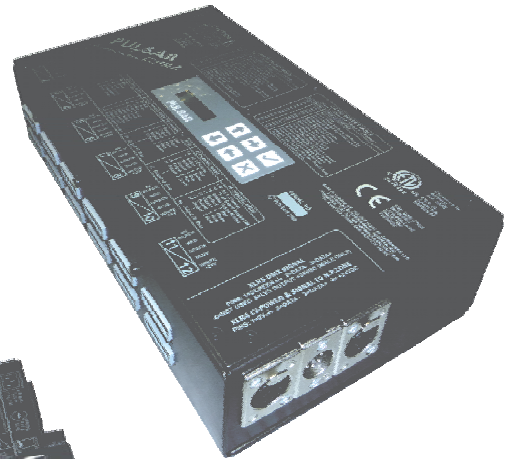


# CHROMARANGE CHROMAZONE



## GENERAL INFORMATION

CZ6-100C	ChromaZone™ 100W - Compact
CZ12-200	ChromaZone12™ 200W - Mk2
CZ12-200IP	ChromaZone12™ 200W - IP65
CPSU2	ChromaPSU2™ PSU
8075G	ChromaFlex Grey 5 Core Multiway Cable
8075SUB	ChromaFlex Submersible 5 Core Cable

Pulsar's Chroma Lighting Fixtures - ChromaStrips™, ChromaTubes™, ChromaPanels™, CAR111™, ChromaScapes™, CBAT17™, ChromaBatten50™, ChromaHearts™, ChromaInGround™, ChromaFlood50™, ChromaPoint™, ChromaInGroundMR16SS™, etc., contain state of the art, high brightness, high efficiency Red, Green and Blue LEDs. These three primary colours can be mixed together to make an incredible pallet of 16.7 million colours.

Each ChromaFixture™ requires a +24VDC supply and three 0 to +10V control signals to control the level of Red, Green and Blue. These control signals and the low voltage power are provided by the CZ12 and CZ6 controllers which can drive up to 12 or 6 ChromaFixtures respectively.

Please see the **ChromaFixtures Leaflet** for details of the luminaires themselves and page 3 - **ChromaZone Max Fixture Loading Data** which will inform you of how many fixtures you may put on the outputs of different ChromaZones.

The **ChromaZone** has numerous chases and effects built in, making it possible to achieve fantastic effects without programming. These internal effects can be selected via the UIM (**User Interface Module**) on the lid of the unit in Stand Alone mode or from a controller using a digital **DMX** (Digital MultipleX) signal.

When receiving a signal the **CZ6/12** can operate in 3, 6, 9, 10, 36, 42 or 46 Channel Modes. Please see the lid printing page for details of these Operating Modes, how to select them, Channel Listings, and further information.

Model	Outputs	Max Load	Control	50W	17W	CP300	MR16	Link	Point	Strip 25/X1	Strip X3
CZ6-100C	6	100W	DMX	2	6	24	30	48	48	7.2 mts	2.4 mts
CZ12-200(IP)	12	200W	DMX	4	12	48	60	96	96	14.4 mts	4.8 mts
CPSU2	2	35W	0-10V	0	2	8	10	16	16	2.4 mts	0.6 mts

The CBAT50, CFLD50 and CIG50 require up to 50 Mains Watts each which will reduce the number of products you can use per ChromaZone e.g. 4 x CFLD50 = 200W. Do not exceed the max mains wattage of the zone.


**NB - Patents applied for. Trade Marks, Copyright, Registered and Unregistered Design Rights apply on all Chroma Products.**

## CHROMAZONE MAINS SUPPLY

**Mains Supply** - The **ChromaZone(s)** works correctly on any mains voltage from 85-277 VAC, 50-60Hz, (self adjusting).

Power consumption: CZ6 - 100 Watts, CZ12 - 200 Watts depending on the number of fixtures connected and their output levels. Please see the table shown below for more information.

A **mains cable** with locking IEC female connector attached is supplied (not supplied with IP Zones). To unlock the IEC connector, pull/side the red tab towards yourself then pull connector out. The other end of the cable should be fitted with a suitably approved and rated mains plug. Note: in some countries it is a requirement that such a plug be fitted by a qualified electrician.

Cable Colours
Green/Yellow =  Earth / Ground
Brown = Live / Phase / Hot
Blue = Neutral

### WARNING - THIS APPLIANCE MUST BE EARTHED

For safety we recommend the use of a Residual Current Circuit Breaker. An RCCB MUST be used when powering e.g. ChromaFixtures in wet environments.

**Electronics On/Off Switch** with built in Indicator Neon.

**Electronics Mains Fuse:** 5Amp, HRC, 5x20mm.

# PULSAR

## CZ6 & CZ12 SIGNALS AND CONNECTIONS

### DMX In/Thru 5 Pin XLR Connectors

**Digital Control Signals:** Two 5 pin XLR sockets (in/thru) are provided. The pin connections of the sockets are:

#### DMX SIGNAL

PIN No.	Function	Pulsar DMX Cable Colours
1	Screen-Chassis Earth	Screen
2	DATA -	Blue
3	DATA +	White
4	no connection	Green
5	LVS +24VDC (male only)	Red

### 4 PIN XLR Low Voltage and DMX Output Socket

From March 2008 a 4 pin XLR output socket is fitted to the **ChromaZone12**. This can provide 24VDC Low Voltage Power and DMX to feed a **ChromaZone12NP** (No Power) and may be used when the **ChromaZone12** is not fully loaded to its 200W limit.

This is the most economical control solution when many low power fixtures are to be driven with individual DMX control, for example in Low Resolution Video displays.

The standard **ChromaZone12** can power up to five **ChromaMR16** fittings per output or up to 12 **ChromaPoint** fixtures, but all the fixtures on one output would do the same thing. Now, a number of **ChromaZone12NPs** and low power fittings may be "slaved" from one powered **ChromaZone12** until its power limit of 200W is reached. E.g. up to 4 **ChromaZoneNPs** and 60 **ChromaMR16** fixtures, or 11 **ChromaZoneNPs** and 144 **ChromaPoints** could be connected to one powered **ChromaZone12** - all individually controllable.

The pin connections of the 4 Pin XLR socket are as follows:

LV POWER: Pin 1 = 0V / Chassis Earth Pin 4 = +24VDC

DMX SIGNAL: Pin 2 = Signal - Pin 3 = Signal +

XLR4 "Scroller Cables" are used for interconnection.

