

*Montage- und Betriebsanleitung*

**DE**

*Installation and operating instructions*

**EN**

*Instructions de montage et d'utilisation*

**FR**

**ROCKINGER**

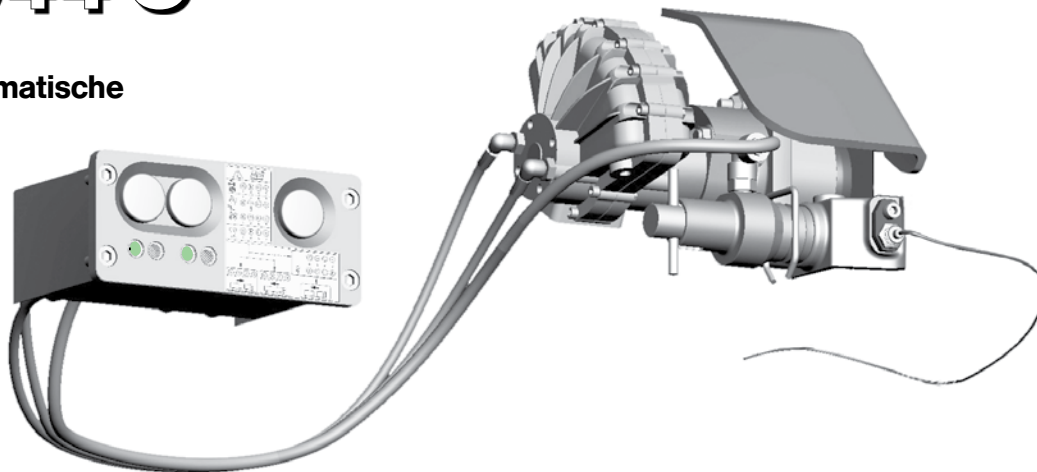
*Member of JOST-World*

# ROE 70844 C

**Aufrüstsatz electropneumatische  
Fernbedienung**

**Electropneumatic  
remote control kit**

**Kit d'équipement  
commande à distance  
electropneumatique**





**ROE 70844 C**  
**Electropneumatic remote control kit**

Type 70844, ECE E1 10R-047243

for Series

RO\*400 and RO\*460 to TC, RO\*430 to TO

RO\*500 T3 to T4, RO\*530 and RO\*560



The mechanical remote control must be installed by authorised personnel!

Read these instructions carefully before fitting!

**Official note**

Official note

When installing the remote indicator, EC Directive 94/20, in particular Annex VII and ECE R 55 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 trailer couplings, tractor vehicles 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 installation, 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 trailer coupling may only be operated by authorised persons.
- The installation and operating instructions of the respective trailer coupling retain their validity and must be observed.
- Only use the trailer coupling 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 correct 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 display does not exempt the driver from checking before driving off as prescribed by StVZO (German Regulations authorising the use of vehicles for road traffic). Before starting to drive, among other things, the coupling status of the mechanical connection of tractor vehicle and trailer must be checked.

## Safety instructions for maintenance

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

## Safety instructions for installation

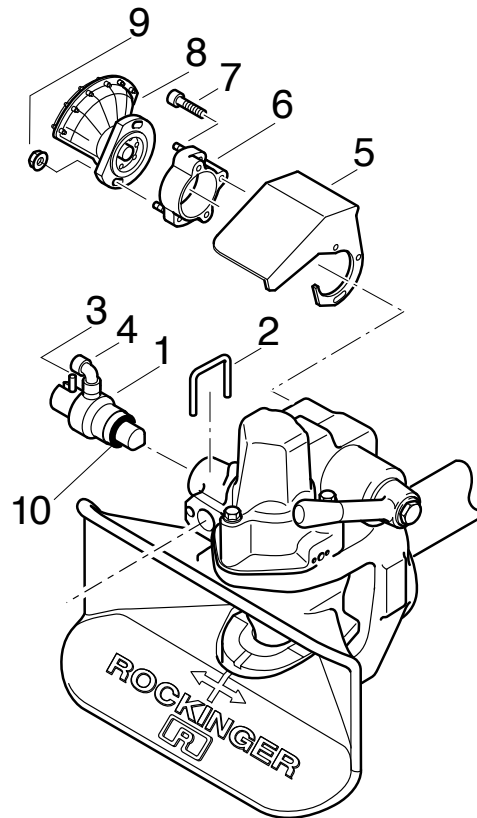
- Installation may only be carried out by authorised workshops.
- Installation must be carried out in compliance with the relevant accident prevention regulations and the technical regulations for mechanical equipment.
- Only original ROCKINGER components may be used.
- Instructions and installation 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 accident!

