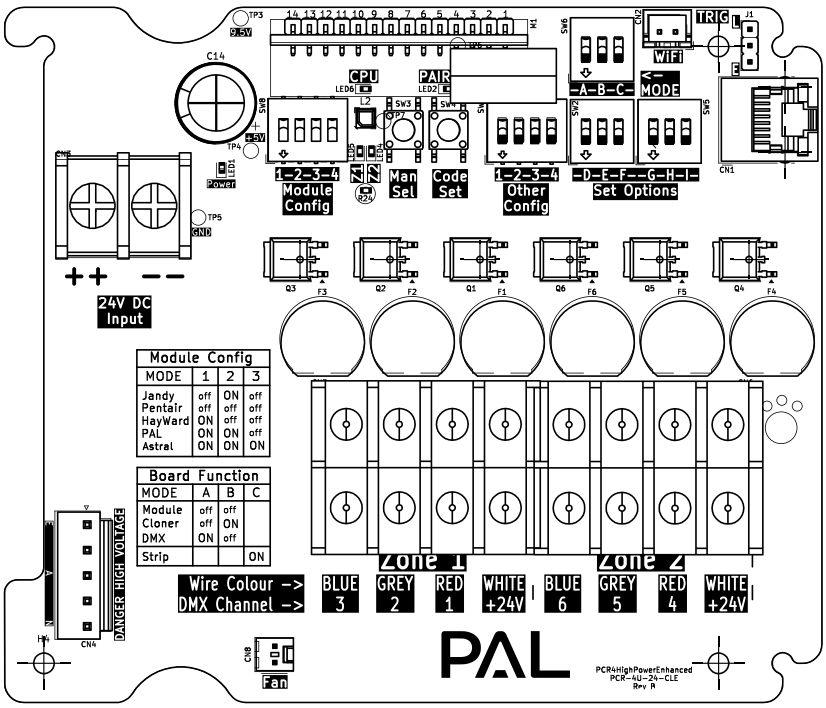
## 3D and 3DMX HIGH POWERED - CONTROLLERS

**Affected part numbers:**
64-PCR-3D / 64-PCR-3DW / 64-PCR-3DMX (excludes the 8Z)




The 3D and 3DMX High Powered control boards feature additional dip switches for additional modes and functionality.

**This board can be set in 4 different modes. Each mode will affect the functionality of the dip switches on the board.**

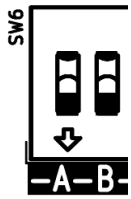
**It's very important to start all trouble shooting with knowing which Mode the board is set to.**

MODES:



### Control board mode <- MUST READ!!!!

The control board can switch to different modes based on the dip switch selection of dip switches A B.




| Mode | A | B | Note |
|---|---|---|---|
| Module | Off | Off | Requires a module M1 be fitted to the PCB. |
| Cloner | Off | ON | Module not required for cloning |
| DMX | ON | Off | Requires a DMX input module be connected to RJ45 |
| PCR8 | ON | ON | Requires a module M1 be fitted to the PCB, emulates a PCR8 |

Ex. An RF module may be connected to M1 for a remote control.

### "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.

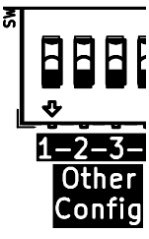

| Mode | C | Note |
|---|---|---|
| Long Strip Off | Off | Normal |
| Long Strip On | ON | The output is altered to better suit long RGB strips. |

"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.

## - Cloner Mode (Switch mode - NO zoning avaialble)

### Cloner Dip Switches

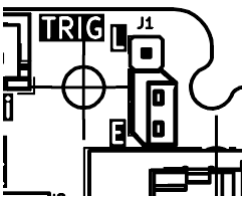
The cloner dip switches are between "Other Config" dip switches #1 #2 #3



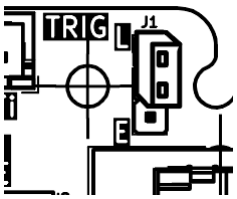

| Mode | #1 | #2 | #3 | Note |
|---|---|---|---|---|
| Jandy | Off | ON | Off | Clone Jandy |
| Pentair | Off | Off | Off | Clone Pentair |
| Hayward | ON | Off | Off | Clone Hayward |
| PAL | ON | ON | Off | Clone PAL |
| Astral | Off | Off | ON | Clone Astral |

### TRIG

If AstralPool Automation Systems are being used, the jumper bridge at "TRIG"/J1 must be moved to connect pin E -
otherwise the jumper bridge should remain connecting pin L.




