



# RC2 Trailer

Product Manual



Trailers



# Contents

## **INTRODUCTION**

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The Trailer Range from Traffic Group Signals	3
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## **PRODUCT OVERVIEW**

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Design Features	4
Loading the Trailer	5

## **MAINTENANCE & SERVICING INFORMATION**

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Hub Removal	7
Bearing Inspection	7
Seal Inspection and Replacement	8
Bearing Adjustment And Hub Replacement	9
Safety Cable	10
Towing Eye	10
Wheel Nuts/Bolts	10
Wheels/Tyres	10

## **SAFETY PRECAUTIONS**

---

**11**

## **WARRANTY & DISCLAIMER**

---

**12**

## **EXAMPLE CERTIFICATION**

---

**13**

# Introduction

## The RadioConnect 2 Trailer from Traffic Group Signals

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Thank you for purchasing the RadioConnect2 Trailer. This trailer has been specifically designed for use with the RadioConnect2 Portable Traffic signal, and can safely transport up to four traffic signals.

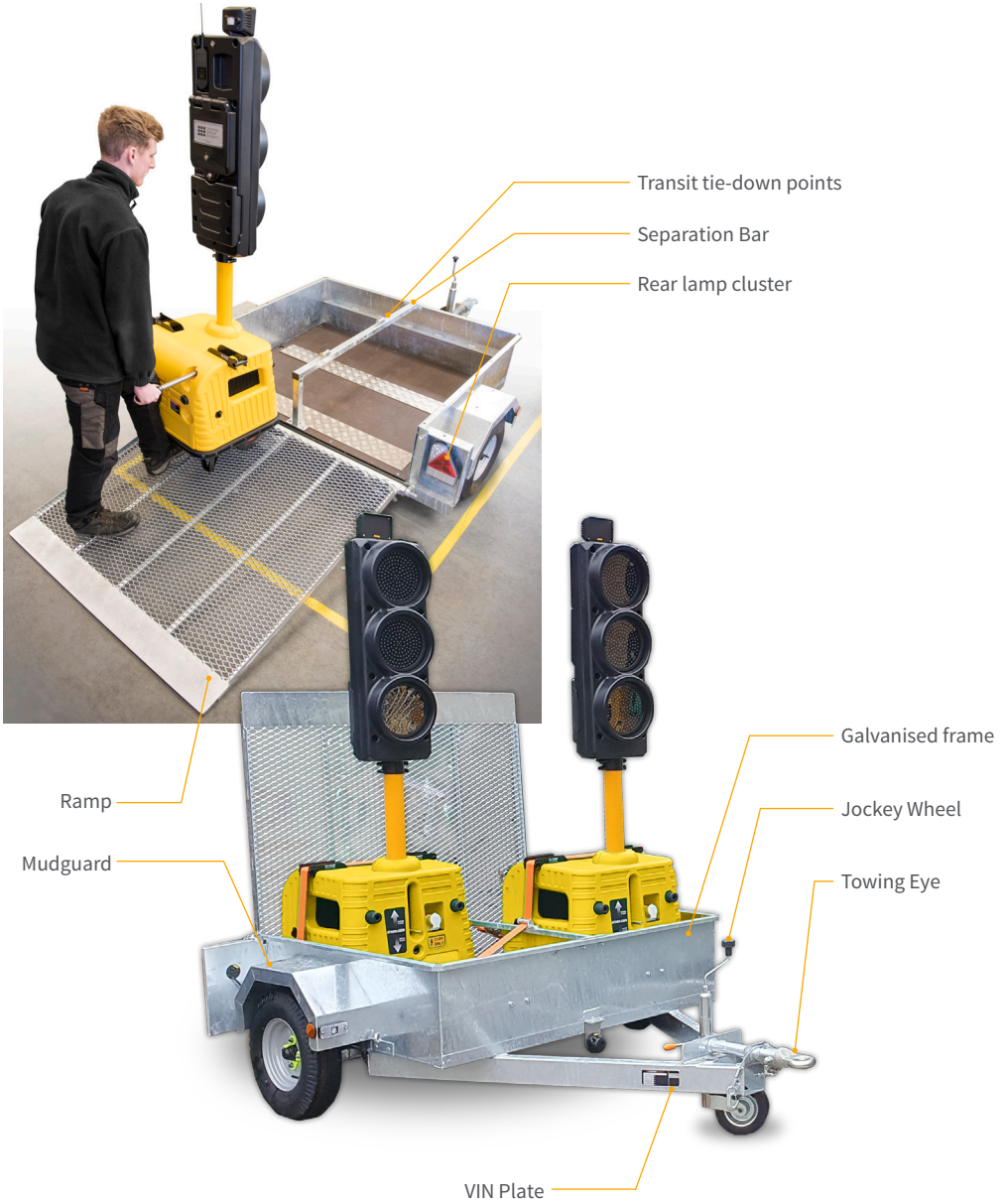
This manual will provide an overview of the product and its use, along with instructions for how to maintain and service your trailer. Particular attention should be given to the safety precautions section, which provides a number of useful resources for you to ensure safe and compliant towing with this product.

