DORMAN

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**Health and safety**

Every effort has been made to ensure the accuracy of the information given in our publications, but in accordance with our policy of continually improving our products we reserve the right to modify designs and specifications whenever necessary. All equipment is designed to conform to relevant British and International standards. Every care is taken to ensure that, as far as reasonably practical, it will perform without risk to health. It is essential that accepted codes of professional practice are followed in the assembly, installation and commissioning of the equipment. If in doubt with respect to any of these instructions, please consult Dorman before installing the device.
Dorman reserves the right to vary any component part to meet the required specifications without prior notice.


Certificate No. FM 14371

Dorman ref. No  C64.63231 Iss 1

# LED Position Light Signal Installation Instructions

To be read before commencing installation.

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# General Specification and Part Nos.

| | |
|---|---|
| **Compliant with** | Railtrack Line Specification RT/E/S10110 Issue 1 |
| **Railtrack Acceptance No's** | PA 05/592 for Signal Lamp Modules (SLM)<br>PA 05/1038 for LED Position Light Signal |
| **CE Conformity** | CE |
| **Lamp Type** | None Lamp Proved |
| **Power requirements** | 110Vac 50Hz |

| **Signal Type** | **PADS No's** | |
|---|---|---|
| | **Ground mounting** | **Elevated mounting** |
| **PL2R** | 0086/001288 | 0086/001289 |
| **PL1W** | 0086/001290 | 0086/001291 |
| **PL1R** | 0086/001292 | 0086/001293 |

| **SLM Replacement** | **PADS No's** | |
|---|---|---|
| | **Ground mounting** | **Elevated mounting** |
| **Red mono colour** | 0086/001278 | 0086/001283 |
| **White mono colour** | 0086/001279 | 0086/001284 |
| **Red/White dual colour** | 0086/001281 | 0086/001286 |

| | |
|---|---|
| **For use with Signal types** | Ground Position Light 3 lamp to BR SE 160 without lamp proving. Both Red/White/White or styles convertible to 4 lamp type with use of Dual SLM. |
| Colour | |



# INSTALLATION INSTRUCTIONS

**General:-**

The signal head is capable of being mounted directly onto existing concrete and steel structures by the use of two M16 mounting bolts (not supplied).
Prior to any work commencing, local working procedures should be followed.

**Preparation:-**

The signal head is despatched complete with internal wiring and visors fitted.
The visors are designed to fit through the front section of the signal and secured from within the housing. There is no rotational adjustment available with this viso
If it is required to change the visor, it is recommended that the three visor mounting screws are tightened to a torque setting of 1,0Nm.

**Mechanical:-**

The use of the correct signal and its mechanical alignment is essential.
For signal heads lower than 2.75m then this is termed Ground Mode and the complete signal will be fitted with Ground Mode Signal Lamp Modules (SLMs) mounted with the front lens aimed downwards.
For signal heads higher than 2.75m then this is termed Elevated Mode and the complete signal will be fitted with Elevated Mode Signal Lamp Modules (SLMs) mounted with the front lens aimed upwards.
It should be noted that the SLMs are **not** interchangeable between Ground and Elevated modes of operation.
Support of the tail cable is effected by the cable gland (supplied).

**Electrical:-**

Only suitably qualified and competent persons should undertake electrical wiring and testing of the signal head.
Local procedures will identify these requirements.
Internal strapping arrangements will be determined by individual signal wiring arrangements, and these should be ascertained prior to work commencing.
Installation of the complete signal and connection of the tail cable to the signallin system is carried out using local procedures. e.g.. On Railtrack controlled infrastructure the Signalling Testing Handbook**.**

# Signal Lamp Module (SLM) Voltage and Light Output Testing

**General:-**

Prior to any work commencing, local working procedures should be followed, as the use of the Light Measuring Tool (LMT) obscures the light aperture.

**Preparation:-**

Staff should ensure that the Light Measuring and Voltage Measuring Tools are calibrated.
The LMT should be assembled with the light sensitive areas of the meter mounted centrally in the base of the pot, and the locating screws which hold it to the pot are tightened finger tight.

**Mechanical:-**

The LMT should be placed fully over the SLM that is being measured. As the pot is close fitting over the SLM, care should be taken to avoid jamming.

**Electrical and Optical Measurements:-**

Local procedures will determine that only suitably qualified and competent persons should undertake electrical and optical testing of the SLM.
Indication of light output is given by a readout on the light meter. Values of light output should be recorded and kept for historical review of the SLM.
Similarly voltage measurement of the supply to the SLM should be taken on the terminal block inside the signal head. Reference should be made to the internal wiring diagram located in the signal head to ensure the correct terminals are used for this measurement.
The light output of the SLM at manufacture is recorded either on the base of the SLM or on the terminal plate cover of the Dorman style enclosure.
To ensure continued safe light output levels, it is a requirement that the measured value is at least **60%** of the stated light output value on the terminal plate.
If the SLM light output has **fallen** below this measured value then the **SLM should be renewed.**
Local procedures will detail these requirements.



# Maintenance Change of SLM

**General:-**

The SLM is supplied in packaging that should only be opened immediately prior t fitting of the signal.
Prior to any work commencing, local working procedures should be followed.

**Preparation:-**

The SLM to be replaced should be identified.

**Mechanical:-**

The use of the correct SLM and its mechanical alignment is essential.
For signal heads lower than 2.75 m then this is termed Ground mode and Groun mode SLMs should only be replaced with Ground SLMs mounted with the front lens aimed downwards.
For signal heads higher than 2.75 m then this is termed Elevated mode and Elevated mode SLMs should only be replaced with Elevated SLMs mounted with the front lens aimed upwards.
It should be noted that the SLMs are **not** interchangeable between Ground and Elevated modes of operation.
Once the replacement SLM is correctly aligned, the three mounting bolts are fitte and it is recommended that they are tightened to a torque setting of 4,0Nm.

**Electrical:-**

Only suitably qualified and competent persons should undertake electrical wiring and testing of the signal head.
Local procedures will identify these requirements.
The internal wiring of the signal will be affected by the change of the SLM and hence the installation and testing of the SLM is again carried out using local procedures.
e.g. On Railtrack controlled infrastructure the Signal Testing Handbook.