

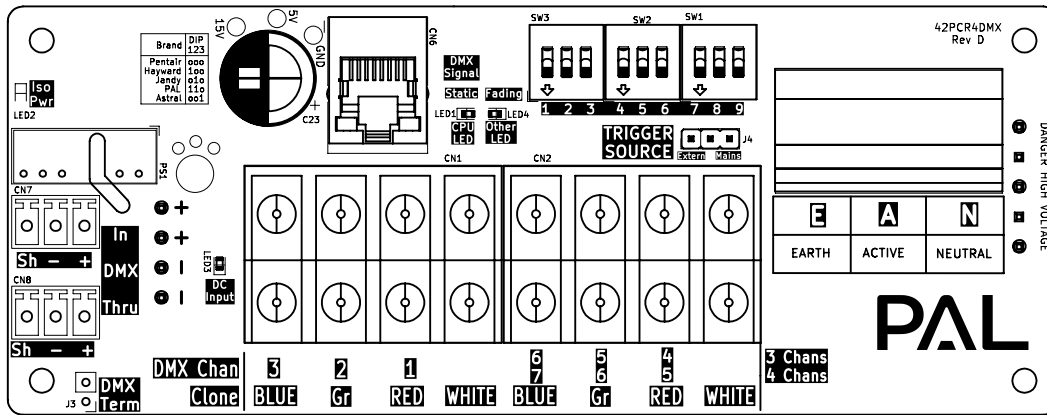
## Overview

The purpose of this document is to highlight updates we've made for Version 3 of our control boards in our lighting controllers. For specific installation instructions please refer to the lighting controller's installation guide.

## SWITCH MODE / CLONER CONTROLLERS

Affected part numbers:

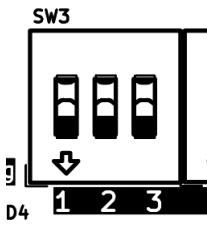
64-PCR-1Z-SM



The switch mode V3 control board is “DMX ready” which is designed to help with future-proofing the installation to better suit upgrades. However, for switch mode lighting controllers please ignore all DMX terminology and switch configurations. “Cloner” is used as a term to mean our lights mimic the functions of competitor lights.

### Cloner Dip Switches

The cloner dip switches are between dipswitch #1 #2 #3



| Mode    | #1  | #2  | #3  | Note          |
|---------|-----|-----|-----|---------------|
| Jandy   | Off | ON  | Off | Clone Jandy   |
| Pentair | Off | Off | Off | Clone Pentair |
| Hayward | ON  | Off | Off | Clone Hayward |
| PAL     | ON  | ON  | Off | Clone PAL     |
| Astral  | ON  | ON  | ON  | Clone Astral  |

### “Long Strip” mode

Dipswitch #9 toggles “long strip” mode. This is used when an LED strip is used for long lengths. Pool perimeter, long hardscape runs, etc.



| Mode           | #9  | Note                                                  |
|----------------|-----|-------------------------------------------------------|
| Long Strip Off | Off | Normal                                                |
| Long Strip On  | ON  | The output is altered to better suit long RGB strips. |

“Long strip” mode will lower overall brightness to better suit longer strip runs. The length is strip dependant although 30+ feet is a good general guideline.

### TRIGGER SOURCE

If AstralPool Automation Systems are being used, the jumper bridge at “TRIGGER SOURCE”/J4 must be moved to connect pins #1 and #2 - otherwise the jumper bridge should remain connecting pins #2 and #3.



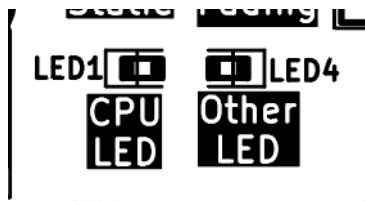
The RJ12 connection is live and an additional AstralPool system PCB/module can be connected.



MOST scenarios - NEVER move the bridge/jumper unless specifically using AstralPool Automation systems.

### Software information

The CPU LED will typically show red color. This will also provide software information at bootup/restart.



CPU LED uses short pulses to indicate numbers. I.E. 2 short pulses indicates the number 2.

Other LED uses a long pulse to indicate a decimal.

