

SOUND PANELS PRO SERIES/CS-1000
PROCESSOR A2001



▲ Rear view of Pro Series sound panel



▲ Processor A2001



Sound panel in an Optima ceiling. The speaker is invisible!

- Applications :
- Office
 - Healthcare
 - Retail
 - Hospitality
 - Education
 - Transportation

Sound panels:

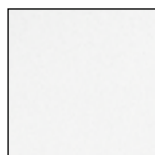
- ceiling panel speaker with superior combined performance for music, public address, voice alarm and active acoustics that enhance privacy, comfort and workspace effectiveness,
- available to coordinate with Armstrong's most popular ceiling patterns, for retrofit as well as new constructions.



▲ Orcal



▲ Ultima/Optima



▲ Dune



▲ Fine Fissured

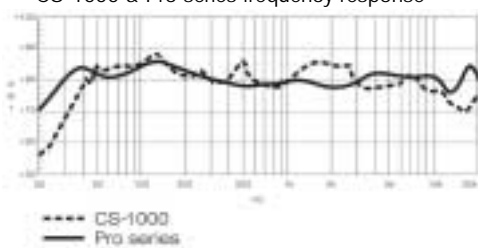


▲ Tatra



▲ Cortega

SOUND PANELS PRO SERIES/CS-1000

| Loudspeaker features | | | Description |
|---|------------|--|--|
| | PRO SERIES | CS-1000 | |
| GENERAL | | | <p>PRO SERIES</p> <p>Material: steel frame, special honeycomb membrane, glass painted scrim facing Dimensions: 600 x 600 x 110 mm Panel weight: 4.5 Kg per panel Shipping weight: 11 Kg/carton (1 carton = 2 panels) Warranty: three-year limited warranty on materials and workmanship from date of manufacture*</p> <p>CS-1000</p> <p>Material: steel frame, specially designed tubular membrane, glass painted scrim facing Dimensions: 600 x 600 x 64 mm Panel weight: 3.10 Kg per panel Shipping weight: 8.0 Kg/carton (1 carton = 2 panels) Warranty: three-year limited warranty on materials and workmanship from date of manufacture*</p> <p>* Sales of the product and liability are in accordance with the terms and conditions of sale</p> |
| Invisible, flat panel loudspeaker | • | • | |
| Exclusive system diffusing foreground music/ PA*/voice alarm through the same speaker | • | | |
| Exclusive system diffusing background music/ PA*/voice alarm/active acoustics through the same speaker | | • | |
| Compatible with standard commercial sound systems | • | • | |
| Pre-fitted 2 pin connectors provide for a simple system setup | • | | |
| Fire dome option | • | • | |
| TECHNICAL | | | |
| Compatible with 100 V line systems as well as low impedance systems (8 Ohms by-pass) | • | • | |
| No phase distortion effects | • | • | |
| Sound level decay, as a function of loudspeaker/ listener distance is lesser that with cone speakers | • | • | |
| MUSIC / PA* / VOICE ALARM | | | |
| Improved intelligibility | • | • | |
| Feedback effects are significantly reduced | • | • | |
| Full range flat panel loudspeaker | • | • | |
