



QD-75/150/320/640
RGBW LED
strip driver

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What will this unit do?

This unit is a dimmable power unit to control colour changing or single colour flexible LED strip. It will **NOT** operate 1 watt or 3 watt high power fixtures. It is controlled by a DMX512 lighting controller or its own built in programmes.

The unit has individual outputs of which can drive upto 15 metres of high power tape per output(depending on maxium load of unit up to 5 amps per colour per output.

The LED outputs are overload and short-circuit protected. The LEDs will blink on and off and the display will show an error if the outputs are overloaded. The unit is fully protected and no damage will be caused to the driver or the LEDs.

QD-320

Specifications

Input Power :100-240v 50-60htz

Output power :24v/12vdc

Power consumption : 320W

Control protocol: DMX512

Channel usage : 16 channels

Outputs : 4

LED outputs: 12Vdc or 24V dc

4 channels per output

Maximum Tape Load

7.2w 30leds/m 120mtrs

14.4w 60leds/m 60mtrs

19.2w 60leds/m 60mtrs

QD-640

Specifications

Input Power :100-240v 50-60htz

Output power :24v/12vdc

Power consumption : 640W

Control protocol: DMX512

Channel usage : 32 channels

Outputs : 8

LED outputs: 12Vdc or 24V dc

4 channels per output

Maximum Tape Load

7.2w 30leds/m 240mtrs

14.4w 60leds/m 120mtrs

19.2w 60leds/m 120mtrs

QD-75

Specifications

Input Power :100-240v 50-60htz

Output power :24v/12vdc

Power consumption : 75w

Control protocol: DMX512

Channel usage : 8 channels

Outputs : 2

LED outputs: 12Vdc or 24V dc

4 channels per output

Maximum Tape Load

7.2w 30leds/m 30mtrs

14.4w 60leds/m 15mtrs

19.2w 60leds/m 15mtrs

QD-150

Specifications

Input Power :100-240v 50-60htz

Output power :24v/12vdc

Power consumption : 150W

Control protocol: DMX512

Channel usage : 8 channels

Outputs : 2

LED outputs: 12Vdc or 24V dc

4 channels per output

Maximum Tape Load

7.2w 30leds/m 60mtrs

14.4w 60leds/m 30mtrs

19.2w 60leds/m 30mtrs

Connecting up

First install the flexible strips in the desired location, then connect them to the QD-driver. Connecting up driver units using 5-way cabling (for RGBW). The LED strips connect to the 5 way PLUG

Terminal blocks.

The correct wiring for the terminal blocks is:

Terminal 1 =White negative

Terminal 2=Blue negative

Terminal 3=Red negative

Terminal 4=Green negative

Terminal 5=positive common

If single colour LED tape is being used, the positive connections must be common in terminal 5. For single colour tapes the output channels are numbered:

Terminal 1 =Channel 4

Terminal 2=Channel 3

Terminal 3=Channel 1

Terminal 4=Channel 2

Terminal 5 positive common

Connector Pin Outs

There is a different model of the unit for 12V and 24V tape. Do not connect 12V tape to a 24V driver unit as the tape may be damaged.

If lengths of tape over 5 metres are being used, run a second feed cable to the far end of the tape, connected into the same terminals on the driver. The LED tape can only carry a limited amount of current and over a long length the LEDs at the end of the tape will become dim.

Install a mains power feed to the QD driver

If your installation includes several QD drivers units, you can control them all together by linking them using 3 pin XLR (DMX) cables.

5 way connector for LEDs

Pin 1 White / Ch4-

Pin 2 Blue / Ch3-

Pin 3 Red / Ch1-

Pin 4 Green / Ch2-

Pin5 positive common

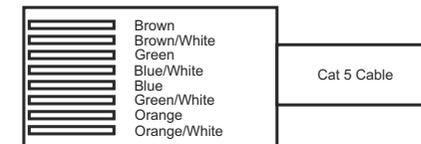
Dmx connections

Pin 1 Gnd

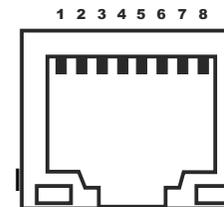
Pin 2 Data -

Pin 3 Data +

RJ45 Controller Input



Pin 1	Orange/white	Data +
Pin 2	Orange	Data -
Pin 3	Green/white	N/A
Pin 4	Blue	24V
Pin 5	Blue/white	N/A
Pin 6	Green	N/A
Pin 7	Brown/white	N/A
Pin 8	Brown	Ground



Error displays

If an output channel detects an overload condition, all 4 channels of the output will turn off. The unit will turn the output back on after about 1 second. If the overload is still present the output will blink repeatedly.

