Aufrüstsatz pneumatische Fernbedienung
Upgrade kit Remote Control - Pneumatic Comfort

RO® RC-PC

ROE71461 RO® 400T1/RO® 430T2
ROE71459 RO® 40E/RO® 40CH
ROE71677 RO® 50
ROE71594 RO® 50E
ROE71645 RO® 50BNA
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Upgrade kit pneumatic remote control

The pneumatic remote control is especially designed for use on vehicles which, according to ECE R 55-01 regulations, have insufficient clearances around the coupling to open it with the hand lever.

Contents: Rotary drive with deflection plates, adapter, control unit, hose set.

Technical changes reserved!

Suitable for trailer couplings:
RO ★ 400 (from T1), RO ★ 430 (from T2), RO ★ 40E, RO ★ 40CH, RO ★ 50, RO ★ 50E, RO ★ 50BNA

CAUTION!
Installation must be performed by qualified personnel! Read these instructions carefully before installation!

Official notice
When installing the remote control, the regulation ECE R 55-01, in particular Annex 7 and the relevant national regulations must be observed. The installation and operating instructions are to be carried in the vehicle.

The following safety instructions must be observed for operation, maintenance and installation. The safety instructions which are directly related to the activity are listed again here.

Safety instructions operation

- Only authorized persons may operate the remote control.
- The installation and operating instructions of the respective trailer coupling continue to apply and must be observed.
- The coupling/decoupling procedure may only be performed on a solid, level surface.
- The remote display does not relieve the driver of the required checks before driving off. Prior to driving off, check the state of the mechanical linkage of tractor unit and trailer.
Safety instructions maintenance

- Only use the specified lubricant for maintenance.
- Only qualified persons may perform maintenance work.

Safety instructions installation

The remote control is a device with safety components, so the installation on the trailer coupling must be documented. Only use original ROCKINGER components! Modification of the components or of their function or combination is not permitted (risk of accident and loss of guarantee and approval!)

- Only authorized specialist companies may perform installation work.
- Installation must be carried out in accordance with the relevant accident prevention regulations and the technical rules for mechanical devices and pneumatic systems.
- Observe the instructions of the vehicle manufacturer and their installation guidelines, e.g. fixing type, clearances etc.
- Tighten all screw connections with the specified tightening torques.
- All work on the trailer coupling must be carried out in the closed condition. Risk of injuries!

The trailer coupling, the remote control and the remote display are connecting devices and parts subject to design approval, to which the highest safety requirements apply. Changes of any kind exclude warranty claims and lead to the cancellation of the design approval, thus the voiding of the vehicle operating license.
Pre-installation instructions

- Observe the relevant regulations (UVV “Vehicles” BGV D 29)
- Observe the applicable national regulations
- Observe the technical rules for the installation of pneumatic systems
- Observe the installation guidelines of the vehicle manufacturers
- The control unit must be installed and operated in the direct line of sight of the trailer coupling
- A free auxiliary connection is required to connect the pneumatic control valve

CAUTION!
DO NOT connect the pneumatic remote control to the BRAKE CIRCUIT or the AIR SUSPENSION!
The connection to air suspension is only possible if the pressure is limited to 100N/cm².

NOTE
To operate the remote control, a display or remote display must be installed in accordance with the Directive EC 94/20 and ECE55!
Various ROCKINGER display systems are available and can be ordered as required:

Display in tail area
- RI-BR ROE71701
Remote display in driver’s cab
- RI-BC ROE71654
- RI-E ROE71564
- RI-TW ROE71547
1.1 Rotary actuator on RO

- Close coupling (see assembly instructions for coupling)

**NOTE INSTALLATION POSITION**
- Compressed air connection [1I] Ø 6 mm on rotary actuator [1B] as shown in Fig. [1]
- Turn square shaft [1A] on rotary actuator [1B] in direction of arrow as far as it will go
- Tighten rotary actuator [1B] with flange ribbed screws [1C] with 30 Nm torque to deflection plate [1D]
- Place slide-on coupling [1E] on square shaft
- Place spacer sleeves [1F] in recesses on the automatic housing
- Push the deflector plate [1D] onto the free end of the hand lever shaft [1G] with the pre-mounted rotary actuator [1B] and attached slide-on coupling [1E]

![Diagram of installation process]

**Legend**

1. Compression air connection Ø 6 mm
2. Square shaft
3. Rotary actuator
4. Flange ribbed screws M8x20
5. Deflection plate
6. Slide-on coupling
7. Spacer sleeves
8. Hand lever shaft
9. Flange ribbed screws M10x30
10. Compressed air connection Ø 6 mm
→ Screw on preinstalled unit with flange ribbed screws [1H] with 85 Nm*

