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DMX installation

Control manual for FL 1500
(DMX model)

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DMX installation

The DMX controlled models are internally constructed from two individual DMX devices (ie device 1, device 2). These devices are working and configured independently.

The DMX device 1 (Dimming interface) takes up one DMX address and internal DMX device 2 (Control of colour/twinkle wheel) takes up 3 addresses.

From factory the DMX address-setup is as follows:

Channel 1: Light intensity dimming 0-255 levels (level 1: off, level 1 approx. 10%

Channel 2: Wheel system settings (see protocol description page 6

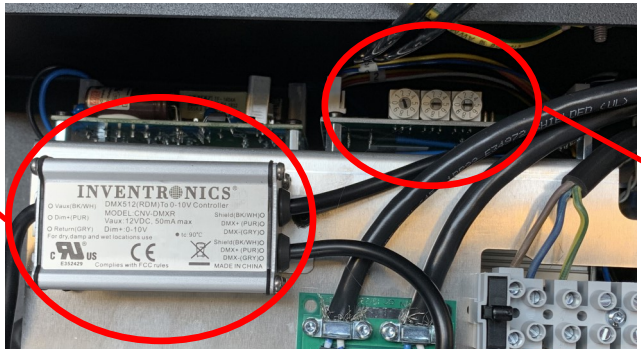
Channel 3: Colour wheel control (0-200 positions)

Channel 4: Twinkle wheel control (0-200 positions)

The address of DMX device 1 is configured by RDM.

The addresses of DMX device 2 are configured manually at the rotary switches.

Device 1



Device 2

If needed you can specify other addresses to be set from factory when ordering.

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DMX wiring

The light generator is delivered with a twisted pair screened rubber DMX cable terminated with a 5-pole XLR connector (DMX in male, DMX out female).IN/OUT is marked on the side.

Remember always to terminate the DMX line (accessories)

We recommend using a twisted pair screened rubber DMX cabel. The light generator can be delivered with stonge DMX cabel on request.

RobLight cannot recommend changing the DMX cabel inside the light generator, this will terminated the warranty.

To learn more about DMX and the practical installation we can recommend studying

https://en.wikipedia.org/wiki/DMX512

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Setting up addressing on site.

Device 1 (Dimming interface):

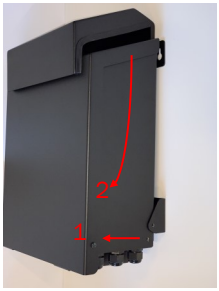
To change the DMX address of DMX device 1 you need to connect a RDM controller to the DMX connector.

The programming is dependent on the RDM controller and software used. The device 1 is compliant wiht RDM (ANSI E1.20)

Device 2 (Control colour/twinkle wheel):

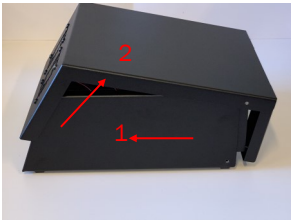
To change the DMX address of device 2, you need to remove the outer lid (XT models) and the inner lid.

Remove screws x 2
(XT models)



Pull out and down
(XT models)

Remove screws x 2



Puss op and then out

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DMX address planning (recommendations)

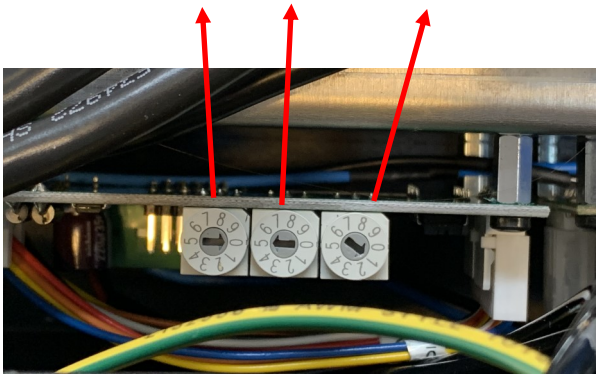
The FL 1500 unit takes up 4 addresses in the DMX address space. The two DMX devices can be reprogrammed to separate ranges, but it is not recommendable.

Example of a setup:

The light generator must use start address 50:

a) Power off the light generator
b) Use the RDM control to reprogram the address to DMX address 50
c) Adjust the whell on the wheel control board to 51, setting: x100=0, x10=5 and x1=1
d) Repower the generator

The light genetator will now use the address space DMX 50-53.