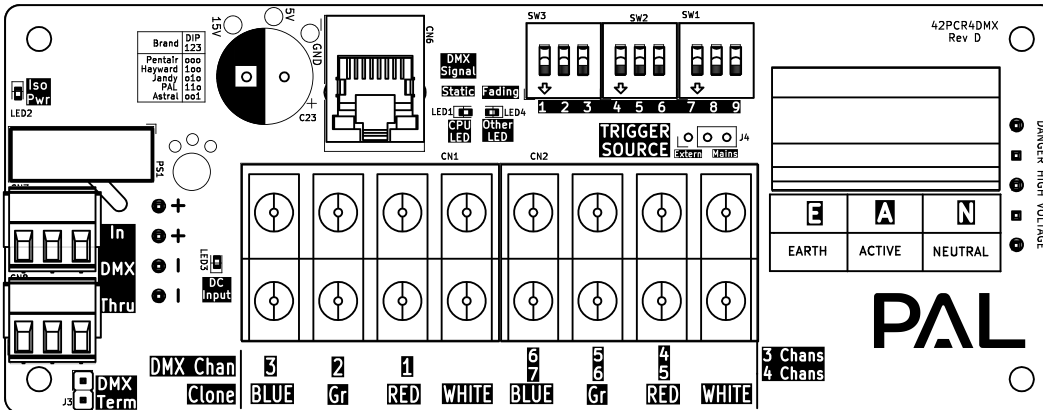
Example:  
2 short pulses on the CPU LED followed by 1 long pulse on the Other LED followed by 1 short pulse on the CPU LED indicates 2.1

## 2DMX (NON-HIGH POWERED) CONTROLLERS

Affected part numbers:

64-PCR-2DMX

The 2DMX V3 control board is similar to the switch mode control board with additional components to allow DMX connectivity.



### DMX connection

Connect the DMX output wires into the lighting controller using the "In" terminals.

If connecting to an additional lighting controller or device in the same DMX universe, use the "Thru" terminals to run the wires to the next device(s).

If NO additional devices are being added, the jumper bridge/shunt **MUST** be on the "DMX Term"/J3 pins.



A "closed" universe.  
Prevents loss of  
DMX signal.



No jumper to allow  
DMX signal to go  
to the next connected  
device.



### "Long Strip" mode

Dipswitch #9 toggles "long strip" mode. This is used when an LED strip is used for long lengths. Pool perimeter, long hardscape runs, etc.

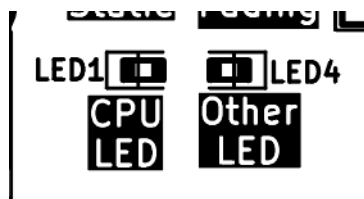


| Mode           | #9  | Note                                                  |
|----------------|-----|-------------------------------------------------------|
| Long Strip Off | Off | Normal                                                |
| Long Strip On  | ON  | The output is altered to better suit long RGB strips. |

"Long strip" mode will lower overall brightness to better suit longer strip runs. The length is strip dependant although 30+ feet is a good general guideline.

### Software information

The CPU LED will typically show red color. This will also provide software information at startup/restart.



CPU LED uses short pulses to indicate numbers. I.E. 2 short pulses indicates the number 2.

Other LED uses a long pulse to indicate a decimal.

Example:  
2 short pulses on the CPU LED followed by 1 long pulse on the Other LED followed by 1 short pulse on the CPU LED indicates 2.1

### 3 Channel or 4 Channel DMX addressability

Dip switch #7 is designed to toggle between 3 channel and 4 channel addressability for our lights in a zone. This is toggled to help accommodate different addresses needed within a DMX universe and to suit DMX controllers which only have 4 channel light libraries.

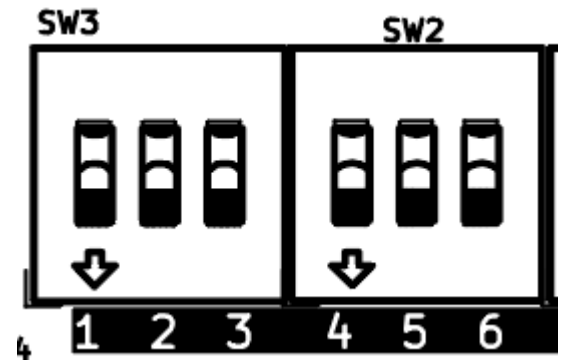
3 channel allows for addresses 1 - 379 (Dipswitch #7 is off)  
4 channel allows for addresses 1 - 505 (Dipswitch #7 is on)



Refer to the tables on the following pages for dipswitch configurations.