* Setpoint; tighten the screws with a torque spanner according to DIN EN ISO 6789, class A or B (friction value μ = 0.08 - 0.14)

[2] View from the coupling side
A Square shaft
B Rotary actuator
C 4x flange ribbed screws M8x20
D Deflection plate
I Compressed air connection Ø 6 mm
J Compressed air connection Ø 8 mm
1. Installation

1.2 Rotary actuator on RO * 400/430/40E/40CH/50E/50BNA

- Close coupling (see installation and operating instructions for coupling)

**NOTE INSTALLATION POSITION**

- The square shaft [3A] of the rotary actuator [3B] points to the coupling
- The rear edge of the rotary actuator [4A] may not project beyond the rear edge of the retaining plate [4B]

- Turn square shaft [3A] on rotary actuator [3B] in direction of arrow as far as it will go
- Tighten rotary actuator [3B] with flange ribbed screws [3C] with 11 Nm* torque on retaining plate [3D]
- Place slide-on coupling [3E] on square shaft
- Place 4x spacer sleeves [3F] in 3 recesses on the automatic housing

* Setpoint; tighten the screws with a torque spanner according to DIN EN ISO 6789, class A or B (friction value μ = 0.08 - 0.14)
Push the retaining plate [3D] onto the free end of the hand lever shaft [3G] with the pre-mounted rotary actuator [3B] and attached slide-on coupling [3E].

Place the deflection plate [3H] on the holder and align with the holes.

On RO★400/430 tighten all components with flange ribbed screws [3I] M8 with 45 Nm*; on RO★50BNA tighten M10 with 85 Nm*.

* Setpoint; tighten the screws with a torque spanner according to DIN EN ISO 6789, class A or B (friction value μ = 0.08 - 0.14)
1. Installation

1.3 Control unit RC-PC, Version C1 (with pressure reservoir)

→ Taking the correct installation position into account, fix the control unit on the side of the vehicle or on the top of the bracket [5A] with 4 screws M8 (not included in the scope of delivery) to a suitable frame section in the rear area of the truck

**NOTE INSTALLATION POSITION**

– Install in the line of sight of the coupling
– The TOP arrow [5B] on the housing cover must point upwards
– Short operating instructions [5C] on the housing cover must be easy to read
– Quick coupling [5D] must be easily accessible for maintenance purposes

→ After each use, secure the control unit against unauthorized actuation using the supplied lock [5E]

![Diagram of control unit](image)

B TOP arrow  
C Short operating instructions  
D Quick coupling  
E Lock  
F Pressure reservoir
1.4 Connection pneumatic hoses RC-PC, Version C1

➤ Connect the control unit [6A] and the rotary actuator [6B] with the red hose 6x1 [6C] and the black hose 8x1 [6D]

NOTE
The hoses must be installed according to the rules for the installation of pneumatic systems and must be protected against kinking and abrasion.

CAUTION!
Maximum permitted compressed air: 100 N/cm² = 10 bar! At higher pressures, a pressure reducer must be installed (setting pressure 80 N/cm²) before connection to the control unit.

➤ Connect to quick coupling [6E] (with integrated non-return valve) to the four-way protection valve for the secondary consumer [6H]

➤ Check the air-conveying parts for leaks

➤ Perform function control 2.1 - 2.2

[6] A Control unit
   B Rotary actuator
   C Hose 6x1 red
   D Hose 8x1 black
   E Quick coupling
   H Secondary consumer connection truck
1.5 Control unit RC-PC, Version 21 (full pressure only for RO * 50)

→ Taking the correct installation position into account, fix the control unit on the side of the vehicle or on the top of the bracket [7A] with 4 screws M8 (not included in the scope of delivery) to a suitable frame section in the rear area of the truck

NOTE INSTALLATION POSITION
- Install in the line of sight of the coupling
- The TOP arrow [7B] on the housing cover must point upwards
- Short operating instructions [7C] on the housing cover must be easy to read
- Quick coupling [7D] must be easily accessible for maintenance purposes
→ After each use, secure the control unit against unauthorized actuation using the supplied lock [7E]
1.6 Connection pneumatic hoses RC-PC, Version C21

Connect the control unit [8A] and the rotary actuator [8B] with the red hose 6x1 [8C] and the black hose 8x1 [8D]

**NOTE**
The hoses must be installed according to the rules for the installation of pneumatic systems and must be protected against kinking and abrasion.

**CAUTION!**
Maximum permitted compressed air: 100 N/cm² = 10 bar! At higher pressures, a pressure reducer must be installed (setting pressure 80 N/cm²) before connection to the control unit.

