

PlayWorks™ PS2000 Digital Multimedia Speaker System Installation and Operating Instructions



CREATIVE



Safety & Regulatory Information

The following sections contain notices for various countries:

Notice for the USA

FCC Part 15: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, this notice is not a guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

CAUTION: To comply with the limits for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed with computer equipment certified to comply with the Class B limits.

All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Modifications

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

Notice for Canada

This apparatus complies with the Class B limits for radio interference as specified in the Canadian Department of Communications Radio Interference Regulations.

Cet appareil est conforme aux normes de CLASSE "B" d'interférence radio tel que spécifiée par le Ministère Canadien des Communications dans les règlements d'interférence radio.

Declaration of Conformity

According to the FCC96 208 and ET95-19

Name: **Creative Labs Inc.**
Address: **1901 McCarthy Boulevard
Milpitas, CA. 95035
United States
Tel: (408) 428-6600**
declares under its sole responsibility that the product
Trade Name: **Creative Labs/
Cambridge SoundWorks**

Model Number: **CSW2020**
has been tested according to the FCC / CISPR22/85
requirement for Class B devices and found compliant
with the following standards:
EMI/ EMC: **ANSI C63.4 1992, FCC Part 15 Subpart B**
Complies with Canadian ICES-003 Class B.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesirable operation.

Ce matériel est conforme à la section 15 des règles FCC.
Son fonctionnement est soumis aux deux conditions suivantes:

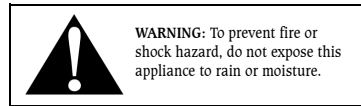
1. Le matériel ne peut être source d'interférences et
2. Doit accepter toutes les interférences reçues, Y compris celles pouvant provoquer un fonctionnement indésirable.

*Compliance Manager
Creative Labs, Inc.
August 25, 2000*

Compliance

This product conforms to the following Council Directive:

- Directive 89/336/EEC, 92/31/EEC (EMC),
73/23/EEC (LVD)



Important Notice

The serial number for the *PlayWorks PS2000 Digital* is located on the Subwoofer and Dipole Unit. Please write this number down and keep it in a secure area. This is for your security.

IMPORTANT SAFETY INSTRUCTIONS

READ INSTRUCTIONS – All safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS – The safety and operating instructions should be retained for future reference.

HEED WARNINGS – All warnings on the product and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS – All operating and use instructions should be followed.

CLEANING – Unplug this product from the wall outlet or other power source before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

ATTACHMENTS – Do not use attachments not recommended by Cambridge

SoundWorks as they may cause hazards.

WATER AND MOISTURE – Do not use this product near water; for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

ACCESSORIES – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a person, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by Cambridge SoundWorks, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by Cambridge SoundWorks.

VENTILATION – Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product and

to prevent it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or Cambridge SoundWorks' instructions have been adhered to.

HEAT – This product should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.

POWER SOURCES – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.

POLARIZATION – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

POWER-CORD PROTECTION – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs,

convenience receptacles, and the point where they exit from the product.

LIGHTNING – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

OVERLOADING – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

OBJECT AND LIQUID ENTRY – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

SERVICING – Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE – Unplug this product from the wall outlet or other power source and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled into, or objects have fallen onto the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions;

or exhibits a distinct change in performance.

- If the product has been dropped or damaged in any way.

REPLACEMENT PARTS – When replacement parts are required, be sure the service technician has used replacement parts specified by Cambridge SoundWorks or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

WALL OR CEILING MOUNTING – The product should be mounted to a wall or ceiling only as recommended by Cambridge Soundworks.

PlayWorks™ PS2000 Digital



*Thank you for buying PlayWorks PS2000 Digital by
Cambridge SoundWorks, a revolutionary two piece Dolby®
Digital speaker solution for PlayStation 2™.*

Contents

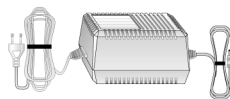
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Inventory

Examine each unit carefully for shipping damage. If there is any, do not install or use the system. Contact the retailer where the system was purchased. Save the shipping carton and inserts in case you have to transport the system later.