2DMX CONTROLLERS - 3 Channel addresses (Dipswitch #7 is off)

| Start Address | SW3 #1 "1" | SW3 #2 "2" | SW3 #3 "3" | SW2 #1 "4" | SW2 #2 "5" | SW2 #3 "6" |
|---------------|------------|------------|------------|------------|------------|------------|
| 1             | Off        | Off        | Off        | Off        | Off        | Off        |
| 7             | Off        | Off        | Off        | Off        | Off        | On         |
| 13            | Off        | Off        | Off        | Off        | On         | Off        |
| 19            | Off        | Off        | Off        | Off        | On         | On         |
| 25            | Off        | Off        | Off        | On         | Off        | Off        |
| 31            | Off        | Off        | Off        | On         | Off        | On         |
| 37            | Off        | Off        | Off        | On         | On         | Off        |
| 43            | Off        | Off        | Off        | On         | On         | On         |
| 49            | Off        | Off        | On         | Off        | Off        | Off        |
| 55            | Off        | Off        | On         | Off        | Off        | On         |
| 61            | Off        | Off        | On         | Off        | On         | Off        |
| 67            | Off        | Off        | On         | Off        | On         | On         |
| 73            | Off        | Off        | On         | On         | Off        | Off        |
| 79            | Off        | Off        | On         | On         | Off        | On         |
| 85            | Off        | Off        | On         | On         | On         | Off        |
| 91            | Off        | Off        | On         | On         | On         | On         |
| 97            | Off        | On         | Off        | Off        | Off        | Off        |
| 103           | Off        | On         | Off        | Off        | Off        | On         |
| 109           | Off        | On         | Off        | Off        | On         | Off        |
| 115           | Off        | On         | Off        | Off        | On         | On         |
| 121           | Off        | On         | Off        | On         | Off        | Off        |
| 127           | Off        | On         | Off        | On         | Off        | On         |
| 133           | Off        | On         | Off        | On         | On         | Off        |
| 139           | Off        | On         | Off        | On         | On         | On         |
| 145           | Off        | On         | On         | Off        | Off        | Off        |
| 151           | Off        | On         | On         | Off        | Off        | On         |
| 157           | Off        | On         | On         | Off        | On         | Off        |
| 163           | Off        | On         | On         | Off        | On         | On         |
| 169           | Off        | On         | On         | On         | Off        | Off        |
| 175           | Off        | On         | On         | On         | Off        | On         |
| 181           | Off        | On         | On         | On         | On         | Off        |
| 187           | Off        | On         | On         | On         | On         | On         |
| 193           | On         | Off        | Off        | Off        | Off        | Off        |
| 199           | On         | Off        | Off        | Off        | Off        | On         |
| 205           | On         | Off        | Off        | Off        | On         | Off        |
| 211           | On         | Off        | Off        | Off        | On         | On         |
| 217           | On         | Off        | Off        | On         | Off        | Off        |
| 223           | On         | Off        | Off        | On         | Off        | On         |
| 229           | On         | Off        | Off        | On         | On         | Off        |
| 235           | On         | Off        | Off        | On         | On         | On         |
| 241           | On         | Off        | On         | Off        | Off        | Off        |
| 247           | On         | Off        | On         | Off        | Off        | On         |
| 253           | On         | Off        | On         | Off        | On         | Off        |
| 259           | On         | Off        | On         | Off        | On         | On         |
| 269           | On         | Off        | On         | On         | Off        | Off        |
| 271           | On         | Off        | On         | On         | Off        | On         |
| 277           | On         | Off        | On         | On         | On         | Off        |
| 283           | On         | Off        | On         | On         | On         | On         |
| 289           | On         | On         | Off        | Off        | Off        | Off        |
| 295           | On         | On         | Off        | Off        | Off        | On         |
| 301           | On         | On         | Off        | Off        | On         | Off        |
| 307           | On         | On         | Off        | Off        | On         | On         |
| 313           | On         | On         | Off        | On         | Off        | Off        |
| 319           | On         | On         | Off        | On         | Off        | On         |
| 325           | On         | On         | Off        | On         | On         | Off        |
| 331           | On         | On         | Off        | On         | On         | On         |
| 337           | On         | On         | On         | Off        | Off        | Off        |
| 343           | On         | On         | On         | Off        | Off        | On         |
| 349           | On         | On         | On         | Off        | On         | Off        |
| 355           | On         | On         | On         | Off        | On         | On         |
| 361           | On         | On         | On         | On         | Off        | Off        |
| 367           | On         | On         | On         | On         | Off        | On         |
| 373           | On         | On         | On         | On         | On         | Off        |
| 379           | On         | On         | On         | On         | On         | On         |



