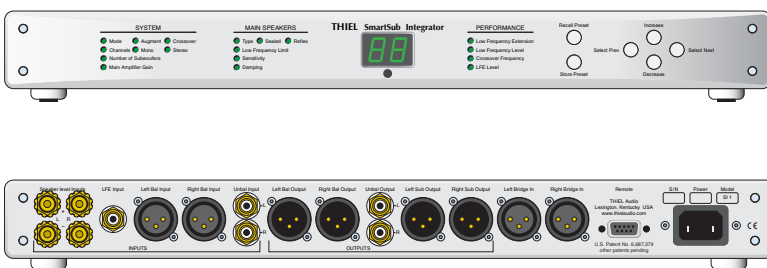


SI 1 Integrator

SmartSub Integrator: Perfectly match a THIEL subwoofer to ANY main speaker

The SmartSub SI 1 Integrator is designed to provide the unprecedented ability to perfectly match THIEL subwoofers to any speaker, regardless of brand or type, for seamless, coherent sound. The Integrator takes the guesswork out of subwoofer crossover adjustments. Other subwoofers require that you endlessly experiment with settings for crossover frequency, level, and phase with no intelligible way of determining optimal settings and often concluding in unsatisfactory results. The Integrator's SmartSub circuitry automatically calculates the ideal settings once you enter information about your main speakers. The result is perfectly balanced sonic performance equivalent to a full-range speaker with extremely high output capability and very deep bass.

The Integrator can be used in augment mode to extend the bass range of the system's main speakers or in crossover mode to transfer the bass energy from the main speakers into the subwoofer, allowing the system to play at higher output levels. The Integrator utilizes two-channel circuitry so that stereo bass can be preserved when multiple subwoofers are employed and can be used with up to 16 subwoofers in very large systems.



SmartSub Technology eliminates the major problems and limitations that conventional subwoofers have in matching the system's main speakers and the room.

“Configuring a subwoofer optimally has always been a challenge...[the THIEL] subwoofer and integrator/crossover are easy and nearly foolproof to use and the results are deep, powerful, non-directional bass that gives the aural illusion that your speakers have sprouted a new woofer or three.”

—Marc Mickelson
SoundStage, November 2004

SmartSub[®] Integrator

using THIEL's patented SmartSub Technology

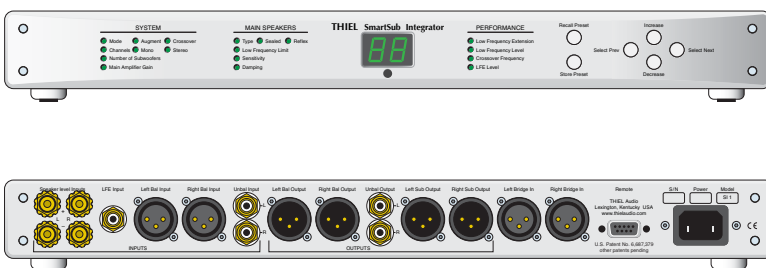


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SoundStage, November 2004

PX02 & PX05 Passive Crossovers



PX02 Passive Subwoofer Crossover



PX05 Passive Subwoofer Crossover

Passive Subwoofer Crossovers: Perfectly match a THIEL subwoofer to your main THIEL speakers

THIEL Passive Subwoofer Crossovers allow a THIEL subwoofer to perfectly blend its output to augment the output of your main THIEL speakers. Individual THIEL model versions of the two-channel PX02 and the five-channel PX05 are each designed to create a seamless match with its main THIEL speaker models' normal bass roll-off, extending the entire system's low frequency response to below 20 Hz. With the Passive Subwoofer Crossovers, THIEL speaker owners can enjoy the very realistic and dynamic bass of THIEL subwoofers and two of their patented SmartSub features—the SmartRoom filter for eliminating room boundary problems and the SmartPower Design to correct voice coil compression distortion. The PX05 is custom made to match different models for front, rear and center channel speakers.

"...with no work on my part whatsoever, the PX02 integrated the SS2 with the PCS monitors so seamlessly that I defy anybody to detect a subwoofers presence blindfolded."

—John Potis
6Moons.com, October 2004

Do I need an Integrator, PX02, or PX05?