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.

### Connecting additional controllers for synchronization

When connecting additional controller(s) the H and I dip switches will help with better synchronization between units. I is only active if H is on.


| Mode | H | Note |
|---|---|---|
| Un-Synchronised | Off | The software will use internal timing. |
| Synchronised | ON | The software will attempt to synchronise between PCR4s |

| Mode | I | Note |
|---|---|---|
| 60Hz | Off | The software works with 60Hz mains eg US |
| 50Hz | ON | The software works with 50Hz mains eg Australia |





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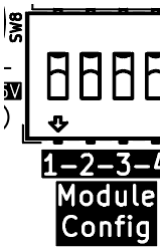
## 3D HIGH POWERED and 3DMX - CONTROLLERS (Cont.)

## - Module Mode (Remote controller - APP via WiFi)

### Cloner/Switch Mode Dip Switches

The cloner dip switches are between “Module Config” dip switches #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 | Off | Off | ON | Clone Astral |

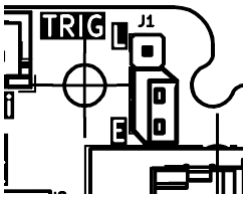
### Pairing remote and/or smart phone to WiFi module

“Module Config” dip switch #4 will toggle pairing capabilities.

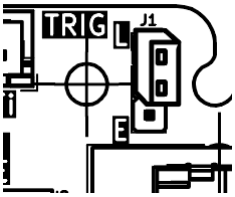
| Mode | #4 | Note |
|---|---|---|
| Pairing Disabled | Off | Disable pairing with the handheld remote or with a Smartphone + WiFi module. |
| Pairing Enabled | ON | Enable pairing with the handheld remote or with a Smartphone + WiFi module. |

### TRIG

If AstralPool Automation Systems are being used, the jumper bridge at “TRIG”/J1 must be moved to connect pin E -
otherwise the jumper bridge should remain connecting pin L.



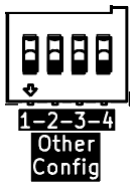

The RJ12 connection is live and an additional AstralPool system PCB/module can be connected.




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

### Zone allocation (default is 2 zones)

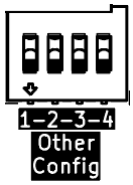
This control board is designed to control up to 2 zones but can be set to NO zones or 1 zone control using the “Other Config” dip switches #1 and #2.




| Mode | #1 | #2 | Note |
|---|---|---|---|
| Two Zones | Off | Off | Normal 2 Zone PCR4 operation |
| No Zones | ON | Off | Zone control is ignored |
| Zone 1 | Off | ON | Single Zone operation, operating on Zone 1 |
| Zone 2 | ON | ON | Single Zone operation, operating on Zone 2 |

### White CCT alteration

The white color output is an approx. white and will be cool or warm based on the optional settings below. The CCT is an approx. value.




| Mode | #3 | #4 | Note |
|---|---|---|---|
| 6000K | Off | Off | Colour temperature correction disabled. |
| 3500K | ON | Off | White is adjusted to approximately 3500K |
| 3000K | Off | ON | White is adjusted to approximately 3000K |
| 2600K | ON | ON | White is adjusted to approximately 2600K |

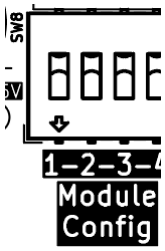
## - PCR8 Mode (2 wire only)

**Connect cloning lights between White (+) and Red (-) terminals**

A module is required to be fitted - this is a 2-wire Mode only.