**5 Pole Wago Output sockets:** 6/12 five pole grey connectors are provided on the side of the zone, these represent the 6/12 output channels. Each connector provides the necessary power and signal to drive a ChromaFixture.

Two Connectors are supplied with many of the **ChromaFixtures**. **ChromaFlex cable** is available from Pulsar.

It is recommended that the maximum run of **ChromaFlex** between the **ChromaZone** and a **ChromaFixture** is 20m.

**Wiring:** Strip back the outer insulation and the insulation from the cores of the **ChromaFlex** a suitable distance. Insert a flat blade screwdriver into the cage clamp connector and press it down to open the terminal. Insert the wire. Release the screwdriver. The spring loaded cage clamp holds the wire tightly ensuring a long term, reliable connection.

PIN No.	Function	ChromaFlex Core Colour
1	0V	Black
2	Red 0-10V	Red
3	Green 0-10V	Green
4	Blue 0-10V	Blue
5	+24Vdc	White

## FUSES AND PRECAUTIONS

Failure of the **ChromaZone Electronics 5 Amp, HRC, 5x20mm Fuse**, usually indicates an internal fault requiring servicing by a qualified engineer.

Each 24VDC output is protected by an internal, resettable solid state fuse. Switch off the unit, fix the fault and switch on again to reset the fuse.

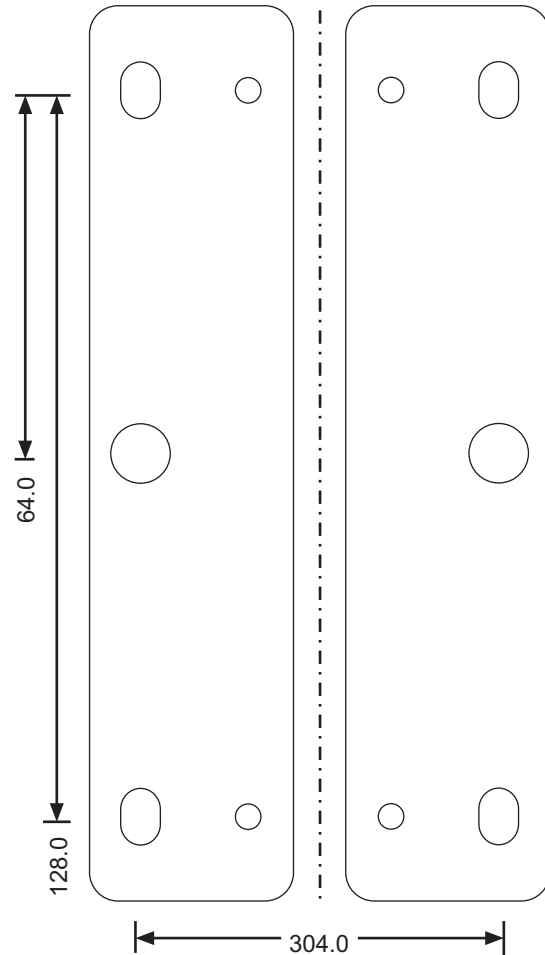
The 0-10V signal inputs and outputs are protected against shorts to 24V, 0V and static damage.

## CZ6 & CZ12 MOUNTING

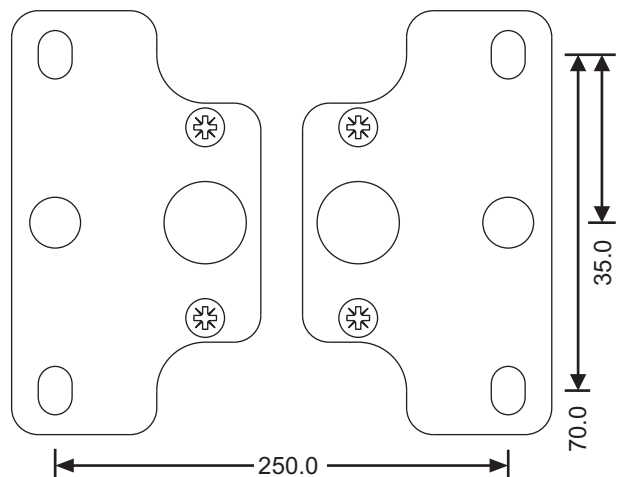
The **CZ6/12** may be wall or ceiling mounted using the 2 x mounting plates which are supplied and are located on the underside of the tray. Remove the 4 x M4 countersunk posipan screws, rotate the fixing brackets 180 deg and re-fix to the tray using the same screws. Avoid over tightening the screws when re-locating them into the tray.

The image shows the **CZ6/12** fixing brackets with their dimensions as if they are fitted to the respective tray.

An M6 hexsert can be found near the mains switch, (location also shown on artwork), this has been installed for use with a Safety chain.



The **ChromaZone12** may also be truss mounted using the M10 nutserts, two are located on the side of the tray and one can be located on the top of the tray. Ensure you do not over tighten the fixings in to the tray.

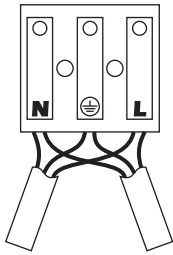


The **ChromaZone6** may also be truss mounted using the M10 nutserts, the two M10 Nutserts can be located on the base of the unit. Ensure you do not over tighten the fixings in to the tray.

# CZ12 - 200IP SIGNALS AND CONNECTIONS

**Mains Wiring:** A Wago 294 series Mains in / Thru connector is provided inside the enclosure. Wiring details are shown below.

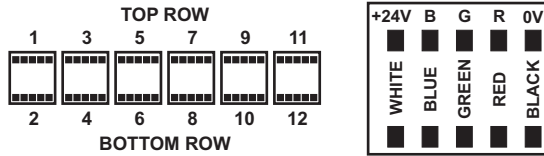
A Maximum of 2 x 1.5mm cores can be put in to each terminal.



**MAINS IN / THRU**  
MAX - 2x1.5mm Cables  
in each terminal

Cable Colours	
Green/Yellow =	Earth / Ground
Brown =	Live / Phase / Hot
Blue =	Neutral

**5 Pole Wago Output Connection Blocks:** 6 five pole **Double Orange** connectors are provided inside the enclosure, these represent the 12 output channels. Each connector provides the necessary power and signal to drive a ChromaFixture.



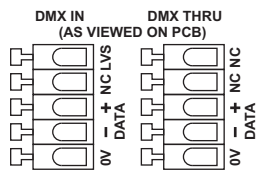
Shown above are all the output connectors if looking in to the product from above. The ChromaConnectors will need to be removed from any ChromaFixture before installing in to the Zone.

