



## **In-Console Pushbutton Panels**

(Requires processor board CRS-8RJ with RJ-45 connections)

Some Studio Panels can be mounted and used inside of Rubicon and SL consoles. Pushbutton selection, delay control, talkback/IFB and intercom functions can all be mounted inside of a console. Most types (except intercom) can be wired directly to the console data bus and programmed from the console programming screens. These panels must have a processor board made after mid 2007, the CRS-8RJ, which is 24 VDC compatible. Intercom panels require a different data port type and must be wired to a separate port by bringing the wiring outside of the console on a separate connector. [Prior to mid 2007 all studio panels required only 12 VDC and were wired outside of the console.]

In a console, modules are connected with four module slots per RS-485 port. When connecting a button panel inside a console the panel must be addressed to respond at the correct slot address. Dip switch selections are shown below, and A0 corresponding to the 1st slot in a group of 4 and A3 corresponding to the 4<sup>th</sup> slot in a group of 4. (e.g. console slot 6 is the 2<sup>nd</sup> slot in the group 5 to 8). Panels located at positions A1 thru A3 (2<sup>nd</sup> thru 4<sup>th</sup>) of any group of 4 will function properly with all RCS versions. To locate a panel at A0 of any group requires RCS software 3.07 or later.

Cables and adapters are available from SAS for Rubicon or RubiconSL consoles. When the module is connected you should see the Green indicator at the correct address on the Port Status screen of the RCS Router Control Software. Carefully check the dip switches for proper settings if you see any flickering or do not see the indicator where you expect it.

From the RCS Router Control Software, click on the Port/Address where the panel is connected. The software will pop up a window to allow button programming. Click on each button and program as required. After programming make sure to Send the slot config.



Below is the pin out for CRS-8RJ processor board:

**9-PIN D (J3) DESCRIPTION**

- 1 Power ground
- 2 Power ground
- 3 Power In +12 to +24 VDC
- 4 RS-485+ (Primary)
- 5 RS-485- (Primary)
- 6 Panel Address Bit 0
- 7 Panel Address Bit 1
- 8 Panel Address Bit 3
- 9 Panel Address Bit 2

**RJ-45 (J1 & J2) DESCRIPTION**

- 1 RS-485+ (Primary)
- 2 RS-485- (Primary)
- 3 Power ground
- 4 Power (See Note 2)
- 5 Power (See Note 2)
- 6 Power ground
- 7 RS-485+ (Auxiliary)
- 8 RS-485- (Auxiliary)

Note 1: Apply DC Power In using ONLY ONE of J1, J2, or J3. Other connectors can be used to connect power to additional modules.

Note 2: J1 (J2)-pins 4 & 5 are connected to DS1-Switch 7 (8).

Switch 7 (8) must be ON for J1 (J2)-pins 4 & 5 to be connected to Power In.

If Switch 7 (8) is OFF, J1 (J2)-pins 4 & 5 are isolated from Power In.

See Switch (DS1) description below.

**SWITCH (DS1) DESCRIPTION**

Panel Address Bits 0,1,2,3,4,5 respectively	
1,2,3,4,5,6 = OFF,OFF,OFF,OFF,OFF,OFF:	Address = A0
1,2,3,4,5,6 = ON,OFF,OFF,OFF,OFF,OFF:	Address = A1
1,2,3,4,5,6 = OFF,ON,OFF,OFF,OFF,OFF:	Address = A2
1,2,3,4,5,6 = ON,ON,OFF,OFF,OFF,OFF:	Address = A3

7 If ON, connects J1-pins 4 & 5 to Incoming Power (+12 to 24 VDC).

8 If ON, connects J2-pins 4 & 5 to Incoming Power (+12 to 24 VDC).

**JUMPER (J5) DO NOT USE**

Placing a jumper on J5 connects incoming power (+12 to 24 VDC) to J4-pin 4 to provide off-board Auxiliary Power.