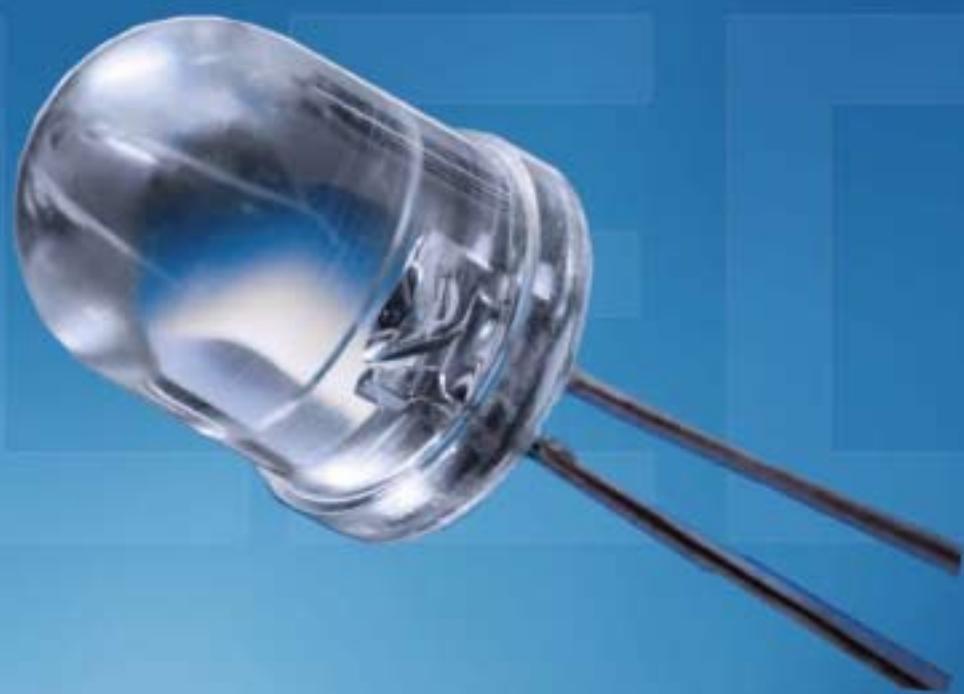


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# *Mast*

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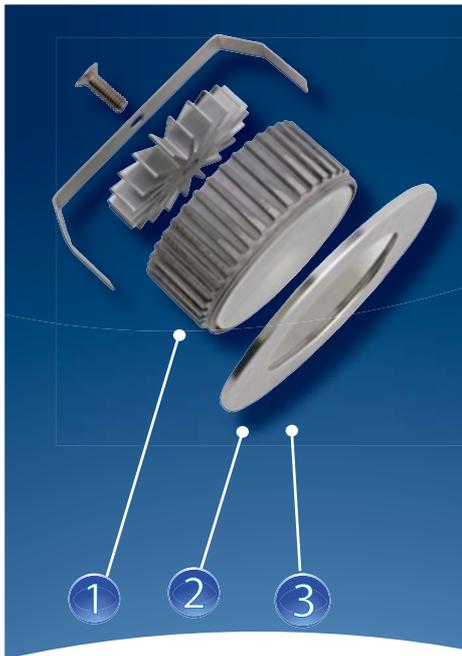
PRODUCTS



**2009**

[www.mastproducts.com](http://www.mastproducts.com)

**RETRO FIT LED LIGHT UNITS**



**1** Choose your LED unit output

Available in 3Watt MR16 size and 5Watt 60mm size, a variety in light colour output, cool-, soft-, or warm white and RGB (a 3-colour and a 7-colour version)

We offer two versions, a regular and an extended LED Light Unit, none of which need a LED driver.

Both the regular- and the extended LED Light Unit can directly be powered with 10V-24V/AC or 10V-30V/DC.

The extended version has a built-in dimmer which is controlled by a pulse switch. The wiring diagram for the extended version can be found at the end of this catalogue.

**Retro Fit LED Light Units**



**2** Choose your Glass

The Units come standard with 2 lenses, one clear- and one frosted glass lens to choose from, depending on the application of use.



The new generation of LED Lights!