| Reduced installation costs: faster installation without cutting holes in the ceiling tiles | • | • | |
| Improved coverage means fewer speakers required / m ² | • | • | |
| ACTIVE ACOUSTICS (SOUND MASKING) | | | |
| Exclusive sound masking system with direct sound diffusion in the working environment | | • | |
| Achieve designed levels of confidentiality | | • | |
| Complete acoustical solution for more effective workspaces | | • | |
| Range | | | |
| PRO SERIES | | | |
| Pro Series Ultima / Optima MicroLook 600 x 600 mm | | BP6013M | |
| Pro Series Ultima / Optima Tegular 600 x 600 mm | | BP6014M | |
| Pro Series Dune Plus MicroLook 600 x 600 mm | | BP6015M | |
| Pro Series Dune Plus Tegular 600 x 600 mm | | BP6016M | |
| CS-1000 | | | |
| CS-1000 Ultima / Optima MicroLook 600 x 600 mm | | BP6017M | |
| CS-1000 Ultima / Optima Tegular 600 x 600 mm | | BP6018M | |
| CS-1000 Dune Plus MicroLook 600 x 600 mm | | BP6019M | |
| CS-1000 Dune Plus Tegular 600 x 600 mm | | BP6020M | |
| CS-1000 Fine Fissured MicroLook 600 x 600 mm | | BP6021M | |
| CS-1000 Fine Fissured Tegular 600 x 600 mm | | BP6022M | |
| CS-1000 Cortega MicroLook 600 x 600 mm | | BP6023M | |
| CS-1000 Cortega Tegular 600 x 600 mm | | BP6024M | |
| CS-1000 Tatra MicroLook 600 x 600 mm | | BP6025M | |
| CS-1000 Tatra Tegular 600 x 600 mm | | BP6026M | |
| Speaker data | | | |
| PRO SERIES | | CS-1000 | |
| Sensitivity: 87 dB @ 1 W, 1 meter | | Sensitivity: 82 dB @ 1 W, 1 meter | |
| Taps: 100 V: 7.5, 15, 30 W 8 Ohms By-pass | | Taps: 100 V: 1/4, 1/2, 1, 2, 4, 8 W 8 Ohms By-pass | |
| Transducers: 2 | | Transducer: 1 | |
| Power Capacity: 30 W | | Power Capacity: 8 W | |
| Frequency response | | | |
| <p>CS-1000 & Pro series frequency response</p>  | | | |
| How to specify? | | | |
| PRO SERIES / CS-1000 | | | |
| <p>The loudspeaker shall be a full range device producing frequencies from 70 Hz to 18 KHz (100 Hz to 18 KHz for the CS-1000). Total radiating surface shall be 0,3 m². Frequency dispersion shall be 180° up to 16 Kz. The loudspeaker shall have a sensitivity of 87 dB 1 W/1 M (82 dB for the CS-1000) with a power rating of 30 W RMS (8 W RMS for the CS-1000). The loudspeaker shall have an exterior frame constructed of steel, measuring 600 x 600 mm. The depth of the loudspeaker shall be no more than 110 mm (64 mm for the CS-1000). The unit shall weight no more than 4,5 Kg (3,1 Kg for the CS-1000). The loudspeaker shall be i-ceilings Pro series (CS-1000) sound panel.</p> | | | |

