

# LEDj

## **Colour Blast 80** User Manual



**Order code: LEDJ116**

### WARNING

## FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.



### IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not connect this equipment to a dimmer pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available mains supply voltage is between 100~240V AC, 50/60Hz.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Pro Light dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
- This lighting fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- Warning! Risk Group 2 LED product according to EN 62471. Do not view the light output with optical instruments or any device that may concentrate the beam.
- WARRANTY: One year from date of purchase.

### OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and/or property.

### Colour Blast 80

The Colour Blast 80 features unsurpassed colour mixing from its RGBA COB technology and comes supplied with 3 fast fit lenses to provide a flexible all-in-one fixture that can transform from a narrow beam to a wide wash in seconds. High frequency dimming ensures smooth colour fades and a flicker free performance time after time. Control features include DMX, master/slave and sound activation. The sit flat cylindrical housing with side mounted power and DMX along with a twin hanging/floor bracket make this a truly multifunctional par.

- 1 x 80W quad-colour COB LED (RGBA)
- Beam angle: 80° native, 25° and 40° beam reduction lenses supplied
- 80° - 627 Lux @ 2m (full on)
- 25° - 2,897 Lux @ 2m (full on)
- 40° - 1,885 Lux @ 2m (full on)
- 3kHz refresh rate
- DMX channels: 2/4/5/6/7 or 10 selectable
- Auto, sound active and master/slave modes plus built-in programs
- 0-100% dimming and variable strobe
- Supplied with hanging bracket
- 4 push button menu with LED display
- PowerCON input/output
- 5-Pin XLR input/output
- Fan cooled

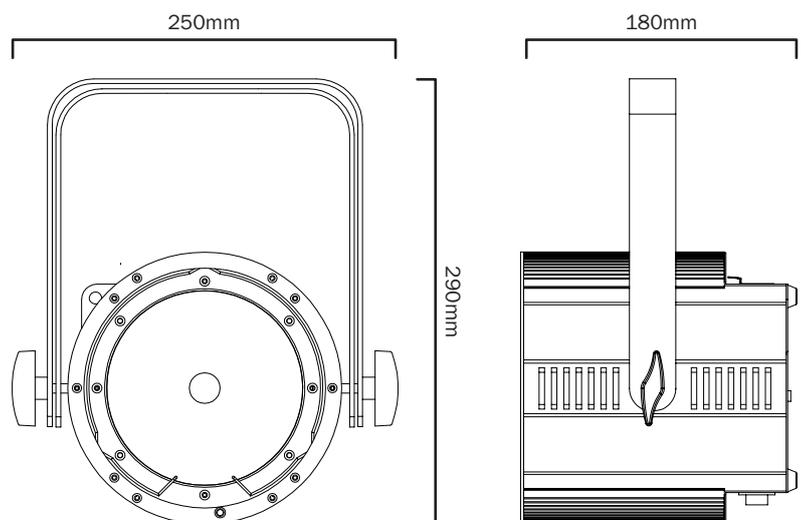
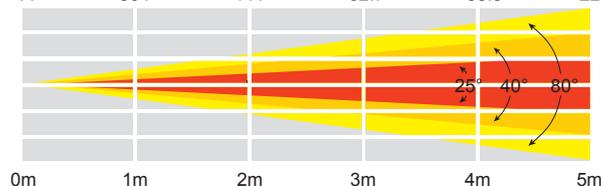


