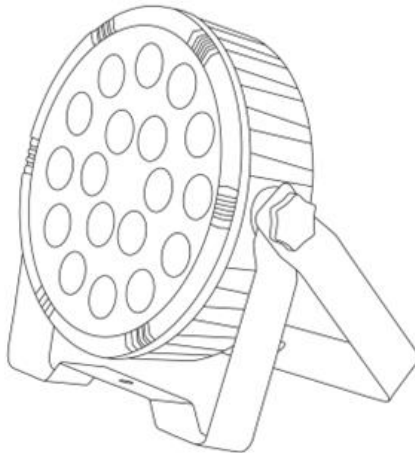# PAR100

High Power 3-in-1 LED Plastic Par Can

Please do not open cover as it contains high voltage.
This product is not serviceable or repairable by the end user.
Please refer to qualified personnel for service or repair.

Please read this manual thoroughly before use.
Any damage caused by misuse of the product will void the warranty.

A lightweight and compact LED PAR Can fitted with 18 3-in-1 RGB LEDs. This unit can be controlled by auto, sound-to-light, master/slave programs or via DMX. A great value solution for background wash illumination.
To prevent risk of fire or electric shock, do not expose unit to rain or moisture. In case of accidental spillage on the unit, disconnect the mains and allow unit to dry completely. Have unit checked by professional personnel to ensure safety before further use.
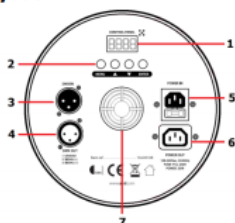
Contents

A PAR Can unit with double bracket, UK mains lead and manual. Please check all contents are complete before use, return to dealer if anything is missing.

Always check the correct voltage and the condition of the IEC lead before connecting to a power outlet.
Always ensure any DMX leads used are in good condition with no short connections or damaged plugs.

Product Layout:

1. 7 segment LCD display
2. 4 button manual control
3. DMX in
4. DMX out
5. IEC power in
6. IEC power out
7. Cooling fan DO NOT OBSTRUCT

Important - Initial set up

Before commencing any programming check that the unit is in master mode.
Programmes will not be stored if in slave mode.

To check, proceed as follows:
- Press the MENU button repeatedly until the display shows [SLnd] followed by ENTER.
- The display will show [SL 1], [SL 2], [SL 3], [SL 4] or [nASt].
- If it shows [nASt] then it is already in master mode in which case exit this routine by pressing and holding MENU for 5 seconds.
- If the display shows [SL 1], [SL 2], [SL 3] or [SL 4] press the UP or DOWN button repeatedly until it shows [nASt].
- Press ENTER to select and then press and hold MENU for 5 seconds to store.

Programming
Programmes can be accessed from the 4 manual control buttons on the rear panel.
Please refer to appendix 1 where indicated.

Sound assisted show
- Press MENU repeatedly until the display shows [Shnd] (refer to appendix 1) followed by ENTER.
- Using the UP and DOWN buttons select [SoUn] from the sub menu followed by ENTER.
- The display will show [YES]. Press ENTER to confirm the setting and press and hold MENU for 5 seconds to save the program.

Built-in shows
Pre-programmed auto-colour jump show
- Press MENU repeatedly until the display shows *[Shnd]* (refer to appendix 1) followed by ENTER.
- Using the UP and DOWN buttons select *[Auto]* from the sub menu followed by ENTER.
- The display will show *[YES]*. Press ENTER to confirm the setting and press and hold MENU for 5 seconds to save the program.

NB. The relative duration of the primary colours in the above show can be tailored to suit the application. To alter the duration, proceed as follows:
- Press MENU repeatedly until the display shows *[bALA]* (refer to appendix 1) followed by ENTER.
- The display will show *[rEd]*. Press ENTER if red is the colour to be adjusted or use the UP and DOWN buttons to select a different colour, followed by ENTER.
- The display will show a number between *[125]* and *[255]* which is relative to the duration, ie
  in a show, a colour set to 125 will only show for half as long as a colour set to 250.
- Use the UP and DOWN buttons to set the duration followed by ENTER.
- Use the UP and DOWN buttons to select another colour if required followed by ENTER.
- Change the duration as detailed above followed by ENTER.
- Press and hold MENU for 5 seconds to save the settings.