It is recommended that the maximum run of **ChromaFlex** between the **ChromaZone** and a **ChromaFixture** is 20m.

Strip back the outer insulation and the insulation from the cores of the **ChromaFlex** a suitable distance. Insert a flat blade screwdriver into the cage clamp connector and press it down to open the terminal. Insert the wire. Release the screwdriver. The spring loaded cage clamp holds the wire tightly ensuring a long term, reliable connection.

### DMX SIGNAL:

The DMX Digital Control Signals are explained on page 1 & 2. The DMX connector wiring for an IP Zone is shown below:



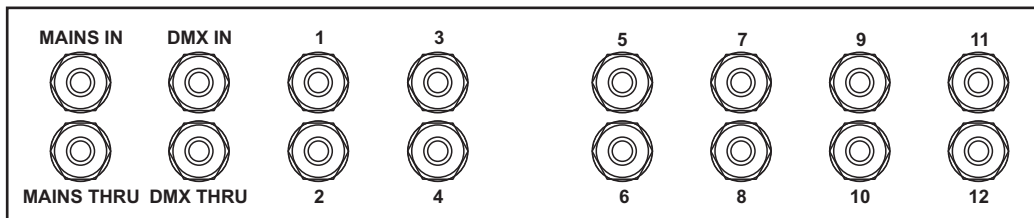
The Grey Wago connectors as viewed on PCB and shown in the artwork on the inside of the lid.

### OUTPUT GLANDS:

16 x M12 Liquid tight Glands are supplied. 12 are for the channel outputs, 2 are for the Mains In/Thru and 2 for DMX In/Thru. A Printed legend can be located on the outside of the enclosure. This is a guide to aid you in the installation of the glands.

Drill a 14.0mm hole and tap to M16x1.5mm. Alternately drill a hole to the size of 16.0mm and fix using the Gland Nut. When installing the M12 Glands, ensure the Liquid Tight O-Ring is placed on the gland before inserting gland in to enclosure.

When replacing the lid, please ensure no debris of any kind is inside or around the seal of the lid before re-installing.

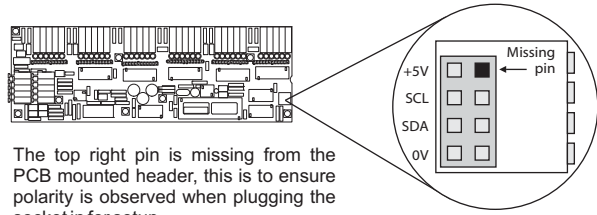


GLAND (PULSAR PART 4562)  
DRILL HOLE - 14.0MM  
TAP HOLE - M16 X 1.5MM

### CABLE GLANDS

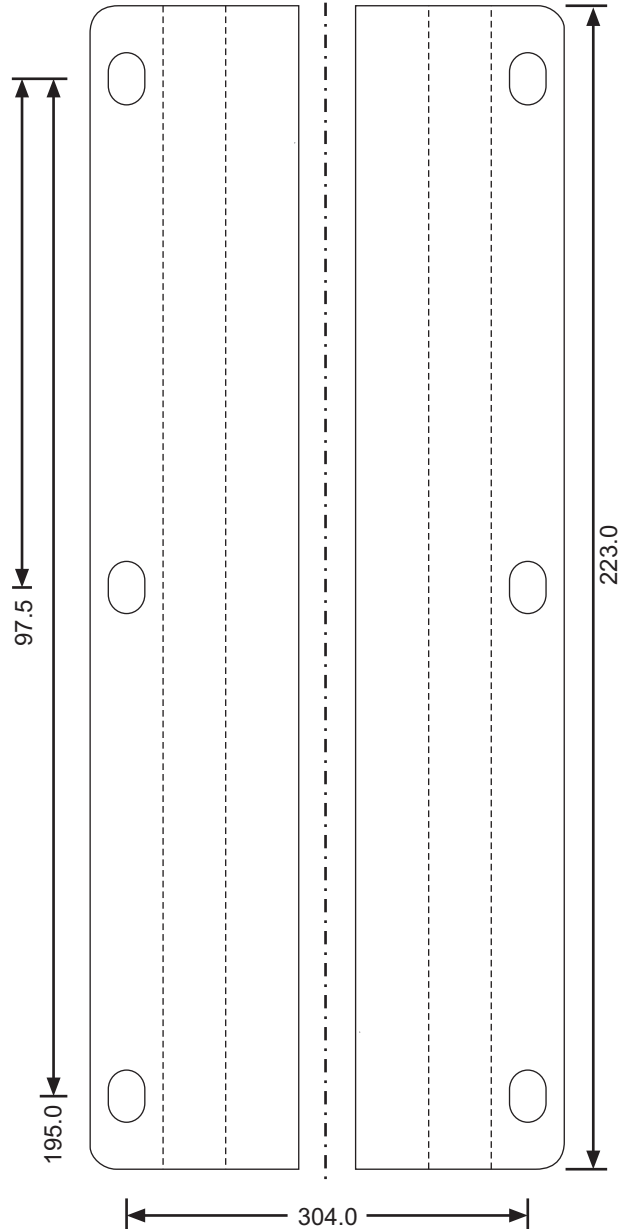
BEFORE INSTALLING  
ENSURE LIQUID TIGHT O-RING  
IS PLACED ON GLAND

The **CZ12-200IP** can be set up by plugging a UIM Remote (User Interface Module Remote) in to the PCB mounted header (shown below). When set up is complete ensure the enclosure lid seal is seated correctly and the lid screwed down securely.



The top right pin is missing from the PCB mounted header, this is to ensure polarity is observed when plugging the socket in for setup.

## CZ12 - 200IP MOUNTING



The **CZ12-200IP** may be wall or ceiling mounted using the 2 x mounting plates which are supplied and are located on the underside of the Enclosure. The fixing brackets are not to be removed from the enclosure.

The image above shows the **CZ12-200IP** fixing brackets with their dimensions as if they are fitted to the respective enclosure.

# CHROMARANGE CHROMAZONE

## OTHER INFORMATION

**PORTABLE APPLIANCE TESTING** - The Pulsar ChromaZone may be safely Earth Bond and Insulation Tested.

**STANDARDS** - The Pulsar ChromaZone complies with the following International and National Standards:

**Electrical Safety** - IEC65, EN60065, BS415

**EMC** - EN50081-1, EN55022, EN50082-1

**Index of Protection** - IP20



Marking Directive 93/68/EEC - The Pulsar ChromaZone meets both the EMC directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.



