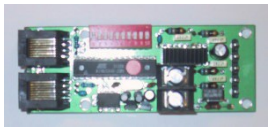
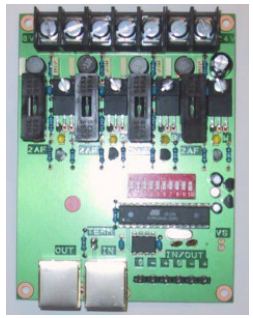
MALHAM LIGHTING LTD

DMX DIMPACKS

The Malham range of DMX dimpacks are designed to control constant voltage light sources such as 24V LED flexible strip lights.

Malham dimpacks are designed for permanent electrical installations and feature robust metal cases with 20mm knockouts and adequate room for internal wiring, including generously sized screw terminals for ease of installation. Noted for their reliability, Malham DMX dimpacks are manufactured in the UK.

24V DC - 4 CHANNEL - CONSTANT VOLTAGE - COMMON POSITIVE								
	power (VA)	**current per channel (A)**	**maximum total current (A)**	**DMX input / output connections**	**load output connections**	**integral power supply**	**dimensions (mm)**	
D4-08T-3-24	75	0.8	3.125	RJ45	screw terminals	yes	265 x 185 x 55	
D4-08R-3-24	75	0.8	3.125	RJ45	RJ45	yes	265 X 185 X 55	
D4-3T-4-24	100	3	4.16	RJ45 and screw terminals	screw terminals	yes	265 x 265 x 78	
D4-3T-6-24	150	3	6.25	RJ45 and screw terminals	screw terminals	yes	265 x 265 x 78	
D4-3T-8-24	200	3	8.33	RJ45 and screw terminals	screw terminals	yes	265 x 265 x 78	
D4-3T-10-24	240	3	10	RJ45 and screw terminals	screw terminals	yes	265 x 265 x 78	
D4-8T-13-24	320	8	13.3	RJ45 and screw terminals	screw terminals	no	dp: 265 x 185 x 55 psu: length 380 (430 including flanges) x w160 x h95	