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DMX protocol description for the FL 1500

(Factory default address setting)

DMX device 1		DMX device 2					
Address 1		Address 2		Address 3		Address 4	
Value	function	Value (1)	Function	Value (2)	Function Colour (3)	Value (4)	Function Twinkle (5)
0	Light off	60	Wheel shortest mode (6)	0	Clear	0	Pos. Open
1-255	Light ~10-100%	90	Wheel linear mode (6)	33	Green	33	Pos. 60°
		130	Reset both wheel (1)	67	Orange	67	Pos. 120°
		170	Reset colour wheel (1)	100	Blue	100	Pos. 180°
				133	Red	133	Pos. 240°
				167	Yellow	167	Pos. 300°
				206-230 217 (7)	Clockwi-se rot. 1 rpm.	206-230 217 (8)	Clockwise rot. 1 rpm.
				231-255 242	Counter clockwi-se 1 rpm.	231-255 242	Counter clockwise 1 rpm.

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1:
Values not defined are reserved. Using values not defined can result in unreliable behaviour of the product. Values for address 2 must be hold/set for min. 5 sec before the device will recognize the input.

2:
Values 0-200 will position the colour wheel in angle steps of 1,8°, so values in between the defined numbers will result in mixed colours.

3:
Function is only available in selected models.

4:
Values 0-200 will position the twinkle wheel in angle steps of 200/360°. A value in this range will not give any twinkling, but a mix of intensities for the fibres in the harness.

5:
Function is only available in selected models.

6:
It is possible to program how the wheel (address 3-4) are behaving when giving a new value. In shortest mode the wheel will move to the new position using the shortest rotation. In linear mode the wheel will always move in clockwise direction. Ex. going from 67 to 33 (orange to green) will go through blue, red, yellow, clear.

7:
Values from 206-255 is used for continuous rotation of the colour wheel. All values in the range are allowed and will have indvidual speed setting decreasing with increasing values.

8:
Values from 206-255 is used for continuous rotation of the twinkling wheel. All values in the rang are allowed and will have indvidual speed setting decreasing with increading values.

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CH 4+3 (from 203-255)

	Twinkle wheel :	
000-200	Position of wheel	
000-200	White / open	
033-133	Only twinkle	
201-205	Not assigned	
206-207	Speed of rotation clockwise	10 rpm.
208-210	Speed of rotation clockwise	5 rpm.
211-212	Speed of rotation clockwise	3 rpm.
213-215	Speed of rotation clockwise	2 rpm.
216-219	Speed of rotation clockwise	1 rpm.
220	Speed of rotation clockwise	0.8 rpm.
221-223	Speed of rotation clockwise	0.6 rpm.
224-225	Speed of rotation clockwise	0.4 rpm.
226-228	Speed of rotation clockwise	0.2 rpm.
229-230	Speed of rotation clockwise	0.1 rpm.
231-232	Speed of rotation counter clockwise	10 rpm.
233-235	Speed of rotation counter clockwise	5 rpm.
236-237	Speed of rotation counter clockwise	3 rpm.
238-240	Speed of rotation counter clockwise	2 rpm.
241-244	Speed of rotation counter clockwise	1 rpm.
245	Speed of rotation counter clockwise	0.8 rpm.
246-248	Speed of rotation counter clockwise	0.6 rpm.
249-250	Speed of rotation counter clockwise	0.4 rpm.
251-253	Speed of rotation counter clockwise	0.2 rpm.
245-255	Speed of rotation counter clockwise	0.1 rpm.

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Accessories/spare parts

	Part name	Description	Ordrering
	DMX cable 2.5 m XLR plugs		9903 0056
	DMX cable 5 m XLR plugs		9903 0052
	DMX cable 10 m XLR plugs		9903 0057
	DMX cable 11 to 50 m XLR plugs		9903 0058
	DMX cable 51 to 100 m XLR plugs		9903 0059
	DMX 512 Sunlite control unit USB		0160 0302
	Netdel 100-240VAC / 5VDC		6708 0002
	DMX til 1-10V interface		0160 0316
	Factory DMX addressing		9903 0071
	DMX control unit program-ming per hour		9903 0070

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If problems is not solved using this guide please contact Roblight A/S

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