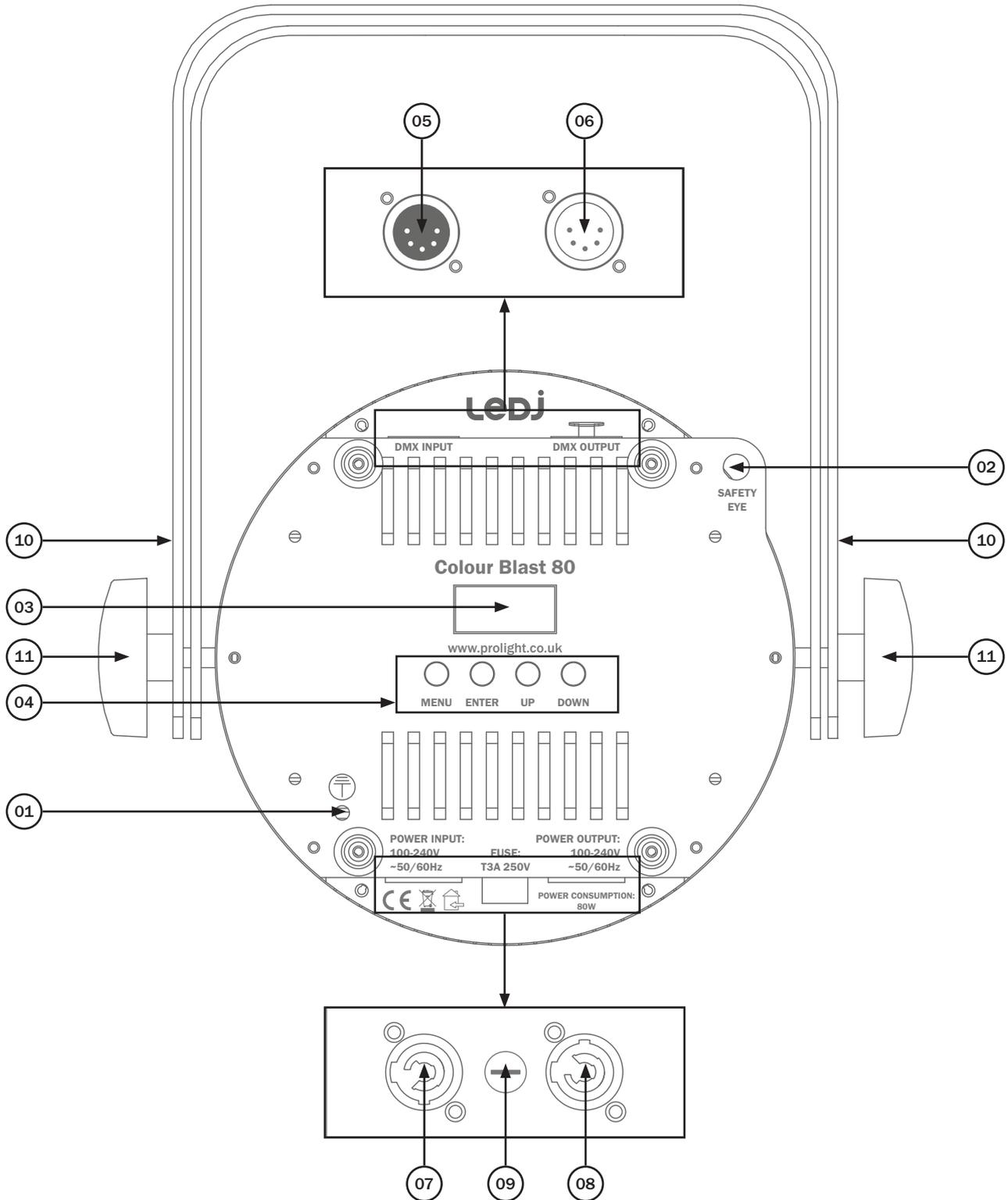
Specifications	Colour Blast 80
Power consumption	80W
Power supply	100~240V, 50/60Hz
Fuse	T3A 250V
Dimensions	290 x 250 x 180mm
Weight	3.4kg
Order code	LEDJ116

25° - Lux					
FULL ON	11600	2897	1290	725	464
R	2560	640	284	160	102
G	5240	1305	582	328	210
B	820	205	91.1	51.3	32.8
A	2700	674	300	169	108

40° - Lux					
FULL ON	7560	1885	840	472	302
R	1630	407	181	102	65.1
G	3210	803	357	201	128
B	524	131	58.2	32.8	21
A	1620	406	180	101	65

80° - Lux					
FULL ON	2510	627	279	157	100
R	584	146	64.9	36.5	23.4
G	1200	299	133	74.8	47.5
B	152	38	16.9	9.5	6.08
A	564	141	62.7	35.3	22.6

