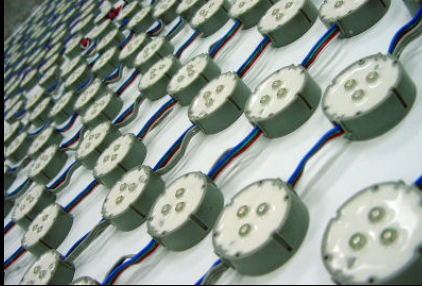


Oshino

Chain LED & Light Bar System for Signs



LED power

**For built up letters more than 100mm deep,
light boxes, sign and poster cases & more
Single colours & RGB colour-change
Quick & easy to install**

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***LED Power* — Colour Creativity with Light!**

The Oshino Chain LED System is a high brightness, quality light source for the internal illumination of built up signage letters.



A choice of ONE and TWO LED modules (pucks) plus a full colour-change RGB module makes the Oshino Chain LED System the most versatile Sign lighting system available



**This brochure shows how to select your
Oshino Chain LED system**

Pucks, Segments and Chains

Pucks

An epoxy filled and sonic welded, moulded plastic container with a double-sided, self-adhesive 3M™ VHB™ base.

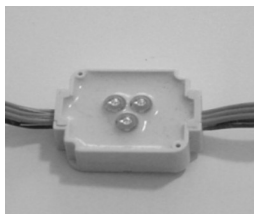
- For single colours, there is a choice of a ONE LED and a puck and a TWO LED puck both comprising Piranha Super Flux LEDs
- For colour-change, there is only one puck and this has THREE 5mm radial LEDs; one red, one green & one blue



Puck with ONE



Puck with TWO sin-

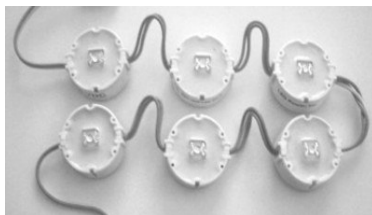


Puck with THREE

Segment of pucks

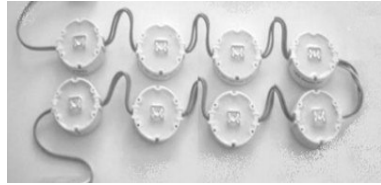
Pucks are linked together into segments. The number of pucks in a segment depends on the colour and number of LEDs.

- ONE LED pucks with a WHITE, BLUE or GREEN single colour LED are available in a SIX puck segment



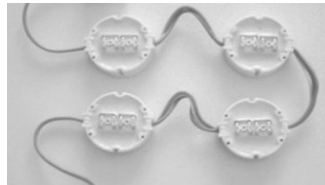
A SIX puck segment

- ONE LED pucks with a RED or AMBER single colour LED are available in an EIGHT puck segment



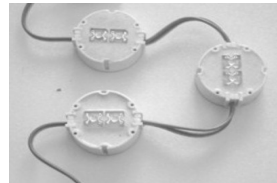
An EIGHT puck segment

- TWO LED pucks with RED or AMBER single colour LEDs are available in a FOUR puck segment



A FOUR puck segment

- TWO LED pucks with WHITE, BLUE or GREEN single colour LEDs are available in a THREE puck segment. Colour-change (RGB) LED pucks are also available in a THREE puck segment



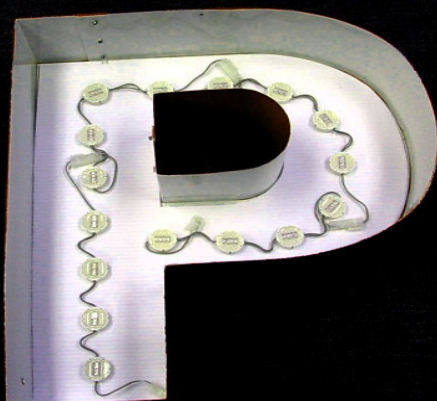
A THREE puck segment

Chain of segments

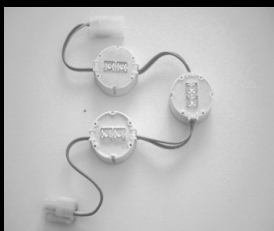
Segments are linked together to make a Chain of LEDs. Chains are available in multiples of a particular segment and can be shortened by cutting the cable link at complete segment intervals. The maximum Chain length is dependant on the total number of LEDs, the cable and power (max 144W). Segments can also be supplied with non-reversible plug and sockets

- ONE LED pucks up to 60metres long
 - TWO LED pucks up to 45metres long
 - THREE LED pucks (colour-change) up to 18metres long
-

Bright, versatile and easy to use...



TWO LED pucks with plugs and sockets installed to a 120mm deep letter P.



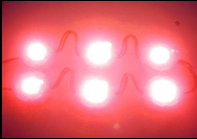
This is a Segment of ultra-bright TWO LED pucks as used in the Sign letter above. Self-adhesive bases (3M™ VHB™) and non-reversible plugs and sockets make fitting quick and simple.

