

PNET Control Output

Quick Start Guide

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Complete details can be found in the full length Layout Lighting Users Manual. You may download it from the PRICOM web site at www.pricom.com.

1 Quick Start

The PNET Control Output board is a versatile way to bring small load control outputs from the PNET World. This manual will get you going as quick as possible. Here are the basic steps to using your new PNET board.

1. Unpack the PNET Control Output.
2. Connect the Optional External Power Input.
3. Connect the Control Output Loads.
4. Set the DIP Switches.
5. Connect the PNET cable.
6. Test your new Control Outputs.

2 Power Input (Optional)

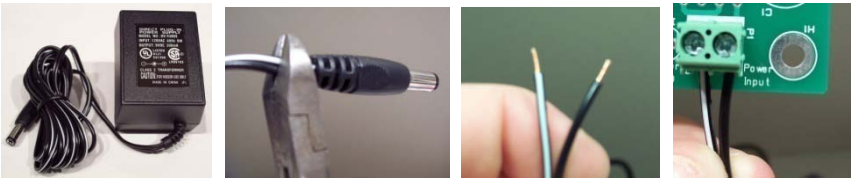


Figure 1 - Power Connection

The PNET Control Output board does not require external power input if driving small loads such as LED's, you can simply use power from the PNET. In this case, you can use the convenient 5V on the Control Output Terminal Strip. The Power Input Terminal Strip does NOT connect to the Control Outputs, this is only provided to power the logic portion of the board when no PNET power is available. Any DC voltage from 9V to 24V can be used, but 12V is typical. When using an external power source, it is blocked from entering the PNET bus. If your desired power-supply comes with a connector on the end, simply clip it off, and strip it as shown above. Secure the stripped wire ends to the 2 terminals of the Power Input terminal strip. Terminal-1 is the GND, and Terminal-2 is the positive. A protection diode prevents any damage due to reversed polarity.

3 Connecting Control Output Loads

The Control Outputs are driven LOW (or SINK), so no voltage will appear from any of the Control Outputs. As a convenience to your wiring, you may use the 5V power supplied on the Control Output Terminal Strip, but keep this limited to LED's as excessive loading will cause problems. See the complete User Manual or our web site for examples of connecting various devices to the Control Outputs. See Figure 2 for the Control Output terminal strip pinout.



Terminal	Name	Description
1	GND	Convenience power supply ground
2	Output-1	Control Output #1
3	Output-2	Control Output #2
4	Output-3	Control Output #3
5	Output-4	Control Output #4
6	Clamp	Common Clamp Diode Connection
7	5V	Convenience power supply (5VDC)

Figure 2 – Control Output Terminal Strip Pinout (P6)

4 Set the DIP Switches

Operating modes are set using the on-board DIP Switch. The most important setting is the “slot number”. The slots are numbered from 0-15, using the DIP Switch position 1-4 to set the slot number desired.

Slot	Switch 1 2 3 4	Binary
0	↓↓↓↓	0000
1	↑↓↓↓	1000
2	↓↑↓↓	0100
3	↑↑↓↓	1100
4	↓↓↑↓	0010
5	↑↓↑↓	1010
6	↓↑↑↓	0110
7	↑↑↑↓	1110
8	↓↓↓↑	0001
9	↑↓↓↑	1001
10	↓↑↓↑	0101
11	↑↑↓↑	1101
12	↓↓↑↑	0011
13	↑↓↑↑	1011
14	↓↑↑↑	0111
15	↑↑↑↑	1111

Figure 3 - Slot DIP Switch Settings

The Slot setting is important so that devices can talk to each other on the PNET. There can be any number of devices with the same slot number, so you don't have to worry about making a mistake. If you have a Dream Player PRO, and the DIP switch on it is set for slot #2, you would need to set your PNET Control Output to the same slot number for the Dream Player PRO to control it. With a PRICOM Layout Lighting Controller, you can send Control Output events to any output on any slot, so there is much more flexibility of slot assignments.

The other Switch Setting of interest is Switch #8 which selects the LED mode for the Control Output Indicators E1, E2, E3, and E4. When switch #8 is off, the E1-E4 indicators will display the status of each Control Output driver. This can be very helpful for diagnosing wiring problems or seeing when Control Output



devices are active. When switch #8 is ON, the indicators will light to show the Control Messages for each output for the selected slot. This can be helpful for monitoring all the Control messages on the PNET.

5 Connect the PNET Cable

The PNET Jacks are both the same, giving you the flexibility to ‘loop’ through and connect many devices to the PNET network. The cables are 6-wire Modular cables and can be flat or twisted pairs. PNET cables include 12VDC power that comes in very handy for the PNET Control Output as the 12VDC on the cable can power many of these boards. PNET Cables should be wired as “Straight Through” and not “flip” anywhere along the path. Nothing will be damaged if a cable is reversed, but the PNET Communications Data lines would be reversed making PNET malfunction. PNET cables can be plugged or un-plugged with the power on.

Pin	Name	Description
1	+12VDC	PNET Power Supply
2	GND	PNET Signal Ground
3	PNET	Communications Data
4	PNET	Communications Data
5	GND	PNET Signal Ground
6	+12VDC	PNET Power Supply

Figure 4 - PNET Jack Pinout

6 Test Your New Module

With the power applied through the PNET cable, you should see the Green LED light showing a functional board. The Red LED will show anytime this board sends data on the PNET, or if this board receives any data.

If you have any further questions you can consult the full length manual from our website www.pricom.com. You may also visit www.bobsbench.com for some fun Layout Lighting and Dream Player applications.

