



# StarBrite StarBrite Controller

PR-8710  
PR-8710C

This product manual contains important information about the safe installation and use of this product. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

PR LIGHTING LTD.  
<http://www.pr-lighting.com>

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Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.

Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

## ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
Power-cord	1	Pc	
3-pin XLR cable	1	Pc	With plug
5-pin signal connection cable	1	Pc	With plug
This manual	1	Pc	

## SAFE USAGE OF THE PRODUCT

When unpacking and before disposing of the carton, check there is no transportation damage before using the product. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The product is for indoor and outdoor use, but not allowed to be used outdoor in rainy days. Use only in dry locations. Keep this product away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.

The product is not designed or intended to be mounted directly onto inflammable surfaces.



The working environment temperature of the product is 0°C~40°C.

The product is only intended for installation, operation and maintenance by qualified personnel according to the manual. Don't open the product for maintenance by yourself and don't attempt to dismantle and/or modify the product in any way.

When the LED StarBrite Controller is installed, please make sure the ventilation slots of the controller are not blocked.

If the fuse is damaged, use one of the same specification to replace it, and before doing repair work, make sure the power is cut off.

Do not connect this device to any other types of dimmer apparatus.

Do not look at lighted LEDs from a distance of less than 40cm. Watching lighted LEDs from a short distance for a long time is bad for your eyes.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the product.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

The product should be earthed by power plugs with three-pin, forbid using two-pin plugs in case of electrical shock.

If the LED StarBrite Controller is mounted onto a high place, besides using screws to fix it, for safety purpose, a proved safety cord is used as a secondary safety fixing, and it should be attached as shown in the "installing the product" section of this manual.

There is no user serviceable parts inside the product, before operating this product, please check all the housing of the LED StarBrite Controller and the driving device is installed, and the screws are fixed in place. Do not open the housing and never operate the product with the covers removed.

If the LED StarBrite Controller is put on a table, make sure the table is stable and fix the controller on the center of the table. Do not put the controller on the fringe of the table in case of falling.

To preserve the environment, the product should be recycled at the end of its life according to the arrangement of related department.

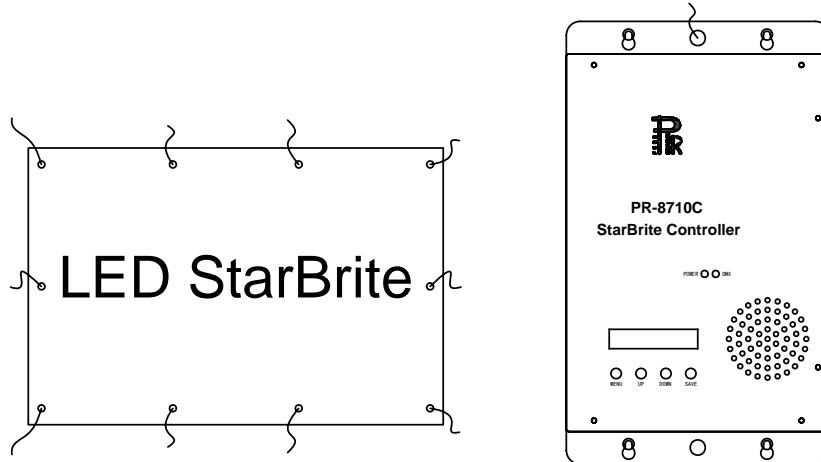
If you have any questions, don't hesitate to consult your dealer or manufacturer.

**Always disconnect from the mains, when the device is not in use or before cleaning it or before attempting any maintenance work !**

## INSTALL THE PRODUCT

When a LED StarBrite is used, it should be installed as the figure below on the left. Thrill through the eyelets on four fringes of the LED StarBrite by ropes and hang it at a higher place to achieve the effect of clusters of stars covering the sky.

Generally, LED StarBrite Controller can be put on a flat surface, such as a table, or a floor, but if you want to mount it on a higher place, fix both the top and bottom fringes of the controller by four screws into the four screw eyelets, and use a proved safety cord through the hole prearranged in the middle of the top fringe as a secondary safety fixing at the same time. The figure below on the right shows all of this.



