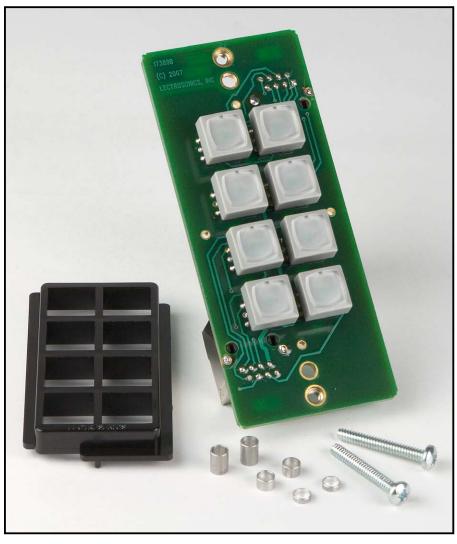


## **Pushbutton Remote Control for DM & ASPEN Series Processors**

#### **INSTALLATION GUIDE**



Extensive remote control functions for ASPEN & DM Series processors can be implemented easily and inexpensively with the RCWPB8 switch panel. LEDs built into each switch indicate various functions and states at a glance.

Typical control functions include recalling presets to configure the sound system for particular purposes, muting and enabling sound masking, level controls of single or groups of inputs or outputs, signal routing changes and numerous other custom functions created using macros in the processor.

Standard RJ-45 connectors allow a convenient interface to the processor logic ports using CAT-5 cabling. The optional DB2CAT5 adapter provides a convenient, pre-wired interface between the control and processor.

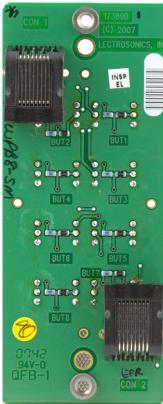
The RCWPB8 is sold in a kit with mounting hardware and an adapter to fit a standard Decora\* switchplate. Conduit box and Decora switchplate not included.

\*Decora is a registered trademark of Leviton Manufacturing Co., Inc.

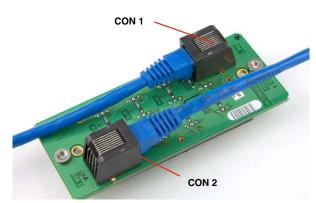
- Versatile remote control for ASPEN & DM Series processors through the logic I/O ports
- Switch contacts can be used to recall presets, launch macros or control levels
- Upper six LEDs under control of logic out connections on DM processor
- Lower two LEDs light with button press
- Fits standard conduit switchbox and Decora cover plates
- Optional CAT-5 to DB-25 adapter simplifies installation







Actual size



Standard CAT-5 connections on the back of the PCB

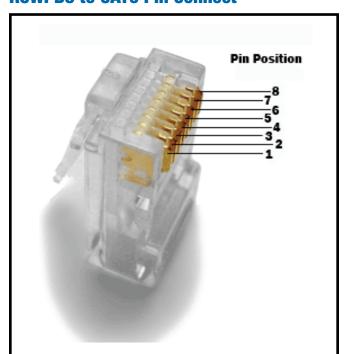
Eight buttons are wired to RJ-45 jacks on the rear panel for control connections with the DM processor. The upper six LEDs are controlled by the processor logic outputs, commonly used for "latching" configuration and function changes such as triggering macro sequences, preset recall or sound masking. When a function is engaged, the LED will remain lit to indicate the present state.

The bottom two LEDs simply light while the button is being pressed, which is useful for volume UP and DOWN controls.

#### **IMPORTANT**

The RCWPB8 control was designed for direct connection to a DM Series processor only. Connection to any other voltage source may permanently damage the unit, which will not be covered under the warranty.

#### **RCWPB8 to CAT5 Pin Connect**



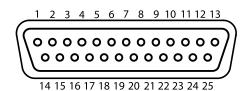
#### Conn 1

Function	CAT5 Pin
BTN 2	1
LED 2	2
BTN 3	3
LED 1	4
BTN 1	5
LED 3	6
BTN 4	7
LED 4	8

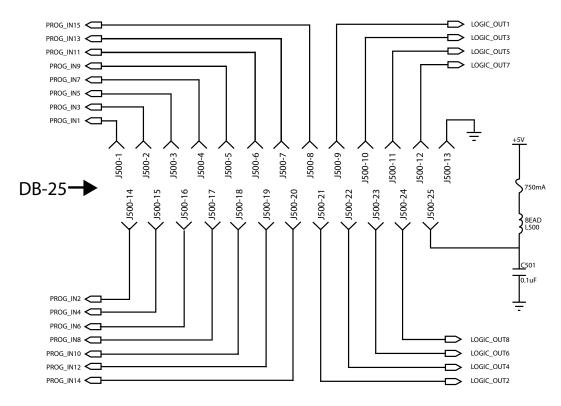
#### Conn 2

Function	CAT5 Pin
BTN 6	1
LED 6	2
BTN 7	3
LED 5	4
BTN 5	5
BTN 8	6
+5V DC	7
GRD	8

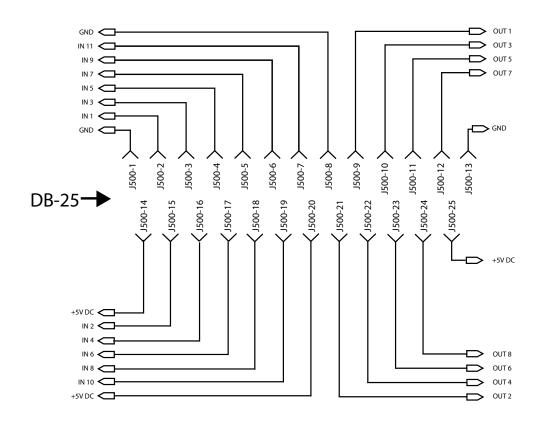
## **DM Programmable I/O Connector**



#### **ASPEN Pin-Outs**



#### **DM Pin-Outs**



## **Optional DB2CAT5 Adapter (For DM Series Only)**

A convenient adapter provides pre-wired connections between the DM processor logic ports and the pushbutton remote control to save installation time and complexity.