### Emulate PCR8 <- MUST BE ENABLED

“Module Config” dip switche #3 MUST be on.




| Mode | #1 | #2 | #3 | Note |
|---|---|---|---|---|
| PCR8 | Off | Off | ON | Emulate PCR8 |

### Pairing remote and/or smart phone to WiFi module

“Module Config” dip switch #4 will toggle pairing capabilities.

| Mode | #4 | Note |
|---|---|---|
| Pairing Disabled | Off | Disable pairing with the handheld remote or with a Smartphone + WiFi module. |
| Pairing Enabled | ON | Enable pairing with the handheld remote or with a Smartphone + WiFi module. |





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## 3D HIGH POWERED and 3DMX - CONTROLLERS (Cont.)

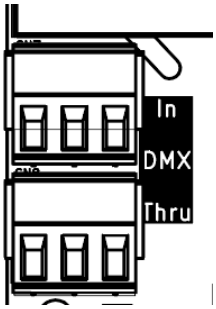
## - DMX Mode (Requires DMX module connected to RJ12 terminal)

### 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.

### 3 Channel or 4 Channel DMX addressability

Dip switch I 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 - 511 (Dipswith I is off)
4 channel allows for addresses 1 - 505 (Dipswitch I is on)

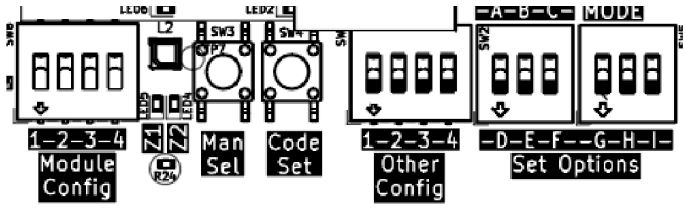
| Output | Address in 3 Channels/light | Address in 4 Channels/light |
|---|---|---|
| Zone 1 Red | Start Address | Start Address |
| Zone 1 Green | Start Address + 1 | Start Address + 1 |
| Zone 1 Blue | Start Address + 2 | Start Address + 2 |
| Zone 2 Red | Start Address + 3 | Start Address + 4 |
| Zone 2 Green | Start Address + 4 | Start Address + 5 |
| Zone 2 Blue | Start Address + 5 | Start Address + 6 |

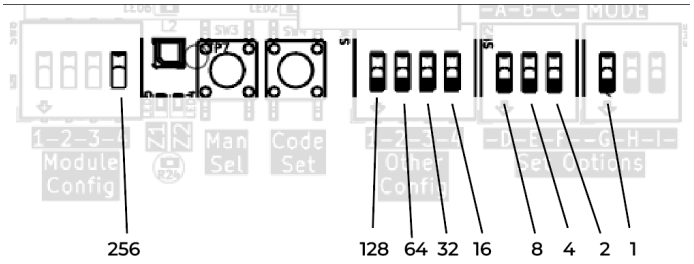
Refer to the tables on the following pages for dipswitch configurations.

### Assigning a DMX address

This board can be fine tuned to accommodate any DMX address needed - utilizing 9 dip switches as is familiar in most DMX devices.

Please refer to the image below:




| DIP Switch Label | Add to Start Address |
|---|---|
| Set Options #G | 1 |
| Set Options #F | 2 |
| Set Options #E | 4 |
| Set Options #D | 8 |
| Other Config #4 | 16 |
| Other Config #3 | 32 |
| Other Config #2 | 64 |
| Other Config #1 | 128 |
| Module Config #4 | 256 |





