

Sequencers

Program, sequence, protect, and condition your system's power

Sequencing is needed when various types of electronic equipment must be powered up or down in order, rather than simultaneously. In AV systems, sequencing is often necessary for controlling the distribution of power to avoid equipment damage.

SurgeX Sequencers provide the sequencing parameters, conditioning, shutdown thresholds, and surge protection needed to safeguard audio, video, broadcast, and computer equipment. These units have robust management features and are extremely easy to install, program, and use. They include two always-on receptacles and four programmable banks. The SEQ models feature one "virtual" bank for controlling remote units, allowing for infinitely expanding distribution schemes. The SEQ models also include an LCD screen.

They are engineered with Advanced Series Mode surge elimination technology to provide top-of-the-line protection. Superior to conventional MOV circuitry or MOV-Hybrid designs, they completely eliminate surge energy up to 6,000 volts without producing harmful side effects such as ground contamination or common-mode disturbances. Completely non-sacrificial and never needing reset, they provide the most reliable protection available. Our Sequencers also feature both common mode and normal mode Impedance Tolerant EMI/RFI filtering, SurgeX ICE (Inrush Current Elimination), and COUVS (Catastrophic Over/Under Voltage Shutdown) for a complete power conditioning solution.



Features:

- Advanced Series Mode[®] surge elimination technology
- Three sequenced banks of four receptacles; two always-on receptacles
- Setup stored in nonvolatile memory
- Impedance Tolerant[®] EMI/RFI filtering
- Over/Under Voltage Shutdown
- SurgeX ICE[®] (Inrush Current Elimination)
- Can be used to control other SurgeX products or daisy-chained with other SEQ sequencers (SEQ Models)
- LCD screen (SEQ & SEQ-1U)

	Model Number	Plug Configuration		Description
		Input	Output	
	SEQ	 NEMA 5-15P	(12x) NEMA 5-15R (2x) NEMA 5-20R	Programmable Sequencer Surge Eliminator, 2U, 20A/120V
	SEQ-1U	 NEMA 5-15P	(6x) NEMA 5-15R (2x) NEMA 5-20R	Programmable Sequencer Surge Eliminator, 1U, 20A/120V
	SX-2120	 NEMA 5-15P	(13x) NEMA 5-15R (2x) NEMA 5-20R	Programmable Sequencer Surge Eliminator, 2U, 20A/120V

Sequencers

Technical Specifications	SEQ	SEQ-1U	SX-2120
Load Rating	20 Amps @ 120 Volts	20 Amps @ 120 Volts	20 Amps @ 120 Volts
Maximum Load Inrush Energy	1400 Joules total during power-up	1400 Joules total during power-up	1400 Joules total during power-up
Surge Let-Through Voltage (6000-volt surge)	0 Volts	0 Volts	0 Volts
UL 1449 Adjunct Classification Test Results	1000 surges, 6000 volts, 3000 amps, B3 pulse; Measured suppressed voltage: 170 volts; no failures	1000 surges, 6000 volts, 3000 amps, B3 pulse; Measured suppressed voltage: 170 volts; no failures	1000 surges, 6000 volts, 3000 amps, B3 pulse; Measured suppressed voltage: 170 volts; no failures
Federal Guidelines	Grade A, Class 1, Mode 1 (CID A-A-55818)	Grade A, Class 1, Mode 1 (CID A-A-55818)	Grade A, Class 1, Mode 1 (CID A-A-55818)
EMI/RFI Filter, Normal Mode (50-ohm load)	> 30 dB 100 KHz - 50 MHz	> 30 dB 100 KHz - 50 MHz	> 30 dB 100 KHz - 50 MHz
EMI/RFI Filter, Common Mode (50-ohm load)	> 20 dB 1 MHz - 50 MHz	> 20 dB 1 MHz - 50 MHz	> 20 dB 1 MHz - 50 MHz
Under-Voltage Auto Shutdown	Adjustable from 90V to 110V	Adjustable from 90V to 110V	N/A
Over-Voltage Auto Shutdown	Adjustable from 130V to 150V	Adjustable from 130V to 150V	N/A
Maximum Applied Surge Voltage	6000 Volts*	6000 Volts*	6000 Volts*
Maximum Applied Surge Current	Unlimited, due to current limiting*	Unlimited, due to current limiting*	Unlimited, due to current limiting*
Maximum Applied Surge Energy	Unlimited, due to current limiting*	Unlimited, due to current limiting*	Unlimited, due to current limiting*
Endurance (C62.41-1991 Category B3 pulses)	1 kV>500,000; 3 kV>10,000; 6 kV>1000	1 kV>500,000; 3 kV>10,000; 6 kV>1000	1 kV>500,000; 3 kV>10,000; 6 kV>1000
Control Inputs	Momentary Switch, Latching Switch, Contact Closure or 5-30 Vdc	Momentary Switch, Latching Switch, Contact Closure or 5-30 Vdc	N/A
Input Control Current	3 mA	3 mA	N/A
DC Voltage Output	12 Vdc, 40 mA maximum load	12 Vdc, 40 mA maximum load	N/A
Auxiliary Relay Contact Rating	30V DC at 1A	30V DC at 1A	N/A
Contact Closure Max Resistance	40 mA	40 mA	N/A
12V DC Output Max Current	100 Ω	100 Ω	N/A
Delay Times	1 – 40 seconds in 1 second increments	1 – 40 seconds in 1 second increments	N/A
Dimensions	3.5" H x 19.0" W x 10.5" D (8.9 x 48.3 x 26.7 cm)	1.75" H x 19.0" W x 12.25" D (4.4 x 48.3 x 31.0 cm)	3.5" H x 19.0" W x 10.5" D (8.9 x 48.3 x 26.7 cm)
Weight	16 lbs (7.3 kg)	13 lbs (5.9 kg)	16 lbs (7.3 kg)
Temperature Range	5° to 35° C	5° to 35° C	5° to 35° C
Humidity Range	5% to 95% R.H., non-condensing.	5% to 95% R.H., non-condensing.	5% to 95% R.H., non-condensing.
Agency Listings	UL 1449 3rd Edition UL 1283 5th Edition CSA C22.2 No.8-M1986 (R2008)	UL 1449 3rd Edition (Pending) UL 1283 5th Edition (Pending) CSA C22.2 No.8-M1986 (R2008) (Pending)	UL 1449 3rd Edition UL 1283 5th Edition CSA C22.2 No.8-M1986 (R2008)

*1.2 x 50 μs pulse, industry standard combination wave surge, as per IEEE C62.41

CAUTION: Do not install this device if there is not at least 10 meters (30 feet) or more between the electrical outlet and the electrical service panel.