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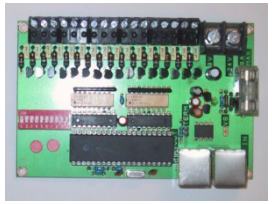
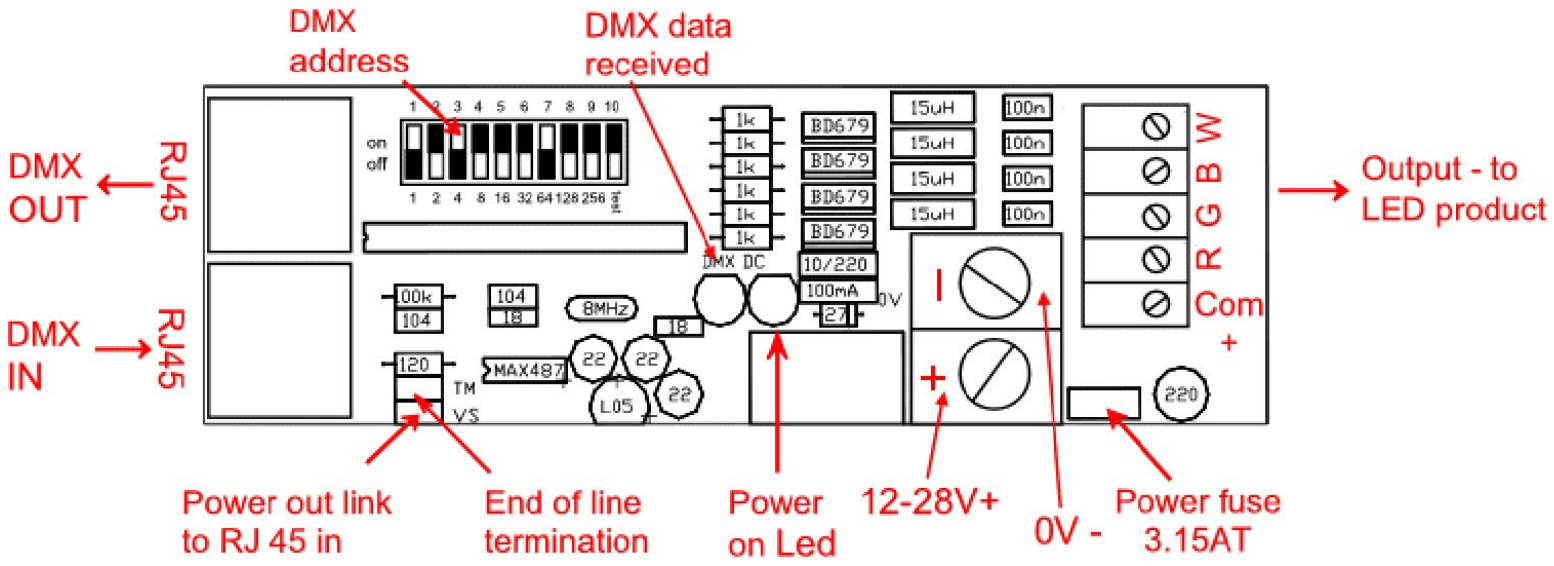
	power (VA)	current per channel (A)	maximum total current (A)	DMX input / output connections	load output connections	integral power supply	dimensions (mm)	
24V DC - 4 CHANNEL - CONSTANT VOLTAGE - COMMON POSITIVE								
D4-8T-18-24	450	8	18.75	RJ45 and screw terminals	screw terminals	no	dp: 265 x 185 x 55 psu: length 380 (430 including flanges) x w160 x h95	
D4-8T-25-24	600	8	25	RJ45 and screw terminals	screw terminals	no	dp: 265 x 185 x 55 psu: length 380 (430 including flanges) x w160 x h95	
24V DC - 16 CHANNEL - CONSTANT VOLTAGE - COMMON POSITIVE								
D16-08T-10-24	240	0.8	10	RJ45	screw terminals	yes	265 x 265 x 78	
D16-08R-10-24	240	0.8	10	RJ45	RJ45	yes	265 x 265 x 78	

