PR

XPar 360

PR-8955

This product manual contains important information about the safe installation and use of this projector. 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

INDEX

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
Barn door	1	Pc	Optional
Safety cord	1	Pc	
This manual	1	Pc	
Signal cable	1	Pc	Optional

SAFE USAGE OF THE PROJECTOR

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

The projector can be used indoors and outdoors, IP20.

The projector is not designed or intended to be mounted directly on to inflammable surfaces.

The projector is only intended for installation, operation and maintenance by qualified personnel.

Do not project the beam onto inflammable surfaces, minimum distance is 5m. ◁ 5m ⍹

Avoid direct exposure to the light from the lamp. The light is harmful to eyes.

Do not attempt to dismantle and/or modify the projector in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the projector.
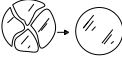
It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

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

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.

Keep the optical system clean. Do not touch the LED lens with bare hands.

When the projector is hanged to a high place, please use a safety cord provided to pass through the projector handles as a secondary safety fixing for safety seasons. For details, refer to "INSTALL THE PROJECTOR "section.

LED lens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches.

Exterior surface temperatures of the projector after 5 minutes operation is 45℃, when achieving steady state it is50℃.

There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

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

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

INSTALL THE PROJECTOR

Lamp Hook Mounting Hole

Safety Cable
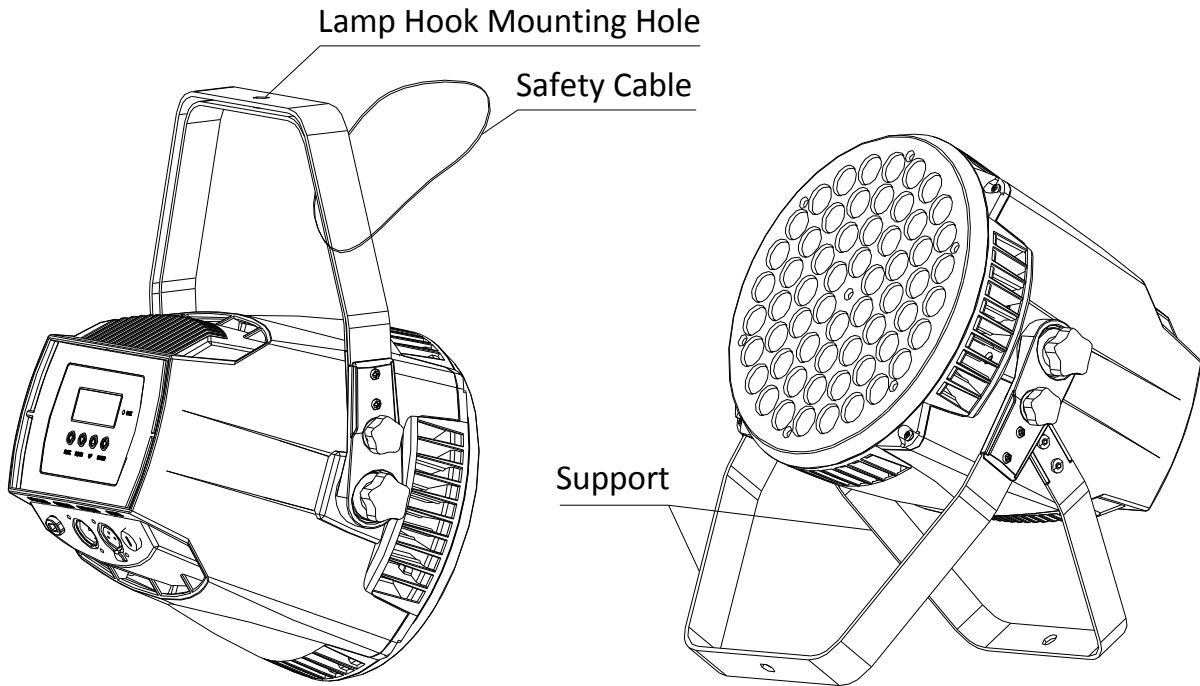
Support

When the projector is used, as the right figure above, unfold the support to certain angle and put the projector onto a flat surface. Make sure it is steady.

