

# UMS Charge Code Form – Signals and Miscellaneous

ALL APPLICATIONS ARE SUBJECT TO INDUSTRY APPROVAL. IF AN APPLICATION IS LARGE OR CONTENTIOUS, THE APPROVAL PROCESS IS ALSO LIKELY TO TAKE LONGER.

**Company Name:** Simmons Signs Ltd

**Contact Name:** Chris Morris

**Contact Telephone Number:** 01952 217928

**Email Address:** chrism@simmons signs.co.uk

Please complete all of the questions below using the Guidance Notes supplied as a separate attachment. All fields are mandatory.

## Your Test Data and Supporting Evidence

**\*Please place a cross against all completed steps and attach relevant documents to your email.**

<b>1</b>	Has your equipment been tested by an ISO 17025 accredited test house?	Yes
<b>2</b>	Have you included evidence of the test house's accreditation?	Yes: Test Report
<b>3</b>	Have you included test data for your equipment that meets the requirements outlined in the Guidance Notes below?	Yes: Test Report
<b>4</b>	Have you included a product specification and a photo of your equipment?	Yes: Data Guide

## Your Product

		Details
<b>5</b>	What type of equipment are you submitting an application for?	46: LED Belisha Beacon (undimmed)
<b>6</b>	What is the nominal wattage of your equipment?	Nominal wattage at full power in static mode: 42W
<b>7</b>	How does the equipment operate?	Midustar: Flashing Belisha Beacon with c/w 24V transformer
<b>8</b>	What is the product's name or model number?	Midustar [REDACTED]
<b>9</b>	Is your company the manufacturer of this product?	Yes

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<b>2</b>	Have you included evidence of the test house's accreditation?	Yes: Test Report
<b>3</b>	Have you included test data for your equipment that meets the requirements outlined in the Guidance Notes below?	Yes: Test Report
<b>4</b>	Have you included a product specification and a photo of your equipment?	Yes: Data Guide

### Your Product

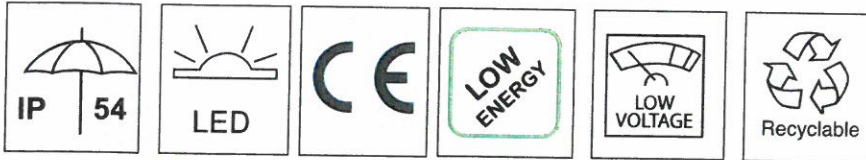
		<b>Details</b>
<b>5</b>	What type of equipment are you submitting an application for?	46: LED Belisha Beacon (undimmed)
<b>6</b>	What is the nominal wattage of your equipment?	Nominal wattage at full power in static mode: 21W
<b>7</b>	How does the equipment operate?	Modustar: Flashing Belisha Beacon c/w 24V transformer
<b>8</b>	What is the product's name or model number?	Modustar
<b>9</b>	Is your company the manufacturer of this product?	Yes





**Simmons signs**

## MODUSTAR & MIDUSTAR Data Guide



### DESCRIPTION

The first truly 360° aspect Belisha beacon with high intensity LED arrays giving better visibility on sunny days to approaching vehicles and pedestrians.

Based on the highly successful Modubel and Midubel, this new offering raises safety to an even higher level by improving visibility.

