

# PIT-LED BLU

Version - DMX

## Blue and White LED lighting for pin illumination on Pinspotter and Pinsetter machines

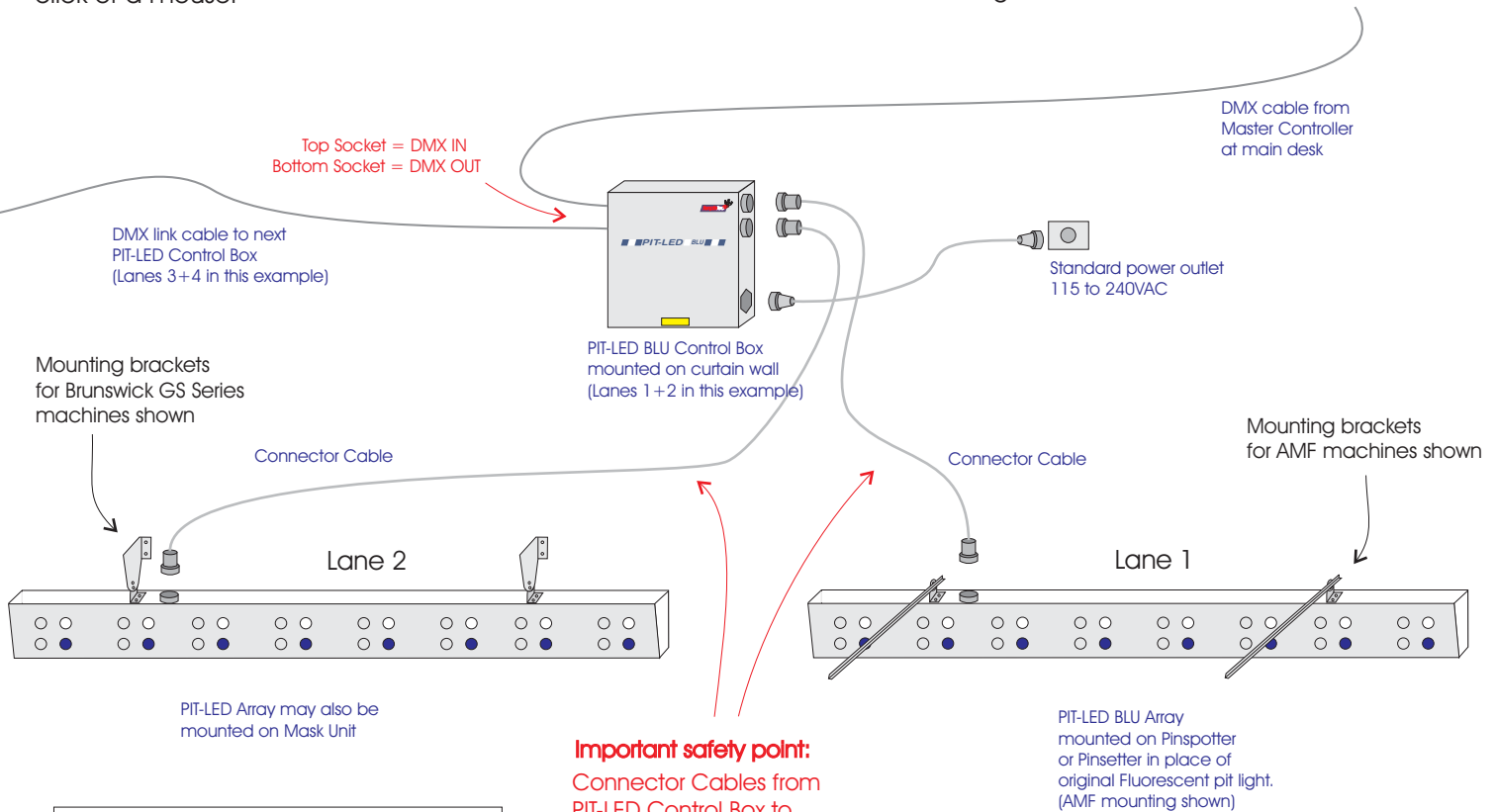
WHITE and BLUE LEDs on each lane can be individually controlled by DMX512.

The many BLUE and WHITE effects can be isolated to one lane, a block or the entire house.