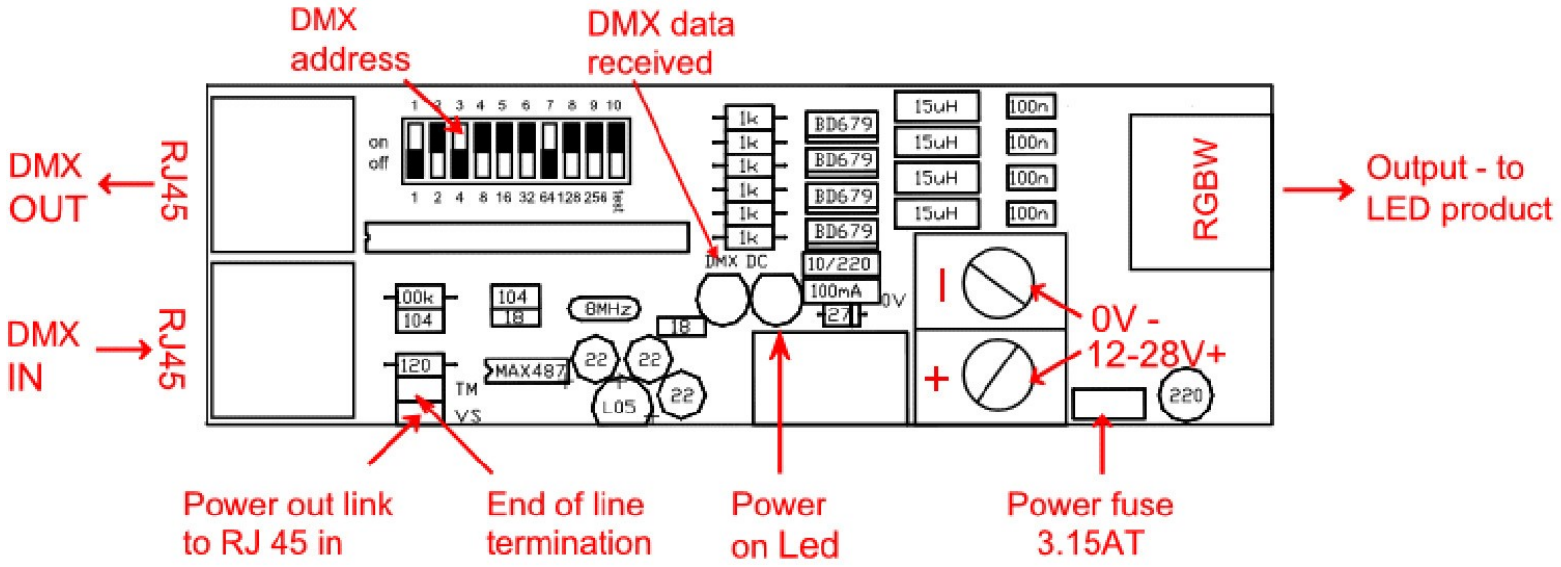
All dimpacks come as 24V DC as standard but are also available as 12V DC.
Custom dimpacks can be made to order with various combinations of PCBs and PSUs. For example, a 24-channel dimpack could be made using a 16-channel PCB alongside 2 4-channel PCBs with a shared PSU.