**NOTE:** The maintenance and servicing guidance is based on technical service guidance provided by Hazlewood Trailers.

The information pertained within this document is correct at time of release, but critical areas should be verified with either Traffic Group Signals, or direct with Hazlewood Trailers before attempting any of the service items stated.

# Product Overview

## Design Features



# Product Overview

## Loading the trailer



Ensure trailer is on a level surface and connected to a suitable tow vehicle, lower ramp and carefully load signal.



Once loaded, retract the signal handles.



Repeat for remaining signals. If carrying two signals, arrange diagonally across the trailer bed to balance the load.



Secure signals using ratchet straps, fastened to the trailer eyelets and positioned across the provided tie-down points.



Once signals are loaded, raise the ramp and secure with the antiluce pin.

# Maintenance & Servicing Information



## CAUTION: CAREFULLY READ AND FOLLOW ALL SAFETY INSTRUCTIONS

**NOTE:** These instructions refer to the Knott-Avonride bearing arrangements.

Knott-Avonride bearings fall into two types; separate bearings (taper roller or angular contact ball races) which are assembled with some clearance and unitised bearings which are single bearing and are assembled using a high torque locking nut.

The correct assembly and adjustment of all equipment is critical to the safe operation of the trailer. Therefore the procedures must only be carried out by competent persons. If you have any doubts about your ability to complete the procedure, we recommend this task is performed by your local service centre. You are advised to wear suitable protective equipment such as safety glasses, gloves and face mask. In addition be aware of the hazards associated with handling workshop material such as chemicals, oils and greases which may be flammable and can prove to be irritants.

It is recommended that the opportunity is taken to inspect associated items for wear or damage and replace if necessary, they can be obtained through your local stockist.

All procedures should be carried out with the trailer on level ground with wheel chocks front and rear. In addition the drawbar should be supported with the trailer horizontal.

**WARNING!** Be aware that hub bearing failure in service results in catastrophic failure with a high possibility of the wheel becoming detached from the stub with obvious potential consequences. Always err on the safe side and replace suspect components.

***If in doubt, ask!***

**Use only original replacement parts**

The text includes guidance to assist in the safe execution of the procedures:

**WARNING!** - Risk of injury

**CAUTION!** - Risk of damage to equipment

**NOTE** - Safety requirement

# Maintenance & Servicing Information

## Hub Removal

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(Taper roller bearings up to & including trailers supplied to 2021)

1. Assess the condition of the bearing by rocking the road wheel to see if there is play in the bearing, then spin the wheel and listen for a rumbling sound which indicates pitting of the races.
2. Remove the wheels and hub cap.
3. Remove the grease cap by carefully prying progressively around the flange of the cap
4. For installations with castellated nut and split pin, remove the pin and nut
5. Remove the hub, taking care not to displace the bearings.

## Bearing Inspection

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### HUBS WITH SEPARATE BEARINGS

(Up to & including trailers supplied to 2021)

1. Wash grease and oil from the bearing with a suitable solvent; inspect each roller, inner and outer races. If any pitting damage or corrosion is present then the bearing must be replaced. **NOTE:** If any one part shows damage or wear we always recommend replacing all bearings in the hub and fitting a new oil seal.
2. Using a brass drift, carefully drive out the outer races working around the circumference. **WARNING!** Be sure to wear safety glasses when removing or installing force fitted parts. Failure to comply may result in an eye injury.
3. Clean the hub and carefully tap in the new bearing outer races with a brass drift. Be sure they are seated against the shoulders.
4. Grease the bearings and fit with a new seal. Force grease into the bearing between each roller; apply a light coat of grease to the bearing races. Refer to the trailer manual for grease specification. **CAUTION!** DO NOT fill the cavity between the bearings, this is not necessary and can lead to grease leaking from the seals onto the brake linings.

Recommended grease is Shell Retinax EP2, bearings should be lubricated a minimum of every 12 months or 10,000 miles.