Colour effects can be static or dynamic (colour changing). When using a PC based DMX Master Controller, an almost endless number of pre-programmed effects can be initiated by the click of a mouse.

Each lane pair requires one PIT-LED set, which consists of one control box and two LED arrays (plus cables).

The DMX Master Controller (there are many types available) is normally located at the main control desk. This connects to the first PIT-LED control box (normally lanes 1+2) by a DMX cable. The remainder of the PIT-LED control boxes (for lanes 3+4, 5+6 etc) are connected in a "daisy-chain" style to each other as shown in the diagrams.



These components are supplied in the standard PIT-LED BLU kit:

- 1 x PIT-LED BLU Control Box
- 2 x PIT-LED BLU Array
- 2 x sets of mounting brackets and hardware
- 2 x PIT-LED Connector Cable
- 1 x IEC Power Cable
- 1 x DMX Cable 4m

Other components required:

- DMX Master Controller such as:
- DMX Control Desk (many types available)
- or
- USB-DMX Controller (for PC) and
- DMX software for PC

The PIT-LED system is completely independent of the Pinspotter or Pinsetter machine and scoring system. This makes it compatible with all machines and systems.

manufactured by

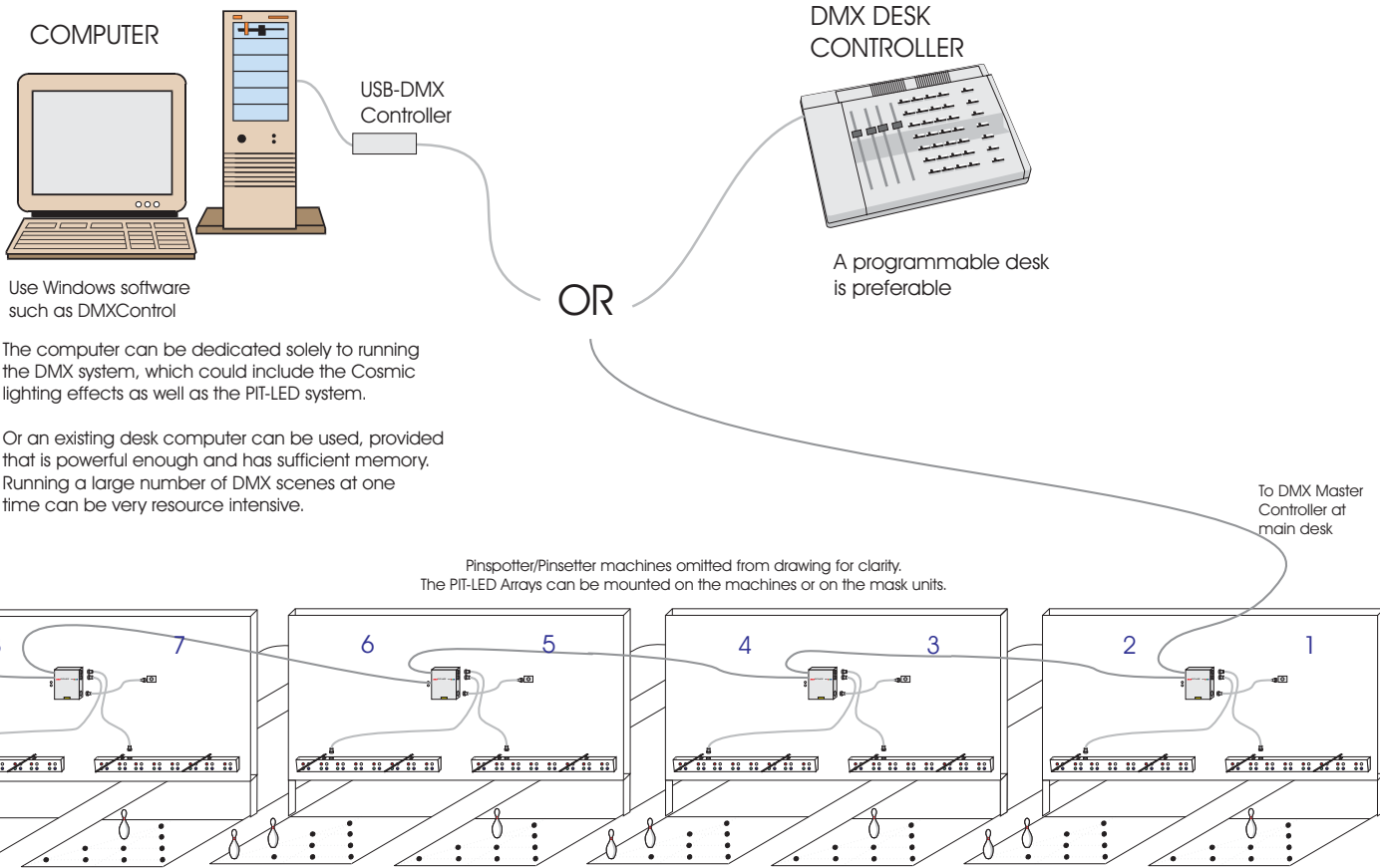


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## Schematic Diagram of PIT-LED BLU system installed in a bowling centre