The trailer coupling must be connected to the tractor vehicle in accordance with the requirements of Annex VII of Directive 94/20/EC and Annex 7 of Directive R 55-01 ECE and must be inspected. As applicable, the approval regulations of the respective country must be observed. For Germany §§ 19, 20 and 21 of StVZO apply. The mechanical remote control and the mechanical remote display are devices with safety components. For this reason the installation must be documented.



**The trailer coupling, the remote control and the remote displays are connection devices and parts 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 model approval, which in turn invalidates the vehicle operation permit.**



- 1 Control display
- 2 Safety shackle
- 3 T-handle
- 4 Compressed-air connection
- 5 Deflector plate
- 6 Adapter
- 7 Hexagon socket screws
- 8 Pivot drive
- 4 Nuts
- 10 O-Ring

Fig. 1

## 1.1 Before fitting

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- The unit may be fitted only by trained staff!
- Important to observe the following:
  - the pertinent regulations ("Vehicles Accident Prevention Regulations", BGV D29)
  - the applicable national regulations
  - the technical rules for the installation of electrical
  - and pneumatic systems

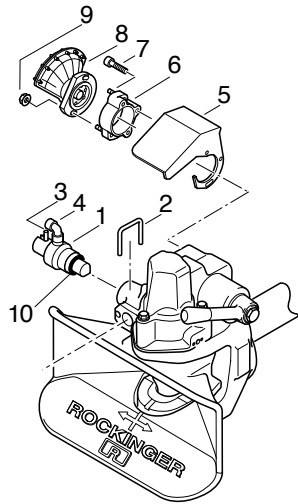
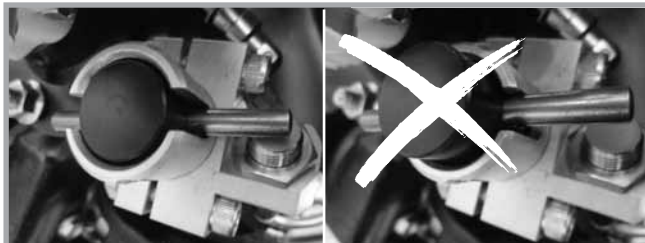


Fig. 2



## 1.2 Control display (see Fig. 2)

### Removing of the standard control display

- Close the coupling (lift the coupling pin using appropriate means, e. g. tyre lever). **Be careful: Risk of accident!**
- Straighten both wire ends of the hoop (2) with pliers.
- Lever out the hoop using the screwdriver and remove it.
- Take the control display out of its mounting.

### Fitting of the pneumatically-operated control display:

(Automatic unit must be fitted on the coupling)

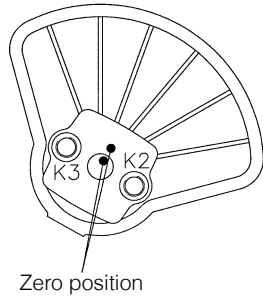
- Lightly grease O-ring (10).
- Push in the control display (1) as far as it will go; note the fitting position: T-handle perpendicular, hoop hole covered by the notch, compressed-air connection (4) at the top.
- Push the new hoop (2) into the holes from the top.