2DMX CONTROLLERS - 4 Channel addresses (Dipswitch #7 is on)

| Start Address | SW3 #1 "1" | SW3 #2 "2" | SW3 #3 "3" | SW2 #1 "4" | SW2 #2 "5" | SW2 #3 "6" |
|---------------|------------|------------|------------|------------|------------|------------|
| 1             | Off        | Off        | Off        | Off        | Off        | Off        |
| 9             | Off        | Off        | Off        | Off        | Off        | On         |
| 17            | Off        | Off        | Off        | Off        | On         | Off        |
| 25            | Off        | Off        | Off        | Off        | On         | On         |
| 33            | Off        | Off        | Off        | On         | Off        | Off        |
| 41            | Off        | Off        | Off        | On         | Off        | On         |
| 49            | Off        | Off        | Off        | On         | On         | Off        |
| 57            | Off        | Off        | Off        | On         | On         | On         |
| 65            | Off        | Off        | On         | Off        | Off        | Off        |
| 73            | Off        | Off        | On         | Off        | Off        | On         |
| 81            | Off        | Off        | On         | Off        | On         | Off        |
| 89            | Off        | Off        | On         | Off        | On         | On         |
| 97            | Off        | Off        | On         | On         | Off        | Off        |
| 105           | Off        | Off        | On         | On         | Off        | On         |
| 113           | Off        | Off        | On         | On         | On         | Off        |
| 121           | Off        | Off        | On         | On         | On         | On         |
| 129           | Off        | On         | Off        | Off        | Off        | Off        |
| 137           | Off        | On         | Off        | Off        | Off        | On         |
| 145           | Off        | On         | Off        | Off        | On         | Off        |
| 153           | Off        | On         | Off        | Off        | On         | On         |
| 161           | Off        | On         | Off        | On         | Off        | Off        |
| 169           | Off        | On         | Off        | On         | Off        | On         |
| 177           | Off        | On         | Off        | On         | On         | Off        |
| 185           | Off        | On         | Off        | On         | On         | On         |
| 193           | Off        | On         | On         | Off        | Off        | Off        |
| 201           | Off        | On         | On         | Off        | Off        | On         |
| 209           | Off        | On         | On         | Off        | On         | Off        |
| 217           | Off        | On         | On         | Off        | On         | On         |
| 225           | Off        | On         | On         | On         | Off        | Off        |
| 233           | Off        | On         | On         | On         | Off        | On         |
| 241           | Off        | On         | On         | On         | On         | Off        |
| 249           | Off        | On         | On         | On         | On         | On         |
| 257           | On         | Off        | Off        | Off        | Off        | Off        |
| 265           | On         | Off        | Off        | Off        | Off        | On         |
| 273           | On         | Off        | Off        | Off        | On         | Off        |
| 281           | On         | Off        | Off        | Off        | On         | On         |
| 289           | On         | Off        | Off        | On         | Off        | Off        |
| 297           | On         | Off        | Off        | On         | Off        | On         |
| 305           | On         | Off        | Off        | On         | On         | Off        |
| 313           | On         | Off        | Off        | On         | On         | On         |
| 321           | On         | Off        | On         | Off        | Off        | Off        |
| 329           | On         | Off        | On         | Off        | Off        | On         |
| 337           | On         | Off        | On         | Off        | On         | Off        |
| 345           | On         | Off        | On         | Off        | On         | On         |
| 353           | On         | Off        | On         | On         | Off        | Off        |
| 361           | On         | Off        | On         | On         | Off        | On         |
| 369           | On         | Off        | On         | On         | On         | Off        |
| 377           | On         | Off        | On         | On         | On         | On         |
| 385           | On         | On         | Off        | Off        | Off        | Off        |
| 393           | On         | On         | Off        | Off        | Off        | On         |
| 401           | On         | On         | Off        | Off        | On         | Off        |
| 409           | On         | On         | Off        | Off        | On         | On         |
| 417           | On         | On         | Off        | On         | Off        | Off        |
| 425           | On         | On         | Off        | On         | Off        | On         |
| 433           | On         | On         | Off        | On         | On         | Off        |
| 441           | On         | On         | Off        | On         | On         | On         |
| 449           | On         | On         | On         | Off        | Off        | Off        |
| 457           | On         | On         | On         | Off        | Off        | On         |
| 465           | On         | On         | On         | Off        | On         | Off        |
| 473           | On         | On         | On         | Off        | On         | On         |
| 481           | On         | On         | On         | On         | Off        | Off        |
| 489           | On         | On         | On         | On         | Off        | On         |
| 497           | On         | On         | On         | On         | On         | Off        |
| 505           | On         | On         | On         | On         | On         | On         |

