

SOUNDSTREAM TECHNOLOGIES — THE REFERENCE SERIES



SOUNDSTREAM  
REFERENCE

ground left right left right  
REAR FRONT  
HIGH LEVEL INPUT

REAR

on  
sub  
off

high  
pass  
freq.

30 40 50 75 90  
140 200 300  
40 50 140 200 300

low pass

high  
pass  
freq.

12 dB stereo  
24 dB mono

REFERENCE CLASS A 3.0

front bass

center  
high pass

550  
500 800

REF



## THE SOUNDSTREAM STORY

What's it like to be known as the maker of products that musicians, reviewers, and other manufacturers use as their "reference"?

It's something that we at Soundstream Technologies have gotten used to. Since our first amplifier rolled off our California production line in 1985, people in-the-know within the industry have consistently chosen Soundstream products, not only to test their own gear against the best, but also for their personal use.

We're proud of our past and excited about our future as we introduce the new "industry reference" for the 90's. We are convinced the new Reference products are absolutely the finest car audio products in the world. We're sure you'll agree.

The path to becoming an "industry reference" began in 1985.

### The Making of an Industry Reference

#### 1985 — Series I

In 1985, Soundstream redefined the level of sonic excellence achievable in the mobile environment by introducing the world's first audiophile-quality amplifiers for the car. Soundstream's radical redesign of the common car power amplifier was the first to incorporate such design features as gold-plated RCA input connectors, "masked" mil-spec glass epoxy circuit boards, 1% metal film resistors (not just in the signal path, but in all high power areas), and unique Darlington output transistor circuitry that didn't employ current limiting.

The result was the world's "best sounding car amplifiers" and the respect of the audio press. The D200 received two Product of the Year Grand Prix Awards and rave reviews worldwide. *Audio* magazine's Ivan Berger compared the D200 with 7 other "high end" amps (using both high-end car and home loudspeakers), then wrote "...the sound was exceptionally musical... clearly the best sounding of the group."

#### 1988 — Series II

By 1988, the competition had begun to follow Soundstream's lead and components of all kinds were dramatically upgraded. They made a nice try, but Soundstream's Series II amplifiers were about to make all of their advances look like a "Model T in a Corvette factory."

The Series II set new standards for performance and efficiency with a proprietary new Thermal Rollback™ power supply and impedance optimization circuitry. Thermal Rollback offered the customer continuous play even when other amplifiers shut down from the stress of overdriving and was inaudible in virtually any application. Impedance Optimization™ allowed the amplifiers to perform more efficiently at lower impedances. The amplifiers also included such "luxuries" as custom-made RCA, power, and speaker connectors. Accolades were quick in coming. Series II amplifiers received six Grand Prix and International Design and Engineering awards. In 1989, *Car Audio & Electronics*' Joel Cohen compared seven top amplifiers and selected the Class A 100 II as "...the first choice in my own system." Recently, England's *CAR HI FI* magazine called the MC245... "the nearest thing to hi-fi nirvana."