Sound assisted show
- Press MENU repeatedly until the display shows *[Shnd]* (refer to appendix 1) followed by ENTER.
- Using the UP and DOWN buttons select *[SoUn]* from the sub menu followed by ENTER.
- The display will show *[YES]*. Press ENTER to confirm the setting and press and hold MENU for 5 seconds to save the program.

Colour scroll show
- Press MENU repeatedly until the display shows *[Shnd]* (refer to appendix 1) followed by ENTER.
- Using the UP and DOWN buttons select *[FAdE]* from the sub menu followed by ENTER.
- The display will show the fade speed which will be between fast *[SP 1]* and slow *[SP 8]*.
- If necessary, use the UP and DOWN buttons to alter the speed followed by ENTER.
- The display will show *[FAdE]*.
- Press and hold MENU for 5 seconds to save the program.

Single colour

The unit can be set to produce one of 7 preset static colours with or without a strobe effect. It is recommended that the strobe effect be disabled during colour selection as follows.

- Press MENU repeatedly until the display shows 『5hnd』 (refer to appendix 1) followed by ENTER.
- Using the UP and DOWN buttons select 『『oLo』 from the sub menu followed by ENTER.
- The display will show the colour number which will be between 『『o 1』 and 『『o 7』.
- Using the UP and DOWN buttons select 『5tro』 from the sub menu followed by ENTER.
- The display will show the strobe speed from 『 0』 (disabled) to 『 255』 (fast).
- Using the UP and DOWN buttons select 『 0』 to disable the strobe followed by ENTER. The display will then show 『5tro』 again.
  From this point the required colour can be set as follows:
- Using the UP and DOWN buttons select a colour number between 『『o 1』 and 『『o 7』 followed by ENTER. The display will show 『『oLo』.
- Press and hold MENU for 5 seconds to save the program.
  To reinstate the strobe function following colour selection repeat the above routine changing the strobe speed from 0 to the required value.

In addition, custom colours can be produced via the manual 『nAnU』 setting in the main menu (refer to appendix 1).
To set a custom colour:

- Press MENU repeatedly until the display shows 『nAnU』 (refer to appendix 1) followed by ENTER.
- The display will show 『 rEd』.
- Press ENTER if red is the colour to be changed or use the UP and DOWN buttons to select a different colour, followed by ENTER.
- The display will show a number between 『0』 and 『255』.
- Use the UP and DOWN buttons to set the required intensity followed by ENTER.
- Use the UP and DOWN buttons to select another colour if required followed by ENTER.
- Change the intensity as detailed above followed by ENTER.
- Press and hold MENU for 5 seconds to save the settings.

Master/slave mode

Multiple units can be linked together via the DMX connections to provide synchronised shows. Control is provided by the first unit which must be set to master mode.
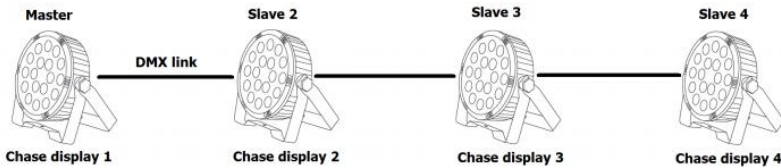
To set a unit as master, please refer to **'Initial Set up'** at the beginning of this section.

For the remaining cans there are four slave modes available, $[5L \ 1]$, $[5L \ 2]$, $[5L \ 3]$, and $[5L \ 4]$. The selected mode determines the can's function.

$[5L \ 1]$ will mimic exactly what the master is displaying.