## POWER SUPPLY-MAINS

Connect the power cord as follows:

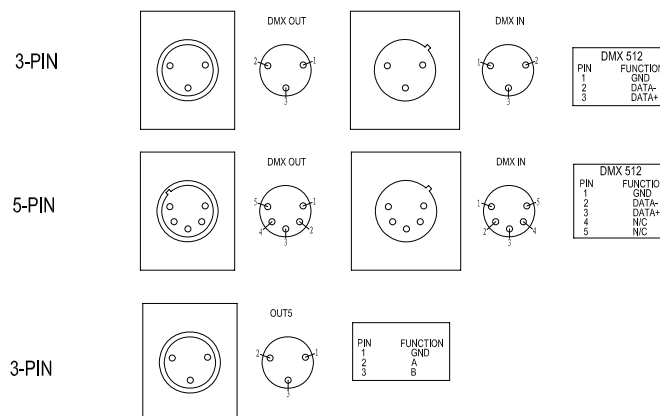
- L (live) =brown
- E (earth) =yellow/green
- N (neutral) =blue

Use the plug provided to connect the mains power to the LED StarBrite Controller paying attention to the voltage and frequency marked on the panel of the LED StarBrite Controller. It is recommended that each LED StarBrite Controller be supplied separately so that they may be individually switched on and off.

### IMPORTANT

**It is essential that each LED StarBrite Controller is correctly earthed and the electrical installation conforms to all relevant standards.**

## CONTROL CONNECTIONS



Connection between a LED StarBrite and a LED StarBrite Controller must be made with a special 5-pin signal connection cable with a length of 15 meters (connect any one of the OUT1~OUT4 to the 5-pin input port of the LED StarBrite driver box). And between the LED StarBrite Controllers or between the LED StarBrite Controller and the console, 3-pin XLR cables are used for connection (connect by DMX IN / DMX OUT port). In addition, 3-PIN socket of the OUT5 port only provides signal output (without power supply), it applies for Master/Slave mode only.

The 5-pin signal connection cable and the 3-pin XLR cable are connected as shown in the figure above.  
 Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The product accepts digital control signals in protocol DMX512 (1990).

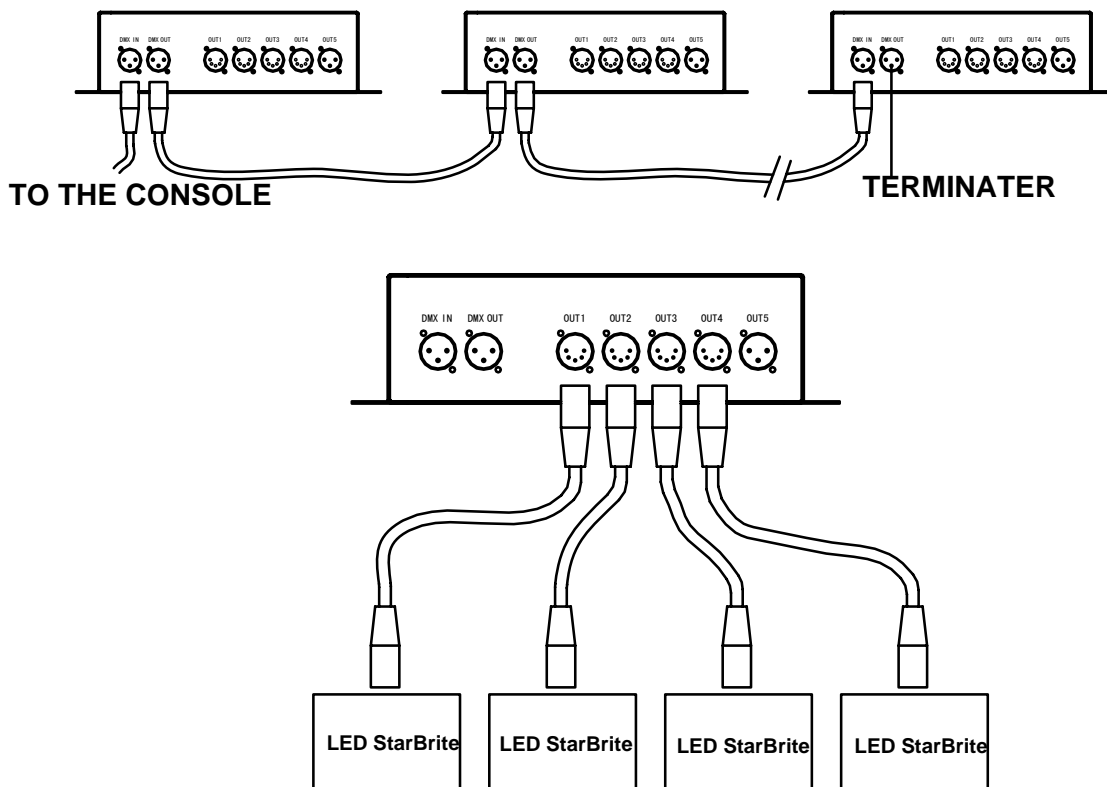
First of all, connect a LED StarBrite Controller and a LED StarBrite, and it can run in the stand-alone mode with 12 preset programs, according to the different applications, the Master/Slave mode and the DMX control mode can be selected.