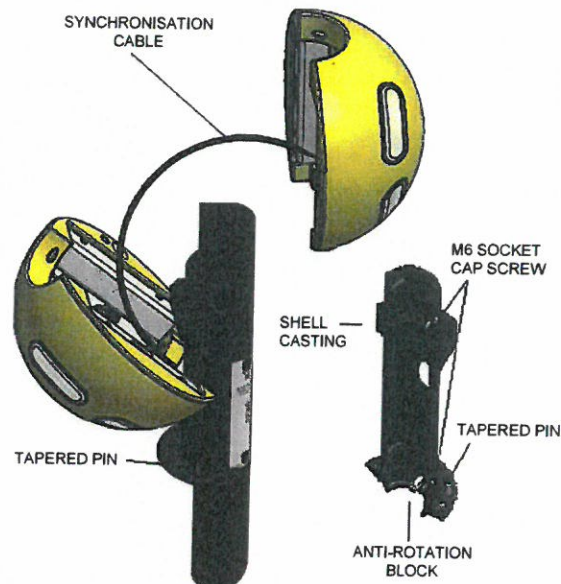
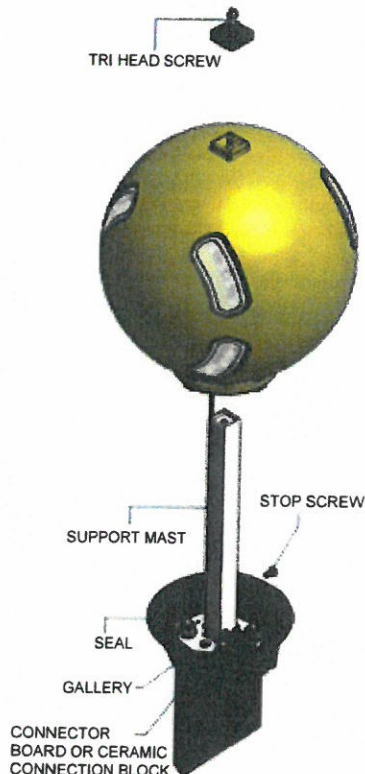
Both beacons are a tough, high visibility retro-fit for Belisha beacon assembly for standard tubular beacon posts. It is also possible to retrofit to existing Simmons signs amber beacon installations with little fuss.

All beacons have high quality LED lighting units driven at 24 Volts AC for significantly reduced maintenance and improved safety.



### ModuStar

### MiduStar



### Full Shroud option



### Half Shroud option



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	ASSEMBLY
<b>Gallery</b>	Die Cast LM6-M aluminium, acid cleaned, chromate primed and polyester powder coated black, incorporating stainless steel globe support mast and pre-fitted stainless steel shroud fixing points. Pre-wired with 4 metres of cable and IP56 transformer connector. High performance silicon gasket at beacon interface with gallery. All threads are stainless steel bushed.
<b>Globe</b>	335mm diameter, self-coloured, rotationally moulded, UV stabilised low density polyethylene, 2.5mm nominal wall thickness. Stainless steel Tri-head fixing with load washer
<b>Transformer</b>	230 Volt AC primary, 24 Volt AC secondary @ 2 amps. Fully potted with a vacuum impregnated core, featuring short circuit and thermal protection. Supplied complete with pre-wired IP56 connector for connection to supplied drop lead and fixing screws. Dimensions 90x60x70mm high.
<b>Shroud</b>	3mm black polycarbonate with stainless steel fixings.
<b>IP Integrity</b>	IP54
<b>UMSUG power code</b>	TBC

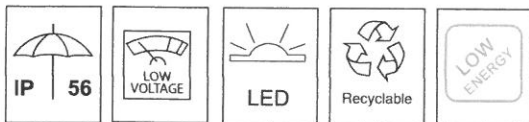
LIGHT OUTPUT						
The mean luminance from the beacon globe measured in accordance with BS8442	ModuStar			MiduStar		
	Average of 780 cd/m <sup>2</sup> with a uniformity ratio of 0.75			Average of 1794 cd/m <sup>2</sup> with a uniformity ratio of 0.68		
LIGHT OUTPUT IMPACT OF HIGH INTENSITY LEDs						
The mean luminance from the entire beacon globe including the high visibility illumination units give a total measured candela per square metre output per side of :-	ModuStar			MiduStar		
		Night/Dim (cd/m <sup>2</sup> )	Day (cd/m <sup>2</sup> )		Night/Dim (cd/m <sup>2</sup> )	Day (cd/m <sup>2</sup> )
	Level 0	849		Level 0	1504	
	Level 1		2800	Level 1		2918
	Level 2		2895	Level 2		3076
	Level 3		3346	Level 3		3382
	Level 4		3385	Level 4		3622
	Level 5		3820	Level 5		4181
	Level 6		4167	Level 6		4483
	Level 7*		5107	Level 7*		5381
	Level 8		5438	Level 8		6241
	Level 9		6453	Level 9		7461

\* Factory setting

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### SAFETY FIRST

Isolate the mains electrical supply before commencing installation.