A DB-25 female connector and two RJ-45 connectors are mounted on a circuit board with pin to pin wiring in a logical configuration.



The wiring follows a pattern where button 1 is connected to logic input 1, LED 1 is connected to logic output 1 and so on, and so on. Buttons and LEDs 7 and 8 are combined so that the LED lights while the button is pressed.



Logic inputs and outputs are combined on the DB-25 connector and are wired to the buttons and LEDs as shown here.

#### **DB2CAT5 Pin-Outs**

RCWPB8 Function	DM Logic Inputs & Outputs
BTN 1	IN 1
BTN 2	IN 2
BTN 3	IN 3
BTN 4	IN 4
BTN 5	IN 5
BTN 6	IN 6
BTN 7	IN 7
BTN 8	IN 8
LED 1	OUT 1
LED 2	OUT 2
LED 3	OUT 3
LED 4	OUT 4
LED 5	OUT 5
LED 6	OUT 6

## **Optional DB2CAT5SPN Adapter (For ASPEN Series Only)**

A convenient adapter provides pre-wired connections between the DM processor logic ports and the pushbutton remote control to save installation time and complexity.

A DB-25 female connector and two RJ-45 connectors are mounted on a circuit board with pin to pin wiring in a logical configuration.



The wiring follows a pattern where button 1 is connected to logic input 1, LED 1 is connected to logic output 1 and so on, and so on. Buttons and LEDs 7 and 8 are combined so that the LED lights while the button is pressed.



Logic inputs and outputs are combined on the DB-25 connector and are wired to the buttons and LEDs as shown here.

#### **DB2CAT5 Pin-Outs**

RCWPB8 Function	DM Logic Inputs & Outputs
BTN 1	IN 1
BTN 2	IN 2
BTN 3	IN 3
BTN 4	IN 4
BTN 5	IN 5
BTN 6	IN 6
BTN 7	IN 7
BTN 8	IN 8
LED 1	OUT 1
LED 2	OUT 2
LED 3	OUT 3
LED 4	OUT 4
LED 5	OUT 5
LED 6	OUT 6

# **Requires a Switch Box for Installation**

Make sure the installation is using an electrical conduit Switch Box. The RCWPB8 remote control assembly requires a conduit Switch Box for installation. It will not fit into a Device Box.



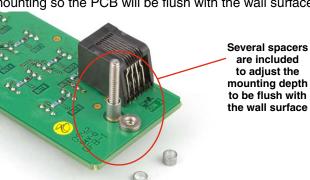


Example of two RCWPB8 controls mounted in a dual conduit switchbox with Decora\* cover.

The molded adapter included with the control assembly surrounds the buttons and fits the opening in standard Decora\* switchplates. Lay the adapter over the buttons and then install the switchplate.



Mounting holes in the the circuit board assembly align with the threaded sockets in the switch box. Several different spacers are included to adjust the depth of the mounting so the PCB will be flush with the wall surface.





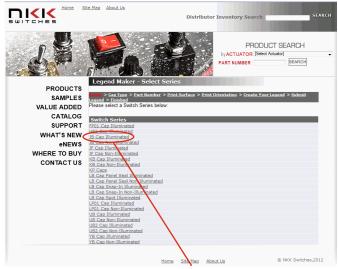
The adapter provides a finished trim around the buttons for the final installation.

### **NKK Switch Labeling**

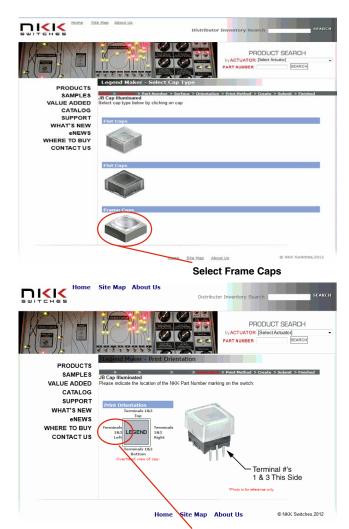
Custom engraved or screened switch caps can be specified and ordered on the NKK web site. Click on this link or enter the url in your browser:

www.nkkswitches.com/legendmaker1.aspx

Select the switch Series: JB Cap Illuminated then select Frame Caps. Be sure to select terminals 1 and 3 on the left side for proper orientation in the assembly. Select your printing options if any and then place your order.



Select JB Cap Illuminated



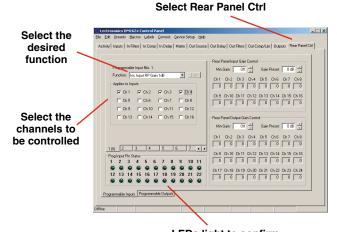
Select pins 1 and 3 on the left side

## **Programming is Simple**

Programming the button functions is as simple as a few mouse clicks in the processor GUI. In the example at right, A DM1624 is being configured for Logic input 1 (button 1 using the DB2CAT5 adapter) to increase the gain in 1 dB steps on inputs 1 through 4. This is done by simply selecting the function from a pull down list and the input channels to be affected. Settings are then stored to a preset in the processor with a mouse click and selection of the desired preset.

The buttons illuminate under the control of the DM & AS-PEN processor logic outputs with a few mouse clicks on another screen in the GUI.

There is no code to write, and complex functions can be implemented using the macro capabilities built into the DM & ASPEN Series processors.



LEDs light to confirm activity when a DM processor is connected