Conforms to:

UL 8750  
UL 1598

**GUARANTEE** - three years from the date of original purchase. The guarantee covers defects in manufacturing workmanship and materials. It is limited to parts and labour. The guarantee becomes void if the product is: a) misused, b) not used in accordance with the instructions, c) the cable connections are not made according to our instructions if the unit is used in damp or wet environments, d) repairs are made by unauthorised persons, e) the serial number label has been removed or defaced. Pulsar's maximum liability shall not exceed the price paid for the product. In the unlikely event of a fault occurring, do not use without repair. Return the product, with a description of the fault, to your supplier or direct to Pulsar for immediate attention.

## DIMENSIONS AND WEIGHTS

Code	Description	Width	Height	Depth	Weight
		mm	mm	mm	kg
CZ12-200	ChromaZone12-200 No CFlex	170.0	320.0	70.0	2.0
CZ6-100C	ChromaZone6-100 Compact	98.0	250.0	67.0	1.0
CZ12-200IP	ChromaZone12-200 IP65	240.0	312.0	108.0	2.0

## USER INTERFACE MODULE AND FUNCTIONS

**LCD DISPLAY:** A 2 line, 16 character per line, LCD display is used to set up, and indicate the status of the product. At switch on, the display shows:

**DMX Address:** n (where n=1 to 512)  
**Receiving:** NO SIGNAL or DMX or PMX or ERROR

Press the (Up) or (Down) keys to cycle through the Menu Options (see **LCD Display Sheet**).

Press the **X** key on the **UIM** to change the settings.

**Note:** Program Mode self cancels after ~30 seconds if no keys have been pressed.

**Note:** if, at any time, the display shows **Receiving: ERROR**, then there is a problem with the DMX signal. It could be wiring, termination or poorly implemented DMX.

**DMX Address:** depending on the operating mode, a block of 3, 6, 9, 10, 36, 42 or 46 channels is received from the DMX signal see **Channel Assignments Tables**. The **DMX Address** is the number of the first channel in the block.

To set the required **DMX Address**, press the or keys on the **UIM** until the display shows **DMX Address:**

Press the **X (change)** key on the **UIM**, then set the start address using the or keys. These keys repeat if held down.

When the required **DMX Address** number shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**Note:** the **Receiving:** text (NO SIGNAL / PMX / DMX / ERROR) in the display is for information only.

**ChromaZone Mode:** The options are 3, 6, 9, 10, 36, 42 and 46 channel modes see **Channel Assignments Tables**.

To set the required **Mode**, press the or keys on the **UIM** until the display shows **ChromaZone Mode:**

Press the **X (change)** key on the **UIM**, then select the required mode using the or keys.

When the required **ChromaZone Mode** shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**Channels per Fixture:** the CZ12 uses 36 channels per fixture and the CZ6 uses 18 channels per fixture.

To view the number of **Channels per Fixture**, press the or keys on the **UIM** until the display shows **Channels per fixture**.

Pressing the **X (change)** key on the **UIM**, followed by the or keys will have no effect.

Press the **(Yes)** key to save changes or **X (Back)** key to return to the previous menu.

**Fixture number:** 36 divided by the **Channels per fixture** (shown above) gives the number of fixtures available from the data block.

A CZ12 can only be 1 of 1 fixture.

A CZ6 may therefore be either 1 (or 2) of 2 fixtures.

To set the required **Fixture number**, press the or keys on the **UIM** until the display shows **Fixture number**.

Press the **X (change)** key on the **UIM**, then select the required number using the or keys.

When the required **Fixture number** shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**Chase patterns:** may be **6 or 12 way**.

To set the required **chase patterns**, press the or keys on the **UIM** until the display shows **Chase patterns:**

Press the **X (change)** key on the **UIM**, then select **6 or 12 way** using the or keys.

When the required **chase pattern way number** shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

## USER INTERFACE MODULE AND FUNCTIONS

**Channel 10:** may be set as a Grand Master for the 36 RGB channels only, OR as a Global Grand Master for the 36 RGB channels, the ALL Red, Green and Blue, and the Chase Levels To set the required **Ch.10** mode of operation, press the or keys on the **UIM** until the display shows **Ch.10...**

Press the **X (change)** key on the **UIM**, then select the required number using the or keys.

When the required **Ch.10** operation shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**Input Smoothing: ON or OFF.** To disable the input smoothing, e.g. for fast response to video graphics signals, set to **OFF**

To turn the **Input Smoothing** ON/OFF, press the or keys on the **UIM** until the display shows **Input Smoothing:**

Press the **X (change)** key on the **UIM**, then select the required state using the or keys.

When the required state shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**Low Voltage Supply - ON or OFF.** To connect the LVS to pin 5 of the MALE XLR, set to **ON**.

The LVS is used to power some PULSAR controllers, e.g. Outstation OS1. 24V at up to 250mA d.c. is available.

To turn the **Low Voltage Supply** ON/OFF, press the or keys on the **UIM** until the display shows **Low Voltage Supply is:**

Press the **X (change)** key on the **UIM**, then select the required state using the or keys.

When the required state shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**DMX Line Termination ON or OFF,** set the last unit in the DMX cable run to ON, all others to OFF. Errors can often occur if the DMX line is not terminated. DMX errors are shown in the display as:

DMX Address: **n**  
Receiving: **ERROR**

To turn the **DMX Line Termination** ON/OFF, press the or keys on the **UIM** until the display shows **DMX Line Termination:** Press the **X (change)** key on the **UIM**, then select the required state using the or keys.

When the required state shows in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

**If No Signal use:** In the event the **ChromaZone6/12™** is not receiving a DMX signal (e.g. controller no longer present), the unit may either use the user-programmable Stand Alone Settings (see **Stand Alone Settings View/Change** below) OR continue to use the Last DMX Packet received.

To select the **If NoSignal use:** requirement, press the or keys on the **UIM** until the display shows **If NoSignal use** Press the **X (change)** key on the **UIM**, then select the requirement using the or keys.

When your requirement is showing in the display, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

### Stand Alone Settings View/Change

There are three possibilities depending on:

- Whether there is an input signal and
- Whether "If NoSignal use:" is set to "Stand Alone Mode" or set to "Last DMX Packet".

#### 1. No Signal + Use Stand Alone Mode:

The current Stand Alone Settings may be viewed, changed and saved as the new Stand Alone Settings.

#### 2. No Signal + Use Last DMX Packet:

The channel levels of the Last DMX Packet (if any) may be viewed, changed and saved as the new Stand Alone Settings.