Subwoofer



15V 3A DC Power Adapter



Remote Control



Optical Cable



Tandem Audio Cable



SPDIF Cable (RCA to RCA)



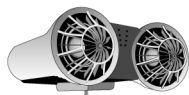
Dual RCA to RCA Cable

Paste this behind the Remote Control or any other surfaces

Paste this behind the Remote Control or any other surfaces



LED Indicator Labels



Dipole Unit



Dipole Unit Stand and Ball-fastener



"AA"- Size Battery (2)



Dual Female RCA Adapter



Stereo to Dual RCA Cable



Dipole DIN Cable

Speaker System Connections

Speaker Connections

Using the Dual RCA to RCA plug, connect the R (right) and L (left) Speaker inputs located on the back panel of the Dipole Unit to the corresponding Speaker outputs on the Subwoofer.

Using the Dipole DIN cable, connect the DIN jack of the Dipole Unit to the DIN jack of the Subwoofer.

For information on connections to signal sources, refer to “System Connection Diagram” on page 3.

Power Supply Adapter Connections

Confirm the power switch on the Subwoofer is in the “OFF” position. Insert the Power Adapter's AC plug into an appropriate receptacle. Insert the small DC connector into the 15V DC IN jack on the back of the Subwoofer.

Signal Source Connections

Dolby Digital source

Connect the Dolby Digital/SPDIF output of your signal source to the Subwoofer's **Dolby Digital (AC-3) SPDIF IN** jack using the **SPDIF Cable (RCA to RCA)** or the **Optical Cable**.

Game consoles

Connect the optical output of the game console (e.g. PlayStation 2™) to the **Optical** input with the **Optical Cable**.

If the optical connection is not available or is being utilized, use the **Stereo to Dual RCA Cable** and the **Dual Female RCA Adapter** to connect to the game console's RCA output of the multiple A/V plug.

For devices with optical output

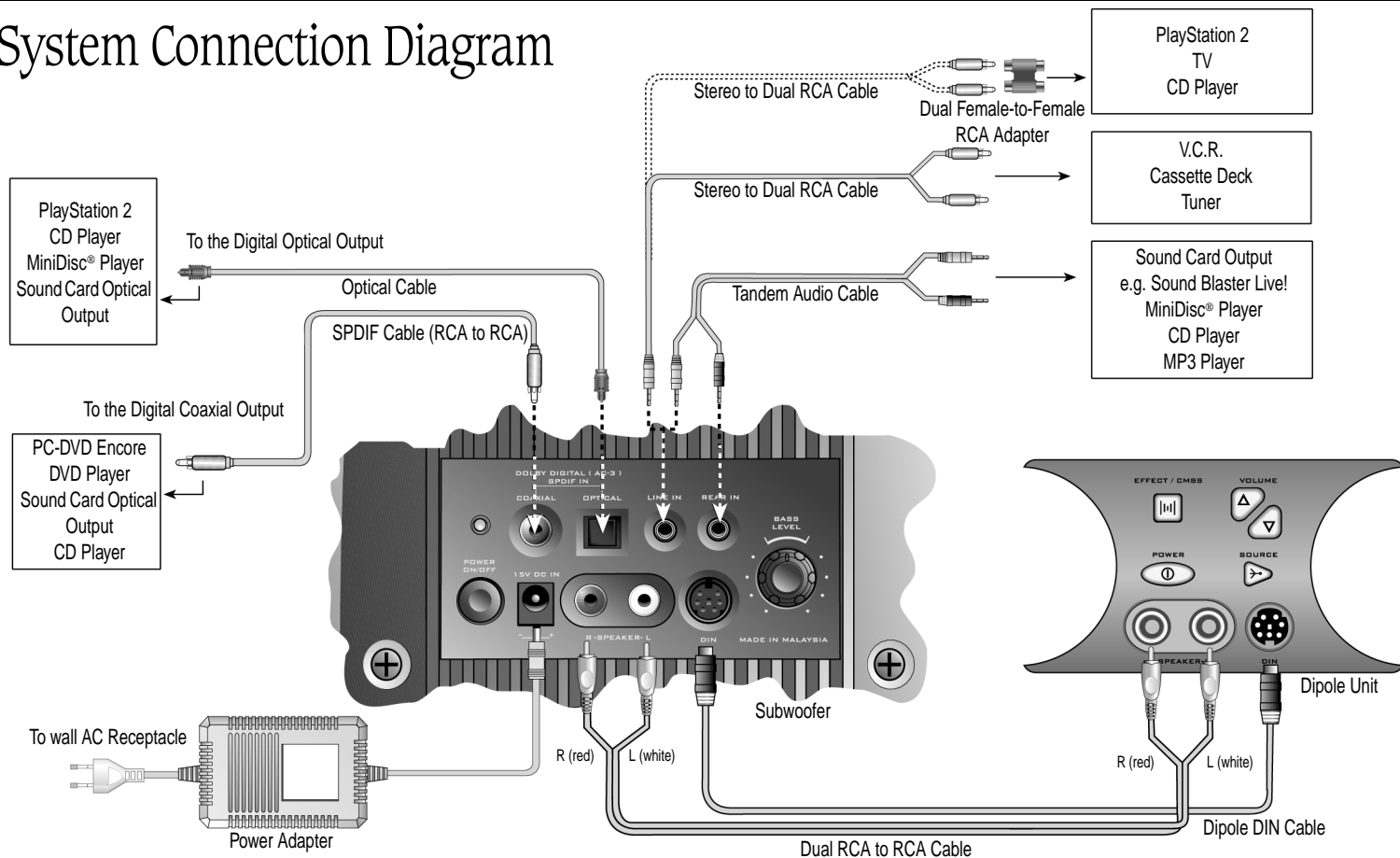
Connect the optical output of these devices (e.g. CD or MiniDisc® players) to the **Optical** input with the **Optical Cable**.