**1** Choose your LED unit output

Choose your Glass

**2**

**3** Choose your fitting for interior or exterior use

The 3-colour RGB LED Unit provides White, Red and Bright Blue coloured light. The 7-colour RGB LED Unit provides White, Red, Light Blue, Bright Blue, Purple, Yellow and Green coloured light. Both units also have a mode to gradually change through all its colours and are also available in an extended version which allows you dimming in a set colour.



**SPECIFICATIONS**

	RETRO FIT 3Watt MR16 Size	RETRO FIT 5Watt 60mm Size
Art. No.	RF040404 - RF070707	RF606060 - RF616162
LIGHT SOURCE	1 x 3Watt LED	1 x 5Watt LED
INPUT VOLTAGE	10V-24V/AC or 10V-30V/DC	10V-24V/AC or 10V-30V/DC
POWER CONSUMPTION	2,5Watt	3,5Watt
INTERGRATED DIMMER	Optional* (Extended version)	Optional* (Extended version)
PROTECTION FEATURES	Reverse Polarity Protection	Reverse Polarity Protection
SMARTDRIVER	Inner controlled	Inner controlled
<b>Available LED Colours</b>		
Warm White 3200Kelvin	●	
Soft White 3900Kelvin	●	
Cool White 5500Kelvin	○	
3 colour RGB	● ● ●**	
7 colour RGB	● ● ● ● ● ● ●**	

\* Optional is the extended version with integrated dimming mode, for more information see wiring diagrams

\*\* The RGB versions feature a mode to gradually change through all colours

Mast Products Int. reserves the right to make changes at any time

Ready in just 3 steps

## FRONT COVER FITTING KITS RETRO FIT LIGHT

3 Choose your fitting for interior use

For interior use, the Retro Fit LED Light Units can easily be fitted with the front cover fitting kits, available in round or square, with 4 different finishes, white, brass, brushed aluminium and chrome.



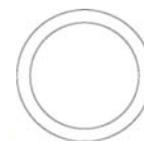
### FINISHES AVAILABLE



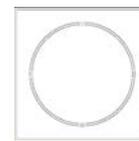
Aluminium - Brass - White - Chrome

### SPECIFICATIONS

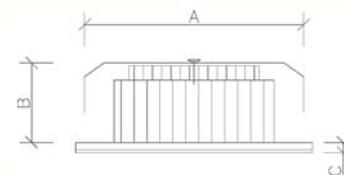
Art. No.: RF101010-RF101017



Front Cover Round:  
MR16 Size Ø62mm  
60mm Size Ø76mm



Front Cover Square:  
MR16 Size 62mm x 62mm  
60mm Size 76mm x 76mm



Retro Fit 3Watt MR16 Size:	Retro Fit 5Watt 60mm Size:
A- 52mm Cut out	A- 65mm Cut out
B- 25mm Depth	B- 25mm Depth
C- 2,5mm Thick	C- 2,5mm Thick



## EXTERIOR HOUSING RETRO FIT LIGHT UNITS

3 Choose your fitting for exterior use

For exterior use, 2 sizes round shaped fixtures are available in stainless steel, white, nickle or brass finish, with a life-long guarantee.

The MR16 Size Retro Fit LED Unit will fit both the 80mm and the 100mm exterior fixtures as the 60mm Retro Fit LED Light Unit requires the 100mm size for fitting the unit.



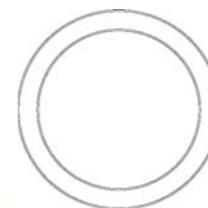
### FINISHES AVAILABLE



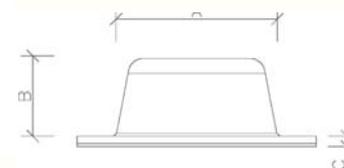
Nickle - Brass - White - Stainles Steel

### SPECIFICATIONS

Art. No.: RF101111-RF101118



Exterior Fixture Retro Fit LED Units dimensions:  
Ø80mm size & Ø100mm size



Exterior Fixture 80mm Size:	Exterior Fixture 100mm Size:
A- 52mm Cut out	A- 65mm Cut out
B- 20mm Depth	B- 30mm Depth
C- 6,5mm Thick	C- 8,5mm Thick



## HIGH POWER LED CEILING LIGHT



These slim, aluminium units, contain 3 x 1Watt LED's with a light output comparable to a 20Watt halogen light.