In the Master/Slave mode, the master LED StarBrite Controller and the slave StarBrite Controller must be connected by a 3-pin XLR cable from the master LED StarBrite Controller's OUT5 port to the first slave LED StarBrite Controller's DMX IN port, then from the first slave LED StarBrite Controller's OUT5 port to the second slave LED StarBrite Controller's DMX IN port, and so on, until all the LED StarBrite Controllers are connected. Eventually set the menu of all the slave LED StarBrite Controllers to the "Slave" mode. At this time, Master/Slave mode is in effect.

In the DMX control mode, connections among the console and several LED StarBrite Controllers are similar with the control mode above. Use a 3-pin XLR cable to connect the DMX output port of the console to the first LED StarBrite Controller's DMX IN port, then from the first LED StarBrite Controller's DMX OUT port to the second LED StarBrite Controller's DMX IN port, and so on, until all the LED StarBrite Controllers are connected, Eventually, connect the LED StarBrite Controller's DMX OUT port to a DMX terminator (The address of any LED StarBrite Controller should be correctly configured, for details, see the following sections).

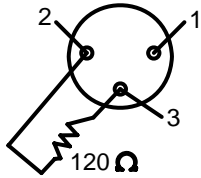
To make the DMX control mode valid, set the menu of the LED StarBrite Controller to the DMX CHANNEL. When the yellow indicator on the panel of the LED StarBrite Controller is on, DMX signal is OK.

Connections among the console and several LED StarBrite Controllers are shown in the figure below.



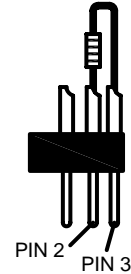
## DMX TERMINATOR

In the DMX control mode, for the last LED StarBrite Controller in the chain, the DMX OUT port has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals. The DMX terminator is simply an XLR connector with a  $120\Omega$  (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last LED StarBrite Controller in the chain. The connections are illustrated below.

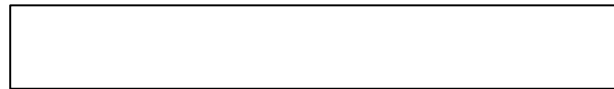


### DMX TERMINATOR CONNECTION

Connect a  $120\Omega$  (OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



## SETUP OPTIONS-PRODUCT CONFIGURATION



FUNC



UP



DOWN



ENTER

As the figure above, product configuration can be set conveniently via push-button switch and LCD display. Turn the StarBrite Controller on and the LCD display will show the product model and software version as “PR-8710C VER:XXX”.

To browse through various Setup Options, Press button **ENTER** for 5 seconds to unlock the panel if it is locked. Then the LCD display will show the function menus, 15 menus in total, and each menu has its specific function.

Press button **FUNC** to change the menu, press button **ENTER** to save your settings and at this time the LCD will indicate “saving\*\*\*\*”. After that, a sign “\*” will be appeared at the top right corner of that menu and the LCD display will first show the settings next time when the controller is turned on.

Press button **UP** or **DOWN** to change the speed, colour or address in the menu (increase or decrease the numerical value).

If you stay for one minute without any operation, the panel will be locked automatically, and then “PR Lighting” and “StarBrite” will be showed by turns in the LCD display.