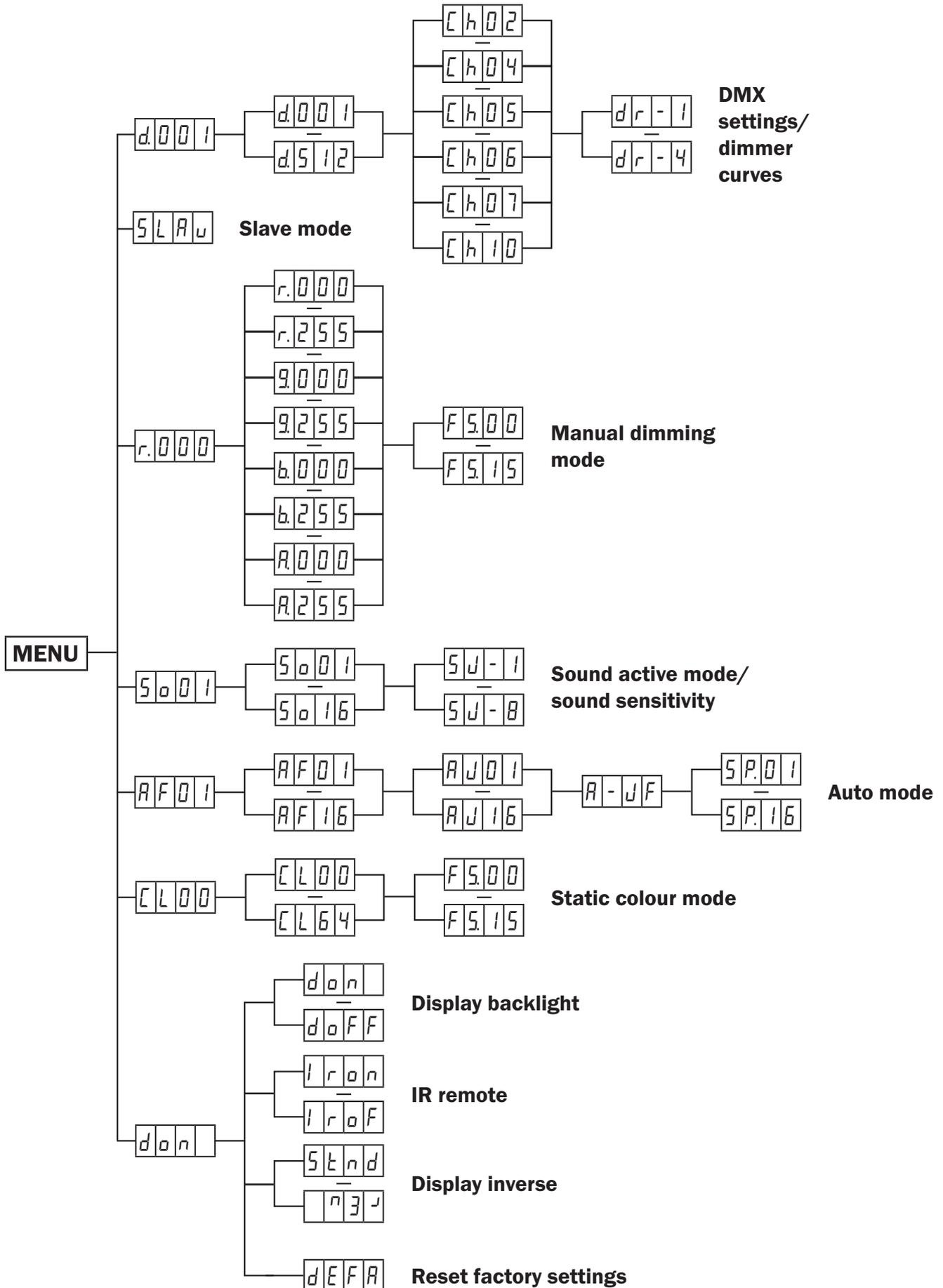




- 01 - Earth point
- 02 - Safety eye
- 03 - LED display
- 04 - Function buttons
- 05 - 5-Pin DMX input
- 06 - 5-Pin DMX output

- 07 - PowerCON input
- 08 - PowerCON output
- 09 - Fuse T3A 250V
- 10 - Hanging bracket
- 11 - Hanging bracket adjustable knob

In the box: **1 x fixture,**  
**1 x 25° beam reduction lens,**  
**1 x 40° beam reduction lens,**  
**1 x power cable**  
**& 1 x user manual**



## DMX mode:

Operating in a DMX control mode environment gives the user the greatest flexibility when it comes to customising or creating a show. In this mode you will be able to control each individual trait of the fixture and each fixture independently.