When the projector is used at a high place, as the left figure above, fold the support, turn it round to the top of the projector, connect a lamp hook to the mounting hole reserved in the support by screws, and then hang the hook to a high place. Eventually, use the safety cord provided to pass through the handles and hang it as a second safety fixing.

CONTROL SYSTEM AND POWER CONNECTION

DMX IN	DMX OUT	DMX512	
		PIN	FUNCTION
		1	GND
		2	DATA -
		3	DATA +
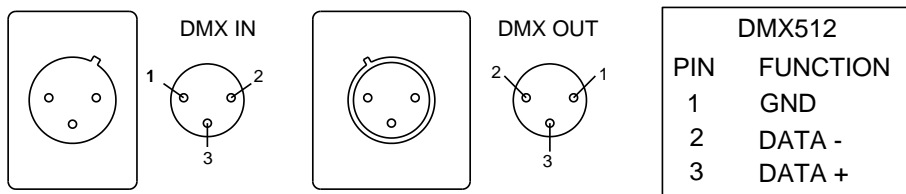
Connection between the controller and a projector and between one projector and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Please use the projector's cannon 3- pin signal input and output cables as connection. The 3-pin signal connections are connected 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 XPar 360 accepts digital control signals in protocol DMX512 (1990).

The amount of projectors connected in parallel is not more than 32. Connect the controller's output to the first fixture's input cable with a 3-pin signal cable, connect the first fixture's output cable to the second fixture's input cable and connect the rest fixtures in the same way. Eventually, connect the last fixture's output cable to a DMX terminator. Note: Only when all the start addresses of fixtures are set the same, synchronous control could be achieved.

When the first fixture is not connected to the controller, and all the other connections are the same as above, it is master / slave mode connection. To achieve master / slave mode, set the first fixture master , the others salve(slave is default).

As for power connections, each projector has to be supplied separately by external power. Use the power cord of each projector to connect the mains power directly, paying attention to the voltage and frequency marked on the panel of the projector.

All of the connections are as the figure below.

| Power IN		Power IN		Power IN	
DMX Controller	DMX OUT	DMX IN	DMX OUT	DMX IN	XLR terminator
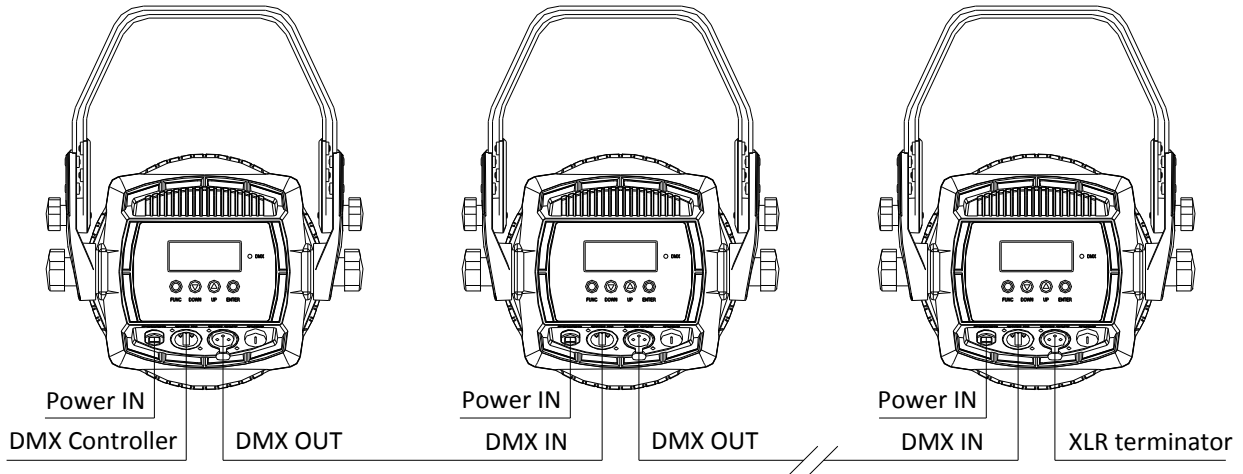
DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output 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 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.
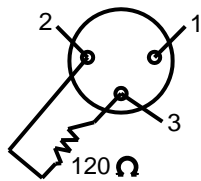
DMX TERMINATOR