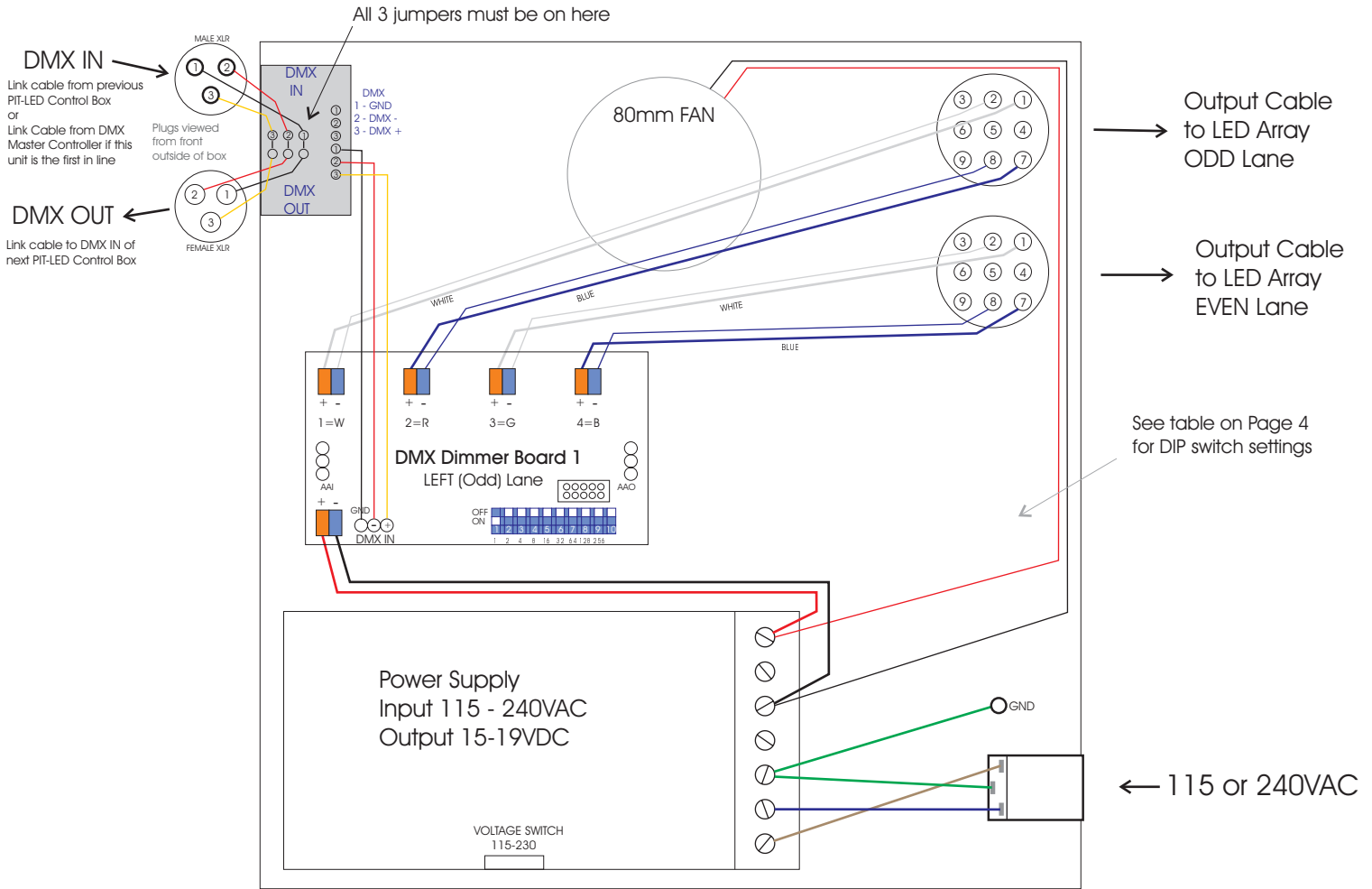


### INSTALLATION STEPS:

1. Check the voltage selector switch on the under side of the PIT-LED Control Box and ensure it shows the correct voltage for your area - 115 or 230V. Move the slider switch if necessary to select the correct voltage.
2. Attach PIT-LED Control Box securely to curtain wall. Take care to position the Control Box so that the power supply cable and Connector Cables will easily reach their destinations as shown in the diagrams.
3. Remove existing fluorescent pit or pindeck light fixtures.
4. Mount PIT-LED Arrays onto Pinspotters or Pinsetters (or in some circumstances it may be preferred to mount the PIT-LED Arrays onto the back of the mask units) using the supplied adjustable brackets. Tighten all bolts except the two on each bracket that allow tilt adjustment. Leave these bolts finger tight to allow for later adjustment.
5. Install Connector Cables - one end to Control Box and the other end to the PIT-LED Array. These cables are directional and will only connect one way. Take great care that the cables are secure at both ends and that they are routed in such a manner that they will not be fouled by moving machine parts or any other thing.
6. Connect the female end of the 3 pin DMX cable from the DMX Master Controller (either a PC or desk controller) to the DMX IN socket on the upper left side of the PIT-LED Control Box.
7. Remove the front cover of the PIT-LED Control Box and set the DMX channel DIP switches according to the explanation and allocation tables on page 4. Replace and secure the front cover.
8. Plug the power cable into the socket on the bottom right side of the Control Box and also plug it into the wall socket.
