

Montage- und Betriebsanleitung

DE

Installation and operating instructions

EN

Instructions de montage et d'utilisation

FR

Istruzioni per il montaggio e la manutenzione

IT

ROCKINGER

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RI-BC

Fernanzeige Basisausführung – Kabinenanzeige

Remote indicator Basic – cabin

Indicateur à distance version de base – cabine

Indicatore a distanza, modello base – per cabina



RI-BC (ROE 71654)

Remote indicator Basic – cabin

for model series:

RO*400 (from technical Release 1)

RO*430 (from technical Release 2)

RO*50, RO*50E, RO*50BNA, RO*567,

RO*40 und RO*40CH (from technical Release 0)



Installation must be carried out by an authorised workshop!

Before installation, please read these instructions carefully!

Official note

When installing the remote indicator, ECE Regulation R55, in particular Annex 7, and the relevant national regulations must be observed. The fitting and operating instructions must be kept in the vehicle.

Subject to technical changes without prior notice

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The safety instructions are summarised in a single chapter. In any situation where the user of the trailer coupling is at risk, the safety instructions are repeated in the individual sections and marked with the warning symbol shown here.

When handling hitches, prime movers and trailers the relevant safety regulations in the respective country must be observed (e.g. Berufsgenossenschaft in Germany). Any safety instructions in the operating manual of the tractor vehicle and the trailer remain valid and must be observed.

For operation, maintenance and assembly the safety instructions listed below must be observed. Further safety instructions are then given in the individual case which relate directly to the respective activity.

Safety instructions for operation

- The hitch may only be operated by authorised persons.
- The installation and operating instructions of the respective hitch retain their validity and must be observed.
- Only use the hitch and the towing eye of the trailer if they are in perfect technical condition.
- Only carry out hitching / unhitching operations on firm, level ground.
- During hitching, nobody may stand between the tractor vehicle and the trailer.
- After every hitching operation the correctly locked status of the trailer coupling must be checked by means of the control pin or the remote indicator. Only drive the rig in the correctly locked status.
- The remote indicator does not exempt the driver from the obligation to check before driving off (Regulations Authorising the Use of Vehicles for Road Traffic). Before driving off, among other things, the coupling status of the mechanical connection device for the tractor vehicle and the trailer must be checked.

Safety instructions for maintenance

- For maintenance work, only use the prescribed lubricants.
- Maintenance work may only be carried out by qualified personnel.

Safety instructions for installation

- Installation may only be carried out by authorised workshops.
- Installation must be carried out in compliance with the relevant accident prevention regulations and the technical regulations for mechanical and electrical equipment.
- Only original components may be used.
- Instructions and installation guidelines of the vehicle manufacturer must be observed, e.g. type of fastening, clearances etc.
- All screwed connections must be tightened with the prescribed tightening torque.
- Work may only be carried out on the trailer coupling when it is closed.

Risk of injuries!

The installation of the hitch on the prime mover must be carried out in accordance with Annex 7 of ECE R 55 and must be checked accordingly. As applicable, the relevant licensing regulations in the respective country must be observed.

The mechanical remote control and the mechanical remote indicator are equipment with safety components. **This is why the installation must be documented.**



The hitch, the remote control and the remote indicator are connection devices which require model approval and are subject to the highest safety requirements.

Alterations of any kind shall cause the warranty to lapse and invalidate the type approval, which in turn invalidates the vehicle operation permit.

