

DESCRIPTION:

Model ACSPR-RPC1-2009 power distribution panel with advanced surge protection and line voltage monitor features nine 15A NEMA outlets. 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 panel is also remote controllable; it can be activated and deactivated by a remote switch, external trigger voltage, alarm system or sequencer that's connected to the plug-in terminal blocks in the rear.

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

The Voltage Tolerance Envelope (VTE) monitors AC line voltage and turns power to outlets off when line voltage exceeds 140V or drops below 100V. Auto reset restores power when acceptable line voltage is detected. *Note: In a power outage shutdown event, the switched outlets in this panel will remain off until reactivated.*

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:** Front rocker switch with momentary contacts (normally open SPST) plus rear termination blocks for momentary (normally open) remote switches and DSP timed events.
- **Power Rating:** 120VAC, 60Hz, 20A, 1800W (Each outlet has 15A rating.)
- **Circuit Breaker Protection:** 20A breaker

- **Connections for External Controls:** Plug-in terminal blocks in the rear of the panel allow external controls to activate and deactivate switched outlets.

- **Left Terminal Block—input from Remote Switch:** Connect switch with momentary closure.
- **Center Terminal Block—input from External Trigger Voltage:** Connect maintained trigger voltage (12-24V, AC or DC, 5mA) from a separate control system (by others).
- **Right Terminal Block—input from Alarm System or Sequencer:** Integral override facilitates use in life safety applications where fire code mandates an alarm interface. Lock On, Lock Off, and Switch Lock for alarm system or master control panel applications. When not used as an alarm interface, an external sequencer featuring maintained closure switch can be connected.

- **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 the 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

- **Voltage Tolerance Envelope**: Also known as over/under voltage protection, the VTE monitors AC line voltage and turns power off when line voltage exceeds 140V or drops below 100V. Auto reset restores power when acceptable line voltage is detected. *Note: In a power outage shutdown event, the switched outlets in this panel will remain off until reactivated.*

Color-coded LEDs show system status:

Green = voltage normal 110V–130V

Yellow = voltage caution 105V or 135V

Red = voltage shutdown <100V or >140V

- **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 remote controllable rackmount power distribution panel with advanced surge protection, line voltage monitor and rocker switch shall be Lowell Model ACSPR-RPC1-2009. It shall feature a total of nine NEMA 5-15R outlets including six switched and three unswitched (always on). 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 and surge protection status. Power rating shall be 120VAC, 60Hz, 20A with EMI/RFI filtering (each outlet has 15A rating). The panel shall have a 20A system circuit breaker with reset button. Plug-in terminal blocks in the rear shall allow control connections from a remote switch, external trigger voltage, or alarm interface. 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

- Lowell sequencers:

<i>Series</i>	<i>Description</i>
SEQ Series	Standalone sequencer (classic connections)
SEQR Series	Rackmount sequencer (classic connections)

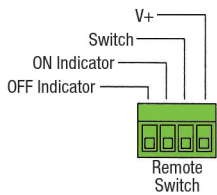


WIRING: Since switch functions are handled by low-voltage, low-current DC signals, almost any type of wire will work (CAT5, mic line, intercom wire, speaker wire, or phone wire). Shielding is not required but can be used.

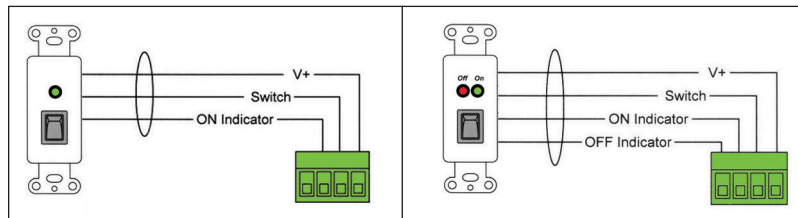
Maximum wire distance: 24 ga.=20,000 ft., 22 ga.=31,200 ft., 18 ga.=76,800 ft.

CONNECTIONS for EXTERNAL CONTROLS: Plug-in terminal blocks in the rear of the panel allow external controls to activate and deactivate switched outlets.

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



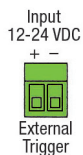
Connect remotely located momentary closure switch(es). Up to five switches can be utilized.



Wiring to momentary switch w/1 LED requires 3 conductors

Wiring to momentary switch w/2 LEDs requires 4 conductors

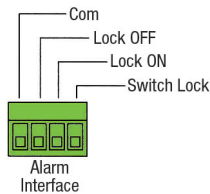
• **CENTER TERMINAL BLOCK – Input from External Trigger Voltage:**



Power to switched outlets can be activated and deactivated by an external trigger that provides maintained trigger voltage from a separate control system (by others). Input 12–24VDC.

Note: Utilizing this control method does not disable the latching function of the front panel switch. If the unit is to be controlled exclusively by external trigger voltage, remove the cover and disable the front panel switch by unplugging the two-conductor ribbon cable. This will prevent an inadvertent "push" of the front panel switch, preventing it from keeping the unit on after the trigger voltage is removed.

• **RIGHT TERMINAL BLOCK – Input from Alarm System or Sequencer (or maintained closure switch):**



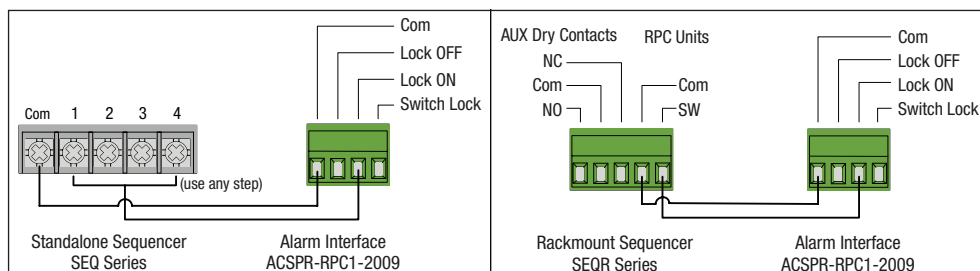
ALARM SYSTEM: If required by local building code, facility usage, or the Fire Marshal; system switches can be overridden and the system controlled by contact closures provided by the fire alarm panel or another similarly installed device. A maintained contact between the 'Com' terminal and any of the 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

- **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.

NOTE: Switch Lock function is overridden by External Trigger Voltage.

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

SEQUENCER (or maintained closure switch): When not used as an alarm interface, an external sequencer that features maintained closure (or other maintained closure switch) can be connected. Connect sequencer output or maintained closure switch to "Com" and "Lock ON" terminals.



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.

