

DESCRIPTION:

Model ACSPR-SEQ6-2009 power distribution panel with advanced surge protection, sequencer and RPC trigger features nine 15A NEMA outlets. The eight rear outlets include both switched outlets (controlled by switch) and unswitched outlets (always on); the front convenience outlet is unswitched. All outlets are clearly marked to assist the integrator in making proper connections.

The sequencer is initiated by the switch and begins a delayed start up (or shut down) of the switched outlets (steps one through four) and any RPC units connected to the rear output terminal block (steps five and six). The panel is also remote controllable; it can be activated and deactivated by a remote switch or alarm system that's connected to the plug-in terminal blocks.

Advanced Surge Protection provides three layers of protection for equipment on a single circuit. When fully active, triple clamping redundant (TCR™) technology protects against power surges up to 72,000A.

FEATURES:

- **Outlets:** Total of nine NEMA outlets, which are either switched (controlled by switch) or unswitched (always on).
 - Front Outlet: NEMA 5-15R (1 unswitched single)
 - Rear Outlets: NEMA 5-15R (2 unswitched single, 2 switched single, 2 switched duplex)
- **Activation & Sequencing:** Front rocker switch with momentary contacts (normally open SPST) plus rear termination blocks for momentary (normally open) remote switches. Switch initializes a four-step delayed start up sequence, activating the switched outlets. A green LED flashes while the unit is powering up and holds steady when the cycle is complete. The switch also initializes the four-step delayed shut down sequence, deactivating the switched outlets in reverse order. A red LED flashes while the unit is powering down and holds steady when the cycle is complete. Delay between steps can be adjusted with a screwdriver (0.5–10 seconds).

- **Connections for External Controls:** Plug-in terminal block inputs in the rear of the panel allow external controls to activate and deactivate the panel's switched outlets. The terminal block output allows this panel to control remote RPC units.

- **Left Terminal Block—input from Alarm System:** Lock On, Lock Off, and Switch Lock for alarm system or master control panel.
- **Center Terminal Block—output to Remote Power Control (RPC):** External RPC Series devices can be controlled when connected to the center terminal block. The connected RPCs would activate/deactivate as Steps 5 and 6.
- **Right Terminal Block—input from Remote Switch:** Connect a remote switch with momentary closure.

- **Advanced Surge Protection:** Three stage protection features TCR surge suppression technology, providing the assurance of Grade A, Class 1, Mode 1 endurance and performance with visual diagnostic LEDs (see "Surge Suppression & A11" paper at lowellmfg.com). A green LED for each stage indicates online status. Should a stage go offline (or fail to light), the remaining stages still provide protection at their same clamping and surge levels. *In that unlikely event the original purchaser should contact Lowell for repair or replacement under Lowell's TCR technology 10 year warranty.*

- Maximum surge current: 72,000A (exceeds UL1449-4 6000V, 3000A)
- Initial clamping voltage: 205V, UL rating 400V
- Endurance: IEEE C62.41-1991, B3 (C1), Pulses (lifetime): 1kv≥1,000,000; 3kv≥100,000; 6kv≥5,000
- Transient noise reduction: 25dB@100kHz; 50dB@1MHz
- Response time: Less than 5 nanoseconds
- Protection mode: Line to neutral, zero ground leakage
- UL1449-2 adjunct results: 1000 surges, 6000 volts, 3000A, C1 and B3 waveforms (IEEE C62.41), No failures



- **Diagnostic LEDs:** One green LED for each stage. All stages active when all lit.
- **Applicable standards:** Conforms to UL1449-4, IEEE standard 587-80 A & B, IEEE standard C62.41-1991, IEC 1000-4-5-1995 (IEC 801-5).
- **EMI/RFI filter:** 19dB@500kHz, 42dB@30MHz
- **Power Rating:** 120VAC, 60Hz, 20A, 2400W. Each outlet is rated 15A.
- **Circuit Breaker Protection:** 20A circuit breaker
- **Power Cord:** Attached 9-ft. cord with NEMA 5-20P plug
- **Chassis:** Steel 1U chassis with black powder epoxy finish. 19"W x 9"D x 1.75"H, 11 lbs.
- **Certification:** ETL Listed in US/Canada (UL60065)
- **Country of Origin:** Made in the U.S.A. with global components

A&E SPECIFICATIONS:

