



# Classé Audio

## Delta Series SSP-600 Surround Sound Processor And CA-3200 Three-Channel Amplifier

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### A Little Background

Canada's Classé Audio has had the enviable distinction of being one of the true high-performance manufacturers of quality preamplifiers and amplifiers for over 20 years. Started in 1980 by founders David Reich and Mike Viglas, Classé has always strived to create their products to meet their one key performance goal: the highest possible fidelity.

And that performance goal has stuck with the company from day one. Even after joining the UK-based B&W Group conglomerate in 2001, the engineers at Classé have stuck to the ideals of the company's founder.

Today, Classé's Montreal headquarters house all the design, manufacturing, and administration for the company, where they employ specialists in analog and digital audio design, video electronics design, software development, and mechanical and industrial design. Their components are manufactured both automatically and manually using premium quality parts that are often specifically made for Classé.

For this review, Classé sent us an SSP-600 surround sound processor and two CA-3200 three-channel amplifiers.

### The Housing

Calling the sleek Classé Delta series

"The Delta series combination performed masterfully, re-creating a laid-back, yet detailed, sonic landscape."

beautiful would be an injustice. Actually, when looking at the Delta series' brushed aluminum industrial engineering work, the hallowed words of Will Ferrell playing James Lipton in a *Saturday Night Live* skit immediately come to mind—"There is no word to describe its perfection, so I am forced to make one up. And I'm going to do so right now. Scrumtrelescent."

While their stylings might look out of place in the typical home theatre environment, they will immediately become the focal point of any system, with the 3.78-inch touchscreen LCD controller housed on the SSP-600's front panel (which is also included on the Delta Series' CDP-300 DVD player), which can be used to manipulate everything from initial setup to input selection, and can even display a preview of the video from any 480i component, composite, or S-video input.

The massive CA-3200 three-channel amplifier is designed much in the same way as the SSP-600, with a curved front panel, sleek brushed aluminum and black casing, and hefty chassis. The back half on both the left and right sides of the amplifier are ribbed to help dissipate heat.

### On The Inside

The CA-3200 really is a beast of an amplifier, packed to the gills with large capacitors, toroidal transformers, and a third giant, internal heat sink. The discrete circuitry for each channel is mounted onto its own heat sink, with channels one and three mounted on the sidewall heat sinks, and channel two mounted on the internal heat sink. Each of the three sinks are of identical dimensions, although the internal heat sink includes an additional mesh grating covering the ribs to increase surface area, perhaps because of the more restricted air flow, due to it being mounted inside the casing. The CA-3200's top and bottom covers also have two cut-out slits, which

## SPECIFICATIONS

### Classé Delta SSP-600

Frequency response: DC - 200 kHz ( $\pm 0.1$  dB)  
Distortion (THD + noise): 0.003-percent  
Gain range: -100 dB - +14 dB  
Signal-to-noise ratio: 100 dB  
Crosstalk: better than -120 dB & 1 kHz  
Power consumption: 30 watts (rated); 29 watts (idle)

Dimensions (WHD In Inches): 17.5 x 6.75 x 16.5  
Weight (In Pounds): 45  
Price: \$6,500

### Classé Delta CA-3200

Power output: 200 watts per channel (8 ohms);  
390 watts per channel (4 ohms)  
Frequency response: 10 Hz - 22 kHz ( $\pm 0.1$  dB)  
10 Hz - 155 kHz ( $\pm 3.0$  dB)  
Signal-to-noise ratio: 108 dB

Dimensions (WHD In Inches): 17.5 x 8.75 x 18.5  
Weight (In Pounds): 90  
Price: \$6,000

### Manufactured In Canada By:

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help provide additional airflow to the internal heat sink and toroidal transformers.

### Menu Structure

The most striking feature of the SSP-600, at first glance, is the 2.0-inch LCD touchscreen display on the front panel. In addition to video preview for any of the incoming composite or S-video sources, it doubles as a controller. When on, the touchscreen display's main menu contains options labeled Source (where you can immediately choose between any of the 12 available sources), Mode (where you can select the processing mode you would like to utilize), Video Preview (where you can select which source you would like to preview on the touch screen display), and Controls (where you can edit system trims, turn on the second zone and assign a source, and select which "position" you would like to use—more on this later). The main page also includes text information on

the active source, the current mode being used, and the volume (as an absolute value in dB related to the calibrated levels of the channels, or as a relative value above or below the “0 dB” cinema reference point of 85 dB).