Note: Optical connections have priority over coaxial (SPDIF RCA to RCA) connections.

For all other sound cards

Use the **Tandem Audio Cable**. Connect the lime-green stereo miniplugs from the Line Out minijack output of your sound card to the **Line In** minijack input of the Subwoofer. Connect the black stereo miniplugs from the Rear Out minijack output of your sound card (if present) to the **Rear In** minijack input of the Subwoofer.

System Connection Diagram



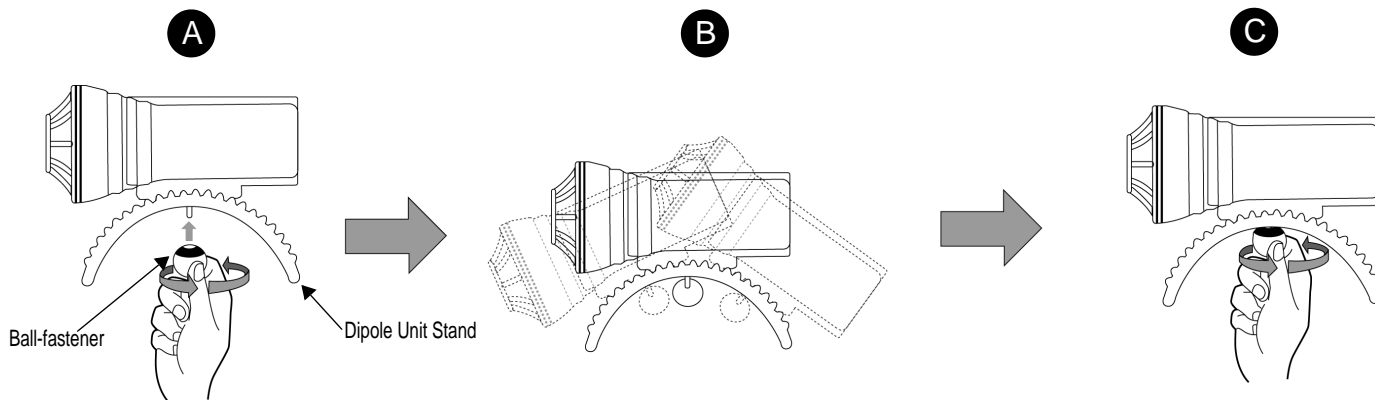
Dipole Unit Stand Installation

Dipole Unit Stand

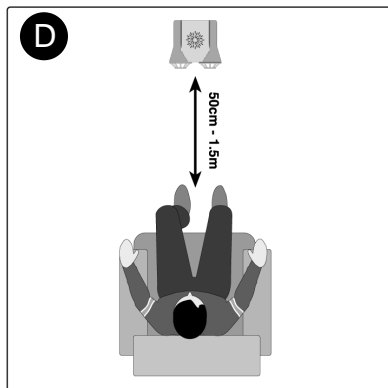
Align the Dipole Unit Stand to the Dipole Unit. Using the Ball-fastener provided, attach the Dipole Unit Stand to the Dipole Unit, (see **diagram A**).