#### 1993 —

#### The REFERENCE Series

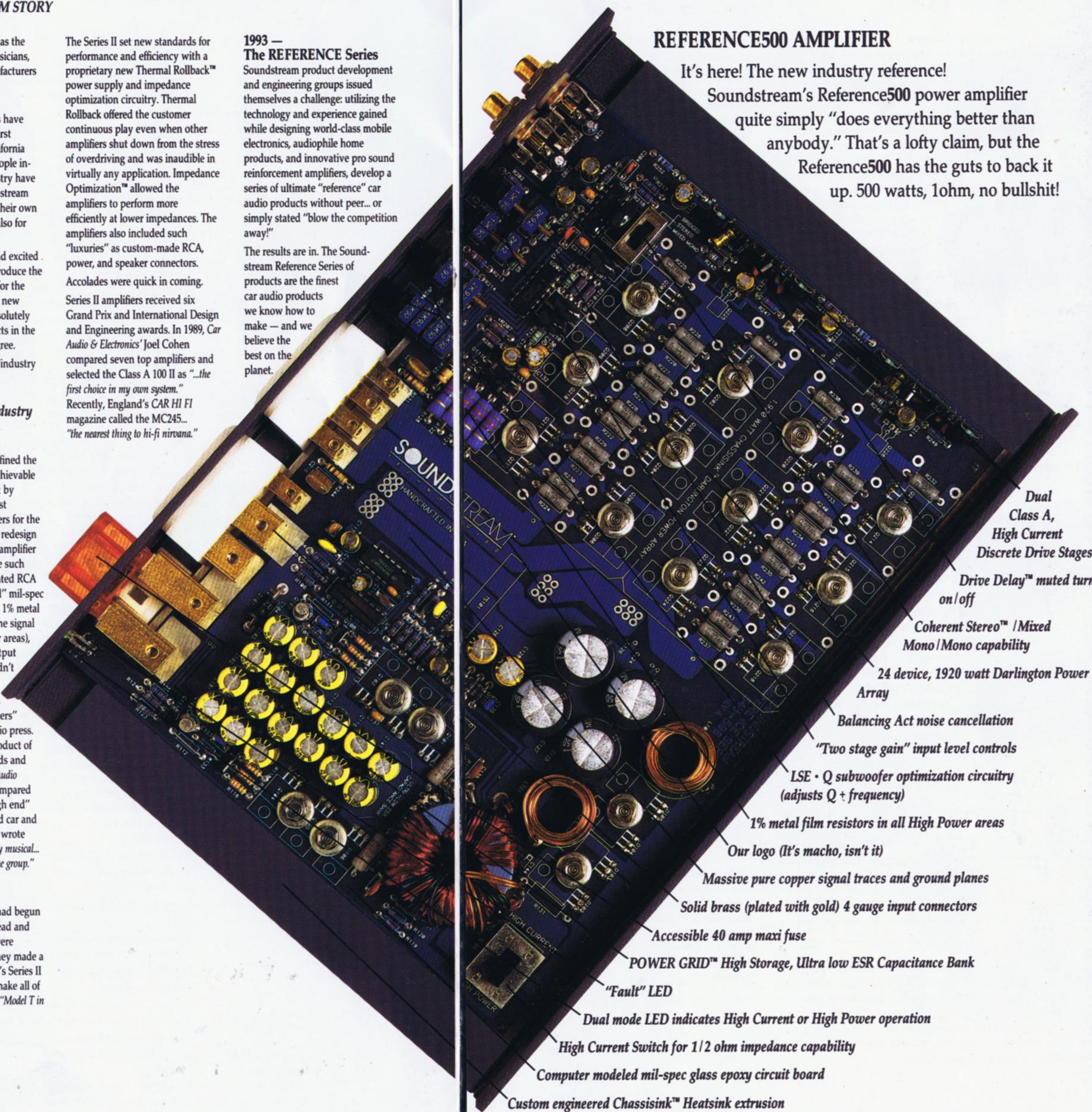
Soundstream product development and engineering groups issued themselves a challenge: utilizing the technology and experience gained while designing world-class mobile electronics, audiophile home products, and innovative pro sound reinforcement amplifiers, develop a series of ultimate "reference" car audio products without peer... or simply stated "blow the competition away!"

The results are in. The Soundstream Reference Series of products are the finest car audio products we know how to make — and we believe the best on the planet.

## REFERENCE500 AMPLIFIER

It's here! The new industry reference!

Soundstream's Reference500 power amplifier quite simply "does everything better than anybody." That's a lofty claim, but the Reference500 has the guts to back it up. 500 watts, 1ohm, no bullshit!



Dual Class A, High Current Discrete Drive Stages

Drive Delay™ muted turn on/off

Coherent Stereo™ / Mixed Mono / Mono capability

24 device, 1920 watt Darlington Power Array

Balancing Act noise cancellation

"Two stage gain" input level controls

LSE • Q subwoofer optimization circuitry (adjusts Q + frequency)

1% metal film resistors in all High Power areas

Our logo (It's macho, isn't it)

Massive pure copper signal traces and ground planes

Solid brass (plated with gold) 4 gauge input connectors

Accessible 40 amp maxi fuse

POWER GRID™ High Storage, Ultra low ESR Capacitance Bank

"Fault" LED

Dual mode LED indicates High Current or High Power operation

High Current Switch for 1/2 ohm impedance capability

Computer modeled mil-spec glass epoxy circuit board

Custom engineered Chassisink™ Heatsink extrusion

REFERENCE

THE REMARKABLE NEW REFERENCE500 POWER AMPLIFIER

## REFERENCE POWER AMPLIFIERS

Soundstream Technologies has a reputation — amplifiers that sound better than any others on the planet. But sounding more musical isn't enough.

Do you want the flexibility of mixed mono? Or do you prefer the sonic superiority of matched stereo channels? Do you want the capability of a gut-wrenching 1000 watts peak, unclipped, American power? Do you need to drive obscenely low impedances? Do you want the ultimate "competition" amplifier?

The new reference amplifiers can do all of these things while demonstrating new levels of flexibility and raw power previously unknown in the car environment. They do everything better than anybody!

**Amplifier Design Philosophy** — Soundstream amplifiers are created by the same engineers who design professional audio amplifiers which are subjected to the most masochistic treatment and are still expected to produce enough volume to fill a 20,000 seat stadium with pure, clean power. You don't go on tour with Tesla with a weak-kneed, pastel amplifier. No wusses allowed.

**Amplifier Build and Construction** — All components and circuit board layouts are carefully computer modeled to minimize distortion and noise. Each unit undergoes rigorous power/thermal stress testing and is backed by a two year "fin-to-fin" parts and labor warranty.

Key features include:

**Coherent Stereo / Mixed mono / Mono — selectability!** Reference amplifiers allow you to choose the application that best suits you.

