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#### Health and safety

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Certificate No. FM 14371

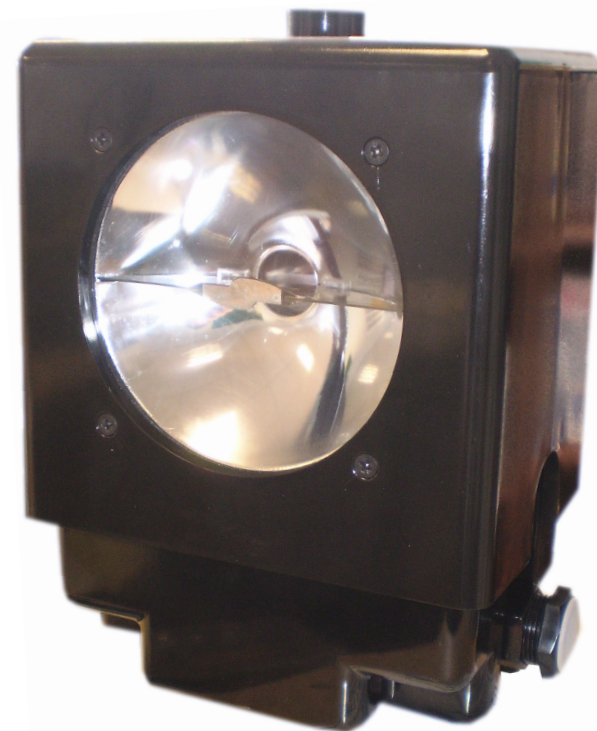
Dorman ref. No C64.63900 Iss 01

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## LED Universal Semaphore Lamp USL2/WW/P/E-/HE (External Supply - High Intensity) Elevated Mounting Installation Instructions

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To be read before commencing  
Operation



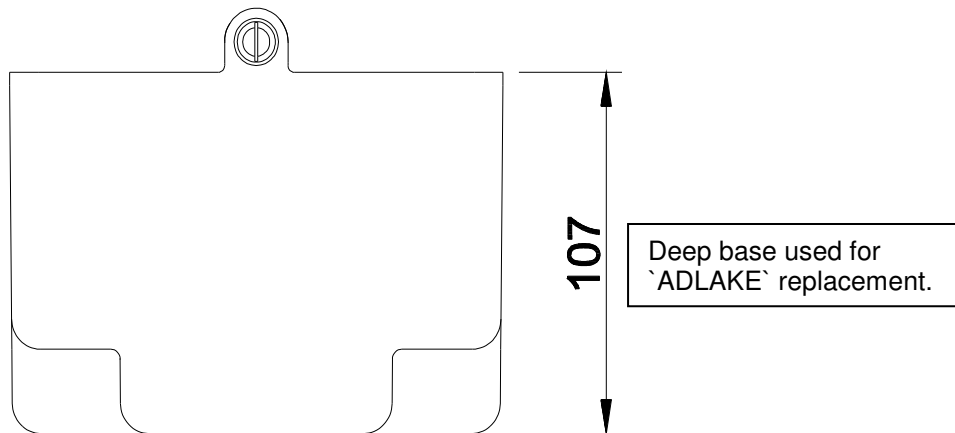
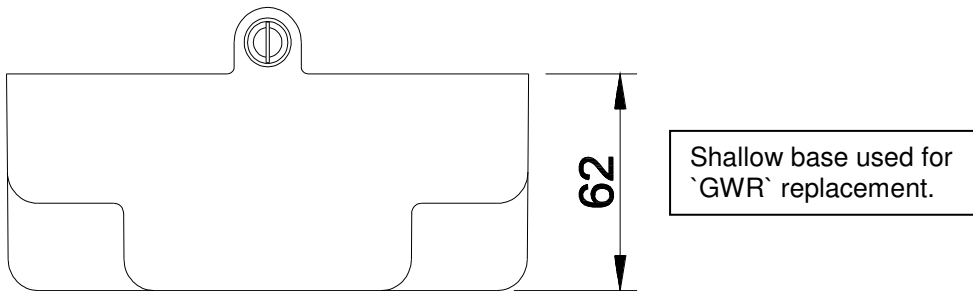
## INSTALLATION INSTRUCTIONS

It is recommended that this unit is installed by a qualified electrician and wired in accordance with the relevant track and signal code of practice.

Please Note:- There are no serviceable parts inside this unit.

## GENERAL

The Universal Semaphore Lamp (USL) is designed to replace a number of existing Semaphore Lamps. To enable this, the USL is supplied with two base units:



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The correct base should be selected to suit the particular signal requirements.

## MOUNTING OF USL BASE

The USL base should be positioned in such a manner so as to give maximum illumination through the mechanical Semaphore Arm Spectacle.

To separate the main body from the unit, loosen locking screw and apply even pressure to both sides of the main body and withdraw the base unit.

The base has three drilling positions formed in the moulding. These can be used as a drilling template, if required, for fixing the base to the mounting bracket of the main Semaphore assembly.

If an alternative mounting position is required, then the base may be drilled to suit. Two sets of M8 fixings are supplied with each lamp, however other size fixings may be used at installers discretion.

## SPECIFICATION:-

Product Acceptance Number:	PA05/03335
Compliant with:	Railway Group Standard GK/RT/0045
PADS Number:	086/009196
Part No.	USL2/WW/P/E-/HE
Nominal Supply Voltage:	12VDC
Nominal Current:	350mA
Proving Voltage	2V Min – 30V Max
Max Proving Current	100mA
Weight:	2kg (max)



## **SPECTACLE FILTERS** (Only to be used in conjunction with LED light sources)

229 x Ø171 (OVAL) Red	086/009026
229 x Ø171 (OVAL) Yellow	086/009027
Ø222 (ROUND) Green	086/009028
205 x Ø124 (OVAL) Red	086/009029
205 x Ø124 (OVAL) Yellow	086/009030
Ø162 (ROUND) Green	086/009031
Ø174.62 (ROUND) Red	086/009032
Ø175 (ROUND) Yellow	086/009033
Ø55.6 (ROUND) Red	086/009034
Ø63.5 (ROUND) Yellow	086/009035
Ø63.5 (ROUND) Red	086/009036
User Specified - Red	086/009037
User Specified - Yellow	086/009038
User Specified - Green	086/009039

## **CABLE ROUTING AND CONNECTION**

The USL base is supplied with one M25 cable gland and one M25 stopping plug. The cable gland should be fitted in the base to suit the cable routing requirements. The other un-used hole should have the M25 stopping plug fitted. The supplied M25 cable gland will suit a cable diameter of 12mm to 18mm. The supply cable should consist of 4 cores and should be cut to length, stripped and fitted with 2BA ring terminals.

The main USL body assembly can now be connected to the incoming supply cable.

The connections on the USL assembly are as follows:

Red wire	Terminal 1	Supply +ve
Blue wire	Terminal 2	Supply –ve
Black wire	Terminal 3	Proving Relay
Black wire	Terminal 4	Proving Relay

When unit has been connected, it can be fitted to base unit by pushing main body assembly over the base until locating `click` is felt and main assembly cannot be pushed any further. Please ensure that the locking screw and washer on the base are located outside of the main body assembly. The main unit is now located and can be locked using single screw on rear of base.