The warm white version is available in two beam angles a 45° floodlight and a 15° spotlight as the red is only available in 45° floodlight for night vision.

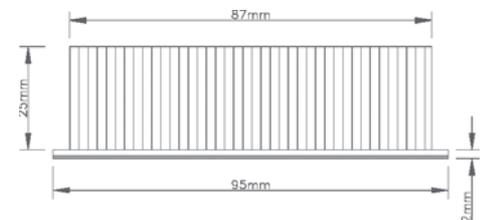
### SPECIFICATIONS

Light Source:	3x1Watt LED's
Power Source:	10V-30V/DC
Power consumption:	3Watt
LED Colour options:	Warm White or Red
Material:	Aluminium
Finish:	Aluminium, Chrome & Brass
Art. No.:	CL808080-CL888888

### FINISHES AVAILABLE



Aluminium - Brass - Chrome



## HIGH POWER LED MULTILIGHT



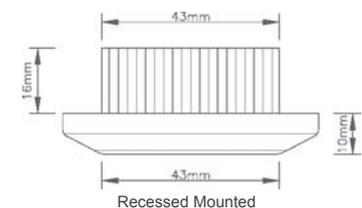
The Multi Light is designed to be used in many ways and can even be fitted in 'hard knock' environments or outside as they come with hardened glass and they are waterproof.

The light can be either surface mounted or recessed mounted, by simply removing the back housing.

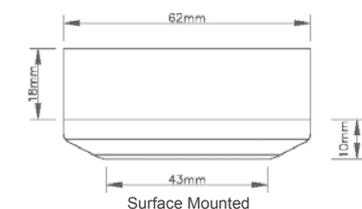
Perfect for use as spreader lights.

### SPECIFICATIONS

Light Source:	3x1Watt LED's
Power Source:	10V-30V/DC
Power consumption:	3Watt
LED Colour Options:	Warm White, Cool White & Bright Blue
Material:	Anodised Aluminium
Finish:	Aluminium, Chrome & White
Art. No.:	ML010101-ML060607



Recessed Mounted



Surface Mounted



### FINISHES AVAILABLE



Aluminium - White - Chrome



For recessed mounting simply remove the backside housing.

**7 CHIP LED'S CEILING LIGHT**



This 7 Chip LED's ceiling light is very easy in use as they can many times be fitted in the same hole of your existing lighting fixture. Many fixture manufacturers use the same cut-out dimensions for this type of fixture.

Also available is a version with one red LED in the middle for night vision. This version needs to be connected to a rocker switch as it's a 3 wire system.

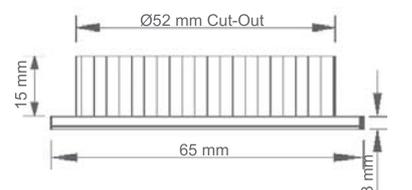
**SPECIFICATIONS**

Light Source:	7 Super Bright Chip LED's
Power Source:	10V-24V/AC or 10V-30V/DC
Power consumption:	1,2Watt
LED Colour options:	Warm White or 6 Warm White & 1 Red
Material:	Aluminium and Plastic Housing
Finish:	Aluminium, Chrome & Brass
Art. No.:	CL010101-CL020204

**FINISHES AVAILABLE**



Aluminium - Brass - Chrome



**G4, MR11 & MR16 REPLACEMENT BULBS**



MR16

With the G4, MR11 & MR16 7 Super Bright Chip LED's Replacement Bulb, you can instantly replace all your halogen lights with LED's. The LED bulbs will give you the light output of a 10Watt halogen bulb.

The G4 is available with side or back pins depending on the fixture it must be fitted into.

**SPECIFICATIONS**

Light Source:	7 Super Bright Chip LED's 1,2Watt
Power Source:	G4 Side & Back: 10V-15V AC/DC MR11 & MR16: 10V-30V AC/DC
Power consumption:	1,2Watt
LED Colour Options:	Warm White & Soft White
Material:	G4 Anodised Aluminium MR11/MR16 Glass
Mounting:	Replacement Fitting
Art. No.:	RB101010-RB222223



G4 Side Pins



G4 Back Pins



MR11



## BAY15D LED'S REPLACEMENT BULBS



The Bay15D 50 LED's Replacement Bulb will replace your conventional light bulb, instantly converting your navigation lights to LED navigation lights for boats up to 20 meters.