Mixed mono allows you the flexibility of driving a mono subwoofer and stereo satellites simultaneously. Mono lets you use 100% of the amplifiers output to power a single channel (read huge subwoofer)! Coherent stereo for optimum sonic performance in a dedicated 2 channel application.

**High Power / High Current** — When you buy a Reference amplifier, you've actually bought two amps in one. Reference amplifiers combine the ability of driving the common 4 ohm loads of a high power application or the capability of driving ultra-low impedance systems when in high current.

**Darlington Power Array** — Soundstream employs a "more is better" strategy in the output stages of all Reference amplifiers. More wattage! More devices! Other manufactures use fewer devices, with less safe operating area (SOA).

Soundstream's "more is better" strategy achieves four key benefits:

- **Linearity** — when the load is spread over multiple devices, each device operates within its linear area.
- **Reliability** — "spreading the load" also reduces stress on individual devices and enhances durability.
- **Speed** — no "current limiting" and many devices means quicker responses to musical changes (transients) which demand instant power.
- **Higher current capability** — the ability to handle high amounts of current and control low impedances.

**Proprietary LSE.Q (Reference500, Class A 6.0)** — A unique quasi-parametric subwoofer equalization circuit which allows you to custom tailor the amount, the shape, and the frequency of boost.

**Power Grid™** supply's unique high storage, ultra-low ESR capacitance bank focuses energy for high-efficiency, high-current operation. Soundstream's multiple small capacitors recharge much faster than fewer large caps, speeding up current flow. The POWER GRID is highly effective at shunting RF noise, and provides remarkable headroom for the wide dynamics of today's digital sources.

**Chassisink™** custom heatsink maximizes mass per square inch (for thermal storage) and surface area (for dissipation). Output devices are distributed around the center of the heatsink, not along one edge, which improves cooling and design layout.

**Dual Class A drivers** (with six times the current gain of typical designs) for enhanced linearity, especially in low impedance applications.

**Ultra low-loss connectors** — direct-in, fully-insulated, bare wire 4-gauge connectors made of high conductance solid brass, gold-plated to prevent oxidation (Reference300, Class A 6.0, Class A 3.0, Reference500).

**Massive pure copper signal traces and ground planes** are up to four times normal thickness.

**"Fault" LED Indicator** with accessible fuses.

**Balancing Act noise cancellation** helps eliminate ground loop noise.

**Drive Delay Muting™** eliminates turn-on/turn-off noises.

**Two stage input gain** with easy to adjust input levels.

**Four-way protection** against shorts and overheating, including Thermal Rollback.

**1% metal film resistors, Military grade glass epoxy circuit boards and Custom 6-point RCA connectors.**



REFERENCE200



REFERENCE300



REFERENCE500

**REFERENCE200**  
25W x 2 into 4 ohms @ 12v  
12.5W x 2 into 4 ohms (High Current Mode/IASCA rating)  
45W x 2 into 4 ohms @ 14.4v  
200W total RMS, 1 ohm

**REFERENCE300**  
75W x 2 into 4 ohms @ 12v  
37.5W x 2 into 4 ohms (High Current Mode/IASCA rating)  
300W total RMS, 1 ohm

**REFERENCE500**  
125W x 2 into 4 ohms @ 12v  
62.5W x 2 into 4 ohms (High Current Mode/IASCA rating)  
500W total RMS, 1 ohm  
LSE.Q Subwoofer Enclosure Equalization

Handcrafted in the U.S.A.

DIGITAL COMPONENTS

## CLASS A AMPLIFIERS

Theoretically, a perfect amplifier provides a warm sound, the ultimate in sonic clarity, and no crossover distortion. Soundstream Reference Class A amplifiers achieve this.

Theoretically, a perfect amplifier doubles its power each time you halve the impedance from 4 ohms to 2 ohms to 1 ohm. Soundstream Reference Class A amplifiers achieve this.

Soundstream Reference Class A amplifiers may be the perfect car audio amplifiers!

Let us explain.

Put very simply, Class A is the "pure" approach to amplifier design — the approach that eliminates the last vestige of "distortion."

Most power amplifiers are designed so that the two "halves" of the output circuit alternately switch on and off during each signal cycle. This helps reduce power consumption, but as the transistors approach cutoff, their operation becomes nonlinear and so-called "crossover distortion" is generated.

In a Class A design, neither half of the output circuit turns off. The transistors always operate in a linear region and so there's no crossover distortion. Operation is somewhat less efficient but, to the audiophile purist, the added warmth and depth are worth the price.

On the power side, a Reference Class A 6.0 amplifier can produce in excess of 600 watts into a 1 ohm load, allowing you to send over 150 watts to each of four 4 ohm woofers (wired in parallel). The net effect of this increased cone area and the compounded power doubling of the Class A 6.0 will yield significantly increased SPL.

Soundstream's REFERENCE Class A Amplifiers offer everything a REFERENCE Amplifier can provide, plus full power into 1/2 ohm and the benefits of Pure Class A®. Perfection!