Tilting the Dipole Unit

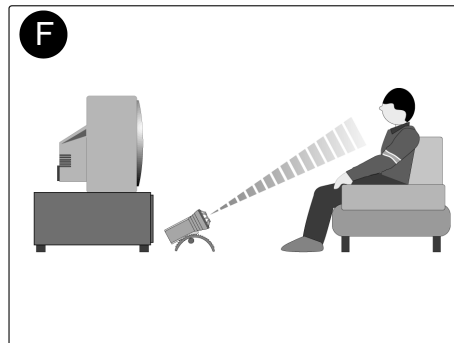
Loosen the Ball-fastener below the Dipole Unit Stand to adjust the tilt of the Dipole Unit. The Dipole Unit can be angled to face you by moving the Dipole Unit back or forth (see **diagram B**). Tighten the Ball-fastener once the optimum tilt has been achieved (see **diagram C**).



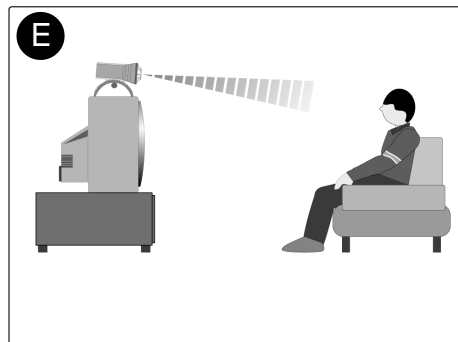
Speaker Placement



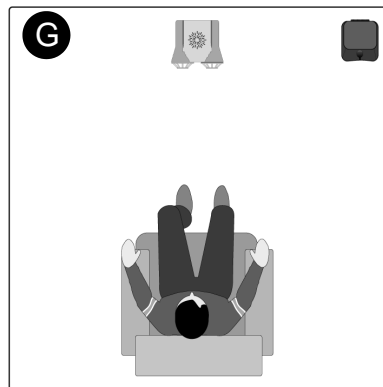
For the best listening effect, place the Dipole Unit between 50cm and 1.5m from the listening position and at ear level if possible.



When placing the Dipole Unit in front of the T.V. or monitor, use the Dipole Unit Stand to tilt the unit upwards to your listening position. You can place the Dipole Unit on the floor, coffee table or desktop.



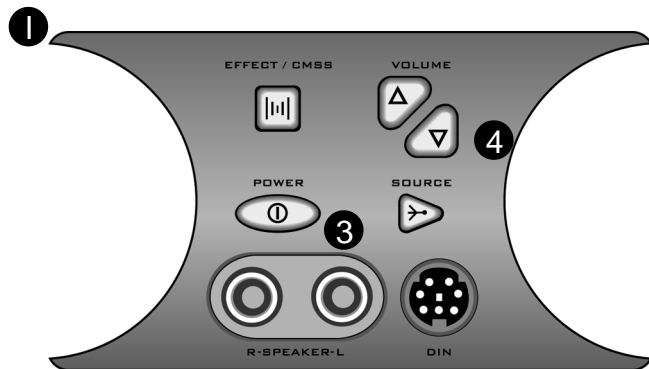
Use the Dipole Unit Stand to tilt the Dipole Unit downwards to your listening position when placing the Dipole Unit on your T.V. or monitor.



We highly recommend that you place the Subwoofer on the floor, leave at least 5 cm (2 inches) of space between the Subwoofer face and a wall.



Rear Panel of Subwoofer



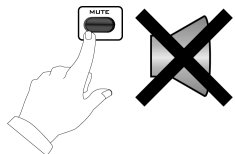
Rear Panel of Dipole Unit



Remote Control

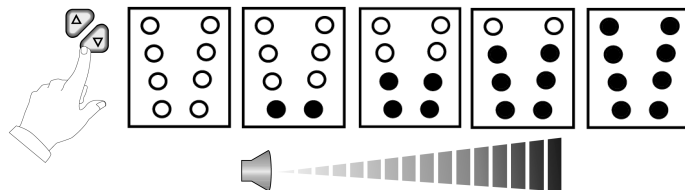
System Functions

1. **MUTE (On Remote Control):** Mutes all output from the *PS2000 Digital*. Press this button once to mute. Press a second time to restore audio output. You can also enable or disable the mute function by pressing volume buttons on the Dipole Unit together.