CONNECTION

Connect a 120Ω(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.
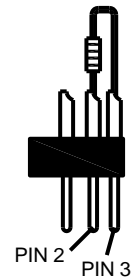
SETUP OPTIONS-PROJECTOR CONFIGURATION

FUNC   UP   DOWN   ENTER
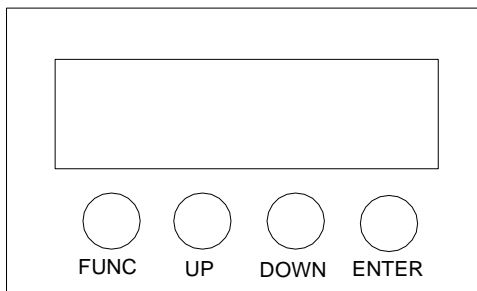
Projector configuration can be set conveniently via push-button switch and LED display.

Launch the projector and press button ENTER for more than 5 seconds to unlock the panel, the LCD will show the function menu of the projector, each main menu has its submenus and each submenu has a specific function. For details, please see the "OPERATION MENU" section.

Press button UP or DOWN if you want to browse through the various Setup Options. Press button ENTER to save your settings or enter the next menu. Press button UP or DOWN to change values(add or subtract)

Press button FUNC, it will return to the upper menu one by one or browse through the main menu.

TO SET THE DMX START ADDRESS

Each Xpar360must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The Xpar360 have 3 DMX modes, which are standard mode，extended mode and short mode. For example, the standard mode has 12 channels, so set the No. 1 projector's address 001, No. 2 projector's address 013, No. 3 projector's address 025, No. 4 projector's address 037, and so on.

Launch the projector. Press button ENTER for more than 5 seconds to unlock the panel.

Press button FUNC, UP or DOWN to find "AddR" menu.

Then press ENTER to show DMX address and press UP or DOWN to set DMX address.

At this time, the address will flash continuously. Press button ENTER to confirm and it means the setting has been enabled.

Press button FUNC, it will return to the upper menu one by one.

OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL
AddR (DMX address)	XXX （XXX:1~512）		
CNFG (Config settings)	dmX (DMX mode)	STd (Standard mode)	
		EXT (Extended mode)	
		SHRT (Short mode)	
	dISP (Display settings)	ON	
		OFF (Shut off digital CRT without pressing buttons in 5 minutes)	
	mORS (Master /Slave Settings)	SLAV (Slave)	
		mAST (Master)	
	FACT (Reset factory setup)	yES	
	TRmd (Transmit parameters)	yES	
INFO (Information)	TImE (Fixture usage time)	XXXX	
	TEmP (LED board temperature)	XX	
	VER (Version)	X.X.X	
TEST (Test mode)	A (Amber)		
	R (Red)		
	G (Blue)		
	B (Blue)		
	W (white)		
	RGBW (Red/green/blue/white)		
	ALL (Red/green/blue/white/Amber)		
mENU (Operation mode)	dmx (DMX mode)		
	PR XX (Preset memory, PR01~PR16）		
	ET XX (User memory,ET01~ET16）	COL1 (Colour 1)	XX (Number: 0~14)(3)
		COL2 (Colour 2)	XX (Number: 0~14)
		COL3 (Colour 3)	XX (Number: 0~14)
		COL4 (Colour 4)	XX (Number: 0~14)

Note:
1.ONLY one projector of a group connected by one signal cable could be set as Master. When the Master functions, DMX control signal should be disconnected

2.When multiple projectors' work together in synchronous control state, Parameters can be transmitted from the master projector to the slave projectors such as DMX channel mode, Display setting status and operation mode (User memory

data is included). While data transmitted,   other projectors will be set as SLAVE.