**REFERENCE Class A 3.0**  
Pure Class A® Topology  
Select Tolerance Components  
25W x 2 into 4 ohms @ 12v  
12.5W x 2 into 4 ohms (High Current Mode/official IASCA rating)  
300W x 1 into 1/2 ohm

**REFERENCE Class A 6.0**  
Pure Class A® Topology  
Select Tolerance Components  
50W x 2 into 4 ohms @ 12v  
25W x 2 into 4 ohms (High Current Mode/official IASCA rating)  
600W x 1 into 1/2 ohm  
LSE.Q Subwoofer Enclosure Equalization

## MULTI-CHANNEL AMPLIFIER

In the ideal world, we'd all use multi-amp systems with outboard electronic crossovers. Unfortunately, this isn't always an option due to cost constraints.

For uncompromised multi-channel performance in a small, easy-to-install package, Soundstream offers the award-winning MC245. Five channel amplification, plus a defeatable staggered asymmetrical crossover. The amplifier provides power for four satellites and a mono subwoofer. The asymmetrical crossover diverts the lowest frequencies to the subwoofer channel while electronically eliminating the midbass "bump" found in most cars.

**MC245**  
5/3 Channel Power Amplifier  
35W x 4 + 100 x 1 into 4 ohms (Sub Channel 140w @ 2 ohms)  
90W x 2 + 100 x 1 into 4 ohms (Sub Channel 140w @ 2 ohms)

## DIGITAL COMPONENTS

The DTA1 Automotive Digital to Analog Processor represents the joint effort between Soundstream Technologies and Krell Digital, the acknowledged leader in digital home audio products.

Soundstream's DTA1 is designed and manufactured in the USA, and has won the prestigious CES Innovations Award for excellence in technology and design. When connected to any source's digital output, the DTA1's unique circuitry creates true audiophile performance by by-passing the mediocre digital to analog sections included in today's price conscious digital components

- DTA1**
- 18 bit digital processor
  - 8X oversampling digital filter
  - Hybrid digital to analog conversion (DAC) system
  - Line level analog output stages
  - 3 inputs (optical Toslink and 2 coaxial) with priority switching
  - Discrete Class A analog preamplifier
  - Compatible with CD, DCC, MD and DAT components equipped with digital outputs.



REFERENCE Class A 3.0



REFERENCE Class A 6.0



MC 245



DTA1

REFERENCE AMPLIFIERS — The finest car audio amplifiers in the world

REFERENCE CLASS A AMPLIFIERS

## REFERENCE DEEP EXCURSION SUBWOOFERS

Nicknamed the "Velvet Hammers," these extraordinary subwoofers offer smooth, accurate sound and the ability to produce extremely low frequencies at concert listening levels. The new Reference deep-excursion subwoofers are the product of years of research and development, resulting in woofers that provide twice the excursion of virtually any subwoofer available. Since quantity of bass is a product of cone area times excursion, the Reference subwoofers can produce twice the bass of most subwoofers. Also, Reference Subwoofers will perform in virtually any type of enclosure, from sealed and vented boxes to bandpass and infinite baffle designs.

Features include:

**Custom Designed Cast aluminum frame** for deeper excursion.

**Double magnet assembly** for added travel and high magnetic force (SS10R, SS12R).

**Reinforced fibrous pulp cone** with custom high-roll rubber deep excursion surround.

**Precision CNC-machined motor structure** (SS10R, SS12R) allows tighter tolerances for improved cooling and magnetic energy transfer.

**Extra-large flat spider** for added precision and control over long excursions.

**Remarkable installation versatility**, ideal for small sealed, vented, infinite baffle and band-pass installations.

### REFERENCE SS8

Frequency Response: 37 - 500Hz  
Sensitivity: 90dB SPL @ 1w/1m  
Rated Power: 100 Watts Program  
200 Watts Peak  
Nominal Impedance: 4 ohms

### REFERENCE SS10R

Frequency Response: 33Hz - 500Hz  
Sensitivity: 91 dB SPL 1w/1m  
Rated Power: 200W Program  
300W Peak  
Nominal Impedance: 4 ohms

### REFERENCE SS12R

Frequency Response: 33Hz - 500Hz  
Sensitivity: 92 dB SPL 1w/1m  
Rated Power: 200W Program  
400W Peak  
Nominal Impedance: 4 ohms

### REFERENCE SS18 Limited

Frequency Response: 20Hz - 500Hz  
Sensitivity: 97 dB SPL 1w/1m  
Rated Power: 1000W Program  
2000W Peak  
Nominal Impedance: 8 ohms



REFERENCE SS8



REFERENCE SS10R



REFERENCE SS12R



REFERENCE SS18 Limited



SS511 Component System

SS510 mkII Component System

SS4.0 Full Range Loudspeaker

## REFERENCE LOUDSPEAKERS

Most car audio speakers are designed by home speaker manufacturers who don't always consider the fact that the listener will actually be sitting inside the speaker enclosure. At Soundstream, speakers are designed by car audio engineers who understand the requirements of the mobile environment. Reference loudspeakers are designed to provide ultimate fidelity in your car.

