

Significance of Signal Wires to Spectrum Unit

Wire No.	Colour	
1 2	Red Green	(Wires 1 and 2 control the colour of the Spectrum Unit)
3 4	White Blue	(Wires 3 and 4 control the Flash Frequency of the Spectrum Unit)
5	Yellow	Wire 5 controls the sound output
6	Black	Wire 6 is the Ground Return for wires 1 to 5

Output Colour Truth Table

Wire No.	Wire No.	
1	2	
0	0	No output, Flash Frequency and Sound inhibited
1	0	Red Light output
0	1	Green Light output
1	1	Amber Light output

Output Frequency Truth Table

Wire No.	Wire No.	
3	4	
0	0	Continuous
0	1	Standard Flash. (60 per minute)
1	0	Fast Flash Mode 1. (90 per minute, on time 0,11 sec)
1	1	Fast Flash Mode 2. (90 per minute, on time 0,23 sec)

Sound Truth Table

Wire No.	
5	
0	No Sound output
1	Sound output synchronised with Flash Frequency

Spectrum Units (Programming Notes)

Power Requirements

Voltages between 6 and 24v Dc, referred to Wire 6, may be used to interface with the Spectrum Unit. The unit contains on-board latches to capture incoming signals, and these signals need only be of 10 milliseconds duration. Using a 12v Dc system with all wires 'high' the current draw would be 25 milliamps.

(6v = 12mA),
(24v= 50mA).

The Spectrum Unit is isolated from the input device by opto isolators, so there are no compatibility problems to be considered.

The control wires 1 to 5 are designed to be normally at ground potential (wire 6). If this is not convenient, they must be returned to ground for 0,5 seconds before the transmission of a new signal, to allow the internal latches to be reset by the in-coming signal.

The Control Signal

The control signal consists of a 5 bit word which has to be assembled and transmitted in parallel mode to the Spectrum Unit. The significance of the control wires, and their truth tables is set out in the table.

Note that the Colour, Frequency and Sound are independent of one another, but a colour signal is necessary for the control word to be accepted. Thus any word beginning 00 will not be accepted.

Interface Unit (Optional) - Code No. 50165:

The unit contains seven electrically isolated prioritised channels.

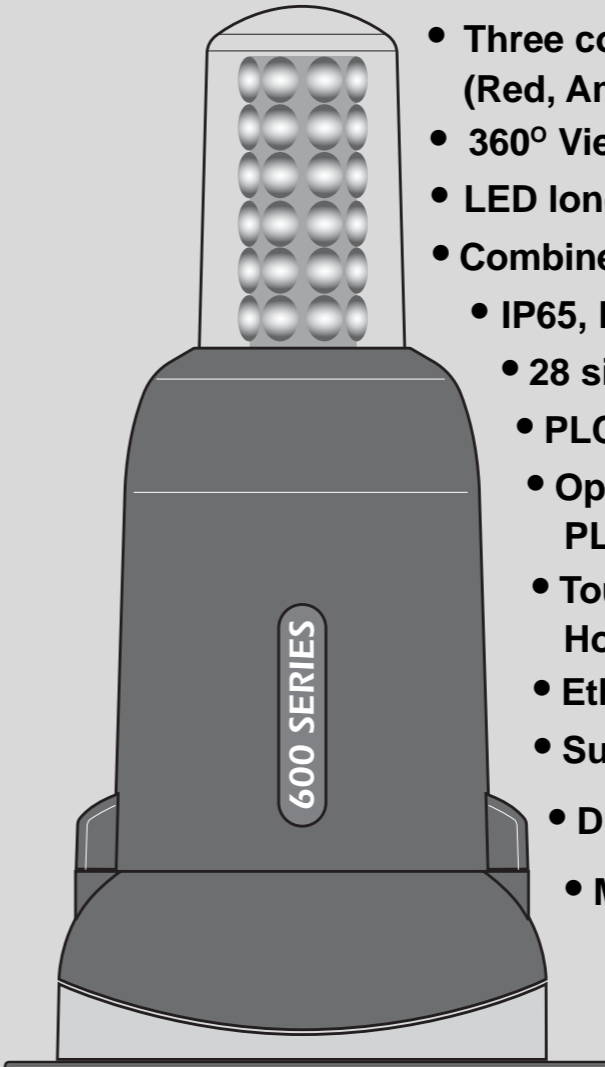
Each channel accepts 24-230v Ac or 12-48v Dc input. A pre-selected audio and / or visual signal is supplied for each of the seven channels. In the event of no signal being applied the beacon displays continuous green. The operating voltage for the unit is 230v Ac. The design allows for a 12v Dc auxiliary power supply for use in volt free applications.