### Check

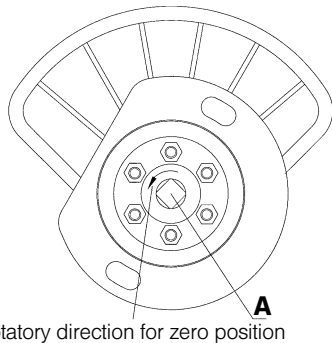
- Pull the T-handle (3) outwards: it must move easily in both directions; otherwise, check the assembly step 2.1.
- Bend the both ends of the hoop (2) inwards using a suitable tool.

## 1.3 Deflector plate and adapter (see Fig. 2)

- Depending on the operating handle version:
  - Remove the safety ring and spacer piece (on the left side) from the hand lever shaft.
  - Remove the split pin and washer (on the left side) from the hand lever shaft.
- Secure the deflector plate (5) and adapter (6) to the automatic housing (tightening torque of **36 Nm**) with 3 hexagon socket screws (7) – M 8x35-8.8 DIN 912.



**Fig. 4 Zero position on the pivot drive**



**Fig. 5 Pivot drive**

## 1.4 Pivot drive (see Fig. 4/5)

- Check the zero position marking (see Fig. 4): If the two points are not aligned as illustrated, turn the square shaft (A) belonging to the pivot drive, anti-clockwise until the final position, so that the markings match (see Fig. 4/5).
- Place the plug nut on the shaft.
- The coupling must be closed.
- Place the pivot drive (8) on the adapter (6) – (see Fig. 2).
- The plug nut must fit on the hand lever shaft without having to be turned.
- Fasten the pivot drive using 2 M 8-8 (9) nuts. (Tightening torque **36 Nm**)

### Check

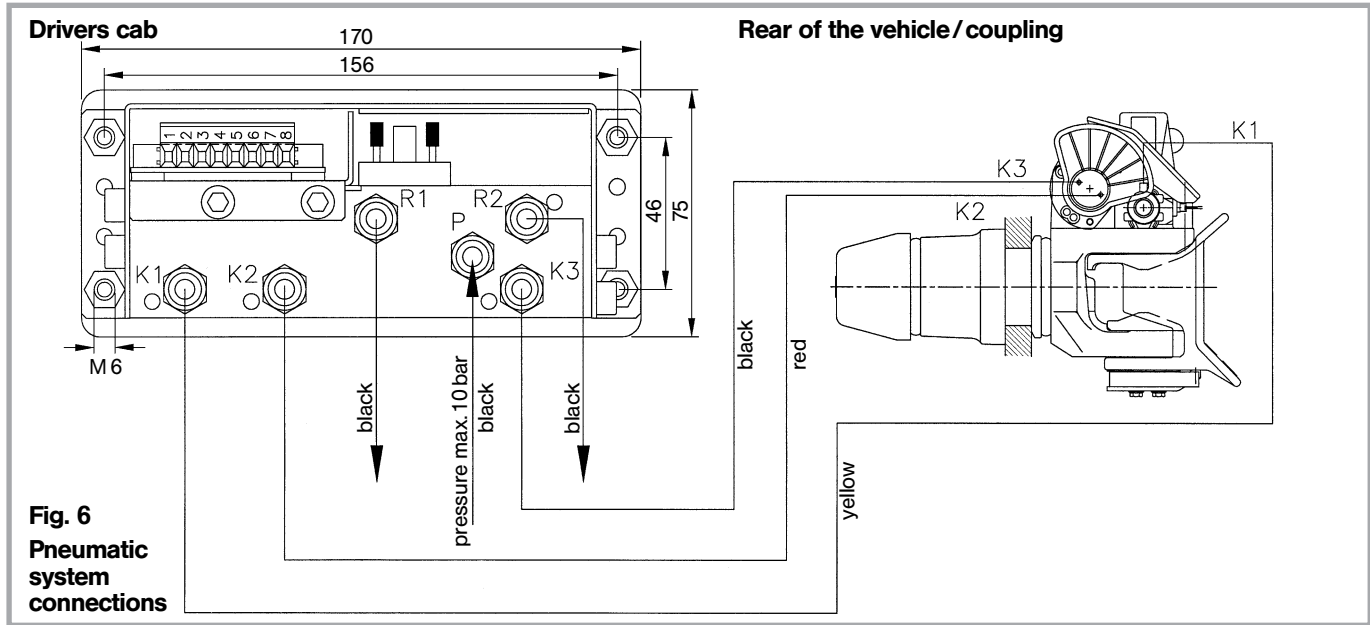
- Pull the T-handle (3) on the control display (see Fig. 2) and hold it firm.
- Open the coupling with the hand lever (10), release the T-handle (3): The coupling must lock in the open position.
- Close the coupling (consult the mounting instruction of the different tow hitches):  
**The control pin must not protrude from its guide bush!**  
 (see Fig. 3).  
 – If the control pin protrudes, the coupling is not secured:  
 Check the assembly point 1.2.

