Genius 6

TECHNICAL SPECIFICATIONS

Type of Product	Dedicated 2-input 6-output completely configurable digital controller with 24 bit DSP for Outline loudspeaker systems.
Configuration	Two possible main operating modes: 6-way mono or Dual/Stereo 3-way ("Stereo"). Mono mode (default) assigns input "A" to all the outputs. It is however possible to assign each input to every output after having selected a configuration and also use Genius 6 in a 3-way stereo with the two subwoofers in Mono.
Functions	Electronic Crossover, Parametric Equalizer, Limiter, Digital Delay with graphic indication of the functions on the display.
Equalizer	Hi and Low Shelving available with 6 or 12 dB/octave slope.
Frequency range	available between 15 Hz and 16 kHz with graphic indication on the Display.
Range of band adjustment	between +15dB and -15dB, with 0.2dB steps.
Bandwidth	available between 0.05 and 3 octaves, with 0.05 steps.
	High-pass filter on the entire band, with choice of slope and type.
Electronic crossover	
Channels	six, bandpass, with selectable filter type and slope.
Type of Filter and Slope	Butterworth or Linkwitz-Riley; 12, 18, 24, 48 dB/octave
Frequency Range	available between 15 Hz and 16 kHz with graphic indication on the Display.
Delay Unit	Digital delay on inputs and outputs up to 630 milliseconds with 22-microsecond steps. The delay of each channel can be set using the display in metres (m), milliseconds (ms) or feet/inches (ft). Each band can be connected to the others (delay link function), in order that multiple outputs have the same amount of delay.
Controls (Front panel)	LED input level monitoring, from -20 dB to clipping level.
	LED monitoring of individual output levels, from -20dB to +6dB above the threshold level set for the limiter.
	Mute for each output channel.
	Polarity inversion on each output.
Display	Display of all the Genius 6 control parameters via LCD.
Input connectors	2 XLR connectors. Electronically balanced channels. Optional transformer balancing.
Output connectors	6 XLR connectors, MIDI, RS 232. Electronically balanced/floating outputs. Optional transformer balancing.
Power requirements	Any mains voltage between 100 and 240 VAC (rated), without any pre-selection by users. Minimum input voltage is 90V, maximum 264V. Outside these values, Genius 6 will not operate correctly.
Weight (kg)	
Net (gross)	3 (4)
Dimensions (cm.)	
Height (with packing)	4.4 (12)
Width (with packing)	48.3 (61)
Depth (with packing)	20 (40)

APPLICATIONS

Genius 6 is a 24 bit digital microprocessor DSP Controller, dedicated to Outline multi-way loudspeaker systems used to form multi-amped sound systems. According to the number of channels on the model being used, one or two Genius 6 units must be used to form an L-R or stereo system. Two-channel systems (L-R or stereo) using 3-way enclosures plus bass bins or subwoofers (such as Tripla or Doppia, along with Topsub Plus, Victor Live, etc. for example) require two Genius 6 processors. Two-channel set-ups (L-R or stereo) using two-way enclosures plus bass bins or subwoofers (such as Doppia II P, Spectra or Integra along with Victor Live, Spectra Bass, Minisub Plus, etc.) can use just one Genius 6. Genius is completely configurable and has numerous memory Presets, expressly studied for the loudspeaker system it has to control, which enable various situations to be handled. Various combinations with different Outline bass bins or subwoofers are obviously foreseen for each loudspeaker enclosure model. There are also presets for all the other cases of Outline 2-3 way passive loudspeaker systems plus subwoofer (such as Digita Plus N, Omnia Plus, Beat Series, etc.), for which a Genius 6 unit can replace an analog electronic crossover, but also adds digital delay and limiter functions. Before connecting the system, the instruction handbook supplied with Genius 6 must be carefully read in order to get to know all the functions available and familiarize with its menu-based operating mode. With Genius 6, it's possible to obtain excellent performance from Outline sound reinforcement systems, but the utmost attention must be paid to all the variables which can be modified. There are some tables in the handbook's index (which can also be updated via Internet) with the values to be set for each channel's limiters on each Outline loudspeaker system, according to the amplifier connected. These values, which obviously refer to Outline amplifiers, can however be used for reference purposes if other brands are used, according to the power amplifier's input sensitivity and power. If correctly set, Genius 6's limiters guarantee excellent loudspeaker protection and safeguard users' investment, but above all non-stop system operation which, as we all know, is a fact of fundametal importance for professional systems.