Connect to quick coupling [8E] (with integrated non-return valve) to the four-way protection valve for the secondary consumer [8H]

Check the air-conveying parts for leaks

Perform function control 2.3 - 2.4

![Diagram of connection](image)
2. Function control

2.1 Opening coupling with control unit RC-PC, Version C1

NOTE
A min. air pressure of 60 N / cm² is required to open the coupling.

→ Remove lock [9A] and open cover of control unit [9B]

→ Keep locking pin [9C] pressed down and turn lever [9D] as far as it will go
  - Coupling pin is raised

→ Turn lever [9D] back to initial position
  - Locking pin [9C] returns to the locking position
  - Coupling pin lowers slightly
  - Coupling is ready to be connected

CAUTION RISK OF ACCIDENTS!
Do not detach coupling manually with an auxiliary tool! High pressure of the closing side of the pneumatic rotary actuator!

→ After coupling, check the coupling status on the remote display

[9] A Lock
B Cover
C Locking pin
D Lever
2.2 Closing coupling with control unit RC-PC, Version C1

Procedure without trailer in the workshop

- Pull quick coupling [10A] off the control unit
- Hold down the locking pin [10B] and turn the lever [10C] several times back and forth until the compressed air has been discharged

**CAUTION RISK OF INJURIES!**
Do not release coupling by hand! High pressure of the closing side of the pneumatic rotary actuator!

- Release losing mechanism of the coupling pin with suitable tool
- Close quick coupling [10A] again
- Close cover [10D] and secure lock [10E]
- Check the coupling status on the remote display

[10] A Quick coupling  
B Locking pin  
C Lever  
D Cover  
E Lock
2. Function control

2.3 Opening coupling with control unit RC-PC, Version C21

**NOTE**
A min. air pressure of 60 N / cm² is required to open the coupling.

- Remove lock [11A] and open cover of control unit [11B]
- Turn lever [11C] in direction of arrow
  - Opens the main compressed air valve
- Keep locking pin [11D] pressed down and turn lever [11E] as far as it will go
  - Coupling pin is raised
- Turn lever [11E] back to initial position
  - Locking pin [11D] returns to the locking position
  - Coupling pin lowers slightly
  - Coupling is ready to be connected

**CAUTION RISK OF ACCIDENTS!**
Do not detach coupling manually with an auxiliary tool! High pressure on closing side of the rotary actuator!

- After coupling, turn the main supply lever [11C] to the “closed” position
- Check the coupling status on the remote display

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**Diagram Labels**

- [A] Lock
- [B] Cover
- [C] Main supply level compressed air
- [D] Locking pin
- [E] Lever
2.4 Closing coupling with control unit RC-PC, Version C21

Procedure without trailer in the workshop

- Turn lever [12A] to initial position
  - Closes the main compressed air valve
- Pull quick coupling [12B] off the control unit
- Hold down the locking pin [12C] and turn the lever [12D] several times back and forth until the compressed air has been discharged

**CAUTION RISK OF INJURIES!**
Do not release coupling by hand! High pressure of the closing side of the pneumatic rotary actuator!

- Release losing mechanism of the coupling pin with suitable tool
- Close cover [12E] and secure lock [12F]
- Close quick coupling [12B] again

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**[12]**

A Main supply lever compressed air  
B Quick coupling  
C Locking pin  
D Lever  
E Cover  
F Lock
3. Operation

3.1 Coupling with RC-PC, Version C1

- Remove lock [13A] and open cover of control unit [13B]
- Keep locking pin [13C] pressed down and turn lever [13D] as far as it will go
  - Coupling pin is raised
- Turn lever [13D] back to initial position
  - Locking pin [13C] returns to the locking position
  - Coupling pin lowers somewhat
  - Coupling is ready to be connected
- Couple tractor unit to trailer again

NOTE
If the coupling pin does not come into the lowest position (tension between tractor unit and trailer), support the process by jerking with the air suspension.

- Close cover [13B] and secure lock [13A]
- Check coupling status on remote display and on coupling [14]
3.2 Decoupling with RC-PC, Version C1

- Secure trailer against rolling away
- Disconnect supply lines to trailer
- Remove lock [13A] and open cover [13B]
- Keep locking pin [13C] pressed down and turn lever [13D] as far as it will go
  - Coupling pin is raised
- Turn lever [13D] back to initial position
  - Locking pin [13C] returns to the locking position
  - Coupling pin lowers slightly
  - Coupling is ready to be connected

NOTE
If the coupling pin does not raise, support the process by *jerking* or with the air suspension to release the pin.