DMX DIMPACKS PCB CONNECTION DIAGRAMS

D4-08R

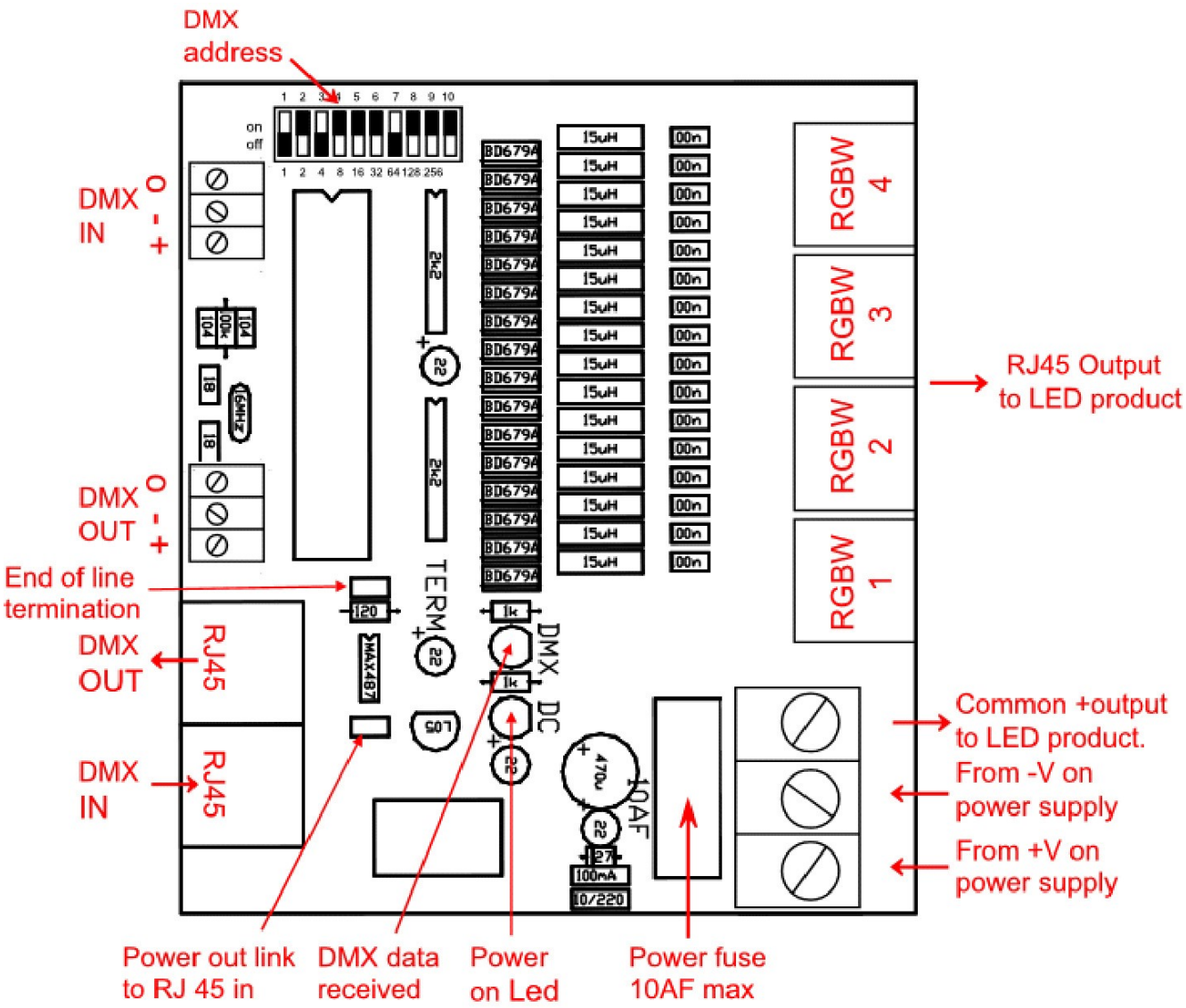


D4-08T



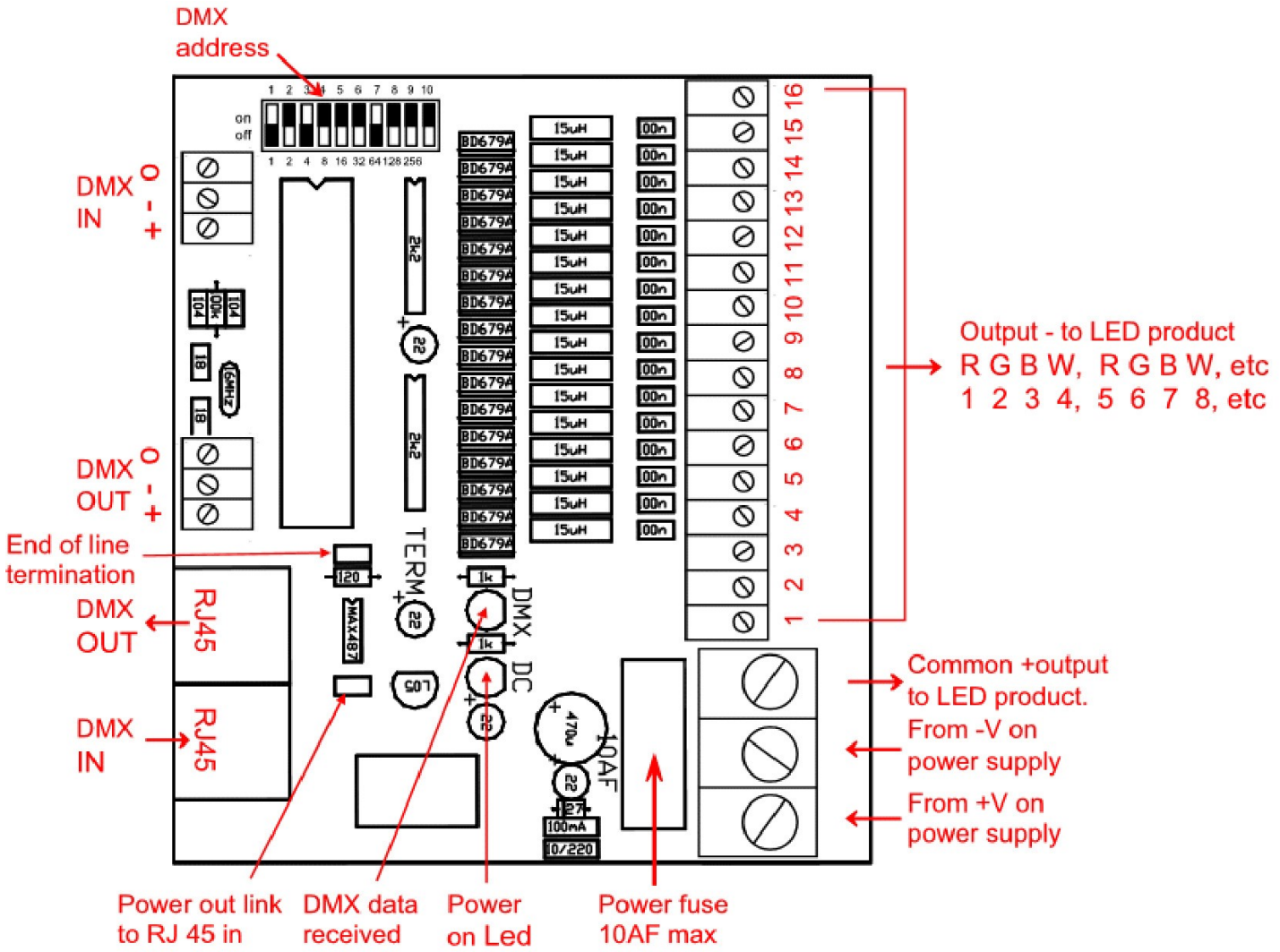
DMX DIMPACKS PCB CONNECTION DIAGRAMS

D16-08R



DMX DIMPACKS PCB CONNECTION DIAGRAMS