#### 3. Signal present:

The incoming signal overwrites any changes made but these incoming channel levels may be set at the controller, viewed and saved as the new Stand Alone Settings.

## USER INTERFACE MODULE AND FUNCTIONS

To View/Change the Stand Alone Settings, press the or keys on the **UIM** until the display shows **Stand Alone Settings View/Change.**

Press the **X (change)** key on the **UIM**, then select the channel to view/change using the or keys. These keys repeat if held down. When the channel to be viewed/changed is showing in the display, press the or keys to change the value. These keys repeat if held down. The display shows both the bit number (0-255) and percentage (0-100%).

Please see the **Chase Select Table** when modifying chases.

To modify further channels, select the channel to view/change using the or repeat keys, pressing the or repeat keys to change the value.

When you have finished modifying channels, press the **(Yes)** key to save changes or **X (Back)** key to restore the previous settings.

VIEW(Sig)/SET(NoSig) Chan Levels

To View the Channel Levels/Change the Stand Alone Settings, press the or keys on the **UIM** until the display shows **VIEW (Sig)/SET(NoSig) Chan Levels**

Press the **X (change)** key on the **UIM**, then select the channel to change/view using the or keys. These keys repeat if held down.

When the channel to be changed/viewed is showing in the display, press the or keys to change the value. These keys repeat if held down. The display shows both percentage (0-100%) and bit number (0-255), and for channels 4 (Chase 1 Select) and 7 (Chase 2 Select) the chases selected.

Please see the **Chase Select Table** when modifying chases.

#### Notes:

this menu item is for this session use only, data is never saved. the values can only be changed if the unit is not receiving data.

pressing the **X** or keys returns to the main menu.

### Restore Factory Default Settings

To restore the factory default settings, press the or keys on the **UIM** until the display shows **Restore Factory Default Settings.**

Press the **X (change)** key on the **UIM**, then press the **(Yes)** key to restore defaults or **X (Back)** key to exit.

The factory default settings are:

<b>DMX Address</b>	1
<b>ChromaZone Mode</b>	46 Channel
<b>Channels per Fixture</b>	3
<b>Fixture number</b>	1
<b>Chase patterns</b>	6 Way
<b>Channel 10</b>	Grand Master for the 36 RGBs only
<b>Input Smoothing</b>	ON
<b>Low Voltage Supply</b>	ON
<b>DMX Line Termination</b>	OFF
<b>If No Signal use:</b>	Stand Alone Mode
<b>Stand Alone Settings</b>	Ch.1 - 3 = 0 bits / 0%
	Ch.4 = Chase 1 Select = Auto Chase
	Ch.5 = Chase 1 Speed = 128 bits / 50%
	Ch.6 = Chase 1 Level = 255 bits 100%
	Ch.7 46 = 0 bits / 0%

# CHROMAZONE Menu Selection Overview

Display	Operation	Display	Choices	Operation
DMX Address: Receiving: <b>t</b>	X=Change X=Restore	DMX Address <b>n</b> X=Back =Yes	$n=1$ to 512 $t = \text{DMX} / \text{PMX} / \text{NO SIG} / \text{ERROR}$	=Save
ChromaZone Mode: <b>nn</b> Channels	X=Change X=Restore	CZ Mode <b>nn</b> Chan. X=Back =Yes	3 6 9 10 18 24 28 3 6 9 10 36 42 46	=Save
Channels per Fixture: <b>3</b>				
Fixture number: <b>1</b> of <b>12</b>				
Chase patterns: <b>n</b> Way	X=Change X=Restore	<b>n</b> Way Patterns X=Back =Yes	6 Way 12 Way	=Save
Ch.10	X=Change X=Restore	X=Back =Yes	CH10 = 18xRGB GM CH10 = 36xRGB GM CH10 = Global GM	=Save
Input Smoothing: <b>t</b>	X=Change X=Restore	IP Smoothing <b>t</b> X=Back =Yes	ON=Gentle, Smooth OFF=Fast, Video	=Save
Low Voltage Supply is: <b>t</b>	X=Change X=Restore	LV Supply is X=Back =Yes	ON OFF	=Save
DMX Line Termination: <b>t</b>	X=Change X=Restore	Line Term is <b>t</b> X=Back =Yes	ON OFF	=Save
If NoSignal use: <b>t</b>	X=Change X=Restore	<b>t</b> X=Back =Yes	Stand Alone Mode Last DMX Packet	=Save
Stand Alone Sett ings View/Change	X=Change X=Restore	Bits: %	Channel Assignments Tables and Chase Select Table	=Save
VIEW (Sig) /SET (No Sig) Chan Levels	X=View X=Back	Bits: %	Channel Assignments Tables and Chase Select Table	X = Back = Back
Restore Factory Default Settings	X=View	Restore Defaults X=Back =Yes	=Restore	
Pulsar Light of Cambridge Ltd UK		Information only		
www. pulsarlight.com		Information only		
MainSoftware <b>N.n</b> (C) Pulsar <b>ddmmyy</b>		Information only		
UIM Software <b>N.n</b> (C) Pulsar <b>ddmmyy</b>		Information only		
Inside air units now <b>xxx</b> was <b>yyy</b>		Information only Used by software		
to view X to change		Information only		

# ChromaZone Software Version 4.0

**Pulsar ChromaZone6/12(NP) / ChromaZone6/12RMX3 / ChromaBank / ChromaFlood / ChromaBatten Software Version No. 4.0** (MAIN micro 4.0 04-12-07 + UIM micro 1.0 07-03-05) has many exciting features. Two built in Chases allowing superimposition of effects and cross fading between chases. Chase 1 and 2 use the same table of 31 chases but there are differences to give you more choice - Chase 1 uses the ALL Red, Green and Blue Channels, 1, 2 & 3, to change the colour of some chases (see table) while Chase 2 stays white and uses them to give a background colour. The chases have a very wide range of speeds.

- 7 operating modes: 3, 6, 9, 10, 36, 42 and 46 Channel Modes.

- A Master Dimmer Channel (Ch. 10) for the 36 individual RGB channels, which may become a Global Grand Master for the All R/G/B and Chases Levels too.

- Input Smoothing may be disabled for fast display of video graphics and video frame rate capability.

- Please see the **Channel Assignments Table** page for details of the Operating Modes and how to select them, Channel Listings, and further information.