- Separate tractor unit/trailer
- Close cover [13B] and secure lock [13A]
3. Operation

3.3 Coupling with RC-PC, Version C21

- Remove lock [15A] and open cover of control unit [15B]
- Turn lever [15C] in direction of arrow - Opens the main compressed air valve
- Keep locking pin [15D] pressed down and turn lever [15E] as far as it will go - Coupling pin is raised
- Turn lever [15E] to initial position - Locking pin [15D] returns to the locking position - Coupling pin lowers slightly - Coupling is ready to be connected
- Couple tractor unit to trailer again

NOTE
If the coupling pin does not come into the lowest position (tension between tractor unit and trailer), support the process by jerking with the air suspension.
- Turn lever [15C] to initial position - Closes the main compressed air valve
- Close cover [15B] and secure lock [15A]
- Check coupling status on remote display and on coupling [16]

[15] A Lock
  B Cover
  C Main supply level compressed air
  D Locking pin
  E Lever
3.4 Decoupling with RC-PC, Version C21

- Secure trailer against rolling away
- Disconnect supply lines to trailer
- Remove lock [15A] and open cover [15B]
- Turn lever [15C] in direction of arrow
  - Opens the main compressed air valve
- Keep locking pin [15D] pressed down and turn lever [15E] as far as it will go
  - Coupling pin is raised
- Turn lever [15E] to initial position
  - Locking pin [15D] returns to the locking position
  - Coupling pin lowers slightly

NOTE
If the coupling pin does not raise, support the process by jerking or with the air suspension to release the pin.

- Separate tractor unit/trailer
- Turn lever [15C] to initial position
  - Closes the main compressed air valve
- Close cover [15B] and secure lock [15A]
4.1 Changing sinter filter with RC-PC, Version C1

CAUTION!
It is essential that the coupling is closed before maintenance work! See Chapter 2.2

NOTE
If too little compressed air flows, the sinter filter can become soiled.

- Disconnect compressed air by means of quick coupling [10A]
- Completely detach screw connection [17A] and remove along with hose
- Protect compressed air line against ingress of soiling
- Loosen counternut [17B]
- Screw off angle screw connection [17C]

Installation is in reverse order.

- Replace filter disc [17D]
- Replace sealing ring [17E]
- Check the air-conveying parts for leaks, if necessary with leak detection spray
- Check that remote actuation is working properly

[17] A Screw connection
    B Counternut
    C Angle screw connection
    D Filter disc
    E Sealing ring
4.2 Changing sinter filter with RC-PC, Version C21

**CAUTION!**
It is essential that the coupling is closed before maintenance work! See Chapter 2.4

**NOTE**
If too little compressed air flows, the sinter filter can become soiled.
- Disconnect quick coupling [18A]
- Screw off coupling valve [18B] with sealing ring [18C]
- Protect compressed air line against ingress of soiling
  Installation is in reverse order.
- Replace filter disc [18D]
- Replace sealing ring [18C]
- Check the air-conveying parts for leaks, if necessary with leak detection spray
- Check that remote actuation is working properly; see Chapter 2.

[18] A Quick coupling  
B Coupling valve  
C Sealing ring  
D Filter disc
4.3 Inspecting screw connections with RC-PC, Version C1

CAUTION!
It is essential that the coupling is closed before maintenance work! See Chapter 2.2

➔ Check valve block screw connections [19A] and if necessary tighten with torque of 9.5 Nm
➔ Check the compressed air connections [19B] for leaks, if necessary with a leak detection spray, if necessary tighten with torque of 45 Nm (screw thread M10x1)
➔ Check that union nuts [19B] are firmly seated, if necessary screw in as far as they will go
➔ Close cover [19C] and secure lock
➔ Check that remote actuation is working properly; see Chapter 2.

[19] A Valve block screw connections
    B Compressed air screw connections with union nuts
    C Cover
4.4 Inspecting screw connections with RC-PC, Version C21

CAUTION!
It is essential that the coupling is closed before maintenance work! See Chapter 2.4

- Check valve block screw connections [20A] and if necessary tighten with torque of 9.5 Nm
- Check the compressed air connections [20B] for leaks, if necessary with a leak detection spray, if necessary tighten with torque of 45 Nm (screw thread M10x1)
- Check that union nuts [20C] are firmly seated, if necessary screw in as far as they will go
- Close cover [20D] and secure lock [20E]
- Check that remote actuation is working properly; see Chapter 2.

[20] A Valve block screw connections  
    B Compressed air screw connections  
    C Union nuts 2x  
    D Cover  
    E Lock
4.5 Care

CAUTION!
It is essential that the coupling is closed before maintenance work! See Chapter 2.2 or 2.4

➤ Before cleaning the truck with a high pressure cleaner, close lock unit

➤ Regularly check all air-conducting parts for leaks and ducts on abrasive cleaners, if necessary with leak detection spray

➤ Clean the control unit at regular intervals. Do not use a steam jet!

➤ Replace the dryer cartridge for the compressed air conditioning after the prescribed maintenance intervals
  - This prevents water discharges into the pneumatic remote control system