Available colours are White, Red, Green, Two Colour Red/Green and Three Colour Red/Green/White to fit all versions of the navigation lights.

The LED bulbs consume merely 3.5Watts and have the same light output as the conventional 25Watt light bulb.

### SPECIFICATIONS

Light Source:	50pcs 5mm Super Bright LED's
Power Source:	10V-30V/DC
Power consumption:	3,5Watt
LED Colour Options:	All Around Red, Green, White, Two Colour Red & Green, Three Colour Red, Green & White
Material:	Anodized Aluminum
Fitting:	Bay15D
Art.No.:	RB010101-RB050505



IP67 

## BA15D, BA15S & FESTOON T13X44 18 DOUBLE CHIP REPLACEMENT BULBS



The BA15D, BA15S & Festoon 18 Double Chip LED's Replacement Bulb will replace your conventional light bulb, instantly converting your navigation lights to LED navigation lights for boats up to 12 meters.

As each LED has two Chips the Bulb has the same light output compared with 36 normal LED's.

Available colours are White, Red, Green & Two Colour Red/Green to fit all versions of the navigation lights.

The LED bulbs consume merely 2Watts and have the same light output as the conventional 10Watt light bulb.

### SPECIFICATIONS

Light Source:	18pcs Double Chip Super Bright LED's
Power Source:	10V-15V/DC
Power consumption:	2Watt
LED Colour Options:	All Around Red, Green, White & Two Colour Red & Green
Material:	Anodized Aluminum
Fitting:	BA15D, BA15S, Festoon T13x44 & Festoon "Special Dimple Fitting"
Art.No.:	RB060606-RB090912



"Standard Fitting"



"Special Dimple Fitting"

For some brand manufacturers of navigation lights fixtures a bulb with our special dimple fitting is required for fitting them in these fixtures.

These Bulbs with the special fitting we call "Special Dimple Fitting"

IP67 

## HIGH POWER LED NAVIGATION LIGHTS



The MAST LED navigation lights are specially developed to save your power and maintenance and to improve the visibility of boats up to 20meters long.

The housing is made of strong polycarbonate and stainless steel and the LED's and electronics are sealed with epoxy.



### SPECIFICATIONS

Light Source:	4x1Watt & 5x1Watt LED's
Power Source:	10V-30V/DC
Power consumption:	4 to 5Watt
Material:	Polycarbonate & Stainless Steel
Dimensions:	Ø100mm, 115mm height & 95mm width backside
Mounting:	Bracket Surface Mounted
Art. No.:	NL909090-NL949494

IP67 

## LED CHART/READING LIGHT WITH TOUCH LED



In the dark, you can always find this light very easily, due to the red LED which is lightened all the time.

Just touch the red LED and the very bright white LED's will light up. Touch the LED again and the white LED's will turn off, leaving only the red LED on, which can be used as low level illumination light for navigation at night.

### SPECIFICATIONS

Light Source:	18x Very Bright White LED's and 1x Red Touch LED
Power Source:	10V-30V/DC
Power consumption:	1,2Watt
Material:	Aluminium
Finish:	Chrome & Brass
Dimensions:	30cm Flexible Shaft
Mounting:	Surface Mounted
Art. No.:	CH010101-CH020202



RED Touch LED

IP55 

## LED STEP/COURTESY LIGHT



The step/courtesy lights are designed not to shine into your eyes when lighted. Due to the cover, the light shines down.

There are no visible screws because of the smart mounting system.

The 5MM Super Bright LED's are available in Warm White or Cool White, with two choices of finishing, Chrome or Brass.

Power consumption is only 0,5Watt which won't drain your batteries.