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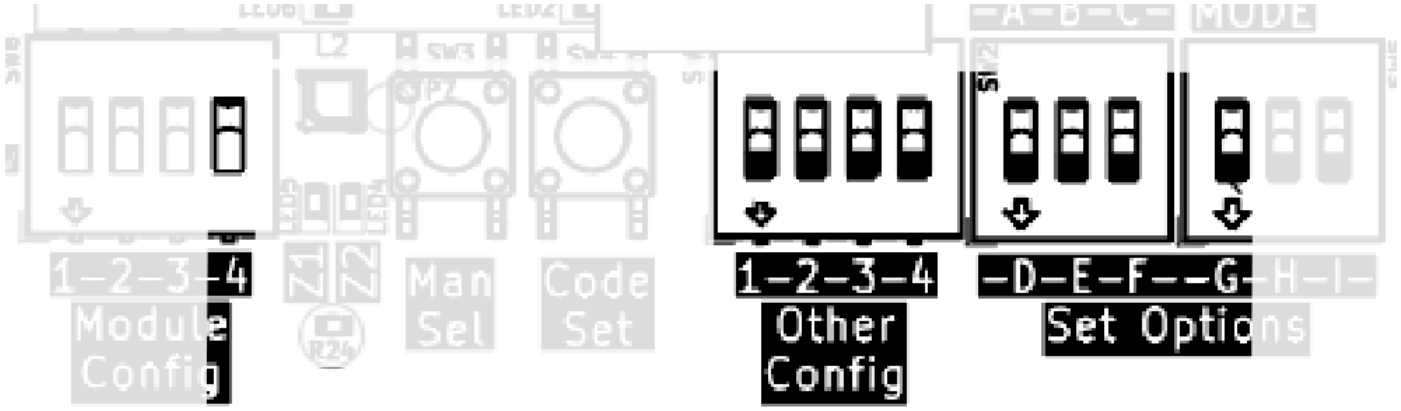
## 3DMX - HIGH POWERED CONTROLLERS - 3 Channel addresses (Dip switch I is off)




| Start Address | Module Config #4 | Other Config #1 | Other Config #2 | Other Config #3 | Other Config #4 | Set Option #D | Set Option #E | Set Option #F | Set Option #G |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | |
| 7 | | | | | | | 1 | 1 | |
| 13 | | | | | | 1 | 1 | | |
| 19 | | | | | 1 | | | 1 | |
| 25 | | | | | 1 | 1 | | | |
| 31 | | | | | 1 | 1 | 1 | 1 | |
| 37 | | | | 1 | | | 1 | | |
| 43 | | | | 1 | | 1 | | 1 | |
| 49 | | | | 1 | 1 | | | | |
| 55 | | | | 1 | 1 | | 1 | 1 | |
| 61 | | | | 1 | 1 | 1 | 1 | | |
| 67 | | | 1 | | | | | 1 | |
| 73 | | | 1 | | | 1 | | | |
| 79 | | | 1 | | | 1 | 1 | 1 | |
| 85 | | | 1 | | 1 | | 1 | | |
| 91 | | | 1 | | 1 | 1 | | 1 | |
| 97 | | | 1 | 1 | | | | | |
| 103 | | | 1 | 1 | | | 1 | 1 | |
| 109 | | | 1 | 1 | | 1 | 1 | | |
| 115 | | | 1 | 1 | 1 | | | 1 | |
| 121 | | | 1 | 1 | 1 | 1 | | | |
| 127 | | | 1 | 1 | 1 | 1 | 1 | 1 | |
| 133 | | 1 | | | | | 1 | | |
| 139 | | 1 | | | | 1 | | 1 | |
| 145 | | 1 | | | 1 | | | | |
| 151 | | 1 | | | 1 | | 1 | 1 | |
| 157 | | 1 | | | 1 | 1 | 1 | | |
| 163 | | 1 | | 1 | | | | 1 | |
| 169 | | 1 | | 1 | | 1 | | | |
| 175 | | 1 | | 1 | | 1 | 1 | 1 | |
| 181 | | 1 | | 1 | 1 | | 1 | | |
| 187 | | 1 | | 1 | 1 | 1 | | 1 | |
| 193 | | 1 | 1 | | | | | | |
| 199 | | 1 | 1 | | | | 1 | 1 | |
| 205 | | 1 | 1 | | | 1 | 1 | | |
| 211 | | 1 | 1 | | 1 | | | 1 | |
| 217 | | 1 | 1 | | 1 | 1 | | | |
| 223 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 229 | | 1 | 1 | 1 | | | 1 | | |
| 235 | | 1 | 1 | 1 | | 1 | | 1 | |
| 241 | | 1 | 1 | 1 | 1 | | | | |
| 247 | | 1 | 1 | 1 | 1 | | 1 | 1 | |
| 253 | | 1 | 1 | 1 | 1 | 1 | 1 | | |