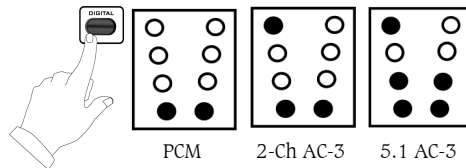


2. **POWER ON/OFF (On Subwoofer):** The POWER button on the Subwoofer controls the power supply input from the Power Adapter. This button must be depressed to activate the Dipole Unit.
3. **POWER (On Remote Control):** The POWER button on the Remote Control and Dipole Unit sets the system to power on and standby mode. When the system is turned on for the first time, the default input mode is "Digital" and the effects selection is "Prism". Subsequently, when the system is turned on from standby mode, the last input mode and effect selection is retained.

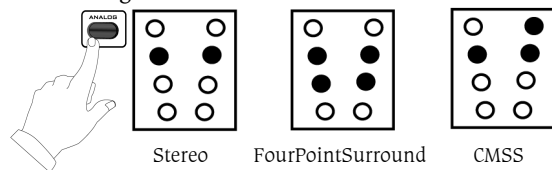
4. **VOLUME (On Dipole Unit):** Adjusts the volume of the entire system. Press the UP or DOWN button to increase or decrease the volume. (This function is also available on the Remote Control, use the + or - button)



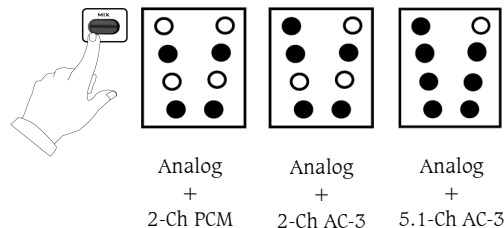
5. **DIGITAL (On Remote Control):** Selects the digital input source signal for the OPTICAL or COAXIAL input. Digital input is the default mode when the system is turned on. Optical input has priority. This button is located on the Remote Control. (This function is also available on the Dipole Unit, use the SOURCE button) The possible digital input signals are; PCM, 2-Ch AC-3 or 5.1 AC-3. These signals are auto-detected.



6. **ANALOG (On Remote Control):** Selects the analog input source signal from the analog LINE IN input or both the analog LINE IN and REAR IN inputs for FourPointSurround sound. (This function is also available on the Dipole Unit, use the SOURCE button) FourPointSurround sound is auto-selected when the front and rear analog inputs are connected. The possible analog input signals are; Stereo, FourPointSurround (FPS) and CMSS. These signals are auto-detected.

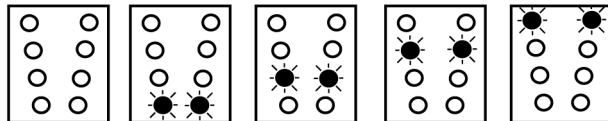


7. **MIX (On Remote Control):** Combines both digital and analog source signals. The LEDs blink when there is no AC-3 signal. (This function is also available on the Dipole Unit, use the SOURCE button) The possible mixed input signals are; Analog + 2-Ch PCM, Analog + 2-Ch AC-3, Analog + 5.1-Ch AC-3. These signals are auto-detected.



Note: For optimum sound reproduction, choose DIGITAL when connected to digital sources or ANALOG when connected to analog sources.

8. **EFFECT (On Remote Control):** Processes Digital program material. Repeated presses of this button step through five different operation modes:
PASS THROUGH>PRISM>CRYSTAL>GHOST>DIMENSION. (This function is also available on the Dipole Unit, use the EFFECT/CMSS button)



Pass Through → Prism → Crystal → Ghost → Dimension

Recommended effects selection for 2-channel source materials:

Prism (default): General purpose including classical music.

Crystal: Jazz or pop.

Ghost: Games.

Dimension: Binaural.

Pass through: System check and Stereo Dipole pre-encoded materials.

Recommended effects selection for 5-channel source materials:

Prism (default): General purpose including music.

Crystal: Drama.

Ghost: Science Fiction or Adventure movies.

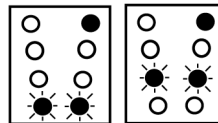
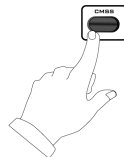
Dimension: Games.

Pass through: System check and Stereo Dipole pre-encoded materials.

9. **CMSS (On Remote Control):** CMSS (Creative Multi Speaker Surround) processes analog 2-channel program material. Repeated presses of this button step through two different operation modes:
Music>Movie. The default mode is CMSS Music.