### HUBS WITH UNITISED BEARINGS

(Trailers supplied 2022 onwards)

Unitised bearings used in Knott hubs are a single non-adjustable lubricated for life assembly with integral seals. If the check in (1) above indicated excess play in the bearing then the bearing should be pressed/drifted out having removed the circlip and replaced. The new bearing should be pressed/gently drifted into place ensuring that it remains square to the bore and seats against the shoulder, the circlip is then re-fitted.

# Maintenance & Servicing Information

## Seal Inspection and Replacement

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Installations with separate bearings have a seal on the inside end to retain grease, whenever the hub is removed inspect the seal to ensure that it is not nicked or torn and is still capable of properly sealing the bearing cavity. If there is any question that it may be in poor condition, replace the seal.

### **TO REPLACE THE SEAL:**

Pry the seal out of the hub with a screwdriver. Never drive the seal out with the inner bearing as you may damage the bearing. Tap the new seal into place using a clean wood block. Very lightly lubricate the seal face with grease. Unitised bearings have an internal seal which is less prone to damage and is not replaceable. If failure is suspected the whole bearing must be replaced.



# Maintenance & Servicing Information

## Bearing Adjustment and Hub Replacement

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### REFITTING TAPER ROLLER HUBS WITH CASTELLATED NUT AND SPLIT PIN.

(Up to & including trailers supplied to 2021)

If the hub has been removed or bearing adjustment is required, the following adjustment procedure must be followed.

1. After placing the hub, bearing, washers and spindle nut back on the axle spindle in reverse order as detailed in the previous section on hub removal, rotate the hub assembly slowly while tightening the axle nut to approximately 50lbs – ft. (69Nm).
2. Loosen the axle nut to remove the torque. Do not rotate the hub,
3. Finger tighten the axle nut until just snug.
4. Back the axle nut out slightly until the first castellation lines up with the split pin hole and insert the split pin  
**NOTE.** Always use new split pin.
5. Bend over the split pin legs to secure the nut.
6. Nut should be free to move with only restraint being the split pin.

### REFITTING UNITISED BEARING HUBS WITH HIGH TORQUE NUT

(Trailers supplied 2022 onwards)

1. Fit the hub to the axle shaft and tighten the nut to the correct torque (280Nm as specified inside the dust cap for Knott-Avonride hubs).  
**NOTE:** The nut may only be used once so if the history is not known it must be replaced.
2. Refit the hub cap and replace wheels securing wheel nuts as specified in the trailer manufacturers handbook.  
Confirm that there is no excessive play at the wheel rim.

**NOTE:** After the first 1000km wheel bearings should be checked for excessive end float.

# Maintenance & Servicing Information

## Safety Cable

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The trailer is not fitted with brakes and so requires a safety cable that is sufficient to hold the trailer to the tow vehicle if the towing eye became detached from the vehicle. Inspect on a regular basis to ensure in good condition and replace if necessary.

## Towing Eye

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Check 40mm diameter towing eye on regular basis for any wear and replace if necessary (torque setting of securing bolts 97Nm or 72ft/lb).

## Wheel Nuts/Bolts

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Replace worn wheel nuts as necessary.

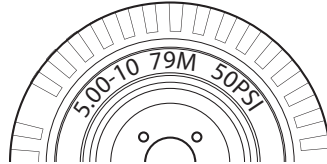
**NOTE.** Tighten up to manufacturers recommended torque of 97Nm (72ft/lb)

## Wheels/Tyres

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500-10 79M tyres are fitted.

To be inflated to a pressure of 50 PSI.



# Safety Precautions

It is important that the products concerned should be operated and maintained by competent persons in accordance with good engineering practice, statutory requirements and codes of practice.

The vehicle itself may either belong to the user or be in their possession under an agreement for hire. The user of a towing vehicle is responsible for the road-worthiness of a trailer even if it does not belong to them.

All towing activities must be performed in accordance with company working practices, in-line with adequate risk assessments. Only skilled and instructed persons should perform towing activities.

## **ATTENTION IS DRAWN TO THE FOLLOWING;**

1. Under no circumstances should a trailer suspected of damage be used.
2. Under no circumstances should the combined Maximum Authorised Mass of both vehicle and trailer be exceeded.
3. Under no circumstances should the trailer exceed its Gross Vehicle Weight (GVW) of 750kg.
4. 'Guide to maintaining road-worthiness: commercial goods and passenger carrying vehicles 2020' from the Driver and Vehicle Standards Agency.
5. 'Safe driving: loading & unloading 2021' from the Health and Safety Executive.
6. Automotive batteries are classed as hazardous waste and therefore must be stored, transported and disposed of in accordance with the following pieces of legislation.

