MK-12 RGBW fibre optic light engine
User manual

Features:

- 12W light engine with RGBW LED light source
- Small size
- 20mm port diameter
- RF remote
- Music rhythm sync mode

Technical specification

Light engine model	MK-12 RGBW
Programmes	Brightness, speed and voice control, 6 programs, on/off
Remote controller	Yes, RF
Light source type	LED
CRI (Ra>):	70
IP rating	IP20
Light colour mode	RGBW
Working voltage	DC12V
Rated power	12 W
Material of housing	Aluminium
Light engine dimensions	115 mm (L) x 80 mm (W) x 37 mm (H)
	0.35 kg
Remote control dimensions	85 mm x 52 mm x 7 mm
Fibre optic port diameter	16-20 mm
Fibre optic bundle compatibility:	B-200-20, B-400-20
Lifetime	50,000 hours
Warranty	2 year
Package dimensions (excluding fibre optic bundle)	190 mm (L) x 130mm (W) x 60 mm (H)
Weight with packaging	0.5 kg

Safety notices

Electrical work safety advice and tips

- Make sure the input voltage is correct.

- Avoid placing the light engine in the rain or in moist areas. Please ensure that the light engine has sufficient ventilation and is not placed in a completely sealed area.

- Do not open the LED light engine for inspection or re-wire the electronic circuits if you are not a professional. Opening the light engine might void your warranty.

- Avoid any debris on top or around the light engine as it can cause poor heat dissipation.

- Avoid using the device above 40 C temperature.

DIY tips and safety advice

- This task will involve working at height. A safe system of work should be established and maintained, in order to prevent injury.

- Consider your safety! Think about the potential risks and dangers of the work and the steps you should take to avoid them.

- Personal protective equipment. Make sure that you are equipped with suitable and sufficient personal protective equipment. This could include eye protection, face mask, protective overalls, safety footwear and gloves.

- Ensure that the work area is sufficiently illuminated.

- Check that the tools you will be working with are in a good operating condition. For the installation, you will need a cordless drill, epoxy glue, side cutters or scissors and drill bits.

Connection method between optical fibres and the light engine

Your fibre optic bundle will come with the connector fittings ready to connect to the light engine. However, if you need to adjust your bundle or you're making your own, follow the steps below.

1. Align all the optical fibre ends and fasten with tapes which can resist temperature over 130°C

2. Pass the fibres through the connector and fasten the rotary tensioner until the fibres are tightened.
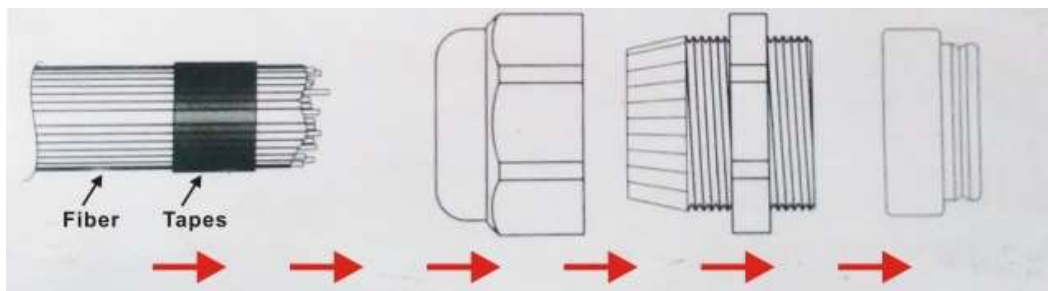
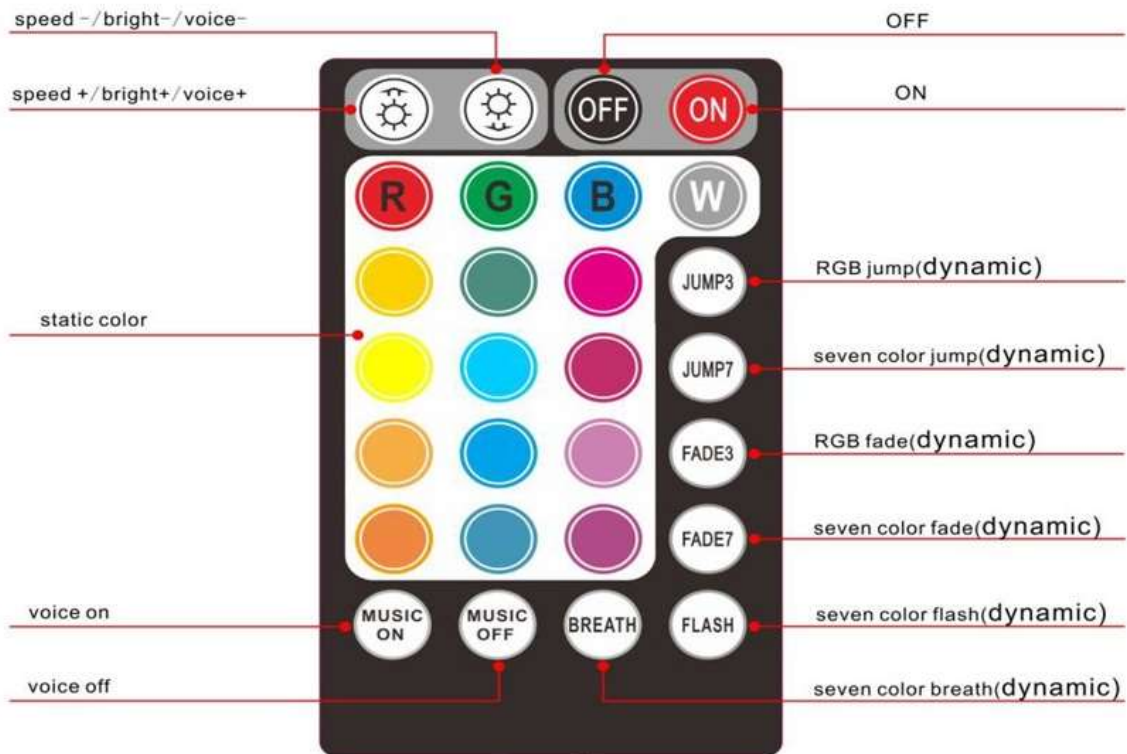3. Cut the fibre bundle to a flat surface with a heat-knife or blade.

4. Make sure that the optical fibre bundle head is smooth and clean to ensure even light distribution.

5. Place the fibre optic bundle's connector into the light engine's port connector. Fasten the bundle with the screw on the top of the light engine's port connector.

Remote controller operation

speed −/bright−/voice−

speed +/bright+/voice+

OFF

ON

R   G   B   W

static color

RGB jump(dynamic)

seven color jump(dynamic)

RGB fade(dynamic)

seven color fade(dynamic)

voice on

seven color flash(dynamic)

voice off

seven color breath(dynamic)

JUMP3
JUMP7
FADE3
FADE7

MUSIC ON   MUSIC OFF   BREATH   FLASH

CR2025 button battery (not included)

MUSIC ON — Voice function is on, and when the voice function is turned on, the light source followsthe sound and the speed of the rhythm to change.

MUSIC OFF — The voice function is off, and when the voice function is turned off, the light source is a conventional change mode.

In normal mode:
The dynamic effect is to adjust the speed faster, the static effect is to adjust the brightness to brighten
Voice mode:
the button is to adjust the voice sensor sensitivity, sensitivity becomes high

In normal mode:
The dynamic effect is to slow down the adjustment, the static effect is to adjust the brightness to darken
Voice mode:
the button is to adjust the voice sensor sensitivity, sensitivity becomes low