outline

MULTI MODE DEVICE
Master Genius 6
7 HARD212B M
37 PROGRAMMABLE FILTERS

MULTI MODE DEVICE
Master Genius 6
5 BOMBER M
37 PROGRAMMABLE FILTERS

MULTI MODE DEVICE
Master Genius 6
6 D5040A M
37 PROGRAMMABLE FILTERS

MULTI MODE DEVICE
Master Genius 6
8 INTEG2 M
37 PROGRAMMABLE FILTERS

MULTI MODE DEVICE
Master Genius 6
9 TR1832 M
37 PROGRAMMABLE FILTERS

MULTI MODE DEVICE
Master Genius 6
3 MONO6WAY M
37 PROGRAMMABLE FILTERS

DESCRIPTION

Outline Genius 6 brings the most advanced digital audio technology to loudspeaker systems thanks to the versatility offered by Digital Signal Processors: a single unit with the functions of a digital electronic crossover, 6-way digital delay, parametric equalizer and 6-way limiter. Genius 6 is a completely configurable 24 bit unit, designed for Outline loudspeaker systems and is supplied with numerous preset curves for the enclosures it will be connected to, enabling it to be used in a very wide range of applications along with various Outline bass bins or subwoofers. The MIDI interface on the rear of the unit enables a PC to be connected to Genius 6 for updating the software or any preset curves modified by Outline: these files can be downloaded directly from Outline's Web site, ensuring the procedure is rapid and user-friendly.
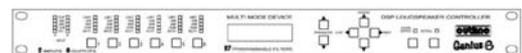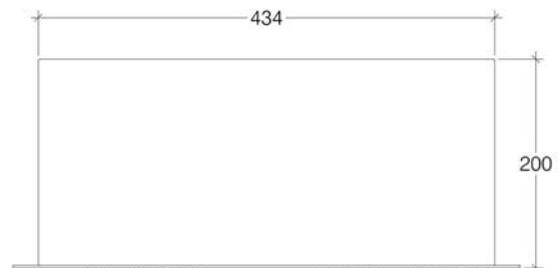
Genius 6 has two input channels and six outputs which can be configured as follows: for multi-amped mono systems (up to 6-way), or for triamped (3-way) stereo systems.

An LCD (see illustrations) and a keypad on the front panel enable to select the specific presets for the enclosures connected and to set the various functions, including output levels, limiter, delay and equalization.

These are the characteristics for each of the Genius 6's six outputs: parametric equalizer, preset for Outline systems and with additional filters which can be regulated by users; digital delay on the subwoofer output, to ensure alignment with the cluster; digital delay on the inputs, for aligning delay towers with the FOH system; limiter on each output, with adjustable threshold and attack and release times based on the crossover frequency set, to ensure the music's dynamics remain unchanged.

On the front panel, there are also limiting level indicators (LED bargraphs) and Mute buttons for each output channel.

The programming keys can be used to recall a preset curve relative to the Outline system connected, modify it as required and then store it in a free memory.

Other countless functions available include the possibility of inverting each channel's polarity, adjusting the digital level from -25 to +4 dB and a user password to prevent unauthorised use of the unit. Lastly, it's possible to daisy-chain several Genius 6 units to avoid repeating procedure on complicated systems with several Genius 6 units controlling identical clusters: any modifications carried out on the Master unit are thus immediately repeated on the slave units when the program is stored.

processors

Genius 6

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