To access the DMX address mode, press the “MENU” button on the rear of the unit to show *d00 1* on the LED display. Now use the “UP” and “DOWN” buttons to set the required DMX address. Press the “ENTER” button to confirm the setting. The DMX channel mode will now be displayed, use the “UP” and “DOWN” buttons on the rear of the unit to select either 2/4/5/6/7 or 10 DMX channel mode.

Press the “ENTER” button to confirm the setting. The dimming curve settings will now be displayed, use the “UP” and “DOWN” buttons on the rear of the unit to select between *dr - 1 ~ dr - 4*.

*dr - 1* - Linear      *dr - 2* - Square Law      *dr - 3* - Inverse Square Law      *dr - 4* - S-curve

Press the “ENTER” button to confirm the setting.

To exit out of any of the above options, press the “MENU” button.

## 2 channel mode:

Channel	Value	Function
1	000	No function
	001-255	Halogen emulation 1800K-3200K
2	000-255	Master dimmer (0-100%)

## 4 channel mode:

Channel	Value	Function
1	000-255	Red dimmer (0-100%)
2	000-255	Green dimmer (0-100%)
3	000-255	Blue dimmer (0-100%)
4	000-255	Amber dimmer (0-100%)

## 5 channel mode:

Channel	Value	Function
1	000-255	Red dimmer (0-100%)
2	000-255	Green dimmer (0-100%)
3	000-255	Blue dimmer (0-100%)
4	000-255	Amber dimmer (0-100%)
5	000-020	Linear (dimming curve)
	021-040	Square Law (dimming curve)
	041-060	Inverse Square Law (dimming curve)
	061-080	S-Curve (dimming curve)
	081-255	Default dimming curve (set via menu)

## 6 channel mode:

Channel	Value	Function
1	000-255	Red dimmer (0-100%)
2	000-255	Green dimmer (0-100%)
3	000-255	Blue dimmer (0-100%)
4	000-255	Amber dimmer (0-100%)
5	000-255	Master dimmer (0-100%)
6	000-020	Linear (dimming curve)
	021-040	Square Law (dimming curve)
	041-060	Inverse Square Law (dimming curve)
	061-080	S-Curve (dimming curve)
	081-255	Default dimming curve (set via menu)

### 7 channel mode:

Channel	Value	Function
1	000-255	Red dimmer (0-100%)
2	000-255	Green dimmer (0-100%)
3	000-255	Blue dimmer (0-100%)
4	000-255	Amber dimmer (0-100%)
5	000-031	LED off
	032-063	LED on
	064-095	Strobe (slow-fast)
	096-127	LED on
	128-159	Strobe pulse (slow-fast)
	160-191	LED on
	192-223	Strobe random (slow-fast)
	224-255	LED on
6	000-255	Master dimmer (0-100%)
7	000-020	Linear (dimming curve)
	021-040	Square Law (dimming curve)
	041-060	Inverse Square Law (dimming curve)
	061-080	S-Curve (dimming curve)
	081-255	Default dimming curve (set via menu)

### 10 channel mode:

Channel	Value	Function
1	000-255	Red dimmer (0-100%)
2	000-255	Green dimmer (0-100%)
3	000-255	Blue dimmer (0-100%)
4	000-255	Amber dimmer (0-100%)
5	000-031	LED off
	032-063	LED on
	064-095	Strobe (slow-fast)
	096-127	LED on
	128-159	Strobe pulse (slow-fast)
	160-191	LED on
	192-223	Strobe random (slow-fast)
	224-255	LED on
6	000-255	Master dimmer (0-100%)
7	000-051	Dimming mode (CH1-CH6)
	052-102	Colour macro mode (CH8 value 000-255)
	103-153	Colour change mode
	154-204	Colour fade mode
	205-255	Sound active mode
8	000-015	Colour Change 1 Colour Fade 1 Sound Active 1
	016-031	Colour Change 2 Colour Fade 2 Sound Active 2
	032-047	Colour Change 3 Colour Fade 3 Sound Active 3
	048-063	Colour Change 4 Colour Fade 4 Sound Active 4
	064-079	Colour Change 5 Colour Fade 5 Sound Active 5
	080-095	Colour Change 6 Colour Fade 6 Sound Active 6
	096-111	Colour Change 7 Colour Fade 7 Sound Active 7
	112-127	Colour Change 8 Colour Fade 8 Sound Active 8

