

# Certificate of Acceptance

PA05/04890

**Manufacturer: Vortok International**

**Issue : 1**

**Valid From : 31/1/14**

## Vortok Rearguard

### Product Description

Secondary warning device supporting the protection of possession worksites from encroaching runaway plant.

### Product Image



### Scope of Acceptance

Full Product Approval for Vortok Rearguard Secondary warning device (units 001 to 006 only) for use in possession protected worksites. Units only to be deployed in the area in which they completed their trial due to distribution and manufacturing limitations.

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

Authorised by:

*pp* James Lewis  
Technology Introduction Manager

Jim Allenden  
Professional Head

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## Specific Conditions

*The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.*

*Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.*

### Manufacturer

- 1) See General Terms and Conditions

### User

- 1) Equipment must only be used by authorised personnel in accordance with mandatory rules and regulations, equipment operating instructions, and the operators declared safe system of work for ALL operational circumstances on Network Rail infrastructure.
  - 2) Operator(s) shall ensure that equipment is operated in accordance with equipment manufacturers recommendations detailed below:
    - Installation and operating manual
  - 3) Cable must be carefully run out to it's 200m length for the system to operate correctly.  
Note:- 200m distance between the Treadle and the Alarm unit will provide a maximum of 10 seconds warning of an approaching runaway (assuming it's travelling at up to 40 mph). No less than 200m of cable must be deployed.
  - 4) Possession working only:-
    - Product must be deployed and recovered whilst under a possession
    - Multiple units may be used for independent worksite within a possession
  - 5) Not to be used in **live** third or fourth rail areas. Before Rearguard can be used in these areas a full electrical isolation is required in line with GERT8000-HB17. This must only be done inline with a compliant Safe System of Work ensuring that a planned isolation has been taken and a Conductor Rail Permit has been issued to the COSS.
  - 6) Unit weights:-
 

Alarm Unit with Trigger inside	= 9.1kg
Alarm Unit	=5.7kg
Trigger Unit	=3.4kg
Cable Reel 100m	=5kg
Bracing Strut	=1.9kg
  - 7) Noise level at sounder 120dB  
Note:- Ear defenders to be worn by the Operator when activating the Alarm unit and when completing self test functions.
  - 8) Audible protection provided up to 25m from the Alarm Unit only.  
Note:- Consideration must be given to the reduction in audible range when working near noisy machinery or when wearing ear defenders/radio headsets.
  - 9) Alarm box to be located within the 4ft ensuring the orange strobe lights are visible to the workforce
  - 10) If rail traffic (On Track Machines, On Track Plant or Portable Transportable & Mobile Plant) need to pass into or through the worksite, each Rearguard Alarm unit must be deactivated and removed from the track and reinstated and rearmed once movements are complete. Note:- All staff must move to and remain in a position of safety for the duration that the Vortok is not armed under control of the COSS.
- Over Ride function not to be used; Key for this function will be retained by the manufacturer pending additional approval.
- 11) Vortok Rearguard unit is protected against ingress to level IP55
  - 12) Product Approval limited to unit numbers 001, 002, 003, 004, 005, 006. No other units are approved for use at this time subject to manufacturing controls.

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- 13) Once activated and self test function is complete the Alarm unit is to be padlocked. All padlock keys/codes are to be retained under the control of the worksite COSS.
- 14) When using the product near to, or adjacent public areas consideration must be given to the acceptable noise levels within the area. This must be determined at the planning phase and via site risk assessment.
- 15) Expected battery life 48hrs armed; batteries and all OEM recommended pre use tests to be completed before each deployment
- 16) Operation, installation and control to be completed by the individual site COSS with Vortok Rearguard endorsement. If equipment is found defective it must be returned to store/Original Equipment Manufacturer labelled 'DO NOT USE' with a description of the fault is possible.

## Product Configuration

### System or Complete Assembly

Part No.	Description	Catalogue No.
RG100001	TRIGGER UNIT	094/001242
RG110001	ALARM UNIT	094/001243
RG120001	CABLE REEL (100m)	094/001244
RG130001	BRACING BAR	094/001245

## Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-----	MC/RG/100/001 rev1	Rev 1	24/12/08	T1
Vort RG1	Vortok Rear Guard Warning System, submission to gain approval	-----	07/10/10	T1
RIS-1701-PLT	RVE Derby assessment against RIS-1701-PLT	-----	17/12/2010	T1
180940rPAM 01	Lloyds Register – Review of Secondary Warning	1	30/01/13	T3
-----	Training manual and lesson plan	1	31/1/14	1
-----	Vortok Rearguard – Secondary Warning PP presentation	1	31/1/14	1
-----	Practical and Verbal Assessment	1	31/4/14	1
VRGS.JAN2014	Installation and Operating Manual	2	31/1/14	1

## Certificate History

Issue	Date	Issue History
T1	07/12/2010	First Accepted for Trial
T2	16/11/2012	Reissued to extend trial duration
T3	17/11/2013	Reissued to extend trial duration allowing for system review
1	31/1/14	Full Acceptance granted

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## Contract Details

### Manufacturer

Nick Rushton  
Vortok International  
nick@vortok.com

### Sponsor

Ty Qureshi  
Network Rail  
[Ty.gureshi@networkrail.co.uk](mailto:Ty.gureshi@networkrail.co.uk)

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## General Terms & Conditions

### 1) General

- 1) This certificate can only be amended by Network Rail Technology Introduction Group. Any alterations made by a different person will invalidate the entire certificate.
- 2) 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.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

### 2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied 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 the relevant 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) The Manufacturer shall provide Network Rail Technology Introduction Group at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Technology Introduction Group.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) 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.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

### 3) Conditions of Use

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

- 1) 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 relevant certificate's 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.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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#### **4) 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.

#### **5) Supply Chain Arrangements**

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products 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.