### SS511 Component System

The SS511 is designed to be the premier two-way component loudspeaker system available today. System includes 5/4" magnesium alloy midwoofer, 1" Neo tweeter and 24dB/octave crossover

#### SS5.1 Midwoofer

- 10% larger cone than other 5/4" speakers
- Smooth off-axis response
- Wide frequency response (50-Hz to over 5000Hz)
- Custom High-dampening cone material
- Heavy duty input terminals
- The SS5.1 is also available separately

#### NT-1 Tweeter

- Latest technology Neodymium magnet assembly
- Smooth off-axis response
- Versatile mounting configurations
- Unique "ratchet step" mounting system
- Well dampened resonance due to optimized motor structure
- The NT-1 is also available separately

#### PC-2 Crossover

- 24dB/octave Linkwitz-Riley topology
- Uses high quality Mylar capacitors
- Flat summed power response

### SS510 mkII Component System

The Reference SS510 mkII component system includes a 5/4" midwoofer, 1" soft dome tweeter, and passive crossover.

#### The SS5.0 Midwoofer

- Specially formulated paper cone
- Unique coating on the back of each cone for water resistance and dynamic balancing of the diaphragm
- High loss butyl surround to minimize reflective waves
- Vented aluminum former to withstand high temperature and facilitate cooling
- The SS5.0 is also available separately

#### The SS1.0 Tweeter

- Natural sounding textile fabric dome
- 2 way tweeter mounting kit

#### The PC1A

- 12 dB/Octave passive crossover
- Mylar capacitors for uncompromised sound quality

### SS4.0 Full-Range Loudspeaker

The perfect 4" full range for replacement of factory speakers. This amazing speaker can accurately reproduce music between 70 Hz and 18 kHz, in spite of its small size.

- Home sound quality
- Trimmable basket to fit nearly every application
- High loss butyl surround
- Computer optimized center cone
- Copper clad pole piece for natural midrange reproduction and lower distortion

## ELECTRONIC CROSSOVERS

Soundstream offers 5 models of electronic crossovers, each designed in the interest of flexibility and sound quality. The SX and DX series (SX2, DX5 and DX7) feature single and dual in-line package (SIP, DIP) for high pass frequency selection. SIPs and DIPs are used because they are an extremely accurate way to divide frequencies in the analog domain. Low pass frequencies are adjusted with a potentiometer (DX series) to allow maximum design flexibility to the user.

The SVX series (SVX2 and SVX4) round out the Soundstream line of crossovers. Potentiometers are used for both high and low pass frequency adjustments. Both models incorporate 12 dB/Octave high pass and 24 dB/Octave low pass slopes for optimum performance.

All Soundstream crossovers employ the use of a staggered asymmetrical configuration (see graph below). This design compensates for excess midbass found in the automobile environment and results in a very smooth and natural sound field.

### DX7

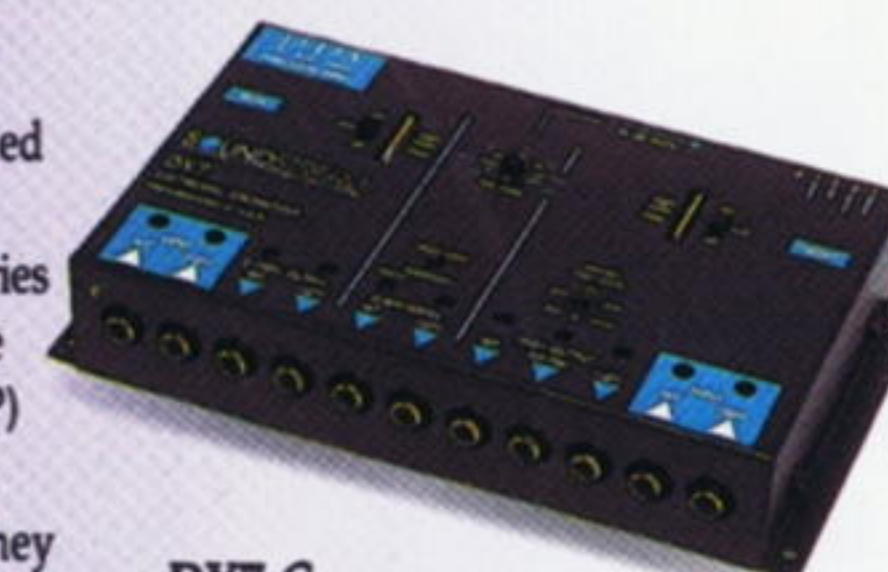
The DX7 may be used in a front to rear fading system with independent crossover points for the front and the rear satellite outputs. The DX7 also features a mono center channel output with an independent continuously variable high-pass filter. In addition, the DX7 incorporates an adjustable Front Bass Foldback circuit which enhances the midbass in the front satellites. The DX7 uses SIPs for precise high pass crossover point selection.