## OPERATION MENU

Menu	Description
PROGRAM 1    Speed[XX]    Save	range of XX :1~16
PROGRAM 2    Speed[XX]    Save	
PROGRAM 3    Speed[XX]    Save	
PROGRAM 4    Speed[XX]    Save	
PROGRAM 5    Speed[XX]    Save	
PROGRAM 6    Speed[XX]    Save	
PROGRAM 7    Speed[XX]    Save	
PROGRAM 8    Speed[XX]    Save	
PROGRAM 9    Speed[XX]    Save	
PROGRAM 10   Speed[XX]    Save	
PROGRAM 11   Speed[XX]    Save	
AUTO RUN      Save	Stand-alone mode
Single Color    Color[XX]    Save	Single colour mode, used for testing, range of XX :1~7
The address is [XX]      Save	Set the address of the controller, range of XX: 1~20
26 DMX        CHANNEL      Save	DMX control mode
Slave            Save	Slave mode

## TO SET THE DMX START ADDRESS

When a console is used to control several LED StarBrite Controllers, so that to control more LED StarBrites, each LED StarBrite Controller must be given a DMX start address so that the correct LED StarBrite Controller responds to the correct control signals. This DMX start address is the channel number from which the LED StarBrite Controller starts to “listen” to the digital control information being sent out from the console. The product has 26 channels, so set the No. 1 LED StarBrite Controller’s address 001, No. 2 LED StarBrite Controller’s address 027, No. 3 LED StarBrite Controller’s address 053, No. 4 LED StarBrite Controller’s address 079, and so on.

Turn on the LED StarBrite Controller, you can find the address menu by pressing button **FUNC**, Then follow the configuration described in the “SETUP OPTIONS-PRODUCT CONFIGURATION” section.



## DMX PROTOCOL

CHANNEL	FUNCTION	DMX	DESCRIPTION
1	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
2	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
3	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
4	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
5	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
6	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
7	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
8	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
9	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
10	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
11	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
12	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
13	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
14	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
15	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
16	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
17	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
18	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
19	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
20	Green	000-240	Dimming, from dark to light

		241-255	Strobe, from slow to fast
21	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
22	Red	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
23	Green	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
24	Blue	000-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
25	White	000	Invalid
		001-240	Dimming, from dark to light
		241-255	Strobe, from slow to fast
26	Preset Programs	000-063	Invalid
		064-079	Preset programs 1
		080-095	Preset programs 2
		096-111	Preset programs 3
		112-127	Preset programs 4
		128-143	Preset programs 5
		144-159	Preset programs 6
		160-175	Preset programs 7
		176-191	Preset programs 8
		192-207	Preset programs 9
		208-223	Preset programs 10
		224-239	Preset programs 11
240-255	Preset programs 12		

## LED INDICATION

Green	On	Power on
	Off	Power off
Yellow	On	DMX signal OK
	Off	No DMX signal

## MAINTENANCE

When a LED StarBrite is used or stored for a long time, dust and dirt will accumulate on its surface. To maintain an optimum light output, prolong the product's life and ensure its reliability, it is very important to carry out the maintenance work.

Pay attention to the LED StarBrite's cleanness every day. When lots of dust and dirt accumulates on the LED StarBrite, flap or wobble the StarBrite in order to remove the accumulation. It is advised to clean the LED StarBrite once every three months.

When the LED StarBrite Controller do not work, check the fuse on the power socket of the LED StarBrite Controller. Once damaged, it should be replaced by fuses of the same specification only.

**Any maintenance work should only be carried out by qualified technicians.**

## TROUBLESHOOTING

PROBLEM	ACTION
The LED StarBrite Controller doesn't switch on.	➤ Check the fuse on the power socket.
The LED StarBrite doesn't respond to the console.	<ul style="list-style-type: none"> <li>➤ Make sure the yellow indicator on the panel is on, and the DMX signal is OK.</li> <li>➤ Make sure the DMX address is correctly configured.</li> </ul>
The LED StarBrite can work normally, but doesn't respond to the LED StarBrite Controller.	➤ Make sure the 5-pin signal connection cable is correctly connected.

# TECHNICAL DATA

## VOLTAGES:

LED StarBrite Controller : 85V~132V/170V~264V AC, 50/60Hz

LED StarBrite : 10V~15V DC

## POWER CONSUMPTION:

LED StarBrite Controller : Input: 200W, Output:150W(Max) (It can drive four pcs of LED StarBrite)