Chase No.	% Input	Bit No.	Chase Description	Notes
15	100	255	Auto Chase	
	95	244	Green Yellow Red Bar Graph Reverse	Use Channel 1
	92	236	Green Yellow Red Bar Graph Forward	Use Channel 1
14	89	228	Rainbow Strobe	
13	86	220	White / Any Colour Strobe	Channels 1,2 & 3 set colour
	83	212	White / Any Colour Crossover	Channels 1,2 & 3 set colour
12	80	204	Blue-Yellow Wave Reverse	
	77	196	Blue-Yellow Wave Forward	
	73	188	Green-Magenta Wave Reverse	
11	70	180	Green-Magenta Wave Forward	
	67	172	Red-Cyan / AnyCol/Op Colour Wave Forward	Channels 1,2 & 3 set colour All 3 at 0% = Red-Cyan
10	64	164	Red-Cyan / AnyCol/Op Colour Wave Reverse	
9	61	156	Black-White / AnyColour Wave Forward	Channels 1,2 & 3 set colour All 3 at 0% = White
	58	148	Black-White / AnyColour Wave Reverse	
8	55	140	Random Cols. Chase 1 Crossfade, Chase 2 Snap	
	52	132	Rainbow 2 Crossfade Forward	Wider primary colours to compensate for extra diffusion
	48	124	Rainbow 2 Crossfade Reverse	
7	45	116	Rainbow Crossfade Forward	Equal width primary & secondary colours
6	42	108	Rainbow Crossfade Reverse	
	39	100	"Follow 3" 18 Contrasting Colours Reverse	
5	36	92	"Follow 3" 18 Contrasting Colours Forward	
	33	84	18 Crossfading Colours Reverse	
4	30	76	18 Crossfading Colours Forward	
	27	68	White/AnyColour/AutoColour Cascade Reverse	Channels 1,2 & 3 set colour All 3 at 0% = White.
	23	60	White/AnyColour/AutoColour Cascade Forward	All 3 at 100% = Auto Colour Change
3	20	52	6 Crossfading Pastel Colours	
	17	44	Colour Wipes	
2	14	36	6 Crossfading Colours	
1	11	28	6 Separate Colours	
	8	20	Red Green Blue Bar Graphs Reverse	Use Channels 1,2 & 3
	5	12	Red Green Blue Bar Graphs Forward	Use Channels 1,2 & 3
0	0	0	No Chase	

# CHROMAZONE Channel Assignment Tables

(3) 6 Channel Mode	
1	All Red
2	All Green
3	All Blue
4	Chase Select (see Chase Table)
5	Chase Speed
6	Chase Level

(9) 10 Channel Mode	
1	All Red
2	All Green
3	All Blue
4	Chase 1 Select (see Chase Table)
5	Chase 1 Speed
6	Chase 1 Level
7	Chase 2 Select (see Chase Table)
8	Chase 2 Speed
9	Chase 2 Level
10	Global Grand Master

36 Channel Mode		
ChromaZone 6		ChromaZone 12
Fixture 1 of 2	Fixture 2 of 2	
1 Red 1 2 Green 1 3 Blue 1  ↓ 16 Red 6 17 Green 6 18 Blue 6	19 Red 1 20 Green 1 21 Blue 1  ↓ 34 Red 6 35 Green 6 36 Blue 6	1 Fixture 1 Red 1 2 Fixture 1 Green 1 3 Fixture 1 Blue 1  ↓ 34 Fixture 1 Red 12 35 Fixture 1 Green 12 36 Fixture 1 Blue 12

42 Channel Mode		
ChromaZone 6		ChromaZone 12
Fixture 1 of 2	Fixture 2 of 2	
1-6 as 6 Channel Mode 7 Red 1 8 Green 1 9 Blue 1  ↓ 22 Red 6 23 Green 6 24 Blue 6	1-6 as 6 Channel Mode 25 Red 1 26 Green 1 27 Blue 1  ↓ 40 Red 6 41 Green 6 42 Blue 6	1-6 as 6 Channel Mode 7 Fixture 1 Red 1 8 Fixture 1 Green 1 9 Fixture 1 Blue 1  ↓ 40 Fixture 1 Red 12 41 Fixture 1 Green 12 42 Fixture 1 Blue 12

46 Channel Mode		
ChromaZone 6		ChromaZone 12
Fixture 1 of 2	Fixture 2 of 2	
1-9 as 9 Channel Mode 10 36 x RGB Grand Master OR Global Grand Master ↓ 11 Red 1 12 Green 1 13 Blue 1 ↓ 26 Red 6 27 Green 6 28 Blue 6	1-9 as 9 Channel Mode 10 36 x RGB Grand Master OR Global Grand Master ↓ 29 Red 1 30 Green 1 31 Blue 1 ↓ 44 Red 6 45 Green 6 46 Blue 6	1-9 as 9 Channel Mode 10 36 x RGB Grand Master OR Global Grand Master ↓ 11 Fixture 1 Red 1 12 Fixture 1 Green 1 13 Fixture 1 Blue 1 ↓ 44 Fixture 1 Red 12 45 Fixture 1 Green 12 46 Fixture 1 Blue 12



# CHROMAZONE Range LED Printing

## CZ12 - 200W - ChromaZone12 200W

M6 SAFETY CHAIN FIXING POINT

ON-1

OFF-0

FUSE F 5A H 5x20mm

**CAUTION**

RISK OF ELECTRIC SHOCK DO NOT OPEN

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

**MAINS SUPPLY**  
85-240V~  
50-60Hz  
200W Max

**CHASE SELECT TABLE**  
Chase 1 - Channel 4 / Chase 2 - Channel 7

INPUT %	BIT No.	CHASE DESCRIPTION
48	124	Rainbow 2 Crossfade Reverse
45	116	Rainbow Crossfade Forward
42	108	Rainbow Crossfade Reverse
39	100	"Follow 3" 18 Contrasting Colours Reverse
36	92	"Follow 3" 18 Crossfading Colours Forward
33	84	18 Crossfading Colours Reverse
30	76	18 Crossfading Colours Forward
27	68	White/AnyColour/AutoColour Cascade Reverse
24	60	White/AnyColour/AutoColour Cascade Forward
21	52	6 Crossfading Pastel Colours
17	44	Colour Wipes
14	36	6 Crossfading Colours
11	28	6 Separate Colours
8	20	Red Green Blue Bar Graphs Reverse
5	12	Red Green Blue Bar Graphs Forward
0	0	No Chase