**Environmental Protection Act 1990, Part II 2.**

**Environmental Protection (Duty of Care) Regulations 2014**

**The Waste Management Licensing Regulations 1994**

**The Controlled Waste (Registration of carriers and seizure of vehicles) Regulations 2012**

**Hazardous Waste Regulations 2011 and List of waste regulations 2011**

**The Carriage of Dangerous Goods by Road Regulations 2009**

# Warranty

Trailers are guaranteed against failure subject to fair wear and tear, correct operation and return to our works carriage paid. We undertake to repair or replace this equipment free of charge providing:

- It has been maintained in good condition and operated with due care, and;
- Any failures are directly traceable to faulty material or workmanship.

However, we cannot entertain any claims for labour or other expenditure in connection therewith. Items or components subject to another manufacturer's guarantee are subject to the terms of that guarantee only.

Any warranty given is void if seals on equipment are subsequently found to have been broken without prior permission by Traffic Group Signals Limited.

Any item of equipment repaired by Traffic Group Signals Limited is guaranteed from failure for three months from the date of repair, provided that the item has been subjected to fair usage and regular maintenance.

Please refer to our Terms and Conditions of Sale for further details on warranty provision.

## Disclaimer

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While we (Traffic Group Signals Limited) endeavour to keep the information in this manual correct at the time of print, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information, products, services, or related graphics contained herein for any purpose.

Any reliance you place on such information is therefore strictly at your own risk. In no event will we be liable for any loss or damage including without limitation, indirect or consequential loss or damage, or any loss or damage whatsoever arising from loss of data or profits arising out of, or in connection with, the use of this manual.

# Example Certification



## Vehicle Certification Agency

### Individual Approval Certificate (IAC)

Vehicle Identification number (VIN)		S H B L H T 0 7 5 0 0 0 0 8 7 2 7					
Individual Vehicle Approval (IVA) number:		RV 257176		Date of issue:		14/12/2021	
<p>The vehicle may be permanently registered in states having left hand traffic and with metric and imperial units for the speedometer. <b>TRAILER</b></p> <p>This certificate is valid for registering the vehicle with the Driver and Vehicle Licensing Agency to be kept at a GB or NI address.</p>							
0.1 Make (Trade name of manufacturer):		HAZLEWOOD		Technical Service responsible for carrying out IVA:		DUSA	
0.2.1 Commercial name (Model):		750HTL2		Approval Authority responsible for issuing IAC:		VCA	
0.2 Type:		N/A		Place:		SWANSEA	
Variant:		N/A		Signature:		DARREN WILLIAMS	
Version:		N/A		Registration mark:		O15233T	
0.4 Category		O1		Issued in accordance with the Road Vehicles (Approval) Regulations 2020			
Engine Number:		N/A		Verified:		<input checked="" type="checkbox"/>	
				IVA Classification:		Basic	
				Normal:		<input checked="" type="checkbox"/>	
				Class code:		N/A	
0.10 EC type approval number:		N/A		Year of manufacture:		2021	
				Date of first registration:			

### Section 2

4. Wheelbase (mm):	N/A	16.4. Technically permissible maximum mass of the combination (kg):	N/A	49. WLTP CO <sub>2</sub> emissions – combined (g/km):	N/A
30. Axle track (mm)	N/A	18. Maximum towable mass or maximum UK GTW (tractor units only) (kg):	N/A	Remarks and Exemptions: COVID 19	
Axle 1:	N/A	25. Engine capacity (cm <sup>3</sup> ):	N/A		
Axle 2:	N/A	26. Fuel:	N/A		
Axle 3:	N/A	27. Maximum net power (kW at min <sup>-1</sup> ):	N/A		
Axle 4:	N/A	38. Body/vehicle type (DVLA code):	N/A		
13. Mass of the vehicle with bodywork in running order (in service mass) (kg):	N/A	40. Colour of vehicle:	N/A		
16.1. Technically permissible maximum laden mass (design weight) (kg):	750	42. Number of seating positions (including driver):	N/A		
Maximum GVW in UK (kg):	750	43. Number of standing places:	N/A		
16.2. Technically permissible mass on each axle (kg)	750	47. Euro or comparable status:	N/A		
Axle 1:	750	48. Emissions regulation:	N/A		
Axle 2:	N/A				
Axle 3:	N/A				
Axle 4:	N/A				

Authentication:

DUSA  
SWANSEA SA1 3AN  
0500 028 3000





# Trailers

## For more information

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or **email:** [info@trafficgroupsignals.com](mailto:info@trafficgroupsignals.com)

or visit **web:** [trafficgroupsignals.com](http://trafficgroupsignals.com)



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