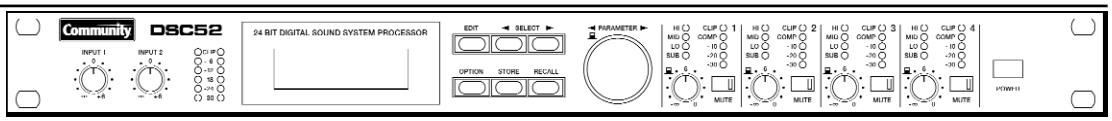
DSC52

24 BIT DIGITAL SOUND SYSTEM PROCESSOR



APPLICATIONS:

. SLS Full-range Systems
· SBS Subwoofers
· WET Speaker Systems
. R-Series Speaker Systems
. AirForce
. Permanent Installations
· Rental Systems

FEATURES:

· All-digital Signal Processing
· 1 Rack Space
. PC Control

DESCRIPTION

The DSC52 Digital System Controller is a Dual-Channel device that provides all-digital signal processing for Community full-range and subwoofer loudspeaker systems. It can also be used as a generic DSP device for other Community loudspeaker products. It is possible to assign the outputs to any input or to sum the inputs. It is further possible to establish the following configurations: Dual-channel stereo 2-way, single channel 3-way + utility output and single channel 4-way.

The DSC52 uses a digital compressor/limiter on each output to monitor the signal and provide appropriate control to the audio signal to prevent overdrive and damage to the loudspeaker systems. The front panel has illuminated indicators to inform the operator of the DSC52's status, including level meters for input and output signals; an LCD panel for displaying parameter settings, memory PRESETs, channel mute, and status messages; and LED's to indicate operational mode.

There are two modes of operation: NO-EDIT Mode and FULL-EDIT Mode. The NO-EDIT Mode provides factory PRESET parameters for Community loudspeaker models. In the FULL-EDIT mode all parameters are available for adjustment by the user to set up and store custom signal processing settings.

Critical set-up controls are software-driven using the front panel controls or via PC control with the included software. The DSC52 supports password protection to prevent changes to presets. These protected parameters include everything with the exception of the analog input and output controls. Settings are selected based upon the model of loudspeaker system to be used. The DSC52 is pre-programmed for many popular Community Loudspeaker configurations. The DSC52 has 3 configurations: Dual-channel stereo 2-way, single channel 3-way + utility output and single channel 4-way. There are 30 non-volatile memories for storing user created or edited programs. There are also 50 non-volatile factory presets. To modify and store the factory presets the factory preset must first be copied into a user memory. Each factory preset has parameters pre-adjusted for optimum performance for that particular system; however, further equalizer or gain adjustment may be necessary to match venue acoustics.

The DSC52's switching-type power supply eliminates the need for any AC power changeover switching. The internal supply automatically adapts to any line voltage between 90VAC and 250VAC at 50Hz to 60Hz. The DSC52 meets all applicable Canadian, European, and US standards for equipment of this type, including the European CE-Standard. Only one rack space high, designed for mounting in a standard 19 in. (483 mm) equipment rack, the DSC52 is designed to be a set-and-forget device that will help ensure maximum performance and reliability for Community loudspeakers under all operating conditions.

SPECIFICATIONS

Inputs: 2 XLR type female 20k ohms, electronically balanced (transformer optional)
2 XLR OUT (direct out)
Maximum input voltage +30 dBu

Outputs: 4 XLR type male >100 ohms, electronically balanced (transformer optional)
Maximum input voltage +21 dBu

Gain: Variable -70 dB to +6 dB

Distortion (THD): <.01% without transformer
<.05% with transformer

Frequency Crossovers: 6,12,18, 24 dB/oct, slope: Butterworth, Bessel
Linkwitz-Riley
26 Parametric equalizers
Low-shelving equalizer, LPN (lowpass notch) switchable
Hi-shelving equalizer, 6/12 dB slope switchable
Lo-Cut filter (B-6 alignment switchable), Hi-Cut filter, All-Pass filter

Compressor / Limiter 4 Digital compressors / limiters
3 Master delays (2 ms - 900 ms)
4 Channel delays (0 ms - 900 ms)
Delay-increment 21 µsec.