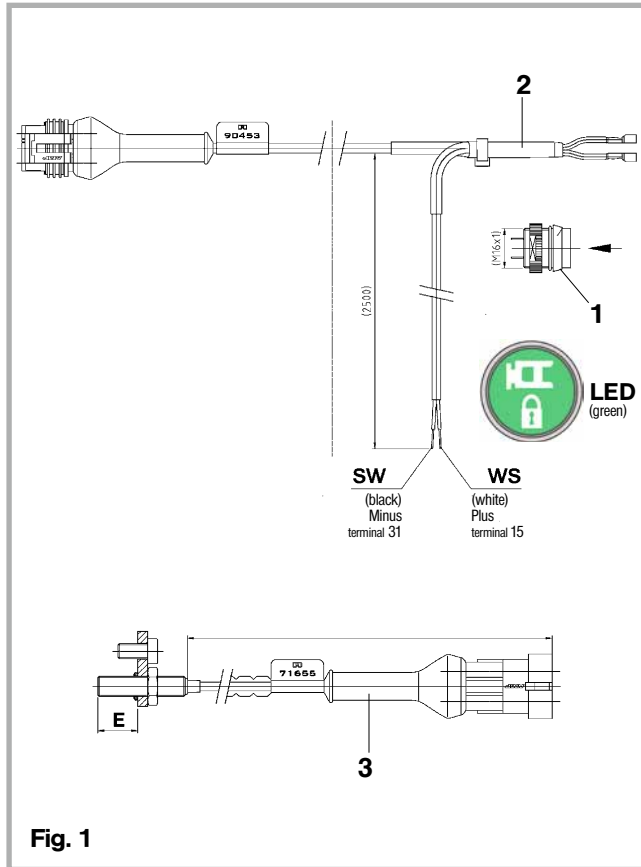


Fig. 1

1.1 Before installation

The kit does not include the electric fuse!
Fuse type according to the truck manufacturer's instructions!

Note: When installing the remote indicator, please observe:

- applicable national regulations
- guidelines of the vehicle manufacturer
- the mounting instruction for the tow hitch
- the generally applicable regulations for the installation of electrical components in a truck
- possibility of axial rotation of the coupling head min. $\pm 25^\circ$

1.1.2 Interfaces

The trailer coupling must have the appropriately prepared interface for the later installation of a remote indicator or a sensor (**S1**). See fig. 2+4.

1.1.3 Inspection of the components

- Does the upgrade kit match the towing hitch?
 - compare the data on the type plates
 - the last digit of the article no. = techn. status (**T**)
- Check the supplied components for completeness

Each upgrade kit contains: (see fig. 1)

- 1x GREEN LED indicator (with „coupling closed” symbol) for installation in the driver's cab (**1**)
- 1x extension cable 15 m with fitted plugs (**2**)
- 1x sensor unit, single, with mounting flange and plug (**3**)
- 1x set of fastening elements
- 1x installation instructions

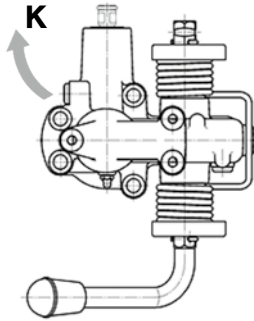
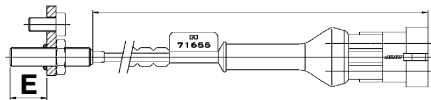


fig. 2



E = adjustment

fig. 3

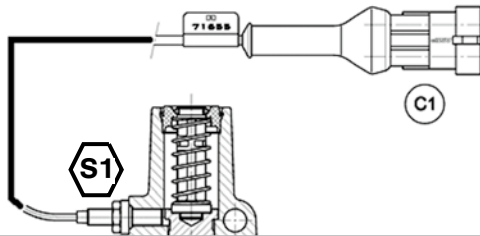


fig. 4

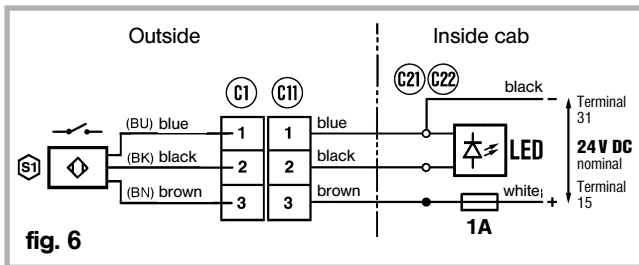
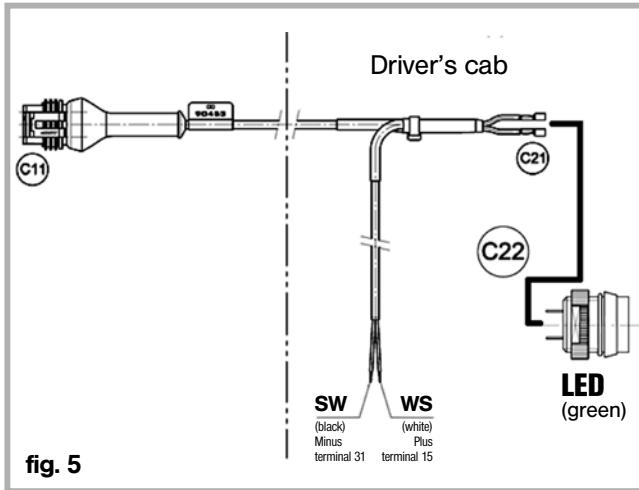
1.2 Installation of the sensor S1

- Remove the plastic cover (**K**) at the interface to the first fuse. (see fig. 2).
- Check the presetting of the sensor. **The Sensor for RO*400 T1 and RO*430 T2 is preset.** For all the other tow hitch types, the measurement **E** (fig. 3) has to be adjusted.
- Release the locknut on the sensor and adjust the sensor to the setting measure **E**.