D16-08T



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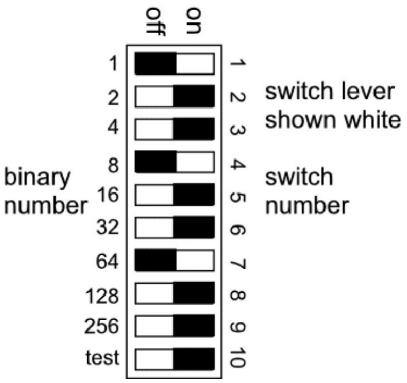
DMX DIMPACKS DIP SWITCH SETTING



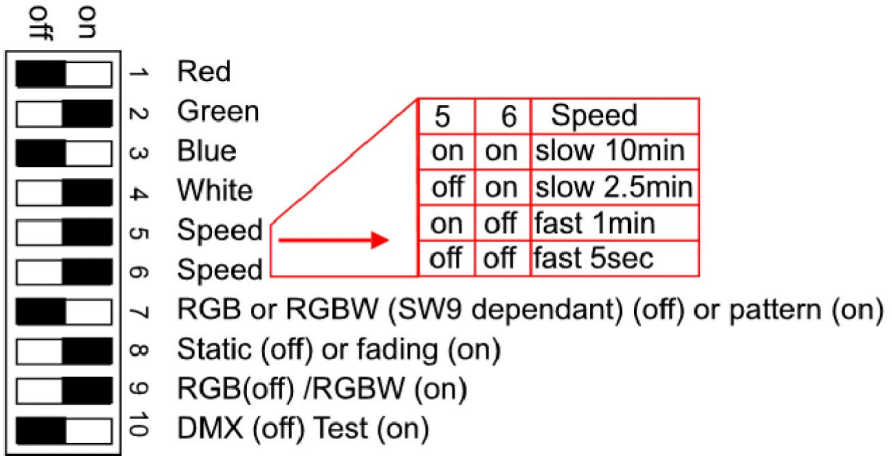
DMX ADDRESS

Switch 10 must be in the **off** position.

