SONIFEX

RM-CA2
Confidence Monitor, 2 LED Meters & 2 Analogue Stereo Inputs

RM-CAD8
Confidence Monitor, 2 LED Meters, 2 Analogue
& 6 Digital Stereo Inputs

Catalogue 2016

REFERENCE MONITOR

RM-CA2 Confidence Monitor, 2 LED Meters & 2 Analogue Stereo Inputs

Category: Confidence Monitors.

Product Function: Audible & visual monitoring of analogue audio inputs.

Typical Applications: Radio station engineering racks-room for monitoring news feeds.

Features:

- Anti-vibration steel case.
- Sealed lid with foam cut-outs to dampen lid.
- Multi-point screw fixings ensure lid rigidity.
- Rear connector ports sealed with foam.
- Glue used on components which could move, or vibrate.
- Accurate 3-way speaker system.
- Two mid/high frequency speakers provide excellent stereo imaging.
- Separately driven, forward facing, dual magnet, mono bass driver.
- Custom-moulded, profiled, HF enclosures minimise standing waves.
- Acoustic damping in the HF enclosures reduces colouration.
- Separate, sealed, infinite-baffle enclosure for each driver.
- Separate, highly efficient class-D switching amplifier for each speaker.
- Short, even cable lengths to and from the speaker enclosures to reduce any potential microphonic induction.
- DSP based design allows better audio performance to be realised.
- Active crossover provides perfect separation between mid-range and bass sounds.
- A universal power supply ensures global voltage operation without adjustment.
- Optional DC power input.

Using the same outstanding speaker system as the Reference Monitor range, the confidence monitors offer a superb sound with simpler controls.

The confidence monitors have been designed to give the best possible performance at a reduced price.

The RM-CA2 is a 1U rack-mount unit offering quality loudspeaker monitoring and 2 channel metering of two stereo analogue audio sources. Input 1 has stereo balanced Neutrik™ XLRs and Input 2 has both stereo balanced Neutrik™ XLRs and stereo unbalanced RCA phono connectors. The balanced analogue inputs can be wired unbalanced if required.

Sources are selected via a front panel push-button switch, with clear LED indication of the current source.

A rear panel DIPswitch setting allows the unit to monitor either:

• Stereo signals, with the two front panel control knobs acting as stereo volume and balance control, to alter the stereo imaging of the left and right channels, or
• Dual mono signals, with the two front panel control knobs acting as left and right volume controls.

There is a front panel headphone socket which responds to the volume controls and the headphone socket automatically mutes the internal loudspeakers when a plug is inserted.

A pair of line-level analogue audio outputs follow the selected source at the selected level, or optionally at 10dB lower (if using the unbalanced input), set via rear-panel DIPswitch.

The level of the chosen source is shown on an 8 segment LED bar-graph display with PPM and VU scales indicated. The bar-graph can optionally be lowered by 10dB (if using the unbalanced input), set via rear-panel DIPswitch.

A single phase meter LED indicates channel correlation or phase error conditions.

The three-way loudspeaker system is fed via a DSP-based active crossover and a trio of highly efficient Class-D amplifiers. Careful attention to driver selection, materials and case design, plus active DSP equalisation, has ensured a flat response and outstanding reproduction from such a shallow unit. A protective limiter prevents damage to the loudspeakers under overload conditions

The RM-CA2 operates from global mains voltages (85-264V AC, 47-63Hz) without adjustment and can optionally be ordered with a DC 9V to 36V input instead of the AC input.

REFERENCE MONITOR

RM-CAD8 Confidence Monitor, 2 LED Meters, 2 Analogue & 6 Digital Stereo Inputs

Category: Confidence Monitors.

Product Function: Audible & visual monitoring of analogue audio inputs.

Typical Applications: Radio station engineering racks-room for monitoring news feeds.

Features: The RB-CAD8 has the same feature set as the RB-CA2 with the addition of AES/EBU, S/PDIF and TOSlink digital audio inputs.

The RM-CAD8 has all the features of the RM-CA2 together with the ability to select from an additional 6 stereo digital inputs.

As well as the 2 stereo analogue inputs there are also:

- 4 x stereo AES/EBU balanced inputs on XLR 3 pin female.
- 1 x stereo S/PDIF unbalanced input on RCA phono female.
- 1 x stereo TOSlink unbalanced input on an optical connector.

The source select button illuminates to indicate synchronisation lock to the incoming digital source.