9. Re-check all connections, cable routing and voltage selector switch. If all is well, turn on the switch at the power outlet.
10. The PIT-LED will do nothing until a command is issued from the DMX Master Controller.
11. Using the DMX Master Controller, call up a scene or directly access the particular DMX channels to test each PIT-LED Array. A section of the DMX chart can be found on page 4.
12. When the PIT-LED Array is illuminated, adjust the tilt of the Array to get the best lighting effect and then tighten the two screws on each bracket that were left finger tight from step 4.
13. Repeat steps 1 to 12 for each PIT-LED set to be installed.
14. Connect a 3 pin DMX cable from the DMX-OUT (female) socket on the first PIT-LED Control Box to the DMX-IN (male) socket on the second PIT-LED Control Box.
15. Repeat the procedure in step 14 for all of the PIT-LED Control Boxes until the last Control Box is reached. Plug the supplied DMX terminator into the DMX OUT socket of the last Control Box.
16. Further non PIT-LED DMX devices may be plugged into the DMX OUT socket in a continuation of the DMX daisy-chain. In this case, the DMX terminator should be plugged into the DMX OUT socket of the final device in the line. Note - a DMX booster may be required at this point in the DMX line.



# PIT-LED BLU Control Box



Each PIT-LED BLU Control Box is assigned 5 DMX channels.

On the internal LED dimmer boards,

- 1st channel is left lane WHITE
- 2nd channel is left lane BLUE
- 3rd channel is right lane WHITE
- 4th channel is right lane BLUE
- 5th channel is SPARE

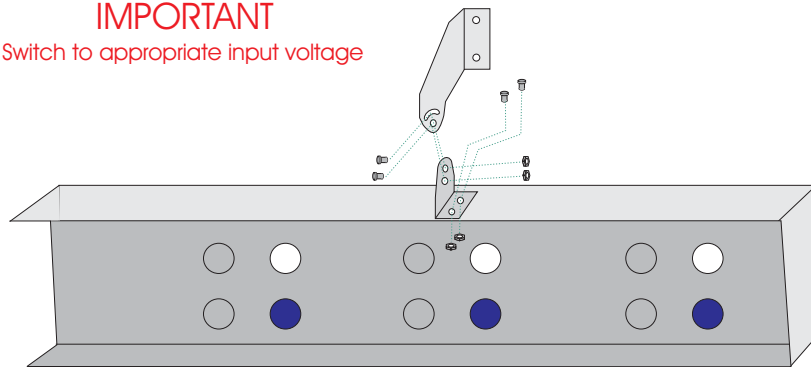
In the diagram above, the DIP switches are set for lanes 1 and 2.