Additionally the unit incorporates a battery back up sufficient to maintain the unit for 12 hours in case of mains power failure. Provision is made for mains failure to be signalled from the interface unit (device not supplied).

The unit is supplied complete with mounting plate and cover. This can be installed either inside an existing enclosure or into a standard weatherproof 'Fibox' IP67 mounting box Ref: MNX PCM200/63 G.

Spectrum 600 Series

Warning Beacon/Status Indication Light



Core features:

- Three colours in one housing (Red, Amber, Green)
- 360° Viewing angle
- LED long life, low power, typically 265mA
- Combined beacon & piezo sounders
 - IP65, IP66 & IP67 protection
- 28 signal options
- PLC controllable
- Optional Interface unit available for non PLC operation (offers 7 pre-set signals)
- Tough UV stable Polycarbonate Housing
- Ethernet compatible
- Supplied ready for instant installation
- Dual voltage unit
- Made in the UK

Moflash Signalling Ltd.
Unit 17, 18, 19 Klaxon Industrial Est.
Warwick Rd. Tyseley.
Birmingham B11 2HA. England

Tel: +44 (0) 121 707 6681
Fax: +44 (0) 121 707 8305

email uksales@moflash.co.uk
www.moflash.co.uk

We also manufacture a wide range of audible and visual warning devices

Introduction

Utilising ultrabright tri-colour LED's in one enclosure to create amber, green & red light in conjunction with two synchronised piezo sounders.

This beacon is a cost effective alternative to traditional stacking beacons and other process indication applications where multiple signal outputs, long life and low power consumption are required.

The beacon comes totally assembled & ready for immediate installation.

In addition the enclosure incorporates a high ingress protection (IP) and is manufactured from a tough UV stable polycarbonate plastic that make the beacon suitable for harsh industrial & marine environments.

The beacon requires external input signals for it to function (see programming notes below) If no PLC (or similar) is available then the Spectrum Interface Unit (see Interface information) gives the end user a control option.

SPECTRUM 600 SERIES Signalling Beacon

Technical Data

Type	Code No -	Voltage -	Current (Running Peak) -
	LEDA 600-01	24v Dc or 230v Ac	
	LEDA 600-03	24v Dc or 115v Ac	
Light Source:	Ultra Bright Tri-Colour LED's		
	Amber	3.9 Effective Candela (390 mcd)	450mA
	Green	6.2 Effective Candela (620 mcd)	265mA
	Red	4.4 Effective Candela (440 mcd)	265mA
Signal Options:	Continuously	ON	
	Slow Flash	60 FPM	
	Rapid Flash 1	90 FPM (0.11sec ON, 0.23 OFF)	
	Rapid Flash 2	90 FPM (0.23sec ON, 0.11 OFF)	
Sounder Type:	Electronic Piezo Sounders x 2		20mA
	dB@ 1m:	90dB ea +/- 3dB (horn covers not installed)	
	Frequency:	3.1kHz +/- 500Hz	
	Visual & Audible signalling options can be combined, audible signal synchronised with beacon flash.		
Operating Temp:	-20°C to +45°C		
Enclosure Materials:	UV Stable Polycarbonate Plastic		
Ingress Protection:	IP65 & IP67 As Standard as one enclosure. IP66 with Sounder covers fitted. Sounder covers can be fitted (snap fixed) or permanently (adhered) into place. Sounder Covers supplied as standard.		
Beacon Control:	The beacon is supplied with Flying Leads 2 x 1 metre 4 core power cable & 6 core signal cable. When selecting the signals required, continous Amber mode should be avoided for longer periods of operation.		
Weight	0.85 Kg		

Maintenance

The Beacon should require little or no maintenance during it's service life. It is recommended however that if the beacon is situated in a dirty/dusty environment etc. the lens is occasionally cleaned to ensure optimum light output.

Do not clean the beacon with petroleum based cleaners.

Installation

The beacon has three mounting options:

Surface Mount Plate (3 point DIN fix) - Fitted as standard - See Fig. 1.

Side knockouts x 2 cabling in / out (15mm x 10mm).

Foot & Pole Mount - Code No: 50166 - See Fig. 2

(the surface mount plate must be removed, 2 screws)

Right Angled Wall Bracket - Code No: 50004

Moflash recommend that stainless steel fasteners be used to mount the unit.

The beacon should be installed as supplied, do not disassemble the beacon as this will effect the IP rating of the enclosure.

Connections for the 4 core cable are:-
230v or 115v Ac, Brown=Live. Orange=Neutral.
24v Dc, Red=+vc. Black=0 volts.