$[5L \ 2]$ will show the 2nd stage of a chase program.

$[5L \ 3]$ will show the 3rd stage of a chase program and $[5L \ 4]$ the 4th.

Master — DMX link — Slave 2 — Slave 3 — Slave 4
Chase display 1 — Chase display 2 — Chase display 3 — Chase display 4

More units can be arrayed together to work as a group such as below to perform the same light display or sequential chase. Each group will display the same output in sync with the master unit:

Master — Slave 1 — Slave 2 — Slave 3 — Slave 4
Chase display 1 — Chase display 2 — Chase display 3 — Chase display 4

DMX mode

To control PAR cans via DMX, connect a DMX controller to the DMX IN socket of the unit via a balanced XLR lead. Extra fixtures can be controlled by the same DMX controller by connecting the DMX OUT of the first to the DMX IN of the second via another XLR lead and so on.

The unit can be used as a 3-channel fixture to give basic RGB (red, green, blue) control or as 7-channel which will give the controller access to built-in functions such as auto programs and sound activation.

Setting the number of DMX channels

- Press MENU repeatedly until the display shows $[[hnd]$ (refer to appendix 1) followed by ENTER. The display will show $[3[h]$ or $[\ 7[h]$.
- If the mode is already set correctly then press and hold MENU for 5 seconds to save the program.
- To change the setting press the UP or DOWN button once followed by ENTER.
- The display will revert to $[[hnd]$. Press and hold MENU for 5 seconds to save the program.

DMX addressing

To enable a DMX controller to communicate correctly, the cans must be set to the required start addresses.

- Press MENU repeatedly until the display shows [Addr] (refer to appendix 1) followed by ENTER.
- The display will show a number from [0] to [5 12].
- Using the UP or DOWN buttons select the required starting address followed by ENTER.
- The display will revert to [Addr].
- Press and hold MENU for 5 seconds to save the setting.

DMX Value Reference

3 channel mode:

DMX Channel	DMX Value	Function
Channel 1	000-255	Red LED dimmer, 0-100%
Channel 2	000-255	Green LED dimmer, 0-100%
Channel 3	000-255	Blue LED dimmer, 0-100%

7 channel mode:

DMX Channel	DMX Value	Function
Channel 1	000-255	Red LED dimmer, 0-100%
Channel 2	000-255	Green LED dimmer, 0-100%
Channel 3	000-255	Blue LED dimmer, 0-100%
Channel 4	000-255	Master dimmer 0-100%
Channel 5	000-007	N/A
	008-099	Strobe speed slow to fast
	100-149	Strobe speed fast to slow
	150-199	Slow fade in, fast off, speed slow to fast
	200-245	Fast on, slow fade off, speed slow to fast
	246-255	Strobe at highest speed
Channel 6	000-007	N/A
	008-255	Auto mode
Channel 7	000-007	N/A
	008-199	Speed setting for auto mode on channel 6, slow to fast
	200-255	Sound activation mode

Other main menu items
LEd
The 7-segment LED display can be programmed to turn off while the fixture is in use.

- Press MENU repeatedly until the display shows [LEd] (refer to appendix 1) followed by ENTER.
- The display will flash [on] or [oFF].
- Using the UP or DOWN buttons select the required option followed by ENTER.
- The display will revert to [LEd].
- Press and hold MENU for 5 seconds to save the setting.
- In use, the display will now turn off after one minute of inactivity.

di SP

The display can be inverted for ease of programming if the fixture is mounted upside down.

- Press MENU repeatedly until the display shows *[di SP]* (refer to appendix 1) followed by ENTER.
- The display will flash *[di SP]*. Use the UP or DOWN button to invert the display followed by ENTER.
- The display will revert to *[di SP]*. Please note that this will be inverted and may appear as *[di SP]*.
- Press and hold MENU for 5 seconds to save the setting.

tESt

The unit has a routine to test the functionality of all the LEDs.