### SPECIFICATIONS

Light Source:	5x 5mm Super Bright LED's
Power Source:	10V-30V/DC
Power consumption:	0,5Watt
LED Colour Options:	Warm White or Cool White
Material:	Aluminium
Finish:	Chrome & Brass
Dimensions:	110mm Long, 20mm Height & 13mm Width
Mounting:	Surface Mounted
Art. No.:	SC010101-SC040404



## LED MARKER LIGHT



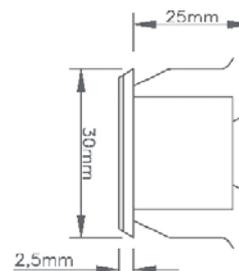
The Marker Lights are made of stainless steel 316 and can be placed underwater as they are totally waterproof.

These lights can be used on boats, caravans, marinas, walking paths in your garden, bathrooms, kitchens etc.

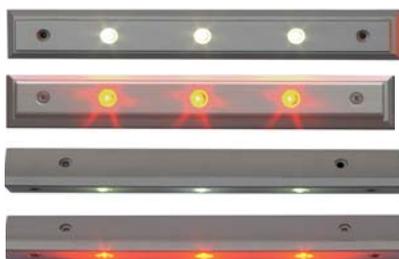
The high polished finish shows a remarkable effect when the light is lighted.

### SPECIFICATIONS

Light Source:	2x 5mm Super Bright LED's
Power Source:	10V-15V AC/DC
Power consumption:	0,14Watt
LED Colour Options:	Cool White, Bright Blue & Red
Material:	Stainless Steel 316
Finish:	Polished Stainless Steel
Mounting:	Recessed Mounted
Dimensions:	Ø40mm & 25mm Depth
Embedding Di.:	Ø30mm & 25mm Depth
Art. No.:	ML606060-ML676767



## HIGH POWER LED BARS



These slim, anodized aluminium and waterproof units will allow you to quickly and easily install or add lighting wherever it's required.

The small 21cm LED Bars come in two shapes flat and triangle in a various colour output. The small flat shape is perfect for use as a boom light.

The long 95cm and 125cm LED Bars only come in a flat shape with a warm white or cool white light output. The long LED bars are perfect for use as engine room lights.



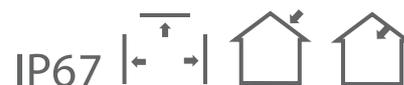
### SPECIFICATIONS

#### 21cm Version:

Light Source:	3x1Watt LED's
Power Source:	10V-15V/DC
Power consumption:	3Watt
LED Colour Options:	Flat Version: Warm White, Cool White Bright Blue & Red Triangle Version: Warm White & Red
Material:	Anodised Aluminium
Finish:	Aluminium
Dimensions:	3cm Width, 21cm Long & 1cm height
Mounting:	Surface Mounted

#### Light Source:

Light Source:	18x1Watt Or 24x1Watt LED's
Power Source:	10V-15V/DC
Power consumption:	18Watt or 24Watt
LED Colour Options:	Warm White & Cool White
Material:	Anodised Aluminium
Finish:	White
Dimensions:	3cm Width, 1cm height & 95cm or 125cm Long
Mounting:	Surface Mounted
Art. No.:	LB707070-LB909090



## HIGH POWER RGB LED BAR



The RGB LED Bar gives you the choice of 7 different colours of light in just one fixture. The range of colours are White, Red, Light Blue, Dark Blue, Purple, Yellow and Green.

The RGB LED Bars need a driver to power and control the colour settings. This Driver will also allow you to set colours, gradually change through all 7 colours and dimming.



### SPECIFICATIONS

Light Source:	3x3Watt or 18x3Watt RGB LED's
Power Source:	Driver/Dimmer DR010101
Power consumption:	9Watt or 54Watt
Shape:	Flat
Material:	Anodised Aluminium
Finish:	21cm Aluminium 95cm White
Dimensions:	3cm Width, 1cm Height and 21cm or 95cm Long
Mounting:	Surface Mounted
Art. No.:	LB757576 & LB808080



## LED MODULES STRING



The LED Modules have 5 Super Bright LED's. They come on a string of 5 meter long with a total of 40 modules and the wire can be cut after each module for any length required.

They are very easy to fit with the double sided 3M tape on the backside or screw fitting.