The beacons are supplied as dual voltage as standard. Once the supply voltage has been chosen the appropriate wires should be connected and the other pair be safely isolated.

The beacon also incorporates an effective power failure back up arrangement if both input pairs are connected. In this case the input current requirements will be shared between the Ac and Dc inputs. Typically at 230v Ac and 24v Dc supply, the current will be shared 60mA from the Ac and 250mA from the Dc.

This arrangement will insure against failure of either the Ac or Dc supply.

Sound aperture x 2

Mounting holes
3 off 6.5mm dia.
Equally spaced
on a PCD of 130mm

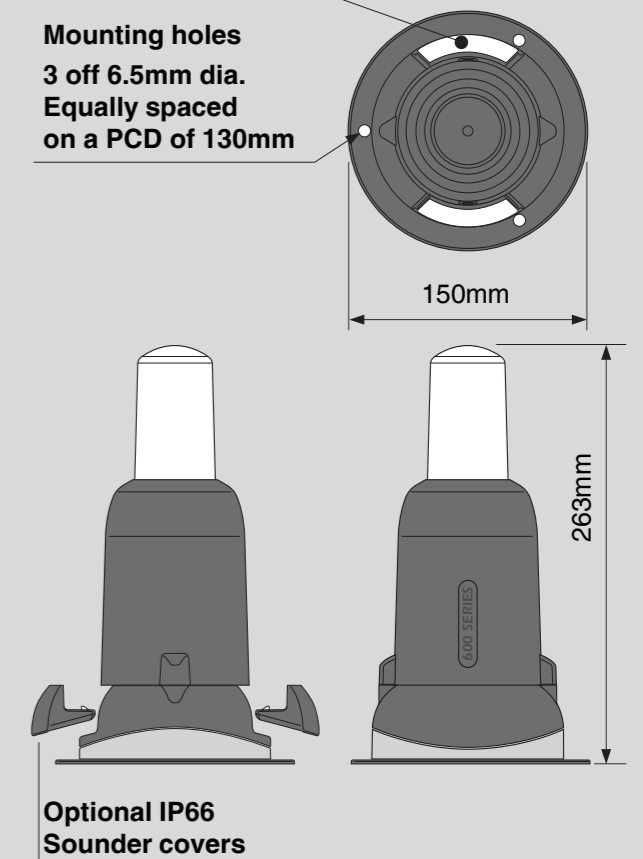


Fig. 1 Standard Mounting

54mm fixing centres
4 x 5.5mm

6 off screw covers
supplied

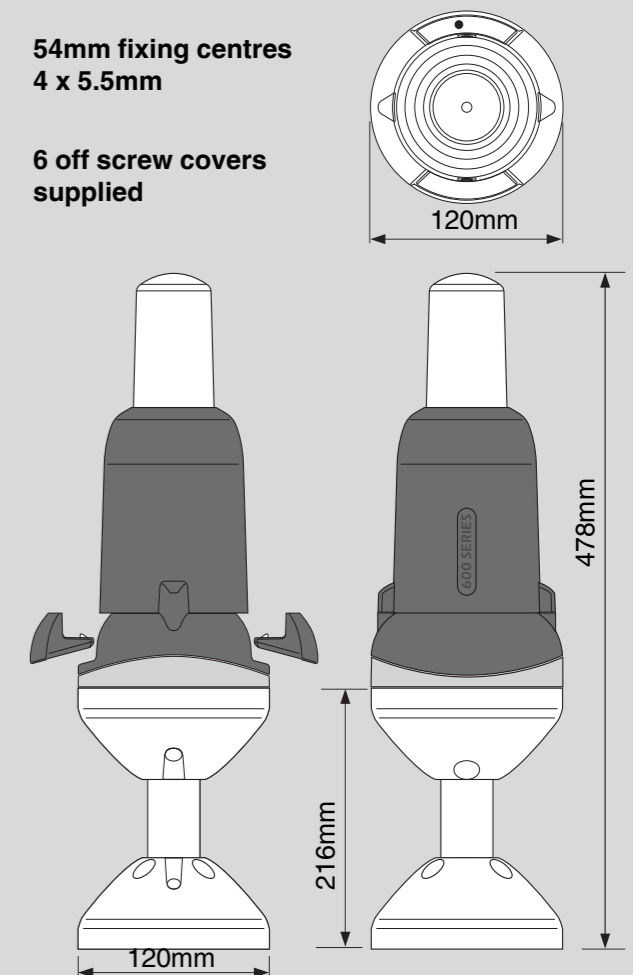


Fig. 2 Foot and Pole Mounting