Colour macros (see page 9 for values)

Channel	Value	Function
8 cont.	128-143	Colour Change 9 Colour Fade 9 Sound Active 9
	144-159	Colour Change 10 Colour Fade 10 Sound Active 10
	160-175	Colour Change 11 Colour Fade 11 Sound Active 11
	176-191	Colour Change 12 Colour Fade 12 Sound Active 12
	192-207	Colour Change 13 Colour Fade 13 Sound Active 13
	208-223	Colour Change 14 Colour Fade 14 Sound Active 14
	224-239	Colour Change 15 Colour Fade 15 Sound Active 15
	240-255	Colour Change 16 Colour Fade 16 Sound Active 16
9	000-255	No function (CH7 value 000-102)
		Speed (slow-fast) (CH7 value 103-204)
		Sensitivity (low-high) (CH7 value 205-255)
10	000-020	Linear (dimming curve)
	021-040	Square Law (dimming curve)
	041-060	Inverse Square Law (dimming curve)
	061-080	S-Curve (dimming curve)
	081-255	Default dimming curve (set via menu)

Colour macros (see page 9 for values)

### Colour macros:

Value	Colour	Macro	LEE Reference	R	G	B	A
000	Black	CL00	N/A	000	000	000	000
001-004	Red	CL01	N/A	255	000	000	000
005-008	Green	CL02	N/A	000	255	000	000
009-012	Blue	CL03	N/A	000	000	255	000
012-016	Cyan	CL04	N/A	000	255	245	000
017-020	Yellow	CL05	N/A	226	255	001	000
021-024	Magenta	CL06	N/A	255	000	255	000
025-028	Amber	CL07	N/A	000	000	000	255
029-032	White (3700K)	CL08	N/A	122	180	057	242
033-036	White (5000K)	CL09	N/A	222	255	088	040
037-040	White (7000K)	CL10	N/A	169	255	097	000
041-044	Medium Yellow	CL11	10	177	148	001	000
045-048	Straw Tint	CL12	13	197	149	010	000
049-052	Surprise Peach	CL13	17	201	119	008	000
053-056	Fire	CL14	19	241	042	001	000
057-060	Medium Amber	CL15	20	213	125	001	000
061-064	Gold Amber	CL16	21	214	090	001	000
065-068	Dark Amber	CL17	22	255	059	001	000
069-072	Sunrise Red	CL18	25	249	083	002	000
073-076	Light Pink	CL19	35	180	200	075	255
077-080	Medium Pink	CL20	36	223	180	063	205
081-084	Pink Carnation	CL21	39	196	207	067	255
085-088	Light Lavender	CL22	52	227	222	093	086
089-092	Lavender	CL23	58	089	117	146	162
093-096	Sky Blue	CL24	68	000	251	133	000
097-100	Just Blue	CL25	79	000	190	120	000
101-104	Dark Yellow Green	CL26	90	035	255	001	000
105-108	Spring Yellow	CL27	100	220	199	001	000
109-112	Light Amber	CL28	102	210	158	001	000
113-116	Straw	CL29	103	255	255	028	067
117-120	Deep Amber	CL30	104	243	172	001	000
121-124	Orange	CL31	105	255	131	001	000
125-128	Light Rose	CL32	107	251	152	028	000
129-132	English Rose	CL33	108	220	140	018	000
133-136	Light Salmon	CL34	109	240	141	027	000
137-140	Middle Rose	CL35	110	209	132	024	000
141-144	Dark Pink	CL36	111	225	107	027	000
145-148	Magenta	CL37	113	158	006	008	000
149-152	Peacock Blue	CL38	115	039	249	043	000

