Technology Introduction Group Network Rail Engineering Directorate Floor 5, 40 Melton Street London, NW1 2EE



Certificate of Acceptance

Certificate No:

PA05/03963

Issue: 3

Valid from:

21 Sept 2011

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| Product | Miniature Banner Repeater Signal with LED Illumination | |
|--------------|--|--|
| Manufacturer | Signal House Ltd Signal House Cherrycourt Way Stanbridge Road Leighton Buzzard LU7 8UH | |

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.

This certificate can only be amended by Network Rail Engineering directorate. Any alterations made by a different person will invalidate the entire certificate.

Scope of Acceptance

Accepted for national use as a Miniature Banner Repeater Signal compliant with the requirements of GK/RT0045.

Specific conditions

 The LED illuminator has a predicted life of 5 years and should be scheduled for replacement.

Refer to the pages which follow for the product configuration and detailed conditions of use.

Authorised by

Eur. Ing. Steve Hailes MA, CEng, MIET, FIRSE

Professional Head, Signals & Telecommunications Engineering

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SPECIFIC CONDITIONS

1) Manufacturer

The Manufacturer shall:

- Ensure that all products supplied under this certificate comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for this certificate number.
- 2) Notify Network Rail Technology Introduction Group:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 4) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 5) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.

2) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Technology Introduction Group.
- 2) Check that the application of use complies with the scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Technology Introduction Group.
- 4) Inform Network Rail Technology Introduction Group in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.

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3) Compliance

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:
 - a. All rail vehicle types that have access rights over the area affected by the change
 - b. Infrastructure managed by others
 - c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

4) Supply Chain Arrangements

- This certificate of acceptance does not imply any particular quantity of supply nor any exclusivity of supply.
- 2) The product may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.

5) Product Configuration

| Part No. | • ************************************* | |
|----------|---|------------|
| 1814 | | |
| 1840/11 | 2-State Fibre Optic Miniature Banner Repeater Signal with LED illumination in standard 500 x 350mm MARI 'Stencil' Housing | 086/001350 |
| 1840/12 | 2-State Fibre Optic Miniature Banner Repeater Signal with LED illumination, compatible with one OFF & two ON lamp circuitry in standard 500 x 350mm MARI 'Stencil' Housing (for maintenance use only) | 086/001351 |
| 1849/11 | 2-State Fibre Optic Miniature Banner Repeater Signal with LED illumination in small 300 x 300mm housing for reduced clearances | |

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6) Assessed Documentation

| Reference | Title | Date and Applies to Cert. issue No. | |
|-----------------------------------|---|-------------------------------------|---|
| SC1814 Issue B (with attachments) | Safety Case for the LED Illuminated Banner Signal | 09/01/07 | 1 |
| OC-0204-01 issue 1 | Readability Trial Report | 21/04/10 | 1 |
| 1714/3 Issue A | Miniature Banner Matrix Plate Drawing | 14/05/98 | 1 |
| PA05/02710 | Product Acceptance file for Banner signal with LED illuminator | - | 1 |
| 03963/1 | /1 Supporting Documentation Report for LED Miniature Banner Tunnel Signal 1849/11 | | 2 |
| CSTR 16 issue 1 | CSTR16 Transformer test report | 12/08/11 | 3 |

7) Certificate History

| Issue Number | Date | Issue History | |
|--------------|------------|---|--|
| 1 | 25/06/2010 | First accepted for use. | |
| 2 | 20/12/10 | Second acceptance to include a 300 x 300mm case version. | |
| 3 21/9/11 | | rd acceptance in order to capture additional conditions and age and to lift the site specific acceptance as the required asformer test results have been provided and meet the ecification. | |

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8) DISTRIBUTION

Manufacturer

Bill Gregory Signal House Ltd

Signal House

Cherrycourt Way Stanbridge Road Leighton Buzzard

LU7 8UH

bill.gregory@signalhouse.co.uk

Sponsor

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Network Rail - Thameslink Project

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For PADS records

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