Music: Creates a 5.1 speaker soundfield appropriate for music from any analog sound source.

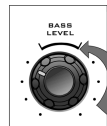
Movie: Creates a 5.1 speaker soundfield appropriate for movie or game enjoyment from an analog sound source. (This function is also available on the Dipole Unit, use the EFFECT/CMSS button)



Music

Movie

10. **BASS LEVEL (On Subwoofer):**



Turn the Bass Level knob counter-clockwise to reduce the bass output.



Turn the Bass Level knob clockwise to increase the bass output.

Surround Reference

Dolby Digital

Dolby Digital (earlier called AC-3) delivers five discreet full-range channels (left front, center, right front, left surround and right surround) plus a separate Low Frequency Effects (LFE) channel.

Many soundtracks on the latest generation laser discs, DVDs and High Definition Television (HDTV), are encoded with Dolby Digital technology.

When a 5.1 channel Dolby Digital program source is playing, such as from a game console, Creative PC-DVD player or DVD player, the Dolby Digital indicator light will illuminate automatically.

Note: Not every section of a DVD will be 5.1-channel encoded. On many DVDs, only the main movie program will be available in 5.1 channel sound. Other supporting chapters (like a “Director’s Comment” section) may be in stereo or mono. These sections will not light the Dolby Digital indicator even though the sound will be properly reproduced by the *PS2000 Digital*.

Creative Multi Speaker Surround (CMSS)

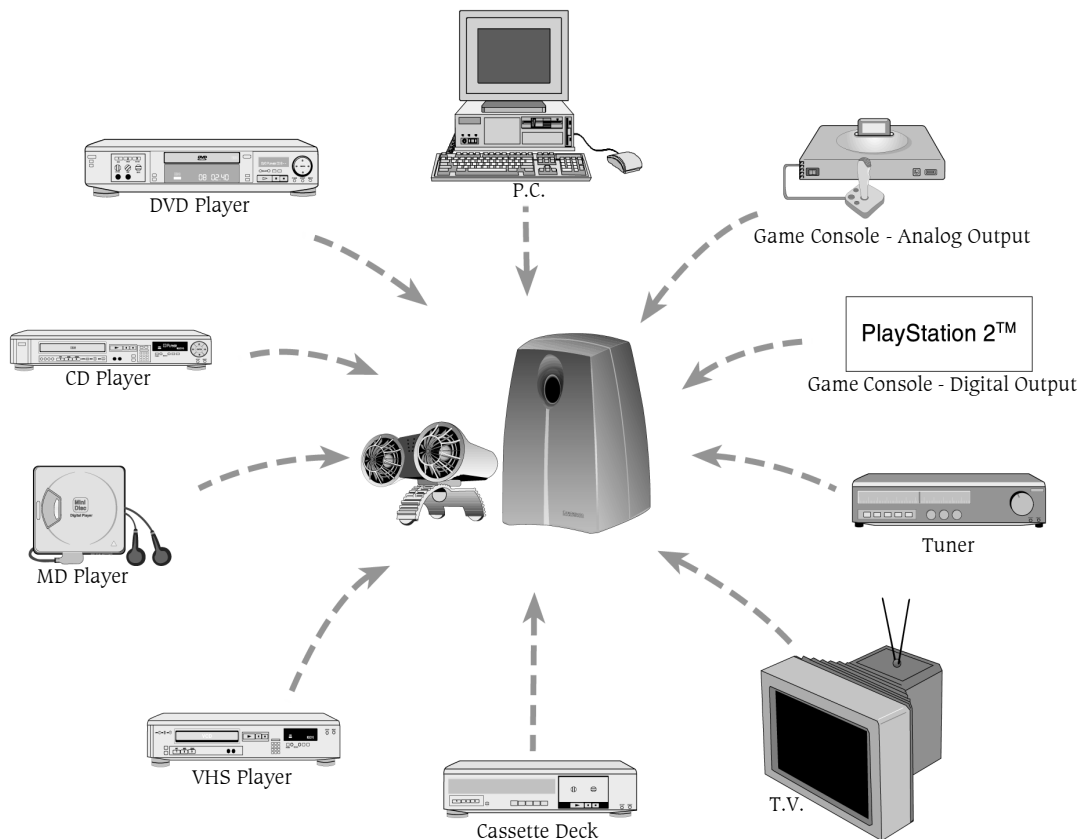
CMSS is a 2-channel to 5.1-channel sound processor similar in some aspects to a Dolby Surround Pro Logic processor.