## Colour macros cont.:

Value	Colour	Macro	LEE Reference	R	G	B	A
153-156	Medium Blue-Green	CL39	116	038	205	053	000
157-160	Steel Blue	CL40	117	185	255	048	000
161-164	Light Blue	CL41	118	062	255	076	000
165-168	Dark Blue	CL42	119	000	194	253	000
169-172	Leaf Green	CL43	121	171	232	001	000
173-176	Dark Green	CL44	124	067	255	010	000
177-180	Mauve	CL45	126	213	028	050	000
181-184	Bright Pink	CL46	128	239	040	031	000
185-188	Medium Blue	CL47	132	000	239	135	000
189-192	Deep Golden Amber	CL48	135	255	048	001	000
193-196	Pale Lavender	CL49	136	225	196	054	000
197-200	Special Lavender	CL50	137	199	197	074	000
201-204	Primary Green	CL51	139	059	229	001	000
205-208	Bright Blue	CL52	141	000	243	079	000
209-212	Apricot	CL53	147	231	142	011	000
213-216	Pale Gold	CL54	152	255	189	024	000
217-220	Deep Orange	CL55	158	227	086	001	000
221-224	Bastard Amber	CL56	162	227	176	023	000
225-228	Flame Red	CL57	164	211	027	002	000
229-232	Daylight Blue	CL58	165	075	218	090	000
233-236	Lilac Tint	CL69	169	246	208	045	000
237-240	Deep Lavender	CL60	170	232	165	058	000
241-244	Dark Steel Blue	CL61	174	158	247	089	000
245-248	Congo Blue	CL62	181	076	000	255	000
249-252	Alice Blue	CL63	197	128	255	143	000
253-255	White (full on)	CL64	N/A	255	255	255	255

### Master/slave mode:

To set the master unit, press the “MENU” button on the rear of the master unit then select your desired program (sound active or dimmer modes). To set the other units in slave mode, press the “MENU” button on the rear of the unit to show *SLAVE* on the LED display and press the “ENTER” button to confirm the setting. The units will now run in sequence with the master unit.

To exit out of any of the above options, press the “MENU” button.

Please ensure that all slave units are set to the same DMX channel mode as the master unit.

### Manual dimming mode:

To access the manual dimming mode, press the “MENU” button until the display shows *r.255* on the LED display. Use the “UP” and “DOWN” buttons to select the required brightness of red from *r.000* ~ *r.255*. Press the “ENTER” button and repeat for *g* (green), *b* (blue) and *A* (amber). Once all colours have been set you can then adjust the flash speed by pressing the “ENTER” button and then use the “UP” and “DOWN” buttons to select any value from *F5.00* ~ *F5.15*.

Press the “ENTER” button to confirm the setting.

**Value: 000 - 255 (000 = low brightness, 255 = high brightness)**

**Value: 00 - 15 (00 = no flash, 15 = fast flash speed)**

To exit out of any of the above options, press the “MENU” button.

### Sound active mode:

To access the sound active mode, press the “MENU” button until the display shows *5001* on the LED display. Use the “UP” and “DOWN” buttons to select the required sound mode from *5001* ~ *5016*. To adjust the sound sensitivity press the “ENTER” button and then use the “UP” and “DOWN” buttons to select any value from *5J-1* ~ *5J-8*. Press the “ENTER” button to confirm the setting.

**Value: 1 - 8 (1 = low sensitivity, 8 = high sensitivity)**

To exit out of any of the above options, press the “MENU” button.

### Auto mode:

To access the auto mode, press the “MENU” button until the display shows *AF01* on the LED display. Firstly the program speed needs to be set. To adjust the speed, press the “ENTER” button until *SP.01* is displayed on the rear of the unit. Then use the “UP” and “DOWN” buttons to select any value from *SP.01* ~ *SP.16*. Press the “ENTER” button and the unit will start the auto fade/change mode *A-JF*. Alternatively by pressing the “ENTER” button once more and use the “UP” and “DOWN” buttons you are able to select the required auto fade mode from *AF01* ~ *AF16*. By pressing the “ENTER” button a third time and using the “UP” and “DOWN” buttons you are able to select the required auto change mode from *AJ01* ~ *AJ16*. Press the “ENTER” button to confirm the setting.

