



DESCRIPTION

The SMR™ 821a is a professional microphone and line level audio program mixer intended for fixed installation applications. This single, rack-mount unit is designed to provide high-quality audio performance using versatile control options and a simple user-interface. Engineered from the ground up with the commercial sound systems contractor in mind, the SMR 821a includes many features for easy operation, installation and servicing.

With three independent audio output buses, the SMR 821a is perfect for applications where zoned output and simple monitoring is required. Six of the eight inputs include high-quality microphone pre-amplifiers and separate gain controls. Additional rear panel controls provide even more flexibility for proper gain setup, output assign and remote control features.

In stand-alone applications, the SMR 821a is a very powerful tool. Ease of use, external control options and a simple user-interface make it perfect for many applications where the end-user must have access to the audio system. The ability to link multiple units provides even more flexibility for a wide range of applications.

FEATURES

- Single rack space design
- Eight total inputs: six balanced mic/line; two unbalanced stereo
- LED level/clip status indicator on each channel
- Mic inputs include selectable 48-Volt phantom power
- Two selectable stereo line inputs (mono or stereo switchable)
- Three assignable electronically-balanced outputs: Left, Right, Aux



By PEAVEY

Specifications

SMR™ 821a stereo mic/line program audio mixer

- Master level controls for each output bus
- Three five-segment LED meter arrays
- Four-band EQ: low, low-mid, high-mid, high
- Integral channel muting system with priority
- Audio and mute bus linking
- Left, Right, Aux and Mute bus links for stacking multiple units
- Rear panel master/slave linking mode switch
- Remote master Left/Right level control port
- Rear panel 20 dB pad switch on each microphone input
- Front panel continuously variable preamp gain control
- Rear panel bus assign switches for each microphone channel
- Rear panel global 100 Hz low-cut filter switch for all microphone inputs
- Mute bus with channel 1 rear panel threshold control
- Select switch for routing microphone mix bus post remote control
- All audio I/O on removable Euro-type connectors

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The mixer shall have six electronically balanced microphone or line inputs. The mixer shall also have two stereo unbalanced line inputs. All inputs shall be routable to any or all of three master buses, Left, Right, and Aux. Each microphone input shall include selectable 48-Volt phantom power. Channel One shall have a variable mute threshold over all other channels. Each input shall have a Signal/Clip indicator that activates green at -20 dB, and turns red at 2 dB below clipping. The mixer shall have three electronically balanced outputs, Left, Right and Aux, each with its own master output control and five LED meter array. The mixer shall have remote master capability for each of the master L, R buses. There shall be remote select for the two stereo inputs, rear panel global 100 Hz low cut filter for the mic inputs, master/slave link mode switch, and audio bus linking. The mixer shall have a shelving low EQ

with 15 dB boost or cut starting at 70 Hz, a peak/dip low mid EQ with 15 dB boost or cut at 250 Hz, a peak/dip high mid EQ with 15 dB boost or cut at 3.1 kHz and a high shelving eq with 15 dB boost or cut at 10 kHz. The unit shall be housed in a rugged metal chassis 1.75" tall by 19" wide by 8.75" deep. One-inch mounting flanges will be provided on each side. The unit shall operate from 120 VAC, 60 Hz power. The mixer shall be capable of driving +21 dBu into a balanced load from the Left, Right or Aux outputs, from 20 Hz to 20 kHz. +0 to -2 dB into 600 Ohms with less than 0.05% distortion and with system hum and noise at least 80 dB below rated output. The unit shall be a Peavey Architectural Acoustics model SMR 821a.

Input Sensitivity

Input	Input Impedance (Ohms)	Input Gain Pot Setting	Input Level: dBu			Balanced/Unbalanced	Connector
			Min*	Nom**	Max		
Microphone without pad	2 k	Max Gain +60 dB	-76 dBu	-56 dBu	-39 dBu	balanced	+ - ground
		Min Gain +10 dB	-25 dBu	-4 dBu	+13 dBu		
Microphone with pad	2 k	Max Gain +40 dB	-56 dBu	-36 dBu	-19 dBu	balanced	+ - ground
		Min Gain -10 dB	-5 dBu	+16 dBu	+33 dBu		
Microphone without pad (optional transformer)	2 k	Max Gain +60 dB	-74 dBu	-54 dBu	-37 dBu	balanced	+ - ground
		Min Gain +20 dB	-34 dBu	-14 dBu	+3 dBu		
Microphone with pad (optional transformer)	2 k	Max Gain +40 dB	-54 dBu	-34 dBu	-17 dBu	balanced	+ - ground
		Min Gain 0 dB	-14 dBu	+6 dBu	+23 dBu		
Stereo Line	10 k	N/A	-20 dBu	-10 dBu	+7 dBu	unbalanced	RCA jacks

0 dBu = 0.775 VRMS

0 dBV = 1.00 VRMS

* Min. input level (sensitivity) is the smallest signal that will produce a nominal output with controls set at maximum gain.

** Nominal settings are defined as all controls set at center detent for nominal output. Microphone gain control is as specified.

Specifications **SMR™ 821a** stereo mic/line program audio mixer

Noise

Output	Signal/Noise (typical)	Test Conditions
Left Right	100 dB	All level controls down
	84 dB	Master level controls nominal Channel level controls down
	80 dB	All controls nominal All channels assigned Mic gain minimum
Aux	95 dB	All level controls down
	92 dB	Master level control nominal Channel level controls down
	81 dB	All controls nominal All channels assigned Mic gain minimum

Gain

Mic input range without pad:	10 dB to 60 dB
Mic input to output without pad:	80 dB max
Mic input range with pad:	-10 dB to 40 dB
Mic input to output with pad:	60 dB max
Mic input range without pad (optional transformer):	20 dB to 60 dB
Mic input to output without pad (optional transformer):	80 dB max
Mic input range with pad (optional transformer):	0 dB to 40 dB
Mic input to output with pad (optional transformer):	60 dB max

Specifications SMR™ 821a stereo mic/line program audio mixer

Frequency Response

20 Hz–20 kHz +0 dB/-1 dB

Total Harmonic Distortion Plus Noise

<0.05% typical 22 Hz–22 kHz BW; Mic to Left/Right out
40 dB Mic gain, +4 dBu, 20 Hz–20 kHz

Equivalent Input Noise (EIN)

-128 dBu Mic input terminated with 150 Ohms

Common Mode Rejection Ratio (Mic Input)

>70 dB typical 20 Hz–20 kHz

Crosstalk Adjacent Channels (1 kHz)

>70 dB typical

Crosstalk Output to Output (1 kHz)

>60 dB typical

Phantom Power

+48 volts at mic + and - inputs

Remote Control Volume

30 dB attenuation (10k ohm potentiometer) typical
60 dB attenuation (100k ohm potentiometer) typical

Channel Mute

>60 dB attenuation

Signal/Clip Indicators

Input Channel Status

Green: -20 dBu

Red: 2 dB below clipping

Output Level Meters

-24: -20 dBu

-6: -2 dBu

0: +4 dBu

+6: +10 dBu

Clip: 2 dB below clipping

Connections

Removable Euro-type connectors for single channel audio inputs, outputs, bus link and external control. RCA single-ended female for channels 7 and 8 stereo inputs. IEC receptacle for AC power.

Mounting

Single EIA Rack Mount

Dimensions

1.75" (H) x 19" (W) x 8.75" (D) (45 mm x 483 mm x 222 mm)

Weight

7.4 lbs (3.4 kg)

Power Requirements

Domestic: 120 VAC, 60 Hz 15 Watts nominal

Export: 230 VAC, 50/60 Hz 15 Watts nominal



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