



The SC28 is a 2 input, 8 output digital system controller containing pre-programmed tunings for QSC loudspeaker systems. In addition to the preset tunings, the SC28 also offers user-adjustable equalization and delay.

Audio inputs and outputs are via balanced, line-level, analog XLR connectors. Four outputs for each of the two inputs are provided for use with 2 or 3-way systems plus subwoofers. Simple to operate yet uncompromised in audio quality, the SC28 uses 48 kHz, 24-bit A/D and D/A conversion with 32-bit, floating point DSP for wide dynamic range and low distortion. Advanced DSP is capable of implementing tunings that incorporate IIR (Infinite Impulse Response) as well as FIR (Finite Impulse Response) filters.

QSC system engineers have employed the power of the SC28's FIR (finite impulse response) filters to implement Intrinsic Correction™ of the loudspeaker. The goal of Intrinsic Correction is to provide a drive signal to the amplifiers and loudspeakers that will result in the most accurate acoustical magnitude, frequency and phase domain performance possible. When properly implemented, Intrinsic Correction can compensate for many causal phenomena such as the effects of waveguide acoustical impedance and loudspeaker cone resonance. The result is a loudspeaker system with excellent power response and extremely natural, uncolored sound across its frequency band and coverage area. An array of loudspeakers with Intrinsic Correction tunings will also be very responsive to the use of equalization to compensate for array configuration, acoustical conditions or user preferences.

Selection of tunings is accomplished by simply scrolling through a list of QSC loudspeakers and selecting the configuration on the LCD panel. A similar process is used to select the QSC amplifiers being used and to configure amplifier input sensitivity for proper dynamic protection gain structure. Settings for new QSC products may be loaded into the SC28 via a rear-mounted USB port.

Once the processor settings have been matched to the system, the user or installer can take advantage of an integral, 6 band parametric equalizer, high and low shelving filters and signal delay to optimize for acoustic, environmental or aesthetic considerations. Password protection is included to prevent unauthorized tampering.

The SC28 is easy to use and delivers superb audio performance at a very affordable price.

## Features

- Two (2) XLR line-level inputs
- Eight (8) XLR line-level outputs
- Front panel meters for all inputs and outputs
- Universal AC power input
- Rear-panel USB port for quick and easy loading of new loudspeaker tunings

### Front Panel Control:

- Quickly set up your loudspeaker system to perform and sound as designed by QSC engineers

### QSC Loudspeaker Selection:

- Select the QSC loudspeaker and configuration (2-way, 3-way, etc.) and the SC28 instantly reconfigures itself for optimal audio reproduction

### QSC Amplifier Selection:

- Select the QSC amplifier being used to calibrate the processor to the amplifier for proper balance and loudspeaker protection

### User-Adjustable Input EQ:

- Six (6) parametric filters with adjustable frequency, gain and bandwidth
- High and low shelf filters with adjustable frequency, gain and slope

### User-Adjustable Delays:

- Sub delay adjustable from 0.00 to 50.00 ms
- Array delay adjustable from 0.00 to 20.00 ms

### Subwoofer Management:

- Select stereo or mono-summed subwoofer
- Adjustable subwoofer gain
- System is optimized for operation with or without subwoofer

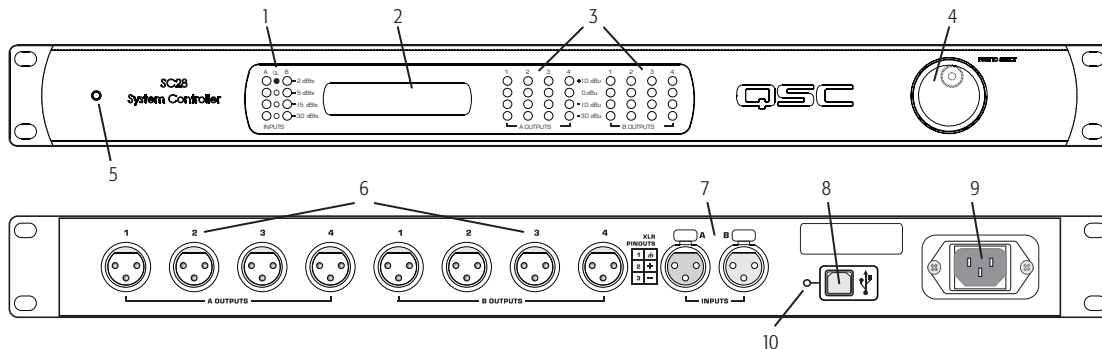
### Loudspeaker Protection:

- Optimized thermal and excursion protection for each transducer
- User-bypassable for output clip-limiting only

### Channel Linking:

- Select linked or independent control of stereo channel settings

Dynamic Range (AES-17, -60 dB Method, all sensitivities)	
Unweighted	> 104dB
A weighted	> 107dB
Input Impedance	
Unbalanced (nominal)	69k ohms
Balanced (nominal)	11k ohms
Common Mode Rejection	
20 Hz – 20 kHz (min)	> 75 dB
20 Hz – 20 kHz (typ)	> 80 dB
Input Sensitivities	
	Vrms: 1.5V, 3V, 9V, 18V • dBu: 5.7, 11.8, 21.3, 27.3 • dBV: 3.5, 9.5, 19.1, 25.1
Distortion (AES-17, 20 Hz – 20 kHz, all sensitivities)	
+4 dBu	< 0.006 THD+N
2 dB below clip (max)	< 0.006 THD+N
Crosstalk (20 Hz – 20 kHz)	
Inter-channel (max)	> 75 dB
Frequency Response	
	+/- 0.1dB from target response
Audio Converters	
	24 bit, 48k Hz
Mute	
	Infinite Attenuation
Throughput Delay	
	1.4125 milliseconds (A/D – DSP - D/A)
Program Inputs	
Connector Type	XLR female, locking
Type	Electronically balanced
Grounding	All shield terminals connected to chassis
Pinout	1: (GND) 2: (+), 3: (-)
Program Outputs	
Connector Type	XLR male
Type	Electronically balanced
Grounding	All shield terminals connected to chassis
Pinout	1: (GND) 2: (+), 3: (-)
Controls	
	Rotary encoder knob with push-to-select function
Indicators	
Power	Blue, front panel
LCD Data Display	2 line s 16 character, backlit, front panel
Input/Output Meters	Green, Yellow, Red, front panel
USB Port	
	USB type "B"
AC Power Requirements	
	100 – 240 VAC, 50 – 60 Hz, no user adjustment required
AC Power Connection	
	IEC-type inlet
AC Power Cord	
	2 meters long, #18AWG
Dimensions (HWD)	
	1.73" x 18.94" x 6.67" (44 mm x 481 mm x 169 mm) 1 Rack Unit



1 - Input meters | 2 - LCD display | 3 - Output meters | 4 - Rotary encoder knob (press-to-select) | 5 - Power LED  
6 - Output connectors | 7 - Input connectors | 8 - USB port | 9 - IEC inlet | 10 - Firmware update mode select (recessed)

Specifications subject to change without notice.

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