The PX02 and PX05 passive crossovers match THIEL subwoofers to current main THIEL speaker models and achieve very good integration and balance between the subwoofer and your THIEL speakers. Being passive, they are of quite reasonable cost. A limitation is that these crossovers do not redirect bass energy away from the main speakers and so the main speakers will not play any louder than normal. Another limitation is that the bass extension and level of the subwoofer are not adjustable. This is often a good approach for music and video systems when the main speakers play sufficiently loud but do not have extended, deep bass response.

If you own THIEL main speakers and would like greater overall output, adjustable levels and bass extension, and choice of crossover or augment mode, then choose the Integrator. If you own a non-THIEL or older THIEL speaker model, you will need to use an Integrator.

Specifications

SI 1 Integrator

Size: 2" H, 17" W and 9" D

Inputs: Speaker level, Line level balanced and unbalanced, LFE unbalanced, bridging sub

Main Speaker Outputs: Balanced and unbalanced

Subwoofer Output: Balanced

Line voltage: 90-130 or 180--260

PX02/PX05 Passive Crossovers

Size: 2" H, 7" W, 6.5" D

Inputs: Speaker level

Subwoofer Output: Balanced

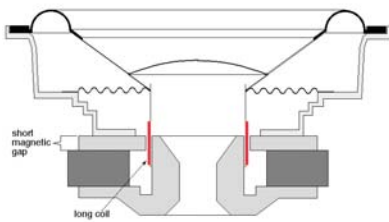
Design & Engineering

The difference is our engineering

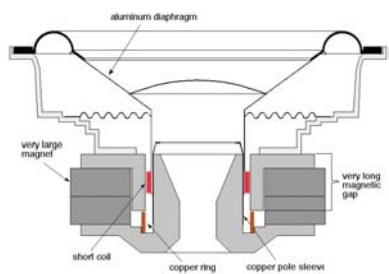
Designing a better subwoofer

THIEL's excellence in loudspeaker engineering and design is what separates us from other companies. Our in-house designed drivers represent state-of-the-art technology and performance that greatly contribute to the exceptional sound reproduction provided by our entire line of award-winning speakers.

Driver Motor Systems

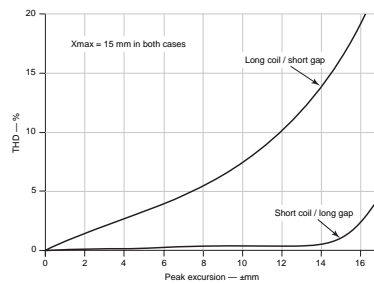


Conventional long coil/short gap woofer



SmartSub short coil/long gap woofer

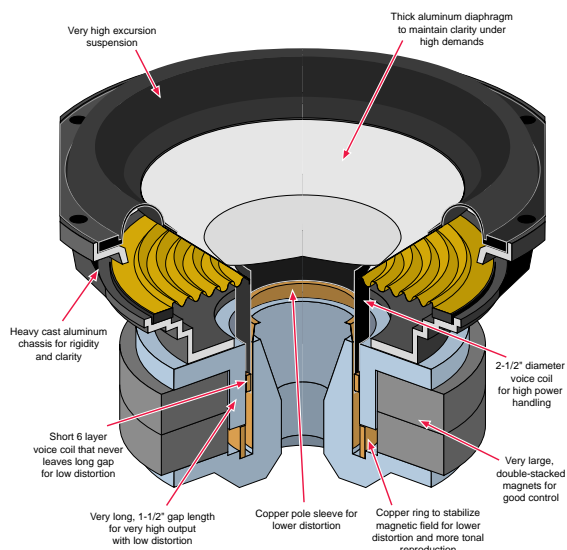
To greatly reduce driver distortion, THIEL uses an unusual short coil/long gap motor design which causes the intensity of the magnetic field acting on the coil to be constant during movement.