## 1.5 Control Unit

### Licensed only for installation in the driver's cab!

Before fitting, make the pneumatic and electrical connection as shown on the circuit diagram (see Fig. 6/9).

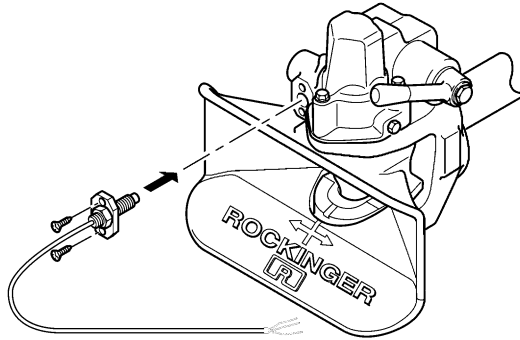




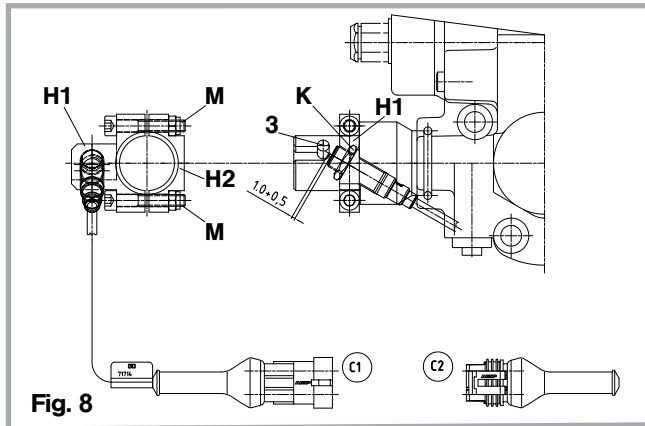
**Fig. 6**  
**Pneumatic**  
**system**  
**connections**

## 1.6 Pneumatic (see Fig. 6)

- Compressed air from secondary consumer to connection **P** on the control unit (max. 10 bars).
- It is essential for the compressed-air connections between the control unit and the coupling **to be made exactly as shown:**
  - K 1** on the control display to **K 1** control unit (yellow)
  - K 2** on the pivot drive to **K 2** control unit (red)
  - K 3** on the pivot drive to **K 3** control unit (black)
  - R 1** and **R 2** Exhaustports



**Fig. 7 Remote control limit switch**



**Fig. 8**

## 1.7 Remote display limit switch

a) Standard version (see Fig. 7)

- Remove the front cover plate from the automatic unit.
- Insert the factory-set limit switch.
- Secure the limit switch and the plate on the housing using 2 M 6x12 hexagon socket screws: Tightening torque **3 Nm**.
- Lay the cable carefully, so that it remains protected, avoid abrasion.
- Electrical connection according 1.8.

b) Version Bus (see Fig. 8)