DMX address is set by adding together the binary numbers
ie. as shown in diagram DMX address is 1 + 8 + 64 = 73

TEST MODE

Switch 10 in combination with the other switches are used for test purposes when setting up an installation.



1 Red
2 Green
3 Blue
4 White
5 Speed (see diagram, right)
6 Speed (see diagram, right)
7 RGB or RGBW (**off**) depending on setting of switch 9, or pretty colour sequence (**on**)
8 With switch 8 in the **off** position (static) switches 1-4 turn the channels 1-4 on and off. With switch 8 in the **on** position (fading) switches 1-4, when **off**, make the channels 1-4 fade between each other and when **on**, only the selected switches fade up and down. If switch 7 is **on** (pattern), switches 1-4 have no effect.
9 In the **off** position it only works the first 3 channels RGB, in the **on** position it works all 4 channels RGBW.
10 In the **off** position it works from DMX, in the **on** position it works in TEST MODE.

ie. as shown in diagram, switch 10 is **on** = TEST MODE. Switch 9 is **off** = 3 colour (RGB) mode. Switch 8 is **off** = static colour mode. Switches 1 and 3 are **on** = red and blue are **on** = magenta-coloured mix.

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DMX DIMPACKS RJ45 CONNECTIONS

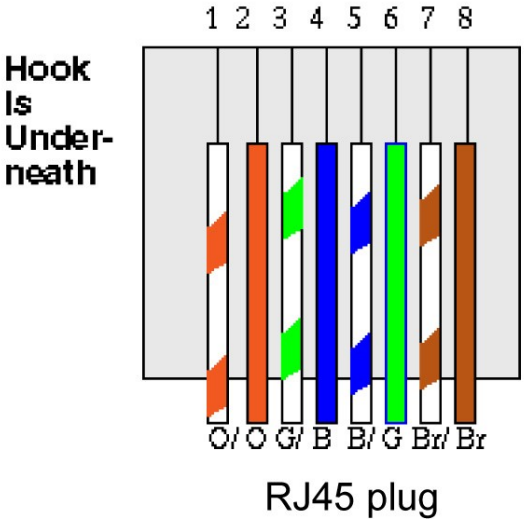
T-568B COLOUR CODE FOR RJ45 PLUG

There are two wiring standards for these cables, T568-A and T568-B. They differ only in connection sequence, not in use of the various colours. The illustration shown represents T568-B which is the one we use for link leads, easily available as patch leads in various lengths: 1m, 2m, 3m, 5m, 10m etc.

Note that the odd pin numbers are always the white with stripe colour. Eight-conductor data cable (CAT5, 5E, 6 etc.) contains 4 pairs of wires. Each pair consists of a solid (or predominantly) coloured wire, and a white wire with a stripe of the same colour. The pairs are twisted together. To maintain reliability on DMX, you should not untwist them any more than necessary (approx. 2-3 cm).

RJ45 DMX INPUTS/OUTPUTS ON DIMPACKS

pin 1 white / orange = data +
pin 2 solid orange = data -
pin 3 white / brown = 0V
pin 4 solid brown = 0V
power out is available (if jumper fitted, as shown on PCB) on:
pin 5 solid blue = +9V
pin 6 blue / blue = +9V



RJ45 plug

RJ45 OUTPUTS ON DIMPACKS TO RGBW LED PRODUCT

The solid colours are used as negative outputs, white with stripes are used as common positive.

solid orange = red	white / orange = common red
solid green = green	white / green = common green
solid blue = blue	white / blue = common blue
solid brown = white	white / brown = common white

All the commons are joined together on the circuit boards.

Don't under any circumstances plug a DMX cable into a product output RJ45 connector as damage can occur in items on the DMX line.