The hefty, backlit elliptical cylinder remote provides easy one-touch access to all the functions you should need, including menu activation, volume, input select, mode select, easy access to the Night (Dolby Night, for constricting the dynamic range of a signal for playback late at night) and THX® modes (which are described in more detail below), and four user-definable function buttons. The labels of each button are easy to see after pushing the “light” button, as they are printed directly on the translucent material.

All of the normal processing modes are available with the SSP-600, including a few proprietary modes labeled music mode natural, music mode party, and stereo 24/96, which will process analog stereo signals at 24 bit, 96 kHz resolution. I was surprised to see that the SSP-600 would not automatically select some of these modes when specific streams were found. For Dolby® Surround soundtracks (which come up on the main page as “Dolby 2/0 LrRt”), I had to go into the Mode menu and select Dolby Pro Logic® to get the processor to decode the two-channel stream. While this really is not a difficult task, it is a function that is usually automated in most processors.

The SSP-600’s menu can be accessed by pushing the front panel menu button to the left of the touch-screen display, or by using the button on the remote, and includes submenus for System Setup, Teach IR, Display Setup, Dolby/DTS®, Remote Fkeys, and Status.

The System Setup submenu features a host of customization options that will make the user’s life a whole lot easier. The rotary dial for adjusting volume can be completely customized to the user’s liking, including the increments the volume will change depending on the speed you rotate the dial, and limits in the speed the dial can be turned. Max volume, startup volume, and mute volume can also be adjusted.

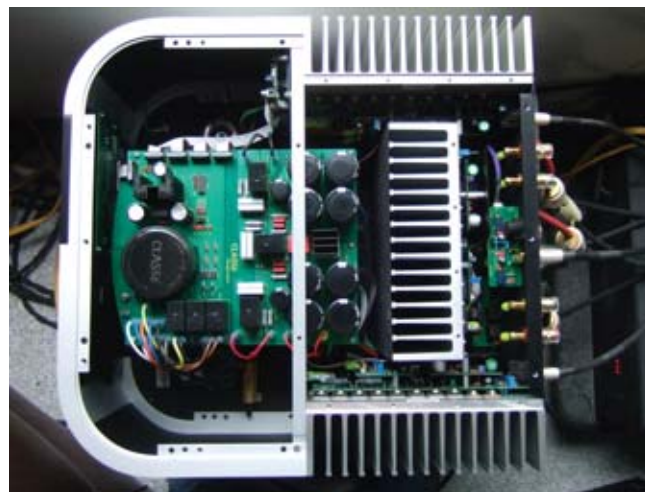
Input customization can be made in the System Setup submenu as well, including the naming of each input, favorite processing mode for the input, the digital audio connector associated with the input, audio delay in milliseconds to sync audio with video, and whether the balanced audio input will bypass all digital circuitry or run through the DSP, allowing for bass management, delay, and signal processing. The associated video input and loudspeaker “position” can also be selected here.

Another interesting feature in the System Setup submenu is the Speaker Setup.

Unlike most processors, the SSP-600 allows for up to four loudspeaker “positions,” where you can store independent individual settings for level and delay. This can be especially helpful for people who use the SSP-600 in a “multi-purpose” type room, as you can listen to your system calibrated to any spot in the room. This can be done using either Classé’s automatic calibration (with the supplied microphone) or by manually inputting the values. The automatic calibration worked incredibly well for me, calculating and adjusting the levels and relative distance delays perfectly. Speaker Setup is also where you will find the controls for telling the SSP-600 if your loudspeakers are “large” or “small,” and determining which crossover frequency you would like to use for those “small” loudspeakers. E-Bass can also be selected in this section, which will send the LFE information to each of the loudspeakers designated as “large.”