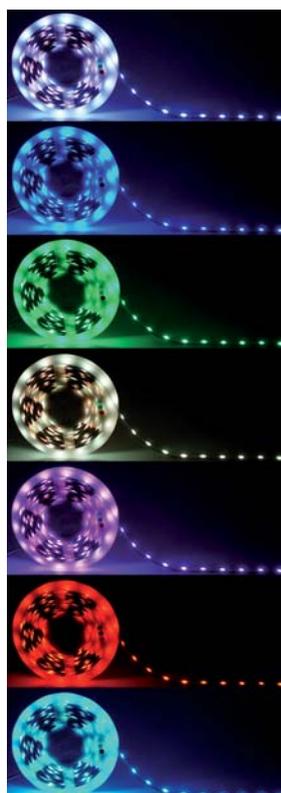


### SPECIFICATIONS

Light Source:	5x Super Bright LED's
Power Source:	10V-15V/DC
Power consumption:	0,5Watt
LED Colour Options:	Warm White, Cool White, Red & Bright Blue
Material:	Plastic
Finish:	White
Mounting:	Surface Mounted with Double sided 3M Tape or Screws
Dimensions:	80mm Long, 16mm Width & 15mm Height
Art. No.:	LM010101-LM040404



## FLEXIBLE RGB LED LINE



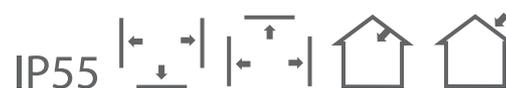
This very flexible waterproof line with 7-colour RGB LED's is easy to fit due to the 3M tape on the back. The line can be cut and connected after every 10cm to get the length you require. The line comes in lengths of 50cm with on each end connectors for easy connection. Extension cables of 10 meter length and corner connections are available.

With the driver and a pulse switch you can control the colours and dim the lights when set in a colour.

Like on all our RGB-lights there is also a mode to gradually change through all colours.

### SPECIFICATIONS

Light Source:	RGB Flexible Line
Power Source:	Driver DR020202-12V or 24V
LED Colour Options:	White, Red, Light Blue, Bright Blue, Purple, Yellow and Green
Material:	Flexible Silicon Strip
Mounting:	Surface Mounting
Dimensions:	17mm Width
Art. No.:	LL010101



## HIGH POWER LED UNDERWATERLIGHT



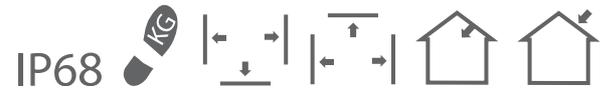
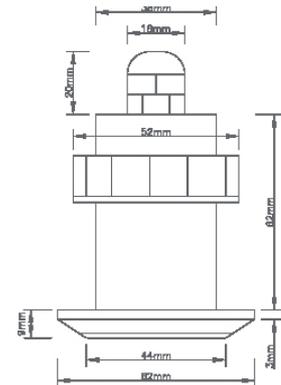
This small but Powerful LED Underwater Light is made of 316 Stainless Steel.

The extremely Bright 5Watt LED in combination with the very strong Polycarbonate Lens gives an enormous light output.

They come with a 5Watt Cool White Power LED or a 5Watt Bright Blue Power LED and can be powered with 10V-30V/DC

### SPECIFICATIONS

Light Source:	1x5Watt LED
Power Source:	10V-30V/DC
Power consumption:	5Watt
LED Colour Options:	Cool White & Bright Blue
Material:	Stainless Steel316 & Polycarbonate Lens
Mounting:	Recessed Mounted
Dimensions:	Ø60mm& 80mm Depth
Embedding Di.:	Ø35mm & 80mm Depth
Art. No.:	UW010101-UW020202



## LED TORCHES



Aluminium splash waterproof LED Torches.

In comparison with conventional torch lights the LED torches shine much brighter and the batteries will last you a lot longer!

Available in different light intensities, two of which are suitable for longer distances up to 25m.