Cut to length

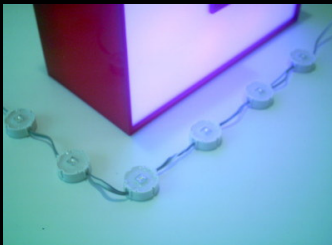
Chains can be shortened by cutting to length in between complete Segments.



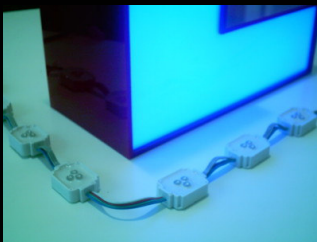
Lit segments of ONE LED pucks



A segment of ONE LED pucks shown next to a 100mm deep built up letter



A segment of THREE LED colour-change pucks shown next to a 100mm deep built up letter



Oshino Chain LED System Selection Chart

Choose LEDs per puck **ONE LED** for **LETTERS** 100mm deep, **TWO LEDs** for a higher density and greater brightness in deeper **LETTERS** or **THREE LEDs** for **Colour-Change RGB** system.

LED colour	LEDs per puck	Pucks per segment	Segment Length in Metres	W per segment	Order Code for Segment with plugs
White	1	6	0.305	0.72	W16SP
	2	3	0.225		W23SP
Red	1	8	0.405	0.96	R18SP
	2	4	0.305		R24SP
Green	1	6	0.305	0.72	G16SP
	2	3	0.225		G23SP
Blue	1	6	0.305	0.72	B16SP
	2	3	0.225		B23SP
Amber	1	8	0.405	0.96	A18SP
	2	4	0.305		A24SP
Colour-change RGB	3	3	0.225	0.72	C33SP

To Order Segments with PLUGS, first choose an LED colour, number of LEDs per puck and then specify the quantity of Segments required e.g. WHITE, TWO LEDs per puck, ten segments of three pucks each = 10pcs W23SP Segment with plugs.

Selection chart

LED power

Max. no. Segments in Chain	Max. No. Pucks in Chain	Max. Chain length in Metres	Watt s& Amp s& Volts	Order Code for a continuous Chain (no plugs)	
200	1200	60.5	144W 6A 24V	W16SC	
200	600	45.7		W23SC	
150	1200	60.9		R18SC	
150	600	45.7		R24SC	
200	1200	60.9		G16SC	
200	600	45.7		G23SC	
200	1200	60.9		B16SC	
200	600	45.7		B23SC	
150	1200	60.9		A18SC	
150	600	45.7		A24SC	
78	234	17.5		57W 4.8A 12V	C33SC

To Order a continuous Chain of Segments without plugs, first choose an LED colour, number of LEDs per puck and then specify number of segments required in the Chain e.g. BLUE, ONE LED per puck, three hundred pucks in fifty segments = 50pcs B16SC Chain.

LED Light Bars

LED Light Bars comprise high quality, bright LEDs with a choice of several colours including four different whites and an RGB colour-change all housed in a silicone resin filled and weather resistant rigid aluminium channel.

Choice of colours

Single colours	Whites	Colour-change RGB
Red	Super Warm	Red, Green, Blue
Green	Warm	
Blue	Cool	
Amber	Super Cool	

Single Colour and White LED Light Bars use Piranha Super Flux LEDs and the Colour-change RGB Light Bars use Radial 5mm LEDs.

Choice of lengths

LED Light Bars are available in four modular lengths

- 0.317M
- 0.622M
- 0.927M
- 1.232M



and are easily plugged together with non-reversible end-to-end plug and sockets

Choice of brightness

Single colour and White LED Light Bars provide three choices of brightness with three different LED arrays available in each length.



Versatile

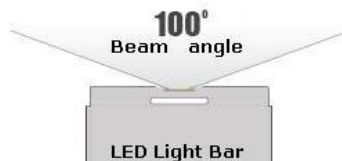
LED Light Bars have many uses where a discrete linear lighting source is required including

- Light boxes
- Sign and Poster cases
- Cornice, pelmet or trough
- Indirect or halo

Efficient, safe and effective

LED Light Bars are very energy efficient emitting up to 576 lumens of light in a useful 100 degree beam angle for just 16 watts of safe 12V electrical power.

- Useful 100 degree beam
- Low wattage and heat
- No harmful UV
- Safe 12V operation



Oshino LED Light Bar Selection Charts

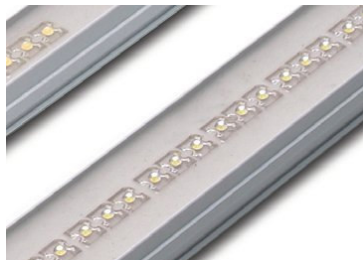
Choose LED colour, Bar length and number of LEDs per Bar