**CHASE SELECT TABLE**  
Chase 1 - Channel 4 / Chase 2 - Channel 7

INPUT %	BIT No.	CHASE DESCRIPTION
100	255	Auto Chase
95	244	Green Yellow Red Bar Graph Reverse
92	236	Green Yellow Red Bar Graph Forward
89	228	Rainbow Strobe
86	220	White / Any Colour Strobe
83	212	White / Any Colour Crossover
80	204	Blue-Yellow Wave Reverse
77	196	Blue-Yellow Wave Forward
73	188	Green-Magenta Wave Reverse
70	180	Green-Magenta Wave Forward
67	172	Red-Cyan / AnyCol/Op.Col Wave Forward
64	164	Red-Cyan / AnyCol/Op.Col Wave Reverse
61	156	Black-White/Any Colour Wave Forward
58	148	Black-White/Any Colour Wave Reverse
55	140	Random Coils, Chase1 Crossfade, Chase2 Snap
52	132	Rainbow 2 Crossfade Forward

Conforms to:  
ANSI/UL Std. 6500  
Cert. to: CAN/CSA E60065-00

EMC DIRECTIVE 89/336/EEC  
LOW VOLTAGE DIRECTIVE 73/23/EEC

MADE IN EUROPE BY: PULSAR LIGHT OF CAMBRIDGE LTD.  
3 COLDHAMS BUSINESS PARK, NORMAN WAY, CAMBRIDGE, CB1 3LH, UK. WWW.PULSARLIGHT.COM  
TEL: +44(0)1223 403500 - FAX: +44(0)1223 403501

**PULSAR**

Serial No. [REDACTED]

© PULSAR 2008

**3 (6) CHANNEL MODE**

1 All Red
2 All Green
3 All Blue
4 Chase1 Select
5 Chase1 Speed
6 Chase1 Level

**9 (10) CHANNEL MODE**

1 All Red
2 All Green
3 All Blue
4 Chase1 Select
5 Chase1 Speed
6 Chase1 Level
7 Chase2 Select
8 Chase2 Speed
9 Chase2 Level
10 Global Grand Master

**36 CHANNEL MODE**

1 Output 1 Red
2 Output 1 Green
3 Output 1 Blue
4 Output 2 Red
5 Output 2 Green
6 Output 2 Blue

**42 CHANNEL MODE**

1-6 As 6 Channel
7 Output 1 Red
8 Output 1 Green
9 Output 1 Blue
10 Output 2 Red
11 Output 2 Green
12 Output 2 Blue

**46 CHANNEL MODE**

1-9 As 9 Channel
10 11-46 Grand Master OR Global Grand Master
11 Output 1 Red
12 Output 1 Green
13 Output 1 Blue
14 Output 2 Red
15 Output 2 Green
16 Output 2 Blue

**XR15 DMX SIGNAL**

4- NOT USED 5- LVS OUTPUT +24VDC (MALE ONLY)  
PINS: 1-SCREEN 2=DATA+ 3=DATA- 4=NOT USED 5- LVS +24VDC (MALE ONLY)

## CZ6 - 100C - ChromaZone6 Compact 100W

XR15 DMX SIGNAL

PINS: 1-SCREEN 2=DATA+ 3=DATA- 4=NOT USED 5- LVS +24VDC (MALE ONLY)

**CHASE SELECT TABLE - Chase 1 - Channel 4 / Chase 2 - Channel 7**

INPUT %	BIT No.	CHASE DESCRIPTION
100	255	Auto Chase
95	244	Green Yellow Red Bar Graph Reverse
92	236	Green Yellow Red Bar Graph Forward
89	228	Rainbow Strobe
86	220	White / Any Colour Strobe
83	212	White / Any Colour Crossover
80	204	Blue-Yellow Wave Reverse
77	196	Blue-Yellow Wave Forward
73	188	Green-Magenta Wave Reverse
70	180	Green-Magenta Wave Forward
67	172	Red-Cyan / AnyCol/Op.Col Wave Forward
64	164	Red-Cyan / AnyCol/Op.Col Wave Reverse
61	156	Black-White/Any Colour Wave Forward
58	148	Black-White/Any Colour Wave Reverse
55	140	Random Coils, Chase1 Crossfade, Chase2 Snap
52	132	Rainbow 2 Crossfade Forward

Conforms to:  
UL 8750  
UL 1598

EMC DIRECTIVE 2004/108/EC  
LOW VOLTAGE DIRECTIVE 2006/95/EC

**PULSAR CZ6-100C**

PULSAR LIGHT OF CAMBRIDGE LTD. 3 COLDHAMS BUSINESS PARK, NORMAN WAY, CAMBRIDGE, CB1 3LH, UK

## CZ12 - 200W - ChromaZone12 200W

**PULSAR**

MAINS IN / THRU  
MAX - 2x1.5mm Cables in each terminal

DMX IN (AS VIEWED ON PCB)

DMX THRU (AS VIEWED ON PCB)

VENT PLUG  
Located on rear of product  
DO NOT OBSTRUCT

MAINS IN

DMX IN

DMX THRU

**CHASE SELECT TABLE**  
CHASE 1 - CHANNEL 4 CHASE 2 - CHANNEL 7

INPUT %	BIT No.	CHASE DESCRIPTION
100	255	Auto Chase
95	244	Green Yellow Red Bar Graph Reverse
92	236	Green Yellow Red Bar Graph Forward
89	228	Rainbow Strobe
86	220	White / Any Colour Strobe
83	212	White / Any Colour Crossover
80	204	Blue-Yellow Wave Reverse
77	196	Blue-Yellow Wave Forward
73	188	Green-Magenta Wave Reverse
70	180	Green-Magenta Wave Forward
67	172	Red-Cyan / AnyCol/Op.Col Wave Forward
64	164	Red-Cyan / AnyCol/Op.Col Wave Reverse
61	156	Black-White/Any Colour Wave Forward
58	148	Black-White/Any Colour Wave Reverse
55	140	Random Coils, Chase1 Crossfade, Chase2 Snap
52	132	Rainbow 2 Crossfade Forward

Conforms to:  
UL 8750  
UL 1598

EMC DIRECTIVE 89/336/EEC  
LOW VOLTAGE DIRECTIVE 73/23/EEC

**PULSAR**

Serial No. [REDACTED]

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PULSAR LIGHT OF CAMBRIDGE LTD  
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**3 (6) CHANNEL MODE**

1 All Red
2 All Green
3 All Blue
4 Chase1 Select - see Chase Table
5 Chase1 Speed
6 Chase1 Level

**9 (10) CHANNEL MODE**

1 All Red
2 All Green
3 All Blue
4 Chase1 Select - see Chase Table
5 Chase1 Speed
6 Chase1 Level
7 Chase2 Select - see Chase Table
8 Chase2 Speed
9 Chase2 Level
10 Global Grand Master