The rackmount power distribution panel with advanced surge protection, sequencing, and remote power control circuitry shall be Lowell Model ACSPR-SEQ6-2009. It shall feature a total of nine NEMA 5-15R outlets including six switched and three unswitched (always on). A rocker switch in the front shall sequentially activate switched outlets in four steps, plus any remote power control devices connected to the rear terminal block as steps five and six (RPC Series, ordered separately). When pressed again, the switch shall deactivate devices and outlets in reverse order. Delay between steps shall be screwdriver adjustable (0.5 to 10 seconds). The panel shall include three stage surge protection to protect against power surges up to 72,000A. Multiple LEDs on the front panel shall provide information on power, sequencing and surge protection status. Power rating shall be 120VAC, 60Hz, 20A with EMI/RFI filtering. Individual outlets shall be rated 15A. The panel shall have a 20A system circuit breaker. The 19"W x 9"D x 1.75"H (1U) steel chassis shall have a black powder epoxy finish. Termination shall be via an attached 9 ft. cord with NEMA 5-20P plug.

OPTIONS: (order separately)

- Lowell momentary closure switches:

<i>Model</i>	<i>Description</i>	<i>Model</i>	<i>Description</i>
RPSW-MP	1 LED rocker switch, white wall plate	RPSW2-MP	2 LED rocker switch, white wall plate
RPSB-MP	1 LED rocker switch, black wall plate	RPSB2-MP	2 LED rocker switch, black wall plate
RPSB-MR	1 LED rocker switch, 19" panel	RPSB2-MR	2 LED rocker switch, 19" panel
RPSW-MKP	1 LED key switch, white wall plate	RPSW2-MKP	2 LED key switch, white wall plate
RPSB-MKP	1 LED key switch, black wall plate	RPSB2-MKP	2 LED key switch, black wall plate
RPSB-MKR	1 LED key switch, 19" panel	RPSB2-MKR	2 LED key switch, 19" panel

- Compatible RPC Series remote power controls (classic connections):

<i>Model Number</i>	<i>Description</i>
RPC-15	RPC with (2) 15A NEMA outlets
RPC-15-S	RPC with (2) 15A NEMA outlets, surge suppression
RPC-20-CD	RPC with (2) 20A NEMA outlets
RPC-20-SCD	RPC with (2) 20A NEMA outlets, surge suppression
RPC-3N1	RPC with (8) 15A NEMA outlets
RPC-20-HW	RPC with (2) 20A NEMA outlets, hardwired
RPC-20-SHW	RPC with (2) 20A NEMA outlets, surge suppression, hardwired

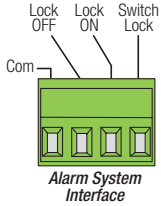


WIRING: Since switch functions are handled by low-voltage, low-current DC signals, almost any type of wire will work (CAT5, mic line, intercom wire, speaker wire, or phone wire). Shielding is not required but can be used.

Maximum wire distance: 24 ga.=20,000 ft., 22 ga.=31,200 ft., 18 ga.=76,800 ft.

CONNECTIONS for EXTERNAL CONTROLS: Plug-in terminal block inputs allow external controls to activate and deactivate switched outlets. The terminal block output allows this panel to control remote RPC units.

• **LEFT TERMINAL BLOCK – Input from Alarm System (or Master Control Panel):**

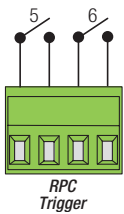


If required by local building code, facility usage, or the Fire Marshal, system switches can be overridden and the system controlled by contact closures provided by the fire alarm panel or another similarly installed device. A maintained contact between the 'Com' terminal and any of the terminals shown will provide the following functions. **CAUTION:** Do not allow alarm system to make more than one of the contacts described below at the same time—it could cause controller board damage

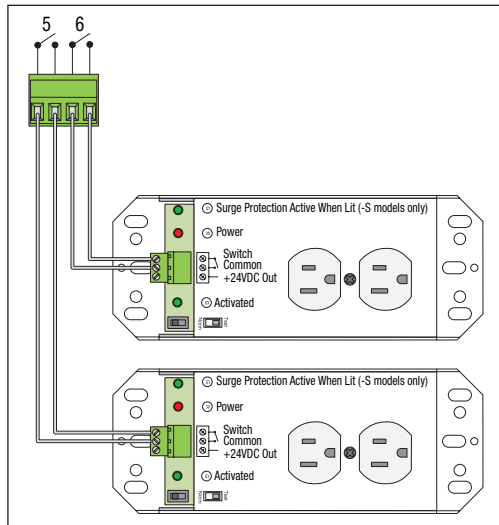
Note: When Alarm System contacts are removed, the unit will revert to its previous state, either ON or OFF.