The Music and Movie modes create a virtual 5.1 audio experience.

Applications

The *PS2000 Digital* supports many signal source inputs, both analog and digital. For example:

1. Game consoles like the PlayStation 2 using the Optical or Line In connections.
2. DVD players with Dolby Digital (AC-3) optical outputs. DVD players with coaxial outputs (for example, the Creative labs PC-DVD Encore) may also be used.
3. Sound cards that support DirectSound®3D sound processing, including front and rear 2-channel minijack line outputs (like Sound Blaster Live! series or Creative Labs Sound Blaster PCI series).
4. Conventional 2-channel sound cards such as Sound Blaster 16 or the Sound Blaster AWE series can also be used with the *PS2000 Digital*, but these cards will not provide rear channel output when playing games using DirectSound®3D or its derivatives.



Specifications



PlayWorks PS2000 Digital

Dipole:

10 watts RMS

Subwoofer:

12 watts RMS

These specifications apply to *PS2000 Digital* operating from the supplied 15V 3A DC power adapter.

EAX is a collection of powerful, innovative audio technologies. Developed by Creative's world-class audio scientists and built into groundbreaking Personal Digital Entertainment (PDE) solutions, EAX is changing the way audio is experienced.

EAX offers advanced, interactive audio and high-definition sound to a new generation of portable audio appliances, audio applications, and internet services. Advanced technologies for incredible, cutting edge audio are built into powerful tools. EAX-enabled products let you shape and customize your audio experience, and include advanced audio features for music composition and sound design.

The PlayWorks PS2000 Digital is a highly affordable and extremely compact Dolby Digital 5.1 speaker solution targeted at PlayStation 2™. Also, when used with a 4 channel PC sound card, or set-top DVD player, the

PS2000 Digital delivers a virtual 5.1 experience.

Featuring innovative 5.1 virtualization technology, full Dolby Digital decoding is possible from the unique all-in-one dipole speaker design plus sub woofer. In addition, when used with a 4-channel sound card such as the Sound Blaster Live!, virtualized rear channels ensure a great listening experience for interactive 3D and EAX-enhanced game titles.

For more information on EAX, be sure to visit EAX.creative.com

1-Year Limited Warranty

To the original purchaser, Cambridge SoundWorks, Inc. will warrant the speaker system to be free of defects in material and workmanship for a period of one (1) year from date of purchase. With respect to defects, Cambridge SoundWorks will, at its option, replace the product or repair the defect in the product with no charge to the original purchaser for parts or labor.

This warranty does not extend to any defect, malfunction or failure caused by misuse, abuse, accident, faulty hookup, defective associated equipment or use of the speaker with equipment for which it is not intended.

This warranty is valid only when the speaker is returned to the retailer where the *PS2000 Digital* was purchased.

This is the sole and expressed warranty. This warranty is in lieu of all other warranties, expressed or implied, of merchantability, fitness for purpose or otherwise. In no event shall Cambridge SoundWorks be liable for incidental or consequential damages or have any liability with respect to defects other than the obligations set forth above.

To ensure warranty coverage, it is incumbent upon the original purchaser to contact the retailer where the *PS2000 Digital* was purchased and inform them of the defect within the warranty period. The only acceptable method of establishing warranty status is a copy of the original proof of purchase indicating customer's name and purchase date.

Technical Support

Inside U.S.A., Canada and Latin America

Creative Labs Inc.
Technical Support
1523 Cimarron Plaza
Stillwater, OK 74075
Tel: 1-405-742-6622
Fax 1-405-742-6633
Operating hours (Central Time):
Daily 8:00 A.M.-12 Midnight

To reach Technical Support via the Internet, visit our web site at <http://www.creativehelp.com>.

You can reach Customer Service by phone at 1-800-998-1000, Mon-Fri 8:00 A.M.-7:00 P.M. (Central Time).

You can also use our Faxback service at 1-405-372-5227.

Inside Asia

Creative Technology Ltd.
Technical Support
31 International Business Park
Creative Resource
Singapore 609921
Tel: 65-895-4100
Fax: 65-569-6640
Operating hours (Singapore Time):
Mon-Fri 9:00 A.M.-6:00 P.M.
Sat-Sun & Public Holidays closed

To reach Technical Support via the Internet, visit our web site at <http://www.creative-asia.com/support>

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