**Value: 01 - 16 (01 = slow speed, 16 = fast speed)**

To exit out of any of the above options, press the “MENU” button.

### Static colour:

To access the static colour mode, press the “MENU” button until the display shows *CL00* on the LED display. Use the “UP” and “DOWN” buttons to select the required static colour from *CL00 ~ CL64*. To adjust the flash speed press the “ENTER” button and then use the “UP” and “DOWN” buttons to select any value from *F5.00 ~ F5.15*. Press the “ENTER” button to confirm the setting.

**Value: 00 - 15 (00 = no flash, 15 = fast flash speed)**

To exit out of any of the above options, press the “MENU” button.

### Display backlight:

To access the display backlight setting, press the “MENU” button until the display shows *don* on the LED display. Use the “UP” and “DOWN” buttons to select either *don* (display backlight on) ~ *doff* (display backlight off). Press the “ENTER” button to confirm the setting.

To exit out of any of the above options, press the “MENU” button.

### IR remote:

To access the IR remote setting, press the “MENU” button until the display shows *iron* on the LED display. Use the “UP” and “DOWN” buttons to select either *iron* (IR receiver on) ~ *irof* (IR receiver off). Press the “ENTER” button to confirm the setting.

To exit out of any of the above options, press the “MENU” button.

### Display inverse:

To access the display inverse setting, press the “MENU” button until the display shows *don* on the LED display. Press the “ENTER” button to display *stnd* and use the “UP” and “DOWN” buttons to select either *stnd* (display standard) ~ *inv* (display inverse).

Press the “ENTER” button to confirm the setting.

To exit out of any of the above options, press the “MENU” button.

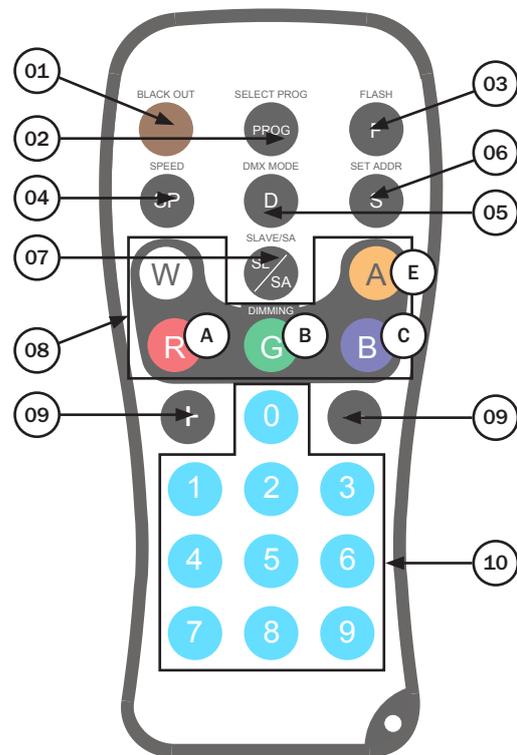
### Reset factory settings:

To reset the factory settings, press the “MENU” button until the display shows *don* on the LED display. Press the “ENTER” button twice to display *defr*. Press the “UP” and “DOWN” buttons together and the fixture will be reset to its factory settings.

To exit out of any of the above options, press the “MENU” button.

### IR remote functions:

- 01 - Sets the unit into blackout off/on (LED on/off)
- 02 - Activates the static colours/auto modes, use the 'PROG' button to cycle through static colour and auto modes.  
Static colour - use the '+' and '-' buttons to select the required colour. Use the 'F' button followed by the '+' and '-' buttons to set the flash speed  
Auto modes - use the 'SP' button followed by the '+' and '-' buttons to adjust the selected auto program speed
- 03 - Activates the strobe, use the '+' and '-' buttons to adjust the strobe speed
- 04 - Activates the auto mode/sound mode speed.  
Press this button followed by the '+' and '-' buttons to adjust the program speed
- 05 - Activates the DMX mode. Press once and use the '+' and '-' buttons to adjust the DMX address. Press again '+' and '-' buttons to adjust the DMX channel mode. Press again '+' and '-' buttons to adjust the dimmer curve mode.
- 06 - Sets the DMX address, press once followed by three numeric buttons to set the DMX address required
- 07 - Activates the slave/sound modes. Press once to activate sound mode followed by the '+' and '-' buttons to adjust the sound mode. Press the 'SP' button followed by the '+' and '-' buttons to adjust the sound sensitivity. Press again to activate slave mode.
- 08 - Activates the manual dimming mode, select one of the colours below and use the '+' and '-' buttons to select the brightness between 000-255. Repeat for all 3 other colours.  
A - Red      B - Green      C - Blue      D - Amber
- 09 - Adjusts the static colour, strobe speed, auto program speed, sound mode, sound sensitivity, DMX address, DMX channel mode, dimming curve and manual dimming modes
- 10 - Sets the DMX address