- 7 Channel, 2-Way
- Staggered Asymmetrical output
- Center Channel with 6dB variable crossover point
- Front Bass Foldback
- Dual Level Input
- Selectable 12 or 24 dB/Octave low pass
- High and low level inputs with auto switching

### DX5

The DX5 may be used in a 2-way front to rear fading system between the front and rear satellite amplifiers and the subwoofer amplifier. The subwoofer crossover frequency is infinitely adjustable within its range and the high pass frequencies may be selected independent of one another. The DX5 also features DIP high pass point selection.

- 5 Channel, 2-Way
- Staggered Asymmetrical output
- 24 dB/octave Low Pass



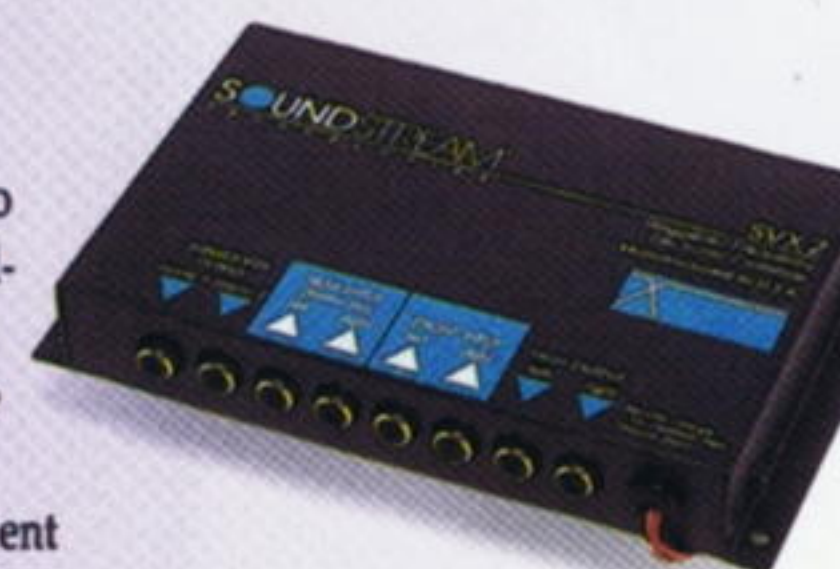
DX7 Crossover



DX5 Crossover



SVX4 Crossover

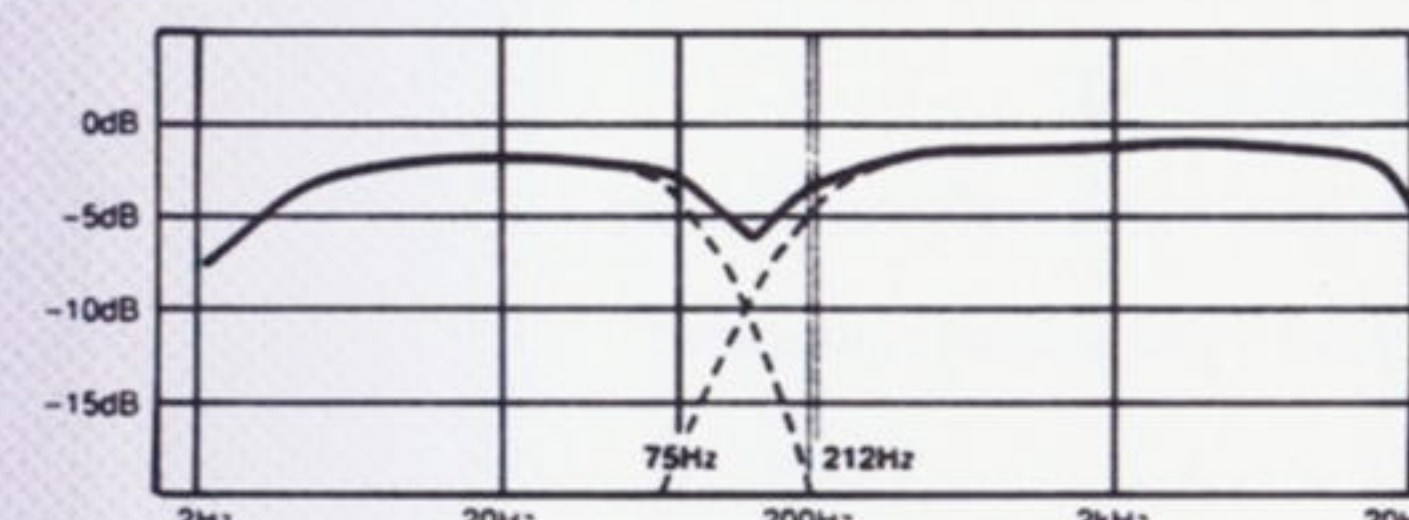


SVX2 Crossover



SV2 Crossover

### Staggered Asymmetrical Configuration



In this type of filter configuration, different frequency points are selected for both the low and high pass filters. This yields a "dip" in the acoustic response. Most automobiles, due to their interior dimensions, exhibit a tendency to "ring" at a certain frequency. This is commonly known as a resonant frequency. In a Staggered Asymmetrical crossover, the electrical response is reduced by a corresponding amount at this resonant "peak" to yield a flat overall response.