**46 CHANNEL MODE**

1-9 As 9 Channel Mode
10 36 x RGB Grand Master OR Global Grand Master
11 Red 1
12 Green 1
13 Blue 1
44 Red 12
45 Green 12
46 Blue 12

**CABLE GLANDS**

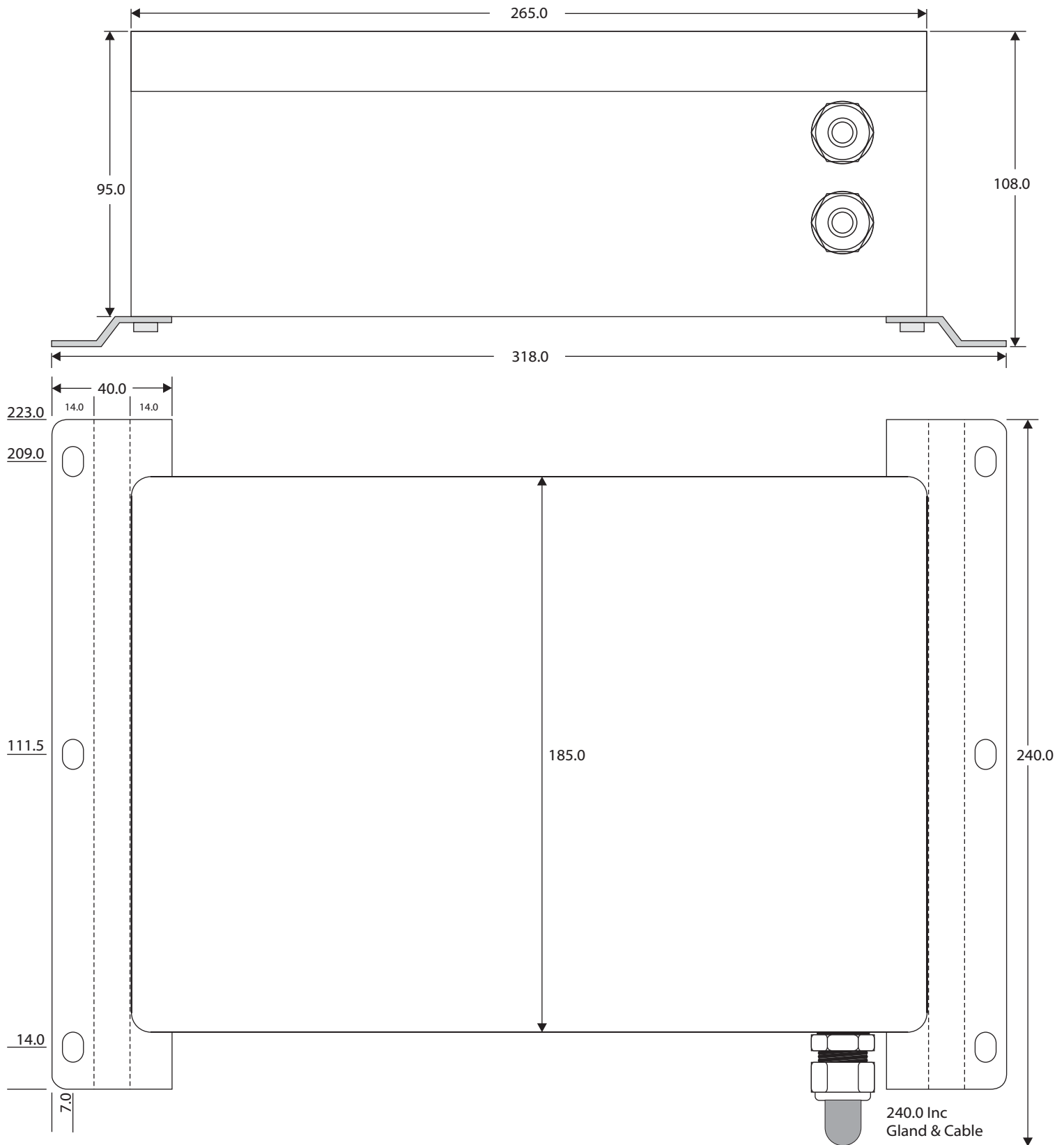
GLAND (PULSAR PART 4562)  
DRILL HOLE - 14.0MM  
TAP HOLE - M16 X 1.5MM

BEFORE INSTALLING  
ENSURE LIQUID TIGHT O-RING  
IS PLACED ON GLAND

**OUTPUT CONNECTION BLOCKS**

TOP ROW	1	3	5	7	9	11
BOTTOM ROW	2	4	6	8	10	12

# CHROMAZONE 12-200IP Dimensions



For more information please contact


**lightmoves** (03) 9701 2500  
info@lightmoves.com.au

138-146 Browns Rd, Noble Park VIC 3174

# IMPORTANT SAFETY INSTRUCTIONS

Read the Product Instruction Leaflet and this Safety Instructions Leaflet before attempting to install or operate this apparatus.

Keep this leaflet and the Product Instruction Leaflet for future reference.

Observe ALL warnings indicated by the symbol,  both in the Product Instruction Leaflet and on the apparatus.

Follow ALL instructions given in the Product Instruction and this Safety Leaflet. Failure to do so may result in serious injury or death.

Protect the power cord from being walked on or pinched, particularly at plugs, auxiliary outputs, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer (Pulsar Light of Cambridge Ltd. UK).

Use only with the stand/bracket or other mounting arrangement specified in the Product Instruction Leaflet. In case of doubt, consult with the manufacturer (Pulsar Light of Cambridge Ltd. UK).

Unplug this apparatus before lightning storms or when unused for long periods.

Refer all servicing to suitably qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Clean only with a DRY cloth.

Protect the apparatus from dripping and splashing.

DO NOT place objects containing liquids on the apparatus.

DO NOT use this apparatus near water or in a condensing atmosphere, unless explicitly stated in the Product Instruction Leaflet.

DO NOT block any of the ventilation openings. Install the apparatus as specified in the Instruction Leaflet.

DO NOT defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is for YOUR safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete unit.

## **Mains Supply Cable Colours**

Green / Yellow =  $\equiv$  Earth / Ground

Brown = Live / Phase / Hot

Blue = Neutral / Grounded Conductor

For more information please contact

**lightmoves** (03) 9701 2500  
info@lightmoves.com.au

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