Sample rate converters on the digital inputs allow sources of different sample rates to be connected and monitored, between 32kHz and 96kHz.

All other features of the unit are identical to the RM-CA2.

Technical Specification For RM-CA2 & RM-CAD8

Audio Specification

Inputs

Audio Inputs (RM-CA2):	2 x stereo analogue (1 x XLR balanced, 1 x XLR balanced or RCA phono unbal)
Audio Inputs (RM-CAD8):	2 x stereo analogue (1 x XLR balanced, 1 x XLR balanced or RCA phono unbal) 4 x stereo XLR balanced AES/EBU digital 1 x stereo RCA phono S/PDIF digital 1 x stereo optical TOSLink digital
Max Level (0dB Input Gain):	+18dBu (analogue)/0dBFS (digital)
CMRR:	>60dB typical
Analogue Input Impedances:	XLR: >20kΩ balanced bridging RCA: >10kΩ unbalanced
Digital Input Impedances:	(RM-CAD8 only): 110Ω ±20% AES/EBU balanced I/O 75Ω ±5% S/PDIF unbalanced I/O 75Ω ±5% TOSlink unbalanced I/O
AES/EBU Sample Rate:	32 to 96kHz, converted internally to 48kHz
(RM-CAD8 only): Input Gain:	+10dB on unbalanced input
Selection:	Front panel push button with indicator LEDs

Line Level Outputs

Audio Outputs:	1 x stereo analogue
Gain re Selected Input:	Unity or -10dB (switchable)
Maximum Output Level:	+18dB
Output Impedance:	<50Ω
Distortion:	<0.02% (1kHz, +8dBu output)
Noise:	-95dB RMS, unity gain ref +8dBu output
Frequency Response:	20Hz-20kHz +0/-0.5dB
Crosstalk 1kHz input: 10kHz input:	Analogue I/O, ref 0dBu <-90dB <-85dB

Amplifier/Loudspeakers

Configuration:	Three-way with stereo mid/ high-frequency drivers & mono low-frequency driver
Power Output:	2 x 7W (HF) + 15W (LF) with protective limiter
Crossover:	250Hz (24dB/octave, Linkwitz-Riley)
Distortion (HF Outputs):	< 0.1% (1kHz, 3W output)
Distortion (LF Output):	< 0.1% (100Hz, 6W output)
Noise:	More than 102dB below full output
Volume:	Mute to full volume via front panel rotary control
Balance Trim:	±6dB via front panel rotary control.
Peak Acoustic Level:	98dB SPL @ 2ft

Level & Phase Metering

Number:	2 x 8-segment LED bargraphs
Line-Up Level:	0dB on scale can be set to 0dB or -10dB via rear panel DIPswitch
Phase Meter:	Single LED indication showing average

Connectors

Audio Inputs (RM-CA2):	4 x XLR 3-pin female balanced 2 x RCA female phono unbalanced
Audio Inputs (RM-CAD8):	4 x XLR 3-pin female analogue 2 x RCA phono analogue 4 x XLR 3-pin female AES/EBU digital 1 x RCA phono female S/PDIF digital 1 x optical TOSLink digital
Audio Outputs:	2 x XLR 3-pin male (balanced, may be unbalanced)
Headphones:	1/4" (6.35mm) A-gauge 3-pole stereo jack socket
Mains Input:	Filtered 3-pin IEC male, continuously rated 85 - 264VAC, 47 - 63Hz, fused, 60W peak, 30W average
Fuse Rating:	Anti-surge fuse 2A 20 x 5mm

Equipment Type

RM-CA2:	Confidence Monitor, 2 LED meters, 2 analogue stereo inputs
RM-CA2-DC:	Confidence Monitor, 2 LED meters, 2 analogue stereo inputs, DC supply
RM-CAD8:	Confidence Monitor, 2 LED meters, 2 analogue & 6 digital stereo inputs
RM-CAD8-DC:	Confidence Monitor, 2 LED meters, 2 analogue & 6 digital stereo inputs, DC supply

Physical Specification

Dimensions (Raw):	48cm (W) x 27cm (D) x 4.4cm (H) (1U) 19" (W) x 12" (D) x 1.73" (H) (1U)
Dimensions (Boxed):	57cm (W) x 52cm (D) x15cm (H) 22.4" (W) x 20.5" (D) x 5.9" (H)
Weight:	Nett: 4.5kg Gross: 6kg Nett: 10lb Gross: 13.2lb

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