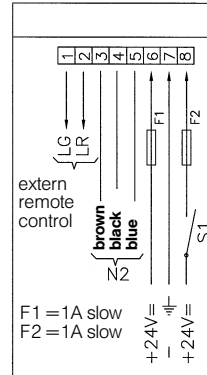
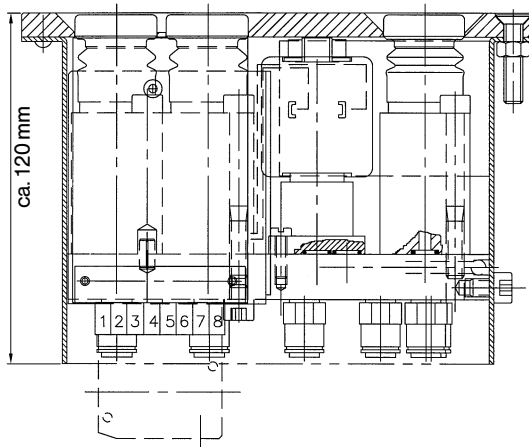
- Screw limit switch into bracket (**H1**) until contact surface protrudes approx. 5mm above bracket.
- Push bracket (**H1**) onto the controle in such way that the contact surface of the limit switch points to the T-handle (**3**).
- Screw upper bracket part (**H1**) to lower bracket part (**H2**) with hexagon socket screw (**I**) and Nuts (**M**).
- Tightening torque **8 Nm**.
- Adjust limit switch in such way, that the distance between T-handle (**3**) and contact surface of Limit switch is 1mm (closed tow hitch) (see Fig 8).
- Lock limit switch tightly with the counter nut (tightening torque max. **1,3 Nm**).
- The limit switch must not impede movement of the control display (T-handle).
- Lay the cable carefully, so that it remains protected, avoid abrasion.
- Connect the sensor plug **C1** with the plug **C2** of the extension cable and connect the single wire ends according the wiring diagram (see Fig. 9).

### Check

Pull the T-handle (**3**) on the control indicator (see Fig. 2/3) and release it:

The limit switch must not impede movement of the control pin!

## elektrical connection



Fuse F1 and F2 must be installed into the power supply cable

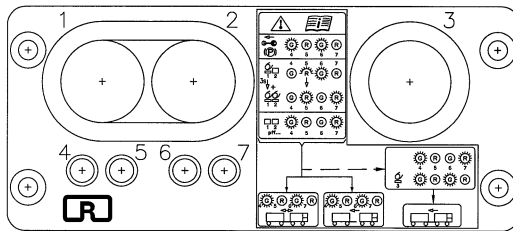


Diagram showing the indication sign for the trailer operation

**Fig. 9 Electrical connection**

## 1.8 Elektrical system (Fig. 9)

Use flexible cable for electrical connections!

24 V = (not supplied).

Terminals positioned externally must be splash-proof.

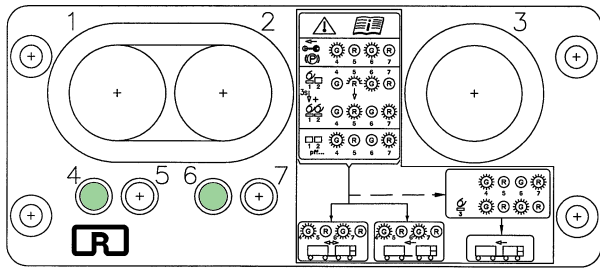
Power supply 2/2 solenoid valve 24 V = 14 watts.

Connections as shown on the circuit diagram.

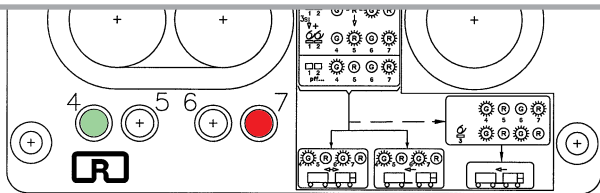
- **Terminal 8** with a make contact of the parking brake **S1** (make contact actuated by pressure falling).  
**Important: In case the brake control is effected by an electronically-driven BUS-system a separate pressure switch must be installed on the brake valve (e.g. switch DC-No. 0015453214, Actros series, actuated by 2 bars).**
- **Terminals 6 and 7** for continuous supply (using 1 A slowblowing fuse).
- **Terminals 3, 4 and 5** with a remote display limit switch (note the colour coding, protect cable connections against corrosion).
- **Terminals 6 and 8** must be protected by means of applying the so called "flying safety fuse".
- Control unit is to be installed within driver's view, at an easily accessible point if the control unit cannot be fitted in this position, separate indicator lamps must be used:
- **Green (LG) terminal 1:** coupling closed and secured.
- **Red (LR) terminal 2:** coupling open and not secured.