DMX PROTOCOL

Short mode	Standard mode	Extended mode	FUNCTION	DMX	DESCRIPTION
1	1	1	Dimmer	000-255	Dimming from dark to light
		2	Dimmer Fine	000-255	Dimmer in 16 Bit precision
2	2	3	Colour Temperature	000	No effect
				001-255	Colour temperature linear adjustment
3	3	4	Macro Channel	0	No effect
				001-015	Low Colour Temperature
				016-031	Medium Temperature
				032-047	Relatively high Temperature
				048-063	High Temperature
				064-079	Amber
				080-095	Red
				096-111	Green
				112-127	Blue
				128-143	White
				144-159	Red & Green(Yellow)
				160-175	Green & Blue(Cyan)
				176-191	Red and Blue(Purple)
				192-207	Red Green Blue and White
				208-223	Full Power
				224-239	Yellow and White
				240-255	Amber Blue and White
3	4	5	Amber	000-255	Linear adjustment from dark to light
4	5	6	Red	000-255	Linear adjustment from dark to light
5	6	7	Green	000-255	Linear adjustment from dark to light
6	7	8	Blue	000-255	Linear adjustment from dark to light
7	8	9	White	000-255	Linear adjustment from dark to light
		10	Hue	000-255	Hue selection
		11	Saturation	000-255	Saturation from shallow to deep
		12	Value	000-255	From dark to light
8	9	13	Strobe	000	No effect
				001-255	Strobe speed from slow to fast
	10	14	Preset memory	000	No effect
				001-015	Preset memory 1
				016-031	Preset memory 2
				032-047	Preset memory 3
				048-063	Preset memory 4
				064-079	Preset memory 5
				080-095	Preset memory 6
				096-111	Preset memory 7

				112-127	Preset memory 8
				128-143	Preset memory 9
				144-159	Preset memory 10
				160-175	Preset memory 11
				176-191	Preset memory 12
				192-207	Preset memory 13
				208-223	Preset memory 14
				224-239	Preset memory 15
				240-255	Preset memory 16
	11	15	User Memory	000	No effect
				001-015	User memory 1
				016-031	User memory 2
				032-047	User memory 3
				048-063	User memory 4
				064-079	User memory 5
				080-095	User memory 6
				096-111	User memory 7
				112-127	User memory 8
				128-143	User memory 9
				144-159	User memory 10
				160-175	User memory 11
				176-191	User memory 12
				192-207	User memory 13
				208-223	User memory 14
				224-239	User memory 15
				240-255	User memory 16
	12	16	Memory Speed	001-015	Speed 1,the fastest
				016-031	Speed 2
				032-047	Speed 3
				048-063	Speed 4
				064-079	Speed 5
				080-095	Speed 6
				096-111	Speed 7
				112-127	Speed 8
				128-143	Speed 9
				144-159	Speed 10
				160-175	Speed 11
				176-191	Speed 12
				192-207	Speed 13
				208-223	Speed14
				224-239	Speed 15
				240-255	Speed 16, the slowest

Note:

**** Channel priority from high to low is as the following: Dimming, Preset memory, User memory, ARGBW dimming, HSV dimming, Macro channel, Color temperature.

****When high priority channel is used, low priority channel is No effect.

INDICATION OF LED CHARACTER

Decimal point of the first character	On	DMX signal OK
	Off	No DMX signal
Decimal point of the third character	On	Master / slave signal is OK
	Off	No master / slave signal
Decimal point of the fourth character	On	When setting master mode
	Off	When setting slave mode
Parameters that LED characters display	Flash	Parameters not saved, press "ENTER" to save them

MAINTENANCE

To prolong the life of the projector, it is very important to do the maintenance work. Cooling fans must be cleaned once every 15days and external lens cleaned periodically for an optimum light output. DO NOT USE ANY SOLVENT CONTAINING CHEMICAL ELEMENT.