Single colour Light Bars

Light Bar length in Metres	No. LEDs	Bar Current, Power & Voltage	Dim W x H MMs	Order Code
0.317	12	0.12A/1.4W/12V	20x15	LB121+colour
	18	0.17A/2W/12V	20x15	LB181+colour
	36	0.33A/4W/12V	30x15	LB361+colour
0.622	24	0.24A/2.8W/12V	20x15	LB122+colour
	36	0.33A/4W/12V	20x15	LB182+colour
	72	0.66A/8W/12V	30x15	LB362+colour
0.927	36	0.36A/4.2W/12V	20x15	LB123+colour
	54	0.49A/6W/12V	20x15	LB183+colour
	108	0.99A/12W/12V	30x15	LB363+colour
1.232	48	0.48A/5.6W/12V	20x15	LB124+colour
	72	0.67A/8W/12V	20x15	LB184+colour
	144	1.33A/16W/12V	30x15	LB364+colour

Single colours

- Super warm white (approx 2800°K)
- Warm white (approx 3500°K)
- Cool white (approx 5000°K)
- Super cool white (approx 8000°K)
- Red
- Green
- Blue
- Amber



Colour-change RGB Light Bars

Light Bar length in Metres	No. LEDs	Bar Current, Power & voltage	Dim W x H MMs	Order Code
0.317	36	0.33A/4W/12V	30x15	LB361RGB
0.622	72	0.66A/8W/12V	30x15	LB362RGB
0.927	108	0.99A/12W/12V	30x15	LB363RGB
1.232	144	1.33A/16W/12V	30x15	LB364RGB

Colour-change RGB

- Red, Green, Blue LEDs in the same Light Bar
- Pre-programmed sequence controllers available
- Vibrant full colour-change fast or slow rates
- DMX compatible & bespoke controls are available



Linking Light Bars





LED Light Bars are supplied with non-reversible connectors at both ends and are designed to be linked together up to a maximum system load of **5A / 60W**. All Light Bars must only be operated from a suitable 12V dc regulated power supply (see pages 14 and 15)



Power Supplies and Controllers

Power supply units

Direct current (DC) power supplies from Oshino are efficient over a wide voltage input range (115–240V) and have a steady output voltage designed for single colour (use 24V) or colour-change RGB and Light Bar (use 12V) LEDs and are available in a choice of power sizes

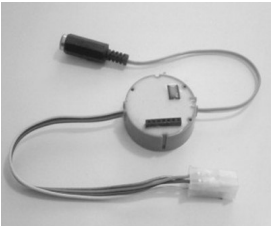
Power supply unit	Max wattage	Output voltage DC	Order code
	10W	24V	PSU10/24
		12V	PSU10/12
	40W	24V	PSU40/24
		12V	PSU40/12
	60W	24V	PSU60/24
		12V	PSU60/12
	80W	24V	PSU80/24
		12V	PSU80/12

Power supply units (PSU) are for connection to the normal 'mains' supply via a fused, switched and spur protected by an RCD device. They are SELV, F marked, double insulated and thermal protected. Not suitable for external use. The PSU10/.. is supplied with screw terminals; PSU40, 60, 80/... are supplied with a EURO style lead and plug for the 'mains' supply and a lead and special connector for the LEDs.

Controllers

These controllers are for use with the Oshino colour-changing RGB LEDs. They are factory pre-set, non-programmable colour sequence units available in slow and fast colour-change speed rate versions.

Similar construction to the LED pucks and also with a 3M™ VHB™ double sided self adhesive base, these controllers simply plug in between PSU and LED chain and do not require a separate power supply to operate.

Colour-change controller	Speed rate	Order code
	Slow	CC1
	Fast	CC2

Benefits of using Oshino LEDs

Resistance to shock and vibration. Light Emitting Diodes utilize an electronic chip sealed and encapsulated in an epoxy substrate as the light source. LEDs do not have any moving parts or filaments that are susceptible to breakage or failure. Therefore, an LED is known as a solid state product.

LEDs Consume less power. One of the biggest advantages of LEDs is that they are very energy efficient when compared to other available light sources. LEDs consume one fifth to one tenth the power of a fluorescent lamp and neon tube

Safe in use. Our chain LED systems use safe low-voltage power (12V for colour-change and 24V for single colour LEDs) and generate almost no heat, no ultra-violet light and are mercury free.

Longer rated life. In today's market, most fluorescent light products are rated up to 8,000 hours. LEDs are rated up to 80,000 hours, which is a considerable improvement. For example, under ideal conditions, if a fluorescent lamp in a sign is on for 12 hours a day, 7 days a week, the light would need to be replaced on an average of every 2 years. Under the same circumstances, the LED lamp would need replacement on the average of every 18 years. This means the LED lamp would last approximately 9 times longer than a fluorescent lamp.

Smaller space requirements. LEDs are physically smaller than fluorescent lamps and neon tubes. The design, material, and size constraints normally associated with these lighting products are virtually eliminated with the use of LEDs.

Weather resistant. In addition to the LEDs being totally sealed in epoxy, the electronic circuit boards and components are housed and permanently sonic welded to seal out dirt, moisture, and other corrosive elements with no loss of brightness in cold weather.

Deeper, truer colours. The LEDs themselves produce brilliant red, amber, green, and blue light. Traditional lamps and bulbs produce a full spectrum of light that appears white and must pass through a light blocking coloured lens which reduces the amount of light emitted by a factor of five for red.

Someone you know is using OSHINO

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