- **Lock OFF:** A maintained contact between the 'Com' terminal and the 'Lock Off' terminal will turn the system off and keep it off regardless of other switch activations. If the system is already off, it will be kept off.
- **Lock ON:** A maintained contact between the 'Com' terminal and the 'Lock On' terminal will turn the system on and keep it on regardless of other switch activations. If the system is already on, it will be kept on.
- **Switch Lock:** A maintained contact between the 'Com' terminal and the 'Switch Lock' terminal will lock the system in its current state, either on or off, regardless of any other switch activations.

• **CENTER TERMINAL BLOCK – Output to Remote Power Controls (RPC):**

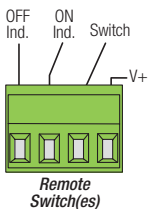


Connect Remote Power Controls (RPCs) to Output 5 and Output 6 in the center terminal block. The maximum number of RPC units that can be connected is 60 for each output, depending on limits of the electrical panel. **NOTE** Use RPC Series devices with classic connections. DO NOT use RPC-P Series with pass-through connections.

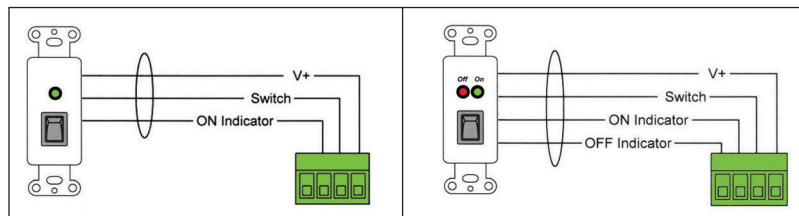


Wiring to remote power controls (RPC Series with classic connections)

• **RIGHT TERMINAL BLOCK – Input from Remote Switch:**



Connect remotely located momentary closure switch(es). Up to five switches can be utilized.



Wiring to momentary switch w/1 LED requires 3 conductors

Wiring to momentary switch w/2 LEDs requires 4 conductors



ACSPR Series (Power Distribution Panels with Advanced Surge Protection)

Model No.	Power Rating	Front Outlets	Rear Outlets	Panel Switch	Total Outlets Controlled by Switch	Time Delay	Advanced Surge Suppression	Over/Under Voltage Protection	Input from Remote Switch	Input from External Trigger	Input from Alarm System	Output to Remote Control	Power Input	Country of Origin
ACSPR-1509	15A	1 (15A)	8 (15A)	rocker	5	---	TCR	---	---	---	---	---	9' cord	USA
ACSPR-1509-VTE	15A	1 (15A)	8 (15A)	rocker	5	---	TCR	VTE	---	---	---	---	9' cord	USA
ACSPR-2009	20A	1 (15A)	8 (15A/20A)	rocker	5	---	TCR	---	---	---	---	---	9' cord	USA
ACSPR-2009-VTE	20A	1 (15A)	8 (15A/20A)	rocker	5	---	TCR	VTE	---	---	---	---	9' cord	USA
ACSPR-SEQ4-1509	15A	1 (15A)	8 (15A)	rocker	6	SEQ	TCR	---	yes	---	yes	---	9' cord	USA
ACSPR-SEQ4-1509K	15A	1 (15A)	8 (15A)	key	6	SEQ	TCR	---	yes	---	yes	---	9' cord	USA
ACSPR-SEQ6-2009	20A	1 (15A)	8 (15A)	rocker	6	SEQ	TCR	---	yes	yes	yes	yes	9' cord	USA
ACSPR-RPC1-1509	15A	1 (15A)	8 (15A)	rocker	6	---	TCR	VTE	yes	yes	yes	---	9' cord	USA
ACSPR-RPC1-1509K	15A	1 (15A)	8 (15A)	key	6	---	TCR	VTE	yes	yes	yes	---	9' cord	USA
ACSPR-RPC1-2009	20A	1 (15A)	8 (15A/20A)	rocker	6	---	TCR	VTE	yes	yes	yes	---	9' cord	USA

This spec

SEQ = Panel includes sequencing to activate/deactivate switched outlets with a time delay between steps (adjustable).

TCR = Panel includes triple clamping redundancy (three stage surge protection).

VTE = Panel includes voltage tolerance envelope (over/under voltage protection) for automatic shutdown when voltage outside parameters is detected. Includes auto restart.

Input from Remote Switch = Panel can be controlled by an external switch, typically placed in a remote location (order RPS Series switch separately).

Input from External Trigger = Panel can be controlled by external trigger voltage (separate control system by others, not included).

Input from Alarm System = Panel can accept control override from an alarm system (alarm by others, not included).

Output to Remote Control = Panel can activate/deactivate remote equipment (order RPC Series remote power controls separately).

Power Input = Power cord is attached (not removable).

Note: For power distribution panels without Advanced Surge Protection, see Lowell's ACR Series. See individual product spec sheets for more information.