### Check with ignition on (24 V/DC):

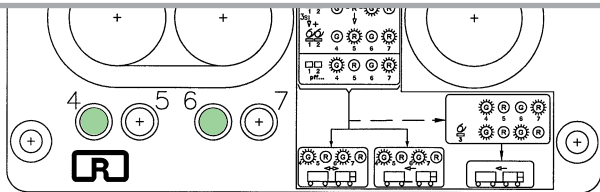
- Button **1, 2,** and **3** not pressed.
- Coupling closed and secured.
- Lamps **4** and **6** are on.
- Control unit OK.
- Optional check see points 2.1 and 2.2.



**Fig. 9a Operation**



**Fig. 9b**



**Fig. 9c**

### 2. Operation (Fig. 9a, b, c)

The driver must only use the remote control **when the vehicle is stationary!**

#### 2.1 Uncoupling

It is very important to observe the regulations laid down by professional trade associations when coupling and uncoupling!

- Put on the parking brake.
- Secure the trailer to prevent it from rolling away.
- Extend the supporting legs on the rigid pole trailer.
- Disconnect the supply lines leading to the trailer.
- Switch on the vehicle's (on-board) power supply: Control lamps **4** (green) and **6** (green) come on (see Fig. 9a).
- Open the coupling.
  - **Press and hold 1: 4** (green) goes out, **5** (red) flashes, after approx. 3 seconds: **5** (red) comes on.
  - **Press 2 as well as 1:** The coupling opens, **6** (green) goes out, **5** and **7** (red) come on.
  - **Release 1 and 2** (the sound of compressed air release is audible): **4** (green) and **7** (red) come on (see Fig. 9b).

In case of bracing between the tractor vehicle and trailer

- repeat the uncoupling procedure **or**
- release the bracing using the air suspension system **or**
- press and hold **1** as well as **2**, release the parking brake, tow the tractor vehicle approx. **1 m** forwards and reverse.
- Unhook the tractor vehicle: the coupling closes: **4** and **6** (green) come on (see Fig. 9c).

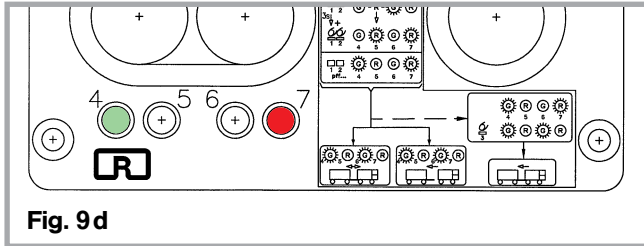


Fig. 9 d

### 2.2 Coupling

- Open the coupling (see 2.1).
- Reverse the tractor vehicle.

#### Check

After each coupling operation it is essential to check that the coupling is correct as required by regulations.

Indicator lamps **4** and **6** (green) must come on (see Fig. 9a).

If the indicator lamp **7** (red) comes on, the coupling is wrong and **there is the risk of an accident.**

**The truck and trailer must not be driven in this condition!**

(see Fig. 9 d)

System fault if operation deviates from above instructions.

#### Remedial action:

- Support the closing operation by pressing **button 3: 4** and **6** (green) must come on.
- The limit switch setting is to be altered.
  - Release the lock nut
  - Turn **carefully** the limit switch with your hand until the control lamp (**6**) comes on
  - Screw-in the lock nut firmly: tightening torque **2,5 Nm**
  - Secure the lock nut with safety coating

In case the system does not function as described here, there is a fault. Before driving on with the trailer **it is essential** to check the control pin on the automatic unit in order to see whether **the coupling is properly secured.**





**ROCKINGER**

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