## REFERENCE CABLE & INTERCONNECTS

Quality cables and interconnects are crucial to good sound in the automobile environment.

Soundstream cable and connectors are custom engineered to exact tolerances, achieving three major goals.

- 1) An audible benefit
- 2) Maximum shielding from external noise
- 3) Flexibility for ease of installation

These products are the perfect complement to any quality car audio system. A sample of our extensive line of Soundstream Technologies cables and connectors is shown below.



Interconnects



Connectors



Power and Speaker Cables

### JOIN TEAMSTREAM EARTH

Teamstream Earth is Soundstream's worldwide factory authorized competition team. TSE members have access to the exclusive Teamstream Earth merchandise. For more information, contact your local dealer, or call us direct at the factory.



REFERENCE CROSSOVERS & CABLE

REFERENCE SUBWOOFERS & LOUDSPEAKERS

Printed specifications are guaranteed minimums (and may therefore appear a bit more conservative than our competitors)

## REFERENCE Stereo Amplifiers

### Reference 200

- 25W x 2, 4 ohms @ 12v
- 12.5W x 2, 4 ohms (High Current Mode/ IASCA rating)
- 45W x 2, 4 ohms @ 14.4v
- 200W Total RMS into 1 ohm
- Dimensions — 6-1/4" W x 9-1/2" D x 2-1/4" H

### Reference 300

- 75W x 2, 4 ohms @ 12v
- 37.5 W x 2, 4 ohms (High Current Mode/ IASCA rating)
- 300W Total RMS into 1 ohm
- Dimensions — 8-1/2" W x 9-1/2" D x 2-1/4" H

### Reference 500

- 125W x 2, 4 ohms @ 12v
- 62.5 W x 2, 4 ohms (High Current Mode/ IASCA rating)
- 500W Total RMS into 1 ohm
- LSE.Q Subwoofer Enclosure Equalization
- Dimensions — 12" W x 9-1/2" D x 2-1/4" H

### Reference Class A 3.0

- Pure Class A® Topology
- Select Tolerance Components
- 25W x 2, 4 ohms @ 12v
- 12.5W x 2, 4 ohms (High Current Mode/IASCA rating)
- 300W Total RMS into 1/2 ohm
- Dimensions — 8-1/2" W x 9-1/2" D x 2-1/4" H

### Reference Class A 6.0

- Pure Class A® Topology
- Select Tolerance Components
- 50W x 2, 4 ohms @ 12v
- 25W x 2, 4 ohms (High Current Mode/IASCA rating)
- 600W Total RMS into 1/2 ohm
- LSE.Q Subwoofer Enclosure Equalization
- Dimensions — 12" W x 9-1/2" D x 2-1/4" H

## REFERENCE Amplifier Specifications

Power: 4 ohm, Both Channels Driven at 12 Volts DC

THD <0.1%

Signal to Noise: >100 dB

Frequency Response: 20Hz to 20kHz ± 0.5 dB

Bandwidth: 15Hz to 50kHz

Stereo Separation: >90 dB (at 500 mv setting)

Damping: >200

Input Impedance: 12k ohms

Input Sensitivity: 100mv - 2.5v

Load Impedance: 1 to ∞ (High Power Mode)  
1/2 to ∞ (High Current Mode)

Class A Models 1/2 to ∞ (High Power Mode)  
1/4 to ∞ (High Current Mode)

All Reference amplifiers are rated at these impedances, but are stable with any load.

Voltage Requirements: 9 to 15V DC

## Multi-channel Amplifier

### MC245

5/3 Channel Power Amplifier

Power Output (into 4 ohms)

5 channel - 35 watts x 4 + 100 watts x 1

3 channel - 90 watts x 2 + 100 watts x 1

(Subwoofer Channel - 140 watts @ 2 ohms)