IP55

### SPECIFICATIONS

Light Source:	1pcs 1Watt High Power LED
Power Source:	2 X CR123A Batteries
Material:	Anodised Aluminium
Dimensions:	Ø30mm, 130mm Long
Art. No.:	GT030303



IP55

### SPECIFICATIONS

Light Source:	7pcs 5mm Super Bright LED's
Power Source:	3 X AAA Batteries
Material:	Anodised Aluminium
Dimensions:	Ø29mm, 100mm Long
Art. No.:	GT010101



IP55

### SPECIFICATIONS

Light Source:	11pcs 5mm Super Bright LED's
Power Source:	3 X AAA Batteries
Material:	Anodised Aluminium
Dimensions:	Ø33mm, 100mm Long
Art. No.:	GT020202

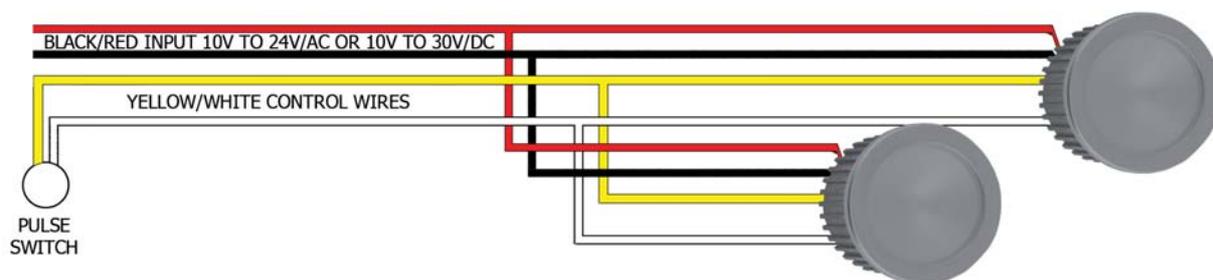


IP55

### SPECIFICATIONS

Light Source:	1pcs 3Watt High Power LED
Power Source:	2 X CR123A Batteries
Material:	Anodised Aluminium
Dimensions:	Ø30mm, 130mm Long
Art. No.:	GT040404

**RETRO FIT LED UNITS EXTENDED VERSION MANUAL & WIRING DIAGRAM**



The extended version of the Retro Fit Light Units will allow you to dim the LED lights as the dimmer is built-in to the Units.

It's a 4 wire system. The black and red wires are the input wires with a range of 10V to 24V/AC or 10V to 30V/DC.

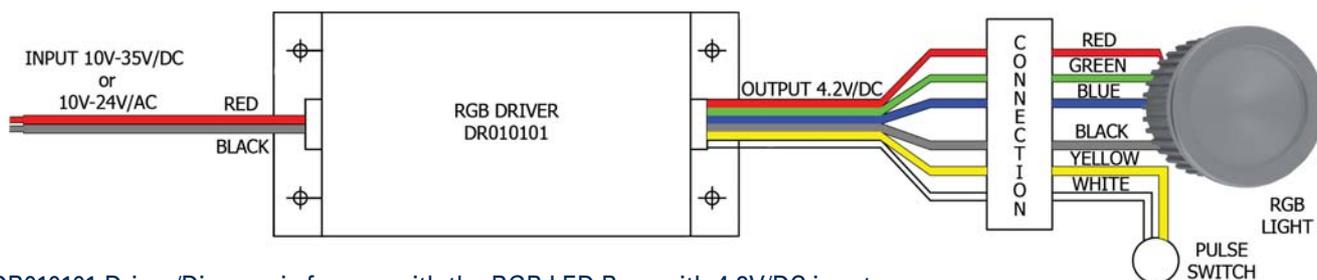
The white and yellow wire need to be connected to a pulse switch to control on/off and dimming.

For placing multiply of these units and controlling them in one circuit just connect the all yellow wires together and all white wires together and connect them all to the same pulse switch. The power supply doesn't need to come from the same power source as long as the units will get power you can control the circuit with the same switch.

A second or third pulse switch can be placed for controlling the same circuit as long as the yellow wires are connected together and the white wires are connected together.

**PLEASE BEWARE NOT CONNECTING THE WHITE AND YELLOW CONTROL WIRE TO ANY POWER SOURCE AS THE UNIT WILL BREAK DOWN AND WE WILL NOT THIS AS A CLAIM!**

**DRIVER/DIMMER MANUAL & WIRING DIAGRAM RGB LED BARS**



The DR010101 Driver/Dimmer is for use with the RGB LED Bars with 4,2V/DC input.

A pulse switch is needed to control the driver.

The green, blue, grey and red wires should always be connected with the similar coloured wires. This is very important, because the LED's are sensitive to polarity.