Cleaning frequency depends on the environment in which the fixture operates. Soft cloth and typical glass cleaning products should be used for cleaning with care. It is recommended to clean projector at least once every 20 days.

Do not use any organic solvent, e.g. alcohol, to clean housing of the apparatus.

TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	➢ Power connection is not correct. ➢ Power supply is damaged or abnormal. Call a qualified personnel to fix it. ➢ Connection of control board is not correct. Call a qualified personnel to fix it.
The projector can be turned on, but LEDs do not emit light and are out of control.	➢ Connection of LED board is not correct. Call a qualified personnel to fix it.
The lamp comes on but the projector doesn't respond to the controller	➢ Make sure that the projector is correctly configurated. ➢ Replace or repair the DMX cable.
The beam appears dim	➢ The projector is too hot. Take ventilation measures to make it cool.

TECHNICAL DATA

VOLTAGES:

100-240V　AC, 50/60Hz

POWER CONSUMPTION:

200W@220V

LED:

Power consumption	3W
Quantity	60（17R＋17G＋17B＋6W＋3A）
Manufacturers Rated LED Life	50000 Hours

COLOURS:

RGBWA　linear color mixing with Macro

COLOR TEMPERATURE CORRECTION

Linear color temperature correction from 3200K to 10000K

DIMMER:

0-100% linearly adjustable

STROBE:

Electronic Strobe 0 ~25F.P.S

LIGHT ANGLE

Light Spot Angle(1/10 Maximum)　θ　28°

Beam Angle(1/2 Maximum)　$\theta_{1/2}$　15°

Optional Lens Angle**:** 8°, 25 °, 45°

CONTROL:

DMX512, 3 pin interfaces

8 channels in short mode, 12channels in standard mode, and 16 channels in extended mode

Master/Salve Synchronous Control Mode

16 preset memories

16 user memories

preset memories and user memories can be called by control channels,16 level speeds adjustable

Self Test Mode

OTHER FUNCTIONS:

LED board temperature display

Fixture usage time display

Parameters about DMX mode, Display setting status, operation mode can be transmitted by synchronous control.

HOUSING:

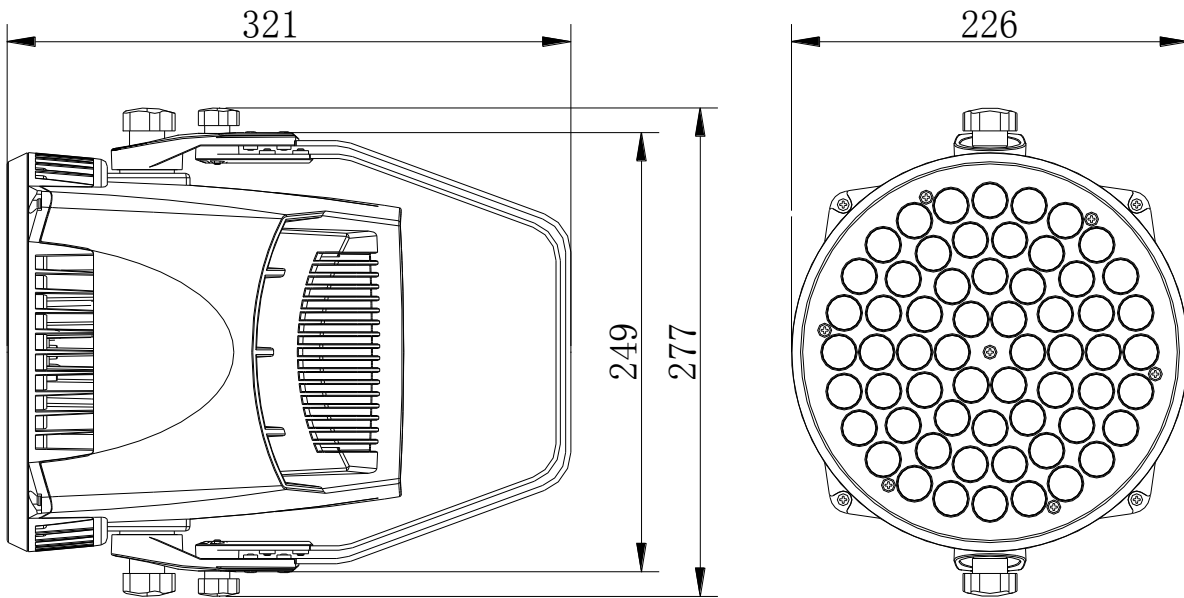High temperature   ABS +die-casting aluminum, IP20
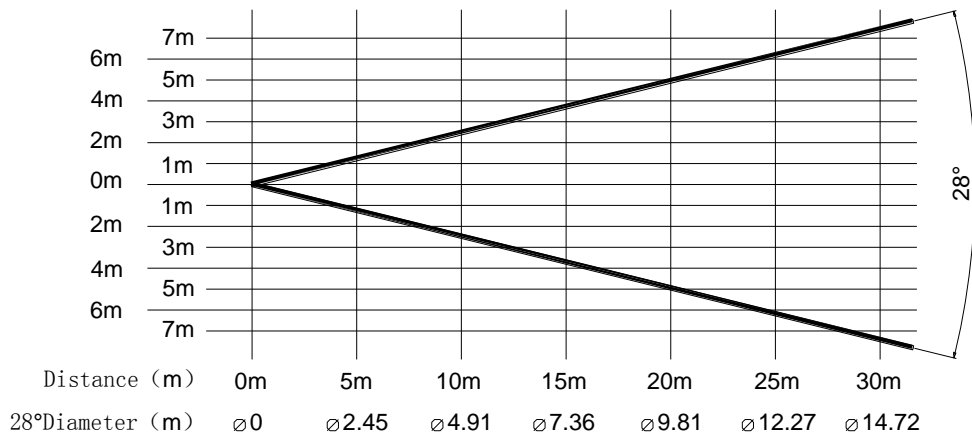
WORK ENVIRONMENT TEMPERATURE:

-20℃~40℃

WEIGHT:

3.9kg

SIZES:

LIGHT OUTPUT:

28°lux（RGBWA)	1775	444	197	111	71	49
28°lux（R)	309	77	34	19	12	9
28°lux（G)	777	194	86	49	31	22
28°lux（B)	26	6	3	2	1	1
28°lux（W)	722	181	80	45	29	20
28°lux（A)	124	31	14	8	5	3

Distance（m)	0m	5m	10m	15m	20m	25m	30m
28°Diameter（m)	⌀0	⌀2.45	⌀4.91	⌀7.36	⌀9.81	⌀12.27	⌀14.72

Fuse
3.15A250V

Power Supply
1900010194K18-UP300S58
L N FG
+V +V -V

Male 3XRL
1 2 3

Female 3XRL
1 2 3

Led Driver
P/N23060115
POWER + -

Master Control Display
P/N23060139
POWER +58V GND
TEMP +V T G
IN G 1B 1A
FAN 24V

Fan
FAN

PWM W R G B Y GND

PWM Y R G B W GND

DRV W- W+ B- B+ G- G+ R- R+ Y- Y+

Led Board
P/N23060283
DRV2 W1- W1+ B1- B1+ G1- G1+
TEMP T1 T2
DRV1 Y1+ Y1- G1- G1+ R1+ R1-

COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
LED LENS	070070047	60	15°
SIGNAL CABLE	242810033	1	5meters
POWER SUPPLY	190010119	1	150W58V
DRIVER BOARD	230060115	1	
LED CONTROL BOARD	230060139	1	
LED LAMP BOARD	230020283	1	

PR LIGHTING LTD.

PR New Hi-tech Science Park, 1582 Xingye Avenue
Nancun Panyu, Guangzhou, 511442 China
TEL: +86-20-3995 2888
FAX: +86-20-3995 2330

P/N: 320020091
Version: 20120717