*PA / public address

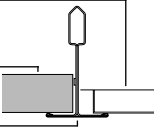
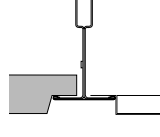
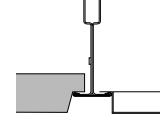
PROCESSOR A2001

A2001 analogue output processor:

- DSP-based, software-controlled processors, manage and enhance a unique combination of music, public address and active acoustics
- ability to interconnect with other processors to accommodate current and future needs
- compatible with standard commercial sound systems
- fast, easy system setup with remote monitoring via the A2D2 graphic interface

| Product features | Music features | | | | | | |
|--|---|--------------------|---------------|--------------------|-------|----------|------|
| <ul style="list-style-type: none"> - Eight audio program sources; six external inputs: public address (Telco), microphone, analog and digital music, and two internal uncorrelated noise sources - Eight independent outputs – each with digital 28-band 1/3 octave equalization - RS232 port for system setup - RS232 port for remote control interfacing with various commercially available control systems - Balanced connections via industry-standard two-part connectors - Tamper proof operation - Non-volatile memory for all system settings - Remote level control by DTMF (touch tone) telephone - Gating and soft-knee limiting on Telco and microphone inputs - Universal power 90-240 VAC, 50-60 Hz autoswitching - Two U rack-mountable - CE marking | <ul style="list-style-type: none"> - Two analog IHF music inputs - Two analog line level inputs - Baxandall tone controls on all music inputs | | | | | | |
| Specifications | Public address features | | | | | | |
| <p>Frequency Response: Microphone input: 80/120 Hz to 18 KHz Music input: 50 Hz to 18 KHz Line input: 50 Hz to 18 KHz Telco input: 250 Hz to 4 KHz</p> <p>Distorsion: THD better than 0.02 % @ 1 KHz</p> <p>Dynamic Range: 100 dB</p> <p>Input Impedances: Microphone: > 2k Ohms Music/Line: > 10k Ohms Telco: 600 Ohms nominal</p> <p>Levels: Nominal operating level: 0 dBv Maximum input levels: Microphone -10 dBv Music +6 dBv Line +20 dBv</p> | <ul style="list-style-type: none"> - Five priority levels for public address - Two band shelving and two band parametric equalization for microphone input - Two band shelving and two band parametric equalization for Telco input - Selectable music and line ducking / muting by public address - Compatible with most PBX products, and easily ties to KTS and Centrex systems - Highly flexible public address interface with 99 DTMF codes that can be customized many ways - Multiple units linkable - OPX port for off-premises bi-directional linking of systems - Multiple confirmation tones - "Mute all" contact closure for fire and like safety control | | | | | | |
| <p>Nominal output level: 0 dBv [Balanced] less than 100 Ohms</p> <p>Maximum output level: +20 dBv</p> <p>Noise Sources: Peak to average ratio: 8 dB</p> <p>A/D and D/A Converters: 24-bit Sigma Delta</p> <p>Crosstalk: Better than -80 dB @ 1 KHz</p> <p>Power: 35 VA</p> | Active acoustics features | | | | | | |
| | <ul style="list-style-type: none"> - Customized noise spectrum for optimised performance - Dual uncorrelated digital noise sources to provide uniform spatial distribution: <ul style="list-style-type: none"> - Up to 4 zones of dual channel active acoustics - Up to 8 zones of single channel active acoustics | | | | | | |
| | Description | | | | | | |
| | <p>Dimensions : 8.9 x 48.3 x 22 cm (H x W x D)</p> <p>Weight: 3.2 Kg</p> <p>Shipping weight: 4.5 Kg</p> <p>Warranty: three year limited warranty on materials and workmanship from date of manufacture*</p> <p>* Sales of the product and liability are in accordance with the terms and conditions of sale</p> | | | | | | |
| | References | | | | | | |
| | <table border="1"> <thead> <tr> <th><u>Model</u></th> <th><u>Output</u></th> <th><u>Item number</u></th> </tr> </thead> <tbody> <tr> <td>A2001</td> <td>Analogue</td> <td>6751</td> </tr> </tbody> </table> | <u>Model</u> | <u>Output</u> | <u>Item number</u> | A2001 | Analogue | 6751 |
| <u>Model</u> | <u>Output</u> | <u>Item number</u> | | | | | |
| A2001 | Analogue | 6751 | | | | | |

HOW TO SELECT YOUR SOUND PANEL ?

| | | | |
|-------------------------|---|---|---|
| Sound panel edge detail |  |  |  |
| Ceiling edge detail | | | |
| Grid | | | |
| | Board visual where ceiling tiles and grids are at the same level | Tegular visual for a ceiling with depth on a wide grid | MicroLook visual for a ceiling with depth on a narrow grid |
| Sound panel edge detail | MicroLook | Tegular | MicroLook |
| Grid | 24 mm | 24 mm | 15 mm |

Please refer to the sound panel range for item numbers



VIA RFALE



PCM-2307 - Armstrong Building Products - R.C.S. Basançon B 784 131 575 - Printed in E.C.



United Kingdom
Republic of Ireland
 Armstrong World Industries Ltd
 Building Products Division
 Armstrong House
 38 Market Square
 Uxbridge UB8 1NG
 0800 371849 (UK) **FREEPHONE**
 Tel: 1800 409002 (ROI)
 Fax: 00 44 (0) 1895 274287
www.i-ceilings.co.uk
www.armstrong-ceilings.co.uk
sales-support@armstrong.com

Armstrong World Industries Ltd
 5 The Village Centre
 Lucan
 Co Dublin

Please contact
 Internal Technical Sales
 for further details.