**WARNING: IF NOT CONNECTED PROPERLY, THE LED ENGINE WILL BREAK DOWN!**

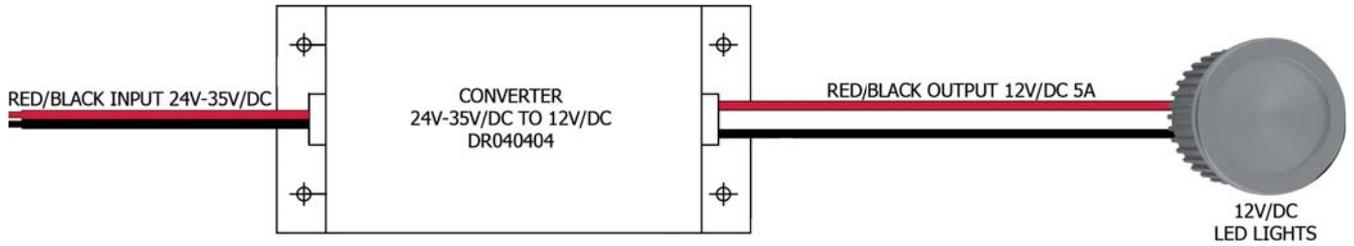
The white and yellow wires are for connecting the control switch.

**SPECIFICATIONS**

<b>DR010101:</b>	
For connection with:	RGB LED Bars
Power Source:	Input: 10V-24V AC or 10V-35V/DC
Output:	4.2V / 15A
Dimming Mode:	Yes
Control Switch:	Pulse/Momentary Switch
Material:	Aluminium Housing
Art. No.:	DR010101



## CONVERTER 24V/DC TO 12V/DC MANUAL & WIRING DIAGRAM



The DR040404 is a converter specially for use with 12V/DC LED Lights on 24V/DC systems.

It converts the power from 24V-35V AC/DC input to 12V/DC output.

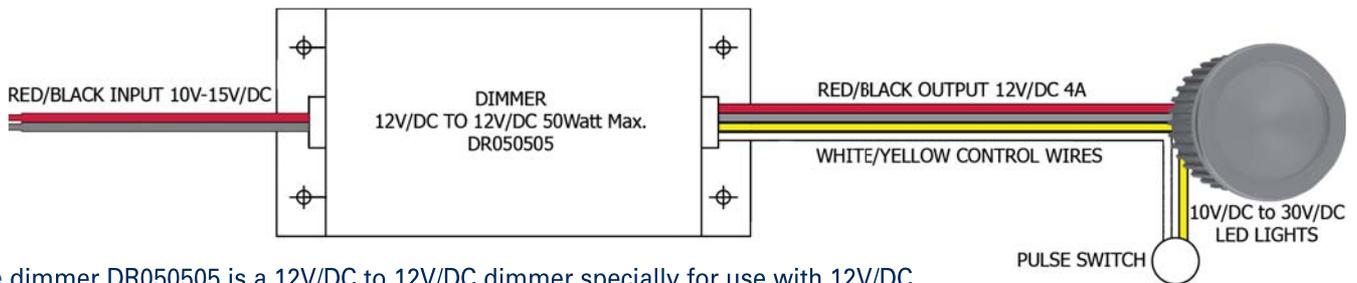
The converter can be connected with Max. 60Watt.

### SPECIFICATIONS

<b>DR040404:</b>	
Input:	24V-35V AC/DC
Output:	12V/DC - 5A Max
Material:	Aluminium Housing
Art. No.:	DR040404

IP44 

## DIMMER 12V/DC TO 12V/DC MANUAL & WIRING DIAGRAM



The dimmer DR050505 is a 12V/DC to 12V/DC dimmer specially for use with 12V/DC to 30V/DC input LED lights.

Please beware the dimmer is only suitable for 12V/DC systems. On 24V/DC systems you need to use the converter DR040404 in primary to the dimmer.

A pulse switch is needed to control the driver.

The driver can be connected with Max. 50Watt on LED lights.

### SPECIFICATIONS

<b>DR050505:</b>	
Power Source:	Input: 10V-15V DC Output: 12V/DC - 4A Max
Control Switch:	Pulse/Momentary Switch
Material:	Polycarbonate Housing
Art. No.:	DR050505

IP44 