S/N Ratio: 100 dB

Damping Factor: >200

Input Impedance: 10k ohms

Input Sensitivity: 250mV - 2.5V

Dimensions: 8-3/4"W x 13"D x 2-1/8"H

## REFERENCE Subwoofer

### Reference SS8

Frequency Response 37 - 500Hz

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 100W Program — 200W Peak

Nominal Impedance 4 ohms

### Reference SS10R

Frequency Response 33Hz to 500Hz

Sensitivity 91 dB SPL @ 1w/1m

Rated Power 200W Program — 300W Peak

Nominal Impedance 4 ohms

### Reference SS12R

Frequency Response 33Hz to 500Hz

Sensitivity 92dB SPL @ 1w/1m

Rated Power 300W Program — 400W Peak

Nominal Impedance 4 ohms

### Reference SS18 Limited

Frequency Response 20 - 500Hz

Sensitivity 97 dB SPL @ 1w/1m

Rated Power 1000W Program — 2000W Peak

Nominal Impedance 8 ohms

## Digital Products

### DTA1

Frequency Response 5Hz to 20kHz, ± 0.25dB

Signal to Noise Ratio >100dB, A-weighted

THD <0.03%, 20Hz to 20kHz

Output Levels 2 V rms "All Bits High" Digital Input

Dimensions 5" W x 8-1/8" D x 1-1/2" H

## REFERENCE Loudspeakers

### Common Specifications

Nominal Impedance 4 ohms

### SS511 MKII

Frequency Response 50Hz - 20,000Hz ± 3dB

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 70W Program — 140W Peak

Crossover Slope 24dB/octave

### SS510 MKII

Frequency Response 55Hz - 20,000Hz ± 3dB

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 70W Program — 140W Peak

### SS5.1

Frequency Response 50Hz - 6500 Hz ± 3dB

Sensitivity 90dB SPL @ 1w/1m

Rated Power 70W Program - 140W Peak

### SS5.0

Frequency Response 55Hz - 6000Hz ± 3dB

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 70W Program - 140W Peak

### SS4.0

Frequency Response 70Hz - 18,000kHz ± 3dB

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 50W Program — 100W Peak

### NT.1

Frequency Response 2,500Hz - 20,000 Hz ± 3dB

Sensitivity 90 dB SPL @ 1w/1m

Rated Power 70W Program - 140W Peak (W/proper crossover)

## Crossover Application Chart

System Description	SX2	SVX2	SVX4	DX5	DX7
2-way, Non-fading	●	●	○	○	○
2 way w/sub level fader	●	●	○	○	○
2 way fading	●	●	○	○	○
2 way fading with center channel	●	●	○	○	○
3 way fading	●	●	○	○	○
3 way non-fading	2	●	○	○	○
Midrange to high frequency use	●	●	○	○	○
Band-pass use	2	●	○	○	○

● indicates the ideal application for the crossover.

○ Indicates that the crossover can be used, but is not the ideal application.

2 Indicates that two of the crossovers will be necessary for that application.

## Crossover Specifications

Common Specifications (all crossovers): THD: <0.05%, 20 Hz-20kHz, Signal to Noise Ratio: >100 dB

	SX2	SVX2	SVX4	DX5	DX7
High Pass Slope ( /Octave)	12 dB	12 dB	12 dB	6 dB	12 dB
High Pass Crossover Points ( Hz)	S.I.P.	100-500	2.4 k-5.6 k	75, 100, 150, 200	S.I.P.
Midrange Slope ( /Octave)	N/A	N/A	12 dB	N/A	N/A
Midrange HP Crossover Points ( Hz)	N/A	N/A	100-500	N/A	N/A
Midrange LP Crossover Points ( Hz)	N/A	N/A	2.4-5.6 k	N/A	N/A
Subwoofer Slope ( /Octave)-Stereo	12 dB	N/A	12 dB	N/A	12 dB
Subwoofer Slope ( /Octave)-Mono	N/A	24 dB	24 dB	24 dB	24 dB
Subwoofer Crossover Points-Stereo ( Hz)	S.I.P.	N/A	66-240	35-270	40-240
Subwoofer Crossover Points-Mono ( Hz)	N/A	50-250	53-209	35-200	35-200
Maximum Gain	0 dB	+3 dB	+4.5 dB	0 dB	+3 dB
Input Impedance ( Ohms)	10 k	10 k	High 10k Low 15k	10 k	High 20 Low 7.5k
Output Impedance	950 Ohms	300 Ohms	600 Ohms	450 Ohms	HP10 k LP 30 Ohms
Maximum Input Level ( v ac RMS) (dB relative to 1 volt)	4.0 v (+12 dB)	2 v (+6 dB)	2.5 v (+8 dB)	5 v (+14 dB)	2.5 v (+8 dB)
Maximum Output Level (dB relative to 1 volt)	4.0 v (+12 dB)	2.6 v (+9 dB)	4.19v (+12.5 dB)	5 v (+14 dB)	2.5 v (+8 dB)
Dimensions L	2 5/8"	3 5/8"	5 1/8"	7"	4 7/16"
W	4 3/4"	6 5/16"	8 1/8"	3 13/16"	8 1/8"
H	1"	1"	1 5/8"	1"	1 1/2"

\*S.I.P. replaceable chip — Range Available: 53Hz - 4800Hz



### Wearables and Enjoyables from

Soundstream. Pictured here "Old Timer" Baseball Jersey, "Beverly Hills" White-on-White Embroidered Sweatshirt, "Big Purple" Sweatshirt, "All Other Amps Are Dog Meat" T-shirt, Planet Soundstream T-shirt, Deluxe Polo Shirt, Rugged Denim Jacket, Java Mug, California Can Cooler. Not shown: Die-cut Windshield Decal, "Powered By Soundstream" Die-cut Decal and "Big Purple Banner".

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Charter Member



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