### Setting the DMX address:

The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 511. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100,101,102,103,104,105 and 106. Choose a start address so that the channels used do not overlap. E.g. the next unit in the chain starts at 107.

### DMX 512:

DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a data “out” terminal).

### DMX linking:

DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

### DATA cable (DMX cable) requirements (for DMX operation):

This fixture can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input/output, see image below.



Further DMX cables can be purchased from all good sound and lighting suppliers or Pro Light Concepts dealers.

Please quote:

**CABL10 – 2m**

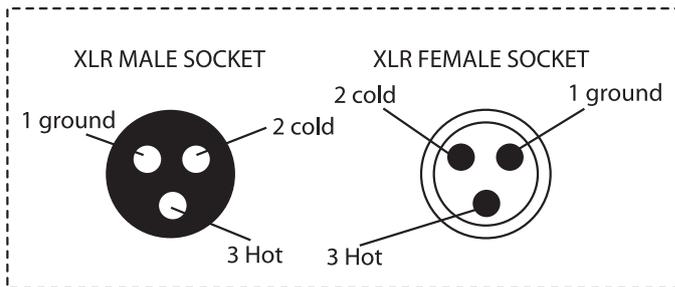
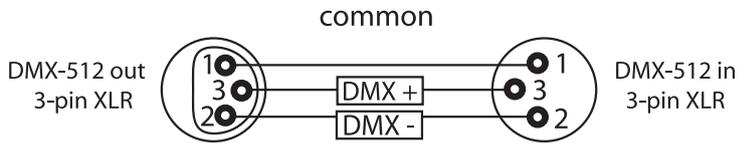
**CABL11 – 5m**

**CABL12 – 10m**

**Note: DMX cable must be daisy chained and cannot be split.**

**Notice:**

Be sure to follow the diagrams below when making your own cables. Do not connect the cables shield conductor to the ground lug or allow the shield conductor to come in contact with the XLRs outer casing. Grounding the shield could cause a short circuit and erratic behaviour.



XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Positive

**Special note:**

**Line termination:**

When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

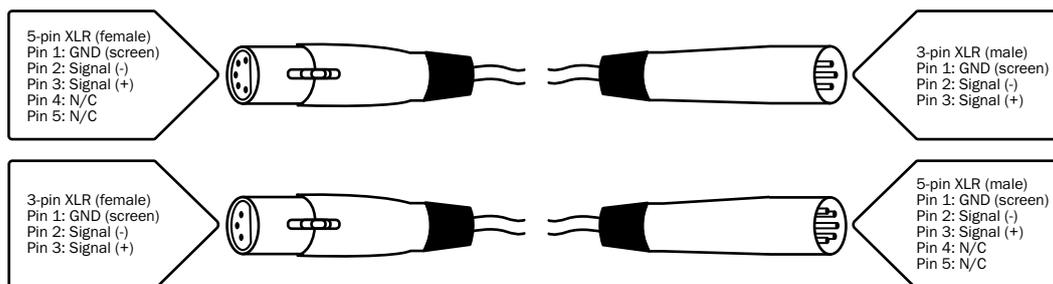
**Using a cable terminator will decrease the possibilities of erratic behaviour.**

**(3-pin - Order ref: CABL90, 5-pin - Order ref: CABL89)**

Termination reduces signal transmission problems and interference. It is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

**5-pin XLR DMX connectors:**

Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.





### ***Correct Disposal of this Product (Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries  
with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