To avoid dropping this product, use high grip safety gloves when handling.

All electrical work must be carried out in accordance with the latest IET wiring regulations (BS7671) by suitably qualified engineers.

### TOOLS REQUIRED

Tri-head Key 2 – Standard 8mm  
Terminal Screwdriver 3 – 5mm x 50mm

### UPGRADE MODUSTAR

- A. Before fitting the beacon it will be necessary to remove the old globe by removing the Tri-head screw at the top of the globe and sliding the globe up and off the Support Mast. (See Fig. 2)

module and slide this up and off. Recycle both the globe and light module.

- B. Remove the power lead at the connector board or ceramic block and replace with the new longer lead supplied.

Remove the Fixing Screw from the existing light

### FIT MODUSTAR

1. Fit the gallery to the post and tighten fixings to 6Nm
2. Ensure the Support Mast has the stop screw fitted.
3. Lower the ModuStar assembly over the Support Mast ensuring the LED Arrays are facing the oncoming traffic.

Connect the power leads (B) and lower the beacon until it hits the stop screw and locates into the square recess at the top of the globe, rotating it slightly if necessary.

4. Secure the Globe by locating the Tri-head fixing and tightening until the beacon compresses the gallery seal.

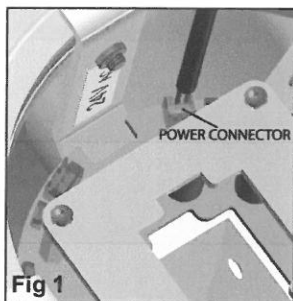


Fig 1

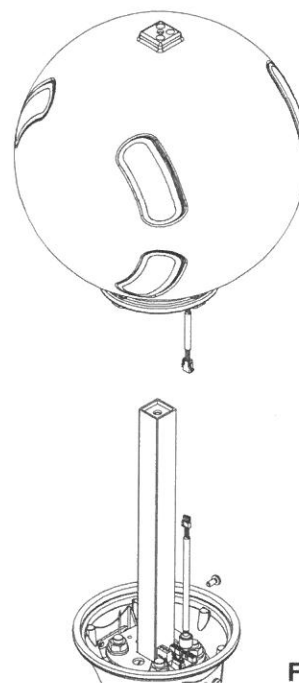


Fig. 2

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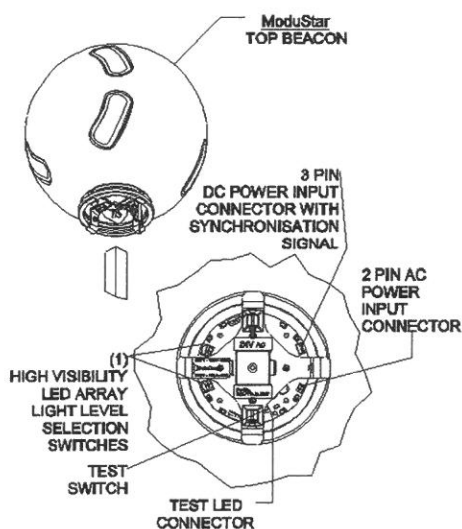
### CHANGING THE LIGHT OUTPUT MODUSTAR

Undo the Tri-head screw at the top of the beacon until the beacon will lift up. Disconnect the power cable and lift the beacon off the stem. Note the position of the two rotary switches SW2 and SW3 which control the LED illumination units. Using a small terminal screwdriver turn each through the nine positions to achieve the light level desired. Note the levels can be set independently so for example one side can be switched off position 0, while the other side is set to 52% output position 5.