The SSP-600 also includes a feature called Profiles, which is another way to further customize the processor. Two profiles are available, which, when activated, appear as option buttons on the touch-screen display’s main page. After touching the button associated with your profile, a new page appears with space for up to six customized commands, which give easy one-touch access to any of the SSP-600’s functions, allowing you to bypass the whole menu tree. Not only will it provide added convenience for reaching some of the deeper buried menu functions, but they can also be designed to make it easier for a loved one to control the processor—set the profile’s name as that of your significant other and map two of the command buttons in that profile to the inputs labeled Satellite and DVD. Then, all it takes is a simple touch of your significant other’s name on the main page and a touch on the spot of the screen that says what you want to watch. It doesn’t get much easier than that.

Another impressive feature of the SSP-600 is the Teach IR section, which provides discrete IR command codes for the processor’s every function. After selecting the function you want the code for, pushing the Send IR Code button will send the IR code through the front panel IR transmitter, which can then be learned by a third-party universal control system.



From the Remote Fkeys submenu, you can internally program what the four function keys on the remote do. A host of options are available, including direct access to any of the inputs and processing modes, direct access to the second zone’s controls, or even direct control of the two 12-volt triggers.

The SSP-600’s menu is quite extensive and can be tricky to navigate. Luckily, the SSP-600 comes with a well-written, robust manual which includes flowchart diagrams of the menu structure to help the user navigate through the system.

## Features

The Classé SSP-600 is not just an audio powerhouse. It also includes high-bandwidth video circuitry, allowing it to bypass and switch any resolution video from 480i to 1080p. Classé wanted to make the SSP-600 an audiophile and videophile’s dream, allowing it to be used as a surround processor and a no-compromise switcher for any analog video source.

The SSP-600 includes a bevy of inputs and outputs, including four composite video, five S-video, and three component video inputs; four composite, three S-video, and one component video output; 11 unbalanced RCA stereo inputs and one balanced XLR stereo input; one 7.1-channel (8) unbalanced RCA input array and two 7.1-channel (8) output arrays (one unbalanced RCA and one balanced XLR). It also includes four coaxial digital inputs, two optical digital inputs, and an XLR AES/EBU digital input. CAN BUS, RS-232, and four 12-volt triggers complete the offering.

The SSP-600 is also THX Ultra® certified and includes the requisite THX processing modes: Re-Equalization™, Timbre Matching™, Adaptive Decorrelation™, and

Advanced Surround Array™. All of these modes are designed to edit a film's soundtrack to "correct" the "problems" that can be inherent in a soundtrack.

Re-Equalization is designed to tone down the brightness that can be heard in a DVD soundtrack if it is a direct transfer from the original film soundtrack. Because of the nature of the large venue movie houses, film soundtracks are purposely mixed bright because of the high-frequency attenuation that occurs when sound travels through a perforated screen and into a large space.

Timbre Matching is designed to filter the surround channel information so they "more closely match the tonal characteristics of the sound coming from the front loudspeakers" to correct for how human ears alter the perception of sound, changing the timbre, depending on where the sound is coming from.

Adaptive Decorrelation attempts to turn your home theatre system into a large venue movie house by smearing the surround information around the surroundfield, similar to the effect you would get by using dipole loudspeakers or by using a large loudspeaker array (as is used in these movie houses). While this can be beneficial if you are attempting to re-create a large scale movie theatre, why would you want to attempt to re-create a large scale movie theatre when the home theatre has the potential to do so much more?

Advanced Surround Array (ASA) does different things, depending on the THX mode you are using. When using THX Music, ASA "optimizes" the performance of the loudspeakers in the system for multichannel music by creating a phantom pair of loudspeakers ±30 degrees from the center back position when using a 7.1-channel setup. In THX Movie mode, ASA creates a diffuse surroundfield in an attempt to mimic the large-scale venues.

## Listening Tests

The Classé Delta series electronics do a very good job in soundstaging, with good detail and placement of images in a well-setup system. The extreme detail of Tom Waits' angelic (or is that demonic?) voice in his classic release *Heartattack And Vine* is portrayed beautifully, with all the cracks and crevices in his vocals represented well.

