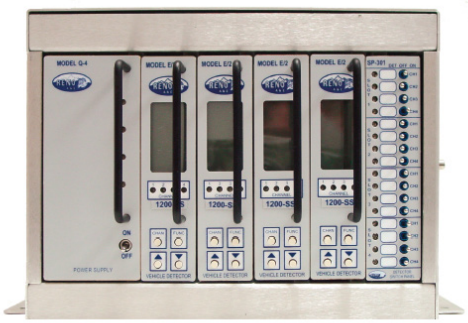
SP - 301

Detector Switch Panel

- **Designed for use in the Reno A&E Model M-6D detector rack.**
- **Conditions the call outputs of up to four (4), four channel detectors.**
- **Each channel has a super-bright LED to indicate a call output to the controller.**
- **Each channel has a three-position toggle switch that can be used to set the output of the channel to one of three states:**
  - **DET - Normal Operation**
  - **OFF - Channel Off**
  - **ON - Continous Call state**



Reno A&E **M-6D** Detector Card Rack with an **SP-301**

The Model SP-301 Detector Switch Panel has been specifically designed for use in the Reno A&E Model M-6D detector card rack. When installed in a properly configured rack, the SP-301 conditions the Call outputs of up to four (4), four channel detectors before the detector outputs reach the controller. The SP-301 can be used to replace a detector switch panel normally found on a cabinet door. It takes up less space than a conventionally located detector switch panel and allows easy monitoring of the detectors while they are being tested. The three settings (ON, OFF, and DET) allow a technician to check the status of the detectors in a cabinet at the rack containing the detectors.

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SP-301 Specifications

This is a Performance Specification. It not intended to be used as Operating Instructions.

General Description: The SP-301 detector switch panel is designed to be used in conjunction with a Reno A&E Model Q-4 power supply and four (4) Reno A&E Model E/2-1200 half width, four channel detectors. The six components are designed to function in conjunction with each other and must be installed in a Reno A&E Model M-6D detector card rack.

Front Panel Toggle Switches: The SP-301 has an individual three-position toggle switch for each of the 16 call outputs as assigned by the M-6D detector rack. The three switch positions, labeled DET, OFF, and ON, affect the detector channel outputs as follows:

DET - Setting the toggle switch to the DET position sends the detector's call output to the controller. The LED indicator opposite the switch illuminates when the detector outputs a call. The DET position of the toggle switch is the correct setting for normal operation.

OFF - Setting the toggle switch to the OFF position has the effect of disconnecting the detector's call output from the controller. No signal from the detector will reach the controller. The LED indicator will not illuminate under any condition.

ON - Setting the toggle switch to the ON position has the effect of simulating a continuous call output to the controller. The signal will reach the controller as long as the switch remains in the ON position. The LED indicator will be illuminated continuously as long as the switch remains in the ON position. (See Front Panel Toggle Switch Settings table.)

Card Rack Connector: The card rack connector on back of the SP-301 is a 64-pin, male, DIN 41612 type B series. The connector is centered at the edge of the circuit board and oriented with Pin 1 located on top. The circuit board edges align with the connector per DIN 41612. (See Pin Assignments, Card Rack Connector table.)

Power: 9 to 28.8 VDC, 95 milliamps maximum.

Ruggedized Construction: The printed circuit board is 0.062 inch thick FR4 material with 2 oz. copper on both sides and plated through holes. Circuit board components are conformal coated with polyurethane.

Operating Temperature: -40° F to +180° F (-40° C to +82° C).

Size: 4.50 inches (11.43 cm) high x 1.12 inches (2.84 cm) wide x 6.88 inches (17.46 cm) deep (including connector, excluding toggle switches). Toggle switches add 0.22 inches (.56 cm.) to depth measurement.

Weight: 5.4 oz. (153 gm).

Front Panel Toggle Switch Settings

Switch Setting	Signal to Controller	LED Indication
DET	Standard Detector to Controller Signal	On when Detector Channel is in Call State
		Off when Detector Channel is not in Call State
OFF	None	Off
ON	Continuous Call	Constantly On

Card Rack Connector

APIN	Function	PIN	Function
A1	+24 VDC	B1	+24 VDC
A2	N/A	B2	N/A
A3	N/A	B3	N/A
A4	Slot 1, Ch 1 OUT	B4	Slot 1, Ch 2 OUT
A5	Slot 1, Ch 3 OUT	B5	Slot 1, Ch 4 OUT
A6	Slot 2, Ch 1 OUT	B6	Slot 2, Ch 2 OUT
A7	Slot 2, Ch 3 OUT	B7	Slot 2, Ch 4 OUT
A8	Slot 3, Ch 1 OUT	B8	Slot 3, Ch 2 OUT
A9	Slot 3, Ch 3 OUT	B9	Slot 3, Ch 4 OUT
A10	Slot 1, Ch 2 IN	B10	Slot 1, Ch 1 IN
A11	Slot 1, Ch 4 IN	B11	Slot 1, Ch 3 IN
A12	Slot 2, Ch 2 IN	B12	Slot 2, Ch 1 IN
A13	Slot 2, Ch 4 IN	B13	Slot 2, Ch 3 IN
A14	Slot 3, Ch 2 IN	B14	Slot 3, Ch 1 IN
A15	Slot 3, Ch 4 IN	B15	Slot 3, Ch 3 IN
A16	Slot 4, Ch 2 IN	B16	Slot 4, Ch 1 IN
A17	Slot 4, Ch 4 IN	B17	N/A
A18	N/A	B18	N/A
A19	N/A	B19	N/A
A20	N/A	B20	N/A
A21	N/A	B21	N/A
A22	N/A	B22	N/A
A23	N/A	B23	N/A
A24	N/A	B24	N/A
A25	N/A	B25	Slot 3, Ch 4 OUT
A26	Slot 4, Ch 1 OUT	B26	Slot 4, Ch 2 OUT
A27	Slot 4, Ch 3 OUT	B27	Slot 4, Ch 4 OUT
A28	N/A	B28	N/A
A29	N/A	B29	N/A
A30	N/A	B30	N/A
A31	Earth Ground	B31	N/A
A32	Logic Ground	B32	Logic Ground

Notes: The IN designations of the pin functions indicate inputs from the detector to the SP-300. The OUT designations of the pin functions indicate outputs from the SP-300 to the controller.