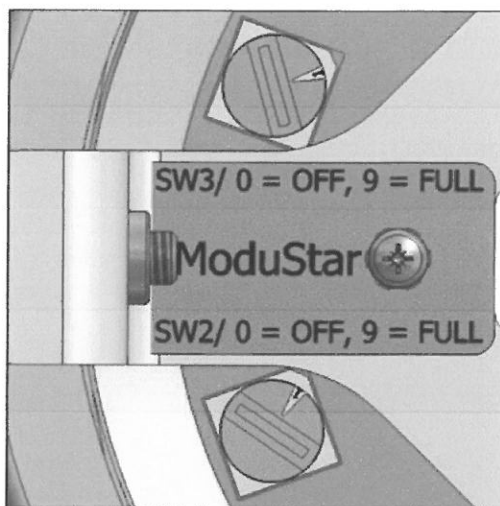
The positions are:

Position	0 =	Off
Position	1 =	7%
Position	2 =	13%
Position	3 =	20%
Position	4 =	29%
Position	5 =	40%
Position	6 =	52%
Position	7 =	Factory Setting
Position	8 =	82%
Position	9 =	100%

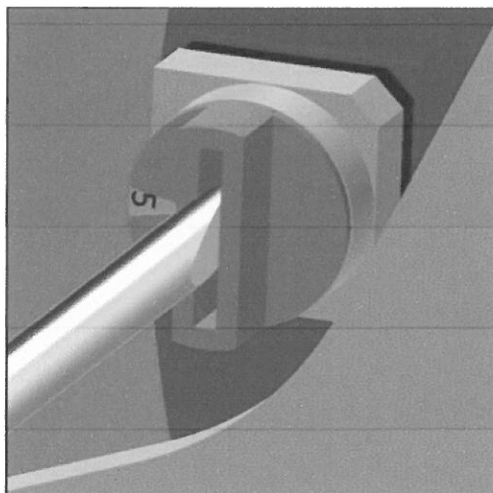
Refit the beacon over the stem, connect the power lead and fix down with the tri-head screw.



Underside view b



Switches at position 1



Example turned to position 5

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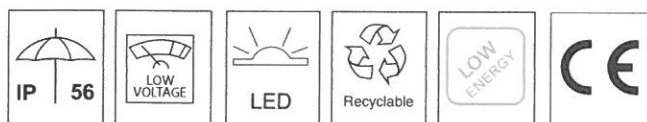
Doc Ref: IG125 | Issue Date: June 2015 | Draft Number: 2





**Simmons signs**

## MIDUSTAR Installation Guide



### SAFETY FIRST

Isolate the mains electrical supply before commencing installation.

To avoid dropping this product, use high grip safety gloves when handling.

All electrical work must be carried out in accordance with the latest IET wiring regulations (BS7671) by suitably qualified engineers.

### TOOLS REQUIRED

Tri-head Key 2 – Standard 8mm  
Terminal (2mm x 50mm) Screwdriver

### RETROFIT 76MM MIDUSTAR

Before installation, the MiduStar you receive will need to be disassembled. Please refer to the section 'Upgrade from Midubel to MiduStar'

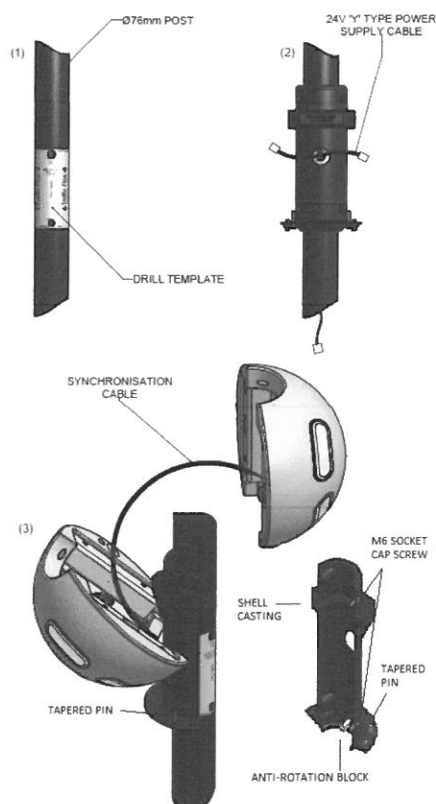
1. Apply the supplied self-adhesive drill template to the 76mm post facing the traffic. Machine holes in the post as indicated on the template. De-burr and surface protect machined holes.
2. Take the two shell castings and identify the anti-rotation block. Clamp the shells around the post using the pre-fitted 4x M6 socket cap screws ensuring that shells are aligned with each other and the anti-rotation block engages in the lower hole indicated on the template. Feed the 'Y' type cable through the upper hole and down the post into the column base enclosure.
3. Pass the 2 beacons around the post and plug each half into the 'Y' type lead. Hook the beacons onto the casting by locating the tapered pins into the holes on the casting, then push down.