The CA-3200 proves to be an admirably musical amplifier, providing clean, solid bass down into the lower end of the frequency spectrum with good punch and detail, all while being very neutral across the entire frequency spectrum. The CA-3200 does exactly what you want an amplifier to do: add nothing at all to the recording. Switching between the CA-3200 and my reference amplifier, I was amazed at the neutrality of Classé's beast. While I

knew my reference amplifier was slightly edgy, the difference between my reference and the CA-3200 was so noticeable that I immediately felt a twinge of buyer's remorse—okay, that feeling was downright jealousy.

The sonic character of the SSP-600 can best be described as mellow and relaxed, and definitely not in a bad way. The effect was actually very comforting, as I found myself becoming much more engrossed in the Delta series experience than possible with my reference equipment. Maybe Classé could help me out with an upgrade here. Combined with the CA-3200, the SSP-600 provides a silky delivery, while maintaining the extreme level of detail that is necessary when trying to get the most out of a Tom Waits' recording.

After that initial experience, I couldn't get myself to listen to anything other than my "comfort music," so I next put in Ben Harper And The Innocent Criminals' *Burn To Shine* CD. The SSP-600 combined with the CA-3200 delivered a wide, deep soundstage, with very good imaging and extension beyond the loudspeakers' physical location. Delivery of the bass lines was impressive, with detailed response and power that really got my foot tapping. Again, the Delta series combination performed masterfully with this disc, re-creating a laid-back, yet detailed sonic landscape.

To get a better grasp of the amplifier's capabilities, I decided to throw big band at it. No, not literally—although I am sure the massive CA-3200 would survive if I were to try. For this, I went with Frank Sinatra's re-released album *Come Dance With Me* from Capitol Records. The CA-3200 held its own with the recording, with a great delivery of Ol' Blue Eyes' melody, combined with all the power and speed needed to keep the dizzying pace of the instrumentals. The highs of the trumpets were definitely not harsh, and the tinny splash of the cymbals was represented nicely, even with the SSP-600's laid-back nature. Expanding this two-channel recording to each of the 6.1-channels using Dolby Pro Logic IIx was a delight, with great tonal balance, even when comparing the phantom to hard center vocals. No detail was lost when moving to the full assortment of channels, which can become a problem when using less capable electronics. The expansion into the surrounds added another level of dimensionality to the album that cannot be attained with the standard two-channel playback. I found the SSP-600 also did well in delivering the album with its DTS Neo:6 mode, although the vocal spread across the front stage gained a slightly reverberant sound that was distracting. Of all the available processing modes, my preference was "music mode natural," which provided a more well-defined front soundstage than even the Pro Logic IIx mode, while still providing the extension into

the surrounds to expand the stage.

The most important thing for a piece of home theatre equipment is to be good at reproducing dialogue, and the combination of the Classé Delta SSP-600 and CA-3200 processor and amplifier fits the bill. Warner's *Polar Express* features well-recorded dialogue, which is delivered nicely by the Classé combo: full of life and detail, and very realistic. The DVD also features excellent phantom images around the soundfield, which are placed nicely with the Delta series components, which is key for adding the extra level of realism that only very high-quality components can offer.

To test how well the CA-3200 performed with something a little more taxing, I used Fox's *Mr. And Mrs. Smith*. With some intense scenes with great dynamic range through each of the 5.1 channels, the DVD is a good test of an amplifier's ability to keep pace. The CA-3200 was proven to be a powerhouse, matching the dynamics and articulation needed to fully appreciate the DVD soundtrack, even when playing back beyond the 85 dB reference level. Even in the most demanding scenes, isolated effects were still easy to pick out of the soundstage. Even at lower relative levels, the SSP-600 and CA-3200 performed admirably, although a decrease in the field depth was noticeable, losing some of the soundtrack's dimensionality.

## Conclusions

The Classé Delta SSP-600 and CA-3200 combination is a real treat and should definitely be auditioned by those trying to get that laid-back, tube-like sound from a solid-state combination of amplifier and surround processor. The sound is beautiful, the styling is exquisite, and the price is right. What else can you ask for? ■

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