| Start Address | Module Config #4 | Other Config #1 | Other Config #2 | Other Config #3 | Other Config #4 | Set Option #D | Set Option #E | Set Option #F | Set Option #G |
|---|---|---|---|---|---|---|---|---|---|
| 259 | 1 | | | | | | | 1 | |
| 265 | 1 | | | | | 1 | | | |
| 271 | 1 | | | | | 1 | 1 | 1 | |
| 277 | 1 | | | | 1 | | 1 | | |
| 283 | 1 | | | | 1 | 1 | | 1 | |
| 289 | 1 | | | 1 | | | | | |
| 295 | 1 | | | 1 | | | 1 | 1 | |
| 301 | 1 | | | 1 | | 1 | 1 | | |
| 307 | 1 | | | 1 | 1 | | | 1 | |
| 313 | 1 | | | 1 | 1 | 1 | | | |
| 319 | 1 | | | 1 | 1 | 1 | 1 | 1 | |
| 325 | 1 | | 1 | | | | 1 | | |
| 331 | 1 | | 1 | | | 1 | | 1 | |
| 337 | 1 | | 1 | | 1 | | | | |
| 343 | 1 | | 1 | | 1 | | 1 | 1 | |
| 349 | 1 | | 1 | | 1 | 1 | 1 | | |
| 355 | 1 | | 1 | 1 | | | | 1 | |
| 361 | 1 | | 1 | 1 | | 1 | | | |
| 367 | 1 | | 1 | 1 | | 1 | 1 | 1 | |
| 373 | 1 | | 1 | 1 | 1 | | 1 | | |
| 379 | 1 | | 1 | 1 | 1 | 1 | | 1 | |
| 385 | 1 | 1 | | | | | | | |
| 391 | 1 | 1 | | | | | 1 | 1 | |
| 397 | 1 | 1 | | | | 1 | 1 | | |
| 403 | 1 | 1 | | | 1 | | | 1 | |
| 409 | 1 | 1 | | | 1 | 1 | | | |
| 415 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | |
| 421 | 1 | 1 | | 1 | | | 1 | | |
| 427 | 1 | 1 | | 1 | | 1 | | 1 | |
| 433 | 1 | 1 | | 1 | 1 | | | | |
| 439 | 1 | 1 | | 1 | 1 | | 1 | 1 | |
| 445 | 1 | 1 | | 1 | 1 | 1 | 1 | | |
| 451 | 1 | 1 | 1 | | | | | 1 | |
| 457 | 1 | 1 | 1 | | | 1 | | | |
| 463 | 1 | 1 | 1 | | | 1 | 1 | 1 | |
| 469 | 1 | 1 | 1 | | 1 | | 1 | | |
| 475 | 1 | 1 | 1 | | 1 | 1 | | 1 | |
| 481 | 1 | 1 | 1 | 1 | | | | | |
| 487 | 1 | 1 | 1 | 1 | | | 1 | 1 | |
| 493 | 1 | 1 | 1 | 1 | | 1 | 1 | | |
| 499 | 1 | 1 | 1 | 1 | 1 | | | 1 | |
| 505 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 511 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |





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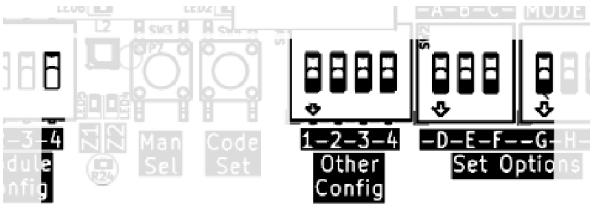
## 3DMX - HIGH POWERED CONTROLLERS - 4 Channel addresses (Dipswitch I is ON)

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





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