*Note: - The beacon split line aligns with the shell casting split line.*

Tighten the Tri-head screws at the base of the castings using a Tri-head key to 6Nm.

*Note: - Fully tighten Tri-heads ensuring that both the beacon halves seat firmly onto the lower cast flange.*

4. Mount the transformer unit in the column base using the fixing screws provided. Connect the mains input cable from the transformer to the incoming 230 Volts AC mains supply at the fused cut-out. Plug



the cable from the beacon into the output lead of the transformer. Coil any excess cable in the base compartment and tie up neatly.

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### UPGRADE FROM MIDUBEL TO MIDUSTAR

(A) Before fitting the beacon it will be necessary to remove the old globe by removing the Tri Head Screws at the base of the castings and lifting the beacon halves up and away at the same time as disconnecting the two ends of the 'Y' type cable.

(B) Follow the above procedure parts (3) & if necessary replace the transformer part (4)

(C) Upgrade units will be provided with 2 to 3 way converters to ensure backward compatibility.

### CHANGING THE LIGHT OUTPUT MIDUSTAR

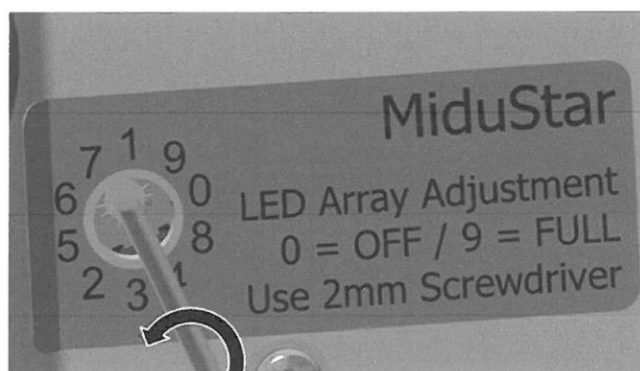
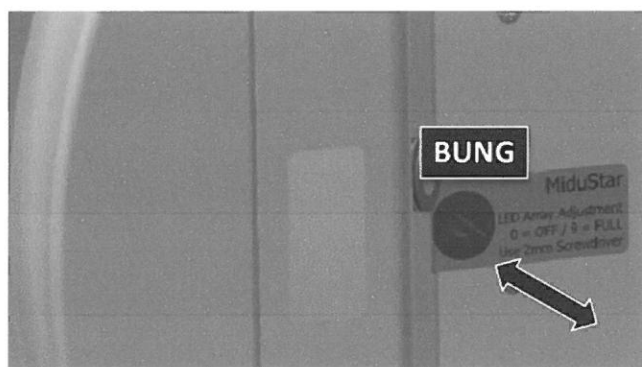
#### Only required if light output is to be modified from the factory setting of position 7

Undo the Tri Head screws under the beacon until the beacon will lift up and away from the post. Disconnect the power cables and lift the beacon off the bracket. You will see on the backplate to each beacon half a label with MiduStar LED Array Adjustment. Remove the rubber bungs in turn by pulling on the centre tab and then the bung body. Removing the bung will reveal an access hole to a ten position rotary switch (0 – 9). Note the position of the rotary switch which controls the LED illumination units. Using a small terminal screwdriver turn the switch through the nine positions to achieve the light level desired. Note the levels can be set independently in either half, so for example one side can be switched off position 0, while the other side is set to 52% output position 6.

Switch Position:

Level	0	Off
Level	1	20/39%
Level	2	41%
Level	3	45%
Level	4	49%
Level	5	56%
Level	6	60%
Level	7	72% - Factory setting
Level	8	84%
Level	9	100%

Refit the bungs to maintain the ingress protection of the beacon. Refit the beacon halves to the bracket around the post, connect the power leads and fix with the Tri-head screws.



Note: Switch pattern on rotary switch is correct.