Dynamic Range: 115 dB typical

Input CMRR: >40 dB

Digital-Analog Conversions: 24 bit Sigma-Delta 128 times
Oversampling linear phase

Configurations: 2 Channel x 2-way (biamp)
1 Channel x 3-way (triamp) + utility output
1 Channel x 4-way (quad amp)

Input/Output Processing: Level, 5 EQ's per channel, delay, master delay (CH1 + 2)

Output Processing: Routing, 4 EQs per channel, HPF, LPF, channel delay, compressor, limiter, level

Computer Control: RS232C Interface, cable and software included

Indicators: Power, compressor active, frequency range, LED bar graphs I/O, clip LEDs I/O, mute active LEDs

Power Supply: 90-250 VAC 50-60 Hz, 20W

Dimensions: 19 in. (483 mm) width, 1.75 in. (44 mm) height, 14.7 in. (374 mm) depth

Weight: 11 lbs / 5 kg

Shipping Weight: 15 lbs / 6.8 kg

Supplied Accessories: Power Cord (120VAC) with NEMA 5-15P plug
Power Cord (240VAC) with CEE 7/7 plug
RS232C Cable
Programming software (Windows)
Warranty Certificate and Reply Card
Owner's Manual

COMMUNITY PROFESSIONAL LOUDSPEAKERS
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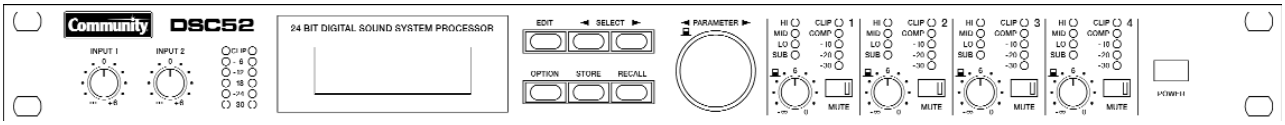
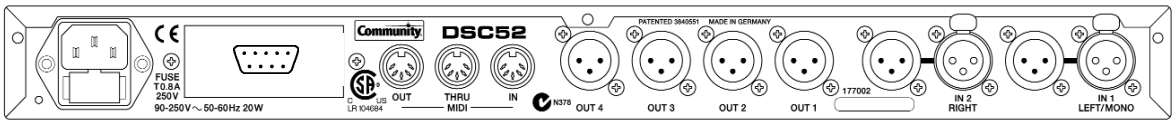
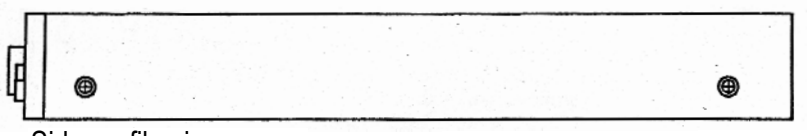


Front panel view



Rear panel view



Side profile view

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The device shall be a digital electronic controller with factory presets for the Community Solutions, R-Series, WET Series, XLT415, M4 CoAx Systems, CBA/CBS, and AirForce Loudspeaker Systems manufactured by Community Professional Loudspeakers. Analog-digital conversions shall be 24 bit Sigma Delta 128 times oversampling linear phase. There shall be two inputs and four outputs configurable for 2-channel two-way and single-channel three and four-way electronic crossover modes. Signal processing functions shall include parametric EQ, low and high pass filtering, crossover filters, signal delay, and polarity switching plus dynamic limiting for loudspeaker protection. External Midi control in and out connectors shall be provided. An RS232, 9-pin connector shall be provided. Signal input and output connectors shall be 3-pin XLR-type. Inputs and outputs shall be retrofittable with optional transformers. The input impedance shall be 20k ohms and the output impedance greater than 100 ohms. The maximum input level shall be +30 dBu, electronically balanced. The maximum output level shall be +21 dBu, electronically balanced, with a mimimum load of 600 ohms. Harmonic distortion, including hum and noise, shall be less than 0.01%. The chassis shall be constructed of steel with a black paint finish. Power input shall be 90-250 VAC W, 50-60Hz, 20W. Dimensions shall be 19 in. (483 mm) W, 1.75 in. (44 mm) H, 14.7 in. (374 mm) D, 1 rack unit and shall weigh 11 lbs. (5 kg).

LIMITED WARRANTY

The Community DSC52 Digital System Controller is warranted in the USA to be free from defects in materials and workmanship for a period of two years. This warranty applies to the product; therefore, the remainder of the warranty period will be automatically transferred to any subsequent owner.

This warranty applies only to failure of a Community DSC52 caused by defects in materials and workmanship during the stated warranty period. It does not apply to a unit that has been subjected to abuse, accident, modification, improper handling/installation, or repairs made without factory authorization or by anyone other than authorized Community Field Service Stations. This warranty is void if the serial number has been defaced, altered or removed. Products covered by this warranty will be repaired or replaced at the option of Community, without charge for materials or labor, provided all the terms of this warranty have been met.

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