LED StarBrite : Less than 30W

## BRIGHTNESS OF LED STARBRITE:

More than 150cd when all the LEDs emit white light

## WORK ENVIRONMENT TEMPERATURE:

0°C~40°C

## IP PROTECTION:

IPX3

## LIFE:

30000 hours

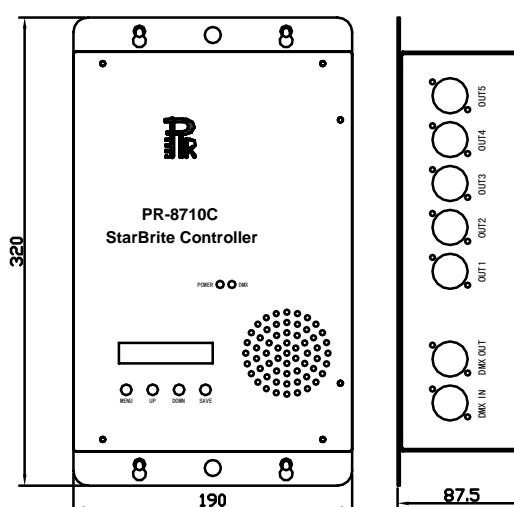
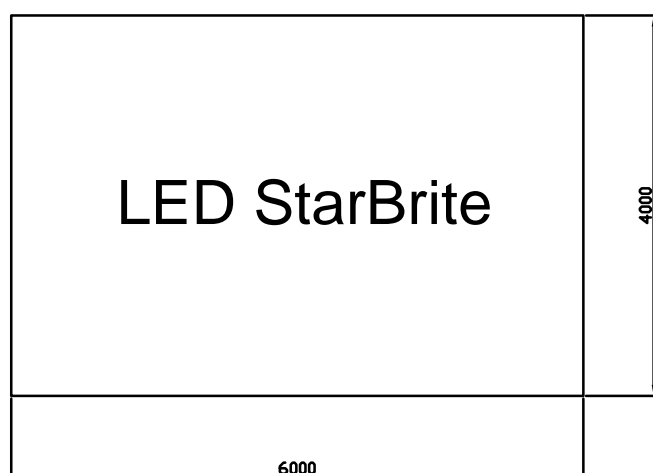
## NET WEIGHT:

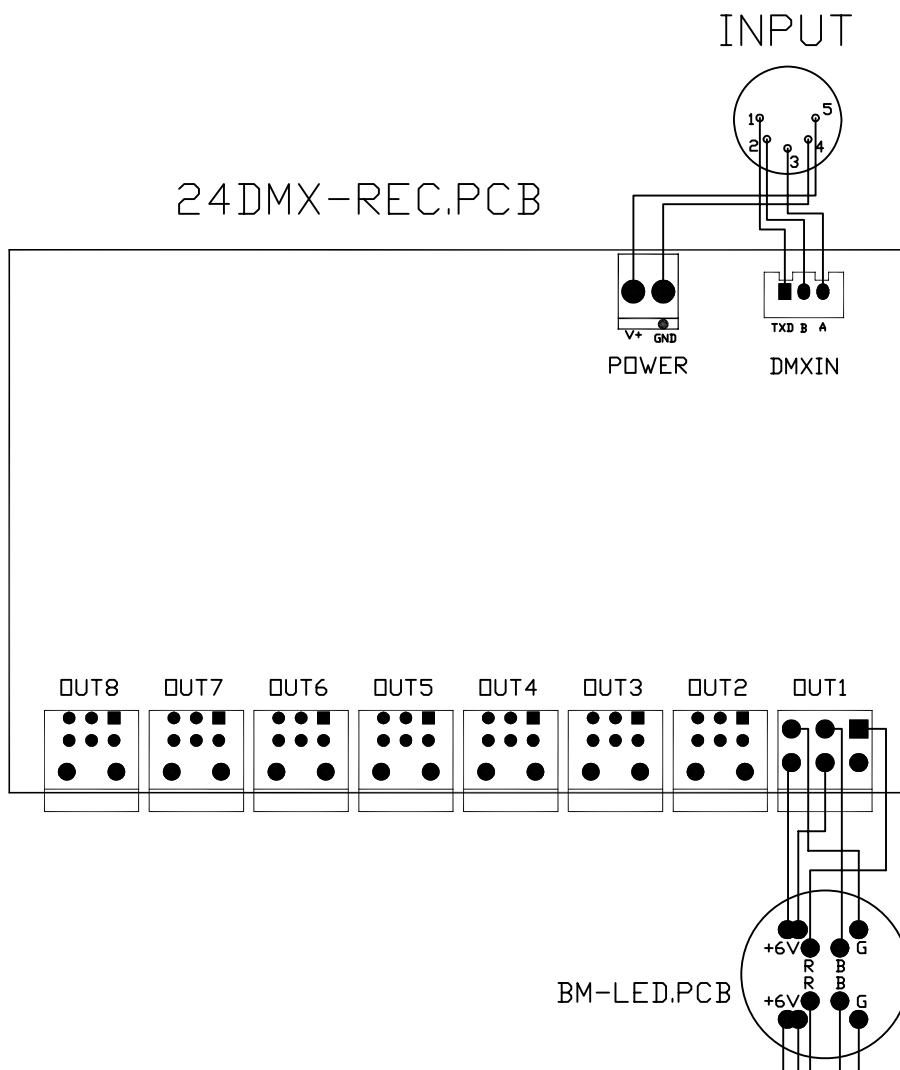
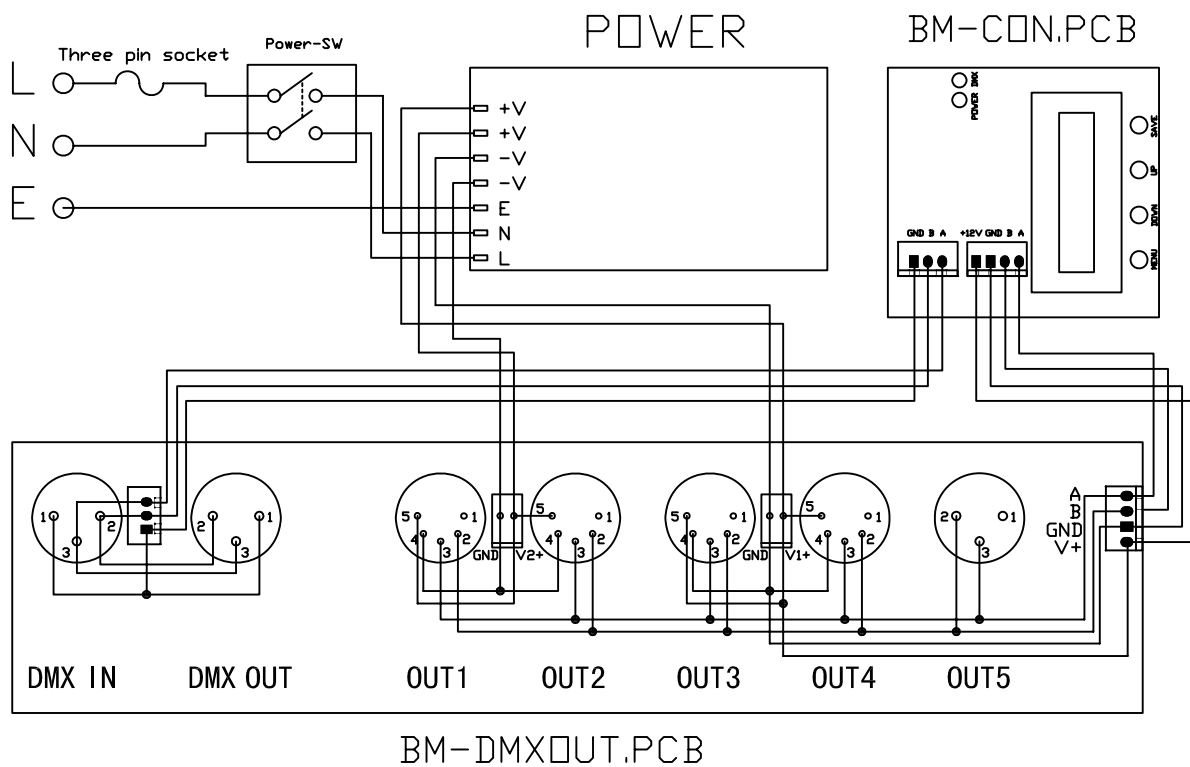
LED StarBrite(15-meter signal connection cable included): 20kg

LED StarBrite Controller : 2.3kg.

## SIZES:

See it below





## COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
POWER SOCKET	210020012	1	PST-101 10A/250V
POWER SWITCH	190010009	1	Red ,with indicator
POWER SUPPLY	192010133	1	Input: AC85~132V/AC170~264V Output: DC15V,15A
5-PIN SIGNAL CONNECTION SOCKET	212020059	1	YS1465-J5F2C
CONTROL PCB OF LED STARTBRITE CONTROLLER	230060052	1	
CONTROL PCB OF LED STARTBRITE	230060054	1	
LED MOUNTING PCB OF LED STARTBRITE	230060051	144	



## PR LIGHTING LTD.

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