Distortion of THIEL short coil/long gap woofer vs. conventional long coil/short gap woofer



Model SS2



SS2 woofer

- **Unique short coil/long gap motor systems dramatically reduce distortion for very clear and open reproduction.**
- **Very rigid aluminum diaphragms eliminate resonance coloration for exceptionally uniform frequency response.**
- **Long excursion, long gap motor structures provide greater output capability for realistically high sound listening levels.**
- **Copper is used for magnetic field stability and reduced voice coil inductance to greatly reduce distortion from secondary effects.**
- **Heavy cast chassis, very large magnet assemblies, and very high quality parts throughout contribute to high performance.**

“The SS2 can be accurately calibrated to virtually any placement ...Its plug and play simplicity takes 98% of the mystery out of subwoofer use.”

—John Potis
6moons

Solution for Wall and Corner Placement Problems

THIEL's SmartSub subwoofers can be easily adjusted to accurately eliminate room interaction problems for any placement.

SmartSub Amplifier



Like any speaker, a subwoofer placed near room walls or in a corner will produce uneven response, with some frequencies being overemphasized and others reduced. Through special patented circuitry in its amplifier, THIEL SmartSubs can be easily adjusted to completely and accurately eliminate wall interaction problems for any placement—without microphones, equalizers, or complicated measurements. The result is the elimination of room boundary problems for outstandingly balanced and smooth bass reproduction.



SmartSub Control Panel



“Tremendous low-frequency power and extension, but also...exacting finesse and bloom.”

—Marc Mickelson
SoundStage

Solution for Thermal Compression Distortion



SmartSub driver voice coil heat sensor

Unique electronic circuitry in the SS2, SS3, and SS4 corrects for compression distortion due to heating of the drivers' voice coils for more dynamic and effortless reproduction.



The large amount of power used in small, high output subwoofers can produce substantial heating of the drivers' voice coils which, if uncorrected, lowers output and alters tonal balance. The SW1 amplifier's unique electronic circuitry corrects for compression distortion by measuring voice coil temperature, then automatically compensates for reduced sensitivity and response changes, resulting in more dynamic and tonal low frequency reproduction.

Manufacturing

Building a better loudspeaker



THIEL speakers are ruggedly constructed with great attention to detail. We strike a fine balance between hand craftsmanship and the use of high-precision machines to meet the THIEL standard.

“At THIEL, quality is nothing extraneous, rare, or exceptional, but something that becomes something you live with every day...It’s not only a matter of machines, but of men, passion, and the individual employee.”

—Ugo Stella,
Suono

- *Hardwood veneers are chosen from woods specially reserved for us by the producers. Craftsmen then match the veneer for the most attractive fit.*
- *High-precision, custom-programmed CNC machining centers achieve cabinet cut tolerances of two-tenths of one millimeter.*
- *THIEL’s skilled cabinet makers assemble the precision cut parts so joints are tight and veneer grain patterns flow seamlessly in matched pairs.*
- *From the intricate workings of the innovative motor systems and diaphragm assemblies to the massive magnets and rigid aluminum baskets, THIEL’s state-of-art drivers are assembled for exceptional performance.*
- *Each THIEL speaker is meticulously hand assembled, then tested and measured under anechoic-like conditions to ensure that it matches the design prototype. No speaker leaves the factory until it is worthy of the THIEL logo.*

Cabinets

An exceptional look for your home



Birds-eye Maple



Maple



Natural Cherry



Amberwood



Walnut



Morado



Dark Cherry



Black Ash



Satin Black

Real wood varies considerably in color and grain pattern from speaker to speaker, so your THIEL finish may differ from the samples shown.

To complement a variety of decorating tastes, we offer a number of subwoofer cabinet finishes. Finishes other than Walnut, Maple, Natural Cherry, Black Ash, and Satin Black are offered for an additional charge. All of our veneers are hand selected to obtain the most beautiful characteristics of the wood. The veneer for each pair is mirror matched by hand, creating visual balance and harmony between the two speakers for an elegant effect.



Custom painted metallic silver CS1.6s

Let us customize a cabinet especially for you. We can paint, stain, and even match a cabinet to your furniture.



THIEL is concerned about the impact of manufacturing on the environment. We purchase veneer only from responsible foresters, and contribute to sustainable forest management by funding the planting of 10 trees for each that we use. We avoid the use of high-formaldehyde wood products and glues, and our finishing products exceed stringent EPA guidelines.

“Thiel finishes their speakers like a master furniture maker...gorgeous veneer work...”

*—Brent Butterworth,
Home Theater, August 2000*