The DIP switches are binary and DOWN is ON:

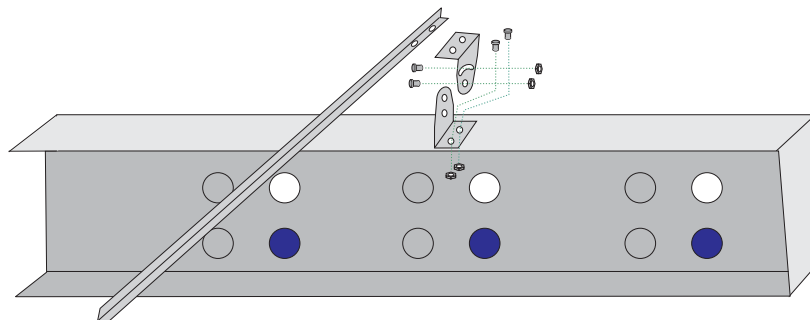
- Switch 1 = 1
- Switch 2 = 2
- Switch 3 = 4
- Switch 4 = 8
- Switch 5 = 16
- Switch 6 = 32
- Switch 7 = 64
- Switch 8 = 128
- Switch 9 = 256
- Switch 10 is not used for addressing

See table page 4

**IMPORTANT**  
Switch to appropriate input voltage



Mounting on Brunswick GS Pinsetter



Mounting on AMF Pinspotter & Brunswick A/A2 Pinsetter



**DIP Switch setting and DMX allocation table**

		DMX Channel Allocation					
		SET START CHANNEL	WHITE		BLUE	SWITCH ON	
Lanes 1+2							
DMX Dimmer Board 1	= 1	Lane 1 Lane 2	1 3		2 4		1
Lanes 3+4							
DMX Dimmer Board 1	= 6	Lane 3 Lane 4	6 8		7 9		2+3
Lanes 5+6							
DMX Dimmer Board 1	= 11	Lane 5 Lane 6	11 13		12 14		1+2+4
Lanes 7+8							
DMX Dimmer Board 1	= 16	Lane 7 Lane 8	16 18		17 19		5
Lanes 9+10							
DMX Dimmer Board 1	= 21	Lane 9 Lane 10	21 23		22 24		1+3+5
Lanes 11+12							
DMX Dimmer Board 1	= 26	Lane 11 Lane 12	26 28		27 29		2+4+5
Lanes 13 + 14							
DMX Dimmer Board 1	= 31	Lane 13 Lane 14	31 33		32 34		1+2+3+4+5
Lanes 15 + 16							
DMX Dimmer Board 1	= 36	Lane 15 Lane 16	36 38		37 39		3+6
Lanes 17 + 18							
DMX Dimmer Board 1	= 41	Lane 17 Lane 18	41 43		42 44		1+4+6
Lanes 19 + 20							
DMX Dimmer Board 1	= 46	Lane 19 Lane 20	46 48		47 49		2+3+4+6
Lanes 21 + 22							
DMX Dimmer Board 1	= 51	Lane 21 Lane 22	51 53		52 54		1+2+5+6
Lanes 23 + 24							
DMX Dimmer Board 1	= 56	Lane 23 Lane 24	56 58		57 59		4+5+6
Lanes 25 + 26							
DMX Dimmer Board 1	= 61	Lane 25 Lane 26	61 63		62 64		1+3+4+5+6
Lanes 27 + 28							
DMX Dimmer Board 1	= 66	Lane 27 Lane 28	66 68		67 69		2+7
Lanes 29 + 30							
DMX Dimmer Board 1	= 71	Lane 29 Lane 30	71 73		72 74		1+2+3+7
Lanes 31 + 32							
DMX Dimmer Board 1	= 76	Lane 31 Lane 32	76 78		77 79		3+4+7
Lanes 33 + 34							
DMX Dimmer Board 1	= 81	Lane 33 lane 34	81 83		82 84		1+5+7

etc. up to maximum 204 lanes

Note: A DMX booster or splitter may be required for more than 64 lanes