

Technical Brief ProCinema 800 System

Description: a 6-piece 5.1 channel home theater speaker system consisting of 4 each ProMonitor 800 front and surround satellites, 1 each ProCenter 1000 and 1 each ProSub 800.

The system may be purchased as a complete system in one box as the ProCinema 800.6 system or each piece packed separately. Separate packaging allows consumers to mix and match ProCinema Series components to match their needs. The most common upgrade to this system is the substitution of the ProSub 800 for the ProSub 1000.

Specifications

ProMonitor 800

• Dimensions: 4-3/4" W x 5" D x 8-3/8" H

• Nominal Impedance: 8 ohms

• Frequency Response: 57 Hz – 30 kHz

• Efficiency: 89 Db

• Driver Complement: One 4-1/2" long-throw upper bass/midrange driver with butyl rubber surround coupled to a 4-1/2" pressure-driven planar low-frequency radiator, one 1" ferrofluid-dampened Pure Aluminum Dome Tweeter

ProCenter 1000

• Dimensions: 14-3/4" W x 5" D x 5" H

• Nominal Impedance: 8 ohms

• Frequency Response: 47 Hz – 30 kHz

• Efficiency: 90 dB

• Driver Complement: Two 4-1/2" bass/midrange drivers coupled to two 4-1/2" pressuredriven planar low-frequency radiator, one 1" pure aluminum dome tweeter

ProSub 800

• Dimensions: 10-5/16" W x 15-3/4" D x 12-7/8" H

• Frequency Response: 20 Hz – 150 Hz

• Driver Complement: One 8" high-definition woofer with polymer cone coupled to one 8" infrasonic radiator

• Amplifier: 300 watts RMS

• Speaker Level High-Pass Filter: 6 dB/octave (80 Hz)



- Low-Level Inputs: Gold plated direct LFE input
- High-Level Low-Pass Filter: 24 dB/octave continuously variable (40 150 Hz)
- Speaker Level Inputs: 5 way gold plated binding posts left and right channel
- Speaker Level Outputs: 5 way gold plated binding posts left and right channel

Colors and Configurations

The ProCinema 800 system is available in both high gloss Black and White.



NOTE: The subwoofer's volume control is on the side of the enclosure for easy access. Be sure to turn up the volume control after hook-up.

Design Goals: We set out to design a system that was easy to place in a wide variety of locations, whose components were small enough to be rendered practically invisible in a domestic setting, yet had the performance of a much larger and costlier system. The system also had to sound equally good on both music and movie reproduction. Other manufacturers have attempted to satisfy the same goals in their "sub/sat" systems with varying

degrees of success. The area of performance that held back these previous attempts from fully achieving the goal is that of weak lower-midrange output and satellite-to-subwoofer blending. Our goal was to find a means of improving lower midrange performance without sacrificing small size.

Technologies BDSS Driver

The drivers feature Definitive's patent-pending Balanced Dual Surround System (BDSS)

technology that supports the speaker cone at both the inner and outer edges for longer, more linear cone excursion, thereby making lower midrange

response more robust than one would expect from a driver of this size. BDSS also imparts greater clarity

Surrounds

and finely textured inner detail. The center projecting object is a Wave Guide that prevents sound waves

Wave Guide

from any given side of the cone from reaching and interfering with sound waves from the opposite side of the cone. This serves to flatten frequency

response and improve off-axis dispersion. Every listener in the room hears clear full-range sound with three-dimensional imaging.

Pressure-Coupled Radiator

The ProCinema 800's principle innovation is the use of a single pressure-coupled radiator in the ProMonitor 800 satellites and two in the ProCenter 1000. As the BDSS active driver moves it

compresses the air inside the enclosure which in turn moves the (passive) radiator. The passive radiator doubles the radiating area of the system to improve output in the lower range of the satellite's response. Male vocals and musical instruments in that range sound rich, warm and full, in contrast to typical small satellite systems that sound thin and bodiless. Because the satellites go lower in frequency they "blend" better with the subwoofer, preserving the illusion that the listener is listening to a single full-range loudspeaker rather than separate sats and sub.



Tweeter

The tweeter is a pure aluminum dome, which has been heat-treated to relax the crystal structure and then coated with a ceramic to produce extended highs that reveal nuance and shimmer without a trace of edginess.

Sat/Center Enclosures

The satellite and center enclosures are fabricated of injection molded mineral-filled polymer with a high gloss finish. Internal ribs and the parabolic shape of the enclosure serve to make the enclosure rigid and resonance-free for pure, uncolored midrange. The slim, curved shape of the enclosure reduces diffraction contributing to the 800's remarkable imaging that is truly startling in its ability to float utterly lifelike highly defined sonic images across a broad and deep soundstage.

Powered Subwoofer

The ProSub 800 uses an 8-inch active polymer cone woofer driver that is pressure-coupled to a bottom-mounted Low Bass Radiator. The combined radiating area of the driver and low-bass radiator is 27% greater than a single 10-inch woofer and nearly great as a single 12-inch driver. By using two radiating surfaces we gain the benefits of smaller drivers (speed, agility, definition) with those of large drivers (dynamic range, high output, bass depth) while keeping the enclosure very small. A robust 300 Watt amplifier provides plenty of punch for wide dynamic range with action movies.

See the Bass Radiator tech video

Mounting Options

The front & surround satellites come equipped with removable tripod feet with rubber pads to provide a stable, mar-free foundation when placed on tables or equipment cabinets. The ProCenter 1000 has an adjustable rubber-tipped support foot that allows the user to choose the vertical axis angle most appropriate for the center speaker location (the speaker should be pointed toward listener ear height). The satellites may be wall-mounted via either a



screw slipped into the key-hole slot or via optional articulating brackets such as the Definitive ProMount 80. The center speaker requires two ProMount 80 brackets to wall mount it.

The satellites may also be used on Definitive's (optional) ProStand 600/800.

Summary

Small, attractive and easy to place in a wide variety of locations including on wall, shelf or stands

- Sounds like huge floor-standing speakers
- Sounds excellent on music as well as movies
- Use of pressure-coupled radiators produces warm, rich and life-like midrange
- Subwoofer is small enough to place anywhere but has the power to fill large rooms with deep, high impact bass
- Available in either Black or White
- A fantastic value