The display shows an error message



E-R1

E indicates an error

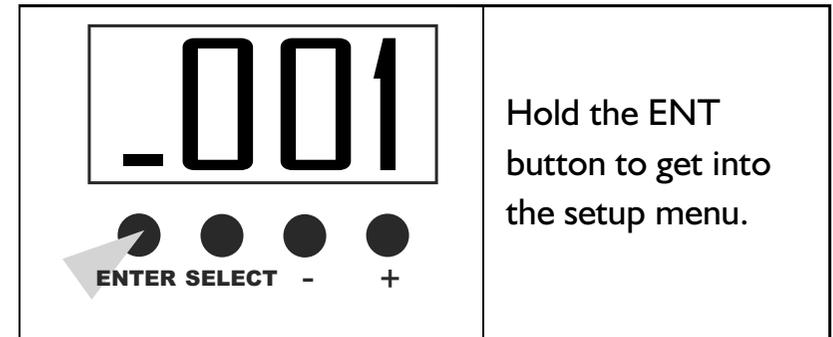
R shows the channel and may be R G B W

1 shows the output number 1-8

If there is an overload on more than one channel, the messages will sequence through the error channels.

Setting options

Hold down the left hand button for about 3 seconds to enter setup menu mode



The setup menu options are

ADDR – sets DMX address

CHAN – sets number of control channels
modes are:

2-output unit

8 – outputs individual control

4 – both outputs linked together

COND - on all outputs work as 1

Off all outputs work individual

PBAL – sets power balancing mode .

When set to OFF, all LEDs run at full power

When set to ON, when 2 or more channels

TEST MODE

PBAL – sets power balancing mode .

When set to OFF, all LEDs run at full power

When set to ON, when 2 or more channels of power is used. For example if only red is on full, Red output will be at 100%. If red and green are on full, both Red and Green outputs will be at 50%. This balances the intensity of colours and allows you to run more LEDs from the driver.

Note: if you are using single colour tape, set this option to OFF to prevent interaction between the intensity of the channels on each output.

DISP – turns the display on or off during normal operation. This does not affect display during menu option setting.

TST – enables test mode when no DMX is present.

SPD – sets speed for patterns in test mode

FADE – turns fade on or off for test mode

In test mode, when no DMX is connected to the unit the display shows one of the following options. Press either of the left 2 buttons to change the option

RGB (Red-Green-Blue sequence)

RED (Static red)

YELL (Static yellow)

GREE (Static green)

CYAN (Static cyan)

BLUE (Static blue)

PURP (Static purple)

USER – use the -/+ buttons to select a colour. This colour will be stored.

WHIT (Static white – uses the white channel, no RGB)

ALL (All channels on full – if PBAL is on, then all outputs will be 25% power)

RGBW (Red-Green-Blue-White sequence)

RAIN (Red-Amber-Yellow-Green-Cyan-Blue-Indigo-Purple sequence)

QD-640

8-output unit

32 – all outputs individual control

16 – Outputs 1-2, 3-4, 5-6, 7-8 linked in pairs

8 – Outputs 1-2-3-4 linked and 5-6-7-8 linked

4 – all outputs linked together

CHAN 32: The unit occupies 32 DMX channels.

Output channels (relative to start address)

1-4	Output 1 RGBW
5-8	Output 2 RGBW
9-12	Output 3 RGBW
13-16	Output 4 RGBW
17-20	Output 5 RGBW
21-24	Output 6 RGBW
25-28	Output 7 RGBW
29-32	Output 8 RGBW

CHAN 16: The unit occupies 16 DMX channels.

Output channels

1-4	Output 1 + 2 RGBW
5-8	Output 3 + 4 RGBW
9-12	Output 5 + 6 RGBW
13-16	Output 7 + 8 RGBW

CHAN 8: The unit occupies 8 DMX channels.

Output channels

1-4	Output 1 + 2 + 3 + 4 RGBW
5-8	Output 5 + 6 + 7 + 8 RGBW

CHAN 4: The unit occupies 4 DMX channels.

Output channels

1-4	All outputs RGBW
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CAL – enters colour calibration mode.

Change the option to Y and press ENT, then the display shows CALR. Use the -/+ buttons to set the calibration factor for Red. Use the ENT button to select CALG, CALB, CALW. Hold the ENT button to leave calibration mode.

OPC – option clear, resets options to factory default.

DMX control

The DMX base address is set using the ADDR option on the menu.

DMX channels

The unit recognises the following DMX commands for each output channel:

Base	Red 0-100%
Base+1	Green 0-100%
Base+2	Blue 0-100%
Base+3	White 0-100%

Output address

QD-75-150

2 output unit

CHAN 8: The unit occupies 8 DMX channels.
Output channels (relative to start address)

1-4	Output 1 RGBW
5-8	Output 2 RGBW

CHAN 4: The unit occupies 4 DMX channels.
Output channels

1-4	All outputs RGBW
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QD-320

4-output unit

16 – all outputs individual control
8 – Outputs 1-2, 3-4 linked in pairs
4 – all outputs linked together

CHAN 16: The unit occupies 16 DMX channels.
Output channels (relative to start address)

1-4	Output 1 RGBW
5-8	Output 2 RGBW
9-12	Output 3 RGBW
13-16	Output 4 RGBW

CHAN 8: The unit occupies 8 DMX channels.
Output channels

1-4	Output 1 +2 RGBW
5-8	Output 3 +4 RGBW

CHAN 4: The unit occupies 4 DMX channels.
Output channels

1-4	All outputs RGBW
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