- Press MENU repeatedly until the display shows *[tESt]* (refer to appendix 1) followed by ENTER.
- The display will flash *[tESt]* and the unit will cycle through the colours in order (red, green, blue, white).
- Press ENTER to stop the test. The LEDs will go out and the display will stop flashing and revert to *[tESt]*.
- Press and hold MENU for 5 seconds to save the setting.

Fhr5

This routine shows the number of hours use.

- Press MENU repeatedly until the display shows *[Fhr5]* (refer to appendix 1) followed by ENTER.
- The display will show the number of hours' use e.g. *[3]*.
- Press and hold MENU to exit the routine.

tEnP

This routine displays the internal temperature of the unit.

- Press MENU repeatedly until the display shows *[tEnP]* (refer to appendix 1) followed by ENTER.
- The display will show the temperature use eg. *[25]*.
- Press and hold MENU to exit the routin

Remote control

BLACK OUT Mode
Press the standby button once to enter standby mode, while closing the infrared remote control. Press the standby mode again and turn on the infrared remote control.

AUTO Mode
Press the auto button once to switch from any mode to automatic mode, this will change the colours automatically in a sequence.

SOUND Mode
Press the sound button once to switch from any mode to sound activated mode, this will trigger the can to change the colour with at every detection of sound.

STROBE Mode
Press the strobe button once for single stroboscopic or hold the button for a long stroboscopic.

FADE Mode
Press the fade button once to switch the colour projected on the can, this will fade in and out of different colours.

SPEED Mode
Within fade mode there are 9 adjustable speeds. SP1 is the slowest and SP9 is the fastest.

SENSITIVITY Mode
Within sound mode the sensitivity can be changed to allow the can to be more sensitive to sounds.

Appendix 1

Menu	Sub Menu	Description
Addr	1 to 512	Set DMX start address from1 to 512
Chnd	3 ch	Set DMX control mode as 3 channels
	7 ch	Set DMX control mode as 7 channels
SLnd	nASt	Master and slave setting, set unit as master
	SL 1	Master and slave setting, set unit as slave mode 1
	SL 2	Master and slave setting, set unit as slave mode 2
	SL 3	Master and slave setting, set unit as slave mode 3
	SL 4	Master and slave setting, set unit as slave mode 4
Shnd	AUto	Preprogramed auto colour jump show
	SoUn	Sound assisted show
	FRdE	Colour scroll show, speed setting of SP01 to SP08
	CoLo	7 preset static colours with optional strobe setting, set strobe from 0 (disabled) to 255 (fast)
LEd		7 segment display setting, oFF = display off when in use, on = constant display on
diSP		Select to toggle normal or inverted display
bALA	rEd	Duration setting for red colour when in 'auto colour jump' show
	9rEE	Duration setting for green colour when in 'auto colour jump' show
	bLUE	Duration setting for blue colour when in 'auto colour jump' show
nAnU	rEd	Red light level for manual colour mixing, value 0-255
	9rEE	Green light level for manual colour mixing, value 0-255
	bLUE	Blue light level for manual colour mixing, value 0-255
tESt		Unit self-test
Fhr5		Displays unit use in hours
tEnP		Displays unit internal temperature

Troubleshooting

No power (mains)	Check mains voltage is correct and outlet is switched on
	Check IEC lead and fuse (if fuse continually blows, refer to your dealer)
No LED display	Press any control panel button and check LED setting in menu
No light output	Check control panel mode settings (standby, slave, DMX)
	Check DMX settings from controller (dimmer levels, blackout etc.)
No strobe output	Check strobe settings on control panel or from DMX controller
Unresponsive to DMX	Check that unit is in DMX mode and ensure DMX address remains lit to confirm receiving DMX signal
	Check DMX controller is not set to black out
	Check DMX controller is on correct fixture/page
	Check master dimmer value
	Check correct DMX address is set
	Check DMX connection and leads
Overheating/ cutting out	Ensure that the unit is not too close to a heat source