Pre-setting adjustment	E ± 0,3
RO*400 / RO*430	14,5 (preset)
RO*50 / RO*50 E / RO*50 BNA / RO*40 E / RO*40 CH	15,5
RO*56 E / RO*561 E	21,5

- Secure the setting with the locknut **K**. Maximum tightening torque **1.3 Nm**.
- Slide the sensor (**S1**) with the fastening flange and fitted O-ring onto the interface and tighten the fastening screw with **5 Nm**.
- Ensure axial play ($\pm 25^\circ$) of the trailer coupling.
- Lay the sensor cable with plastic clips in such a way that the cable harness is **not** scraping or kinked (do not lay too tightly, take account of axial motion of the trailer coupling).

The plug **C1** should be led to the cross bar and connected there with the plug **C11** of the extension cable.



1.3 Laying the extension cable to the driver's cab

- Connect the sensor plug **C1** with the plug **C11** of the extension cable and fix to the cross bar using cable binders.
- Lay the cable along the frame in accordance with the vehicle manufacturer's guidelines into the driver's cab.
- Lay and fix the cable in such a way that it cannot scrape or kink.
- Do not pull at the plug

1.4 Green LED indicator

- Mount the indicator LED at a suitable position in the field of vision of the driver. For this purpose drill a hole $\varnothing 16.2 + 0.5$ in the instrument panel.
- Screw the indicator tight on to the instrument panel.
- Lay the extension cable with the plug **C21** under the instrument panel and secure, connect plug **C21** with indicator **LED C22** (see fig. 5).

1.5 Connection to the vehicle electrical system (see fig. 6)

- **Connect the black cable (earth) with terminal 31**
- **Connect the white cable (+24 Volt) with terminal 15**

The connection must be protected by a 1A (DIN 7258-3) fuse. The fuse is not part of the delivery.



fig. 7

1.6 Function check

The sensor is mounted on the coupling.

- Sensor **S1** detects the coupling status of the trailer coupling – open or closed (see fig. 4).
 - The green indicator LED is mounted in the field of vision of the driver. It is connected to the sensor by the extension cable.
 - All of the plugs **C1/C11** and **C21/C22** are connected
 - Control voltage **24V/DC** is present when ignition is switched on:
- **When the tow hitch is closed and locked, the LED indicator (see fig. 7) must light up green. If not, the sensor setting may have to be readjusted as described in section 1.2**

Then carry out function check.



Hand lever is slowly to be moved **into position OPEN** until the chek pin protrudes out of its bush.

Then carry out the function check.

The green light turns of; if not readjust as discribed in section 1.2

Then carry out the function check again.



fig. 8



fig. 9

2. Operation (hitching and unhitching)

2.1 Remote indicator

- When hitching and unhitching, the applicable regulations must be observed.
- The remote indicator shows the coupling status of the towing hitch. If the indicator is lighting in green (see fig. 8), the hitch is closed and locked
- The remote indicator does not indicate whether the towing eye is actually coupled.
- The remote indicator checks the hitch status with one sensor.

Information: The remote indicator does not exempt the driver from the obligation to check before driving off.

Check:

After every hitching operation it is **essential to check** that the coupling is engaged as specified in the regulations.

The check pin must be flush with its guide bush after hitching (see fig. 9).

See also the corresponding installation- and operating instructions for the respective coupling.

If the check pin protrudes (this can also be felt in the dark), this indicates that **hitching process has been carried out incorrectly.**



Risk of accident!

Driving a trailer in that condition is not allowed!

3.1 Care

- The sensor and the connection cable are maintenance-free.
- However, the cables should be checked at regular intervals for cracks, abrasion and water-tightness of the connections in order to avoid moisture penetrating the cable harness.
- Function-checks should be done at regular intervals.

3.2 Inspection (with the closed hitch)

- The green indicator LED is lit in the instrument panel.
- A control LED (white) is lit on the sensor in the area of the cable connection (when the ignition is switched on)
- If the control LED is not lighting, there are two possibilities:
- **the presetting is not correct** (see chapter 1.2)
- **Sensor is defective**
- **Check** according chapter 1.6
- **Defective cables, plugs or sensors must be replaced!**



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