



Tire inflation systems

Instruction manual for CTIS/control



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General safety information

1. Introduction

Dear customer,

You have purchased a state-of-the-art product that will continue to function safely for many years as long as the installation instructions in these operating instructions are followed.

At the time of delivery, the product met all functional and quality-related requirements. To maintain this condition and ensure safe operation, you, as the installer and/or user, must read and understand these operating instructions.

If you have any questions, please contact:

PTG Reifendruckregelsysteme GmbH, Habichtweg 9 · D-41468 Neuss, Germany, Phone: 02131-52376-0, E-mail: ptg@ptg.info

1.1. Legal notice

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1.2. Declaration of conformity

The company PTG Reifendruckregelsysteme GmbH, Habichtweg 9, 41468 Neuss, Germany, declares that this central tire inflation system complies with the following directives and meets the following standards: • EMC Directive 2004/108/EC (ISO 14982) • The resistance of electrical and electronic equipment to environmental conditions (ISO 15003)

1.3. Proper use

The central tire inflation system is used to fill and vent tubeless tires on the vehicle using a compressed air supply from the vehicle compressor or the additional compressor. It is intended for commercial applications involving stationary and/or moving vehicles. Uses outside this scope are not permitted and may damage the product. Water-filled tires may not be filled or vented using this system. It is not permissible to use tire pressures that do not correspond to the specifications regarding load and speed. Use for private purposes is generally prohibited. Modifying the product is not permitted. The safety instructions must be followed!

1.4. Warranty and exclusion of liability

The warranty period for all components of the system is one (1) year.

Defects and damage resulting from improper installation and/or use or non-compliance with the operating instructions are not covered by the warranty. PTG Reifendruckregelsysteme GmbH does not accept liability for any consequential damage resulting from such damage or defects.

NOTE

The product must not be commissioned until it has been established following installation that the vehicle complies with all relevant directives and regulations!

2. Safety and danger information

2.1. Basic safety instructions

- The installation of the CTIS may only be carried out by trained and instructed personnel in specialist workshops. Improper installation can lead to serious damage and injuries! When installing the CTIS, safety glasses, work gloves and hearing protection must be worn for the various work steps!
- When carrying out work on the product, always make sure that the vehicle has been secured to prevent it from rolling away or tipping over. Switch the engine off.
- Secure the removed wheels to prevent them from rolling away or tipping over! Follow the installation instructions provided by the vehicle manufacturer!

- When carrying out work on the product, always make sure that the product has been secured to prevent it being inadvertently restarted. For this reason, switch the product off if applicable and/or disconnect it from the power supply.
- When carrying out work on the product that cannot be performed from ground level, always make sure that your footing is secure. Use the steps and grab rails provided. Use suitable aids if necessary.
- The improper use of sealants and adhesives (e.g. Loctite 542) causes severe eye irritation, can irritate the airways, is harmful to aquatic organisms and has a long-lasting effect. Supplementary information: Contains methyl methacrylate. Can cause allergic reactions. Must be kept away from children.
- If the product has an electrical malfunction, this can cause serious injury. Therefore, disconnect electrical connections to the product when carrying out welding work on the vehicle, charging the vehicle battery or jump-starting the vehicle. When installing electrical connections, always make sure that the polarity is correct.
- The product is wholly or partially, permanently or intermittently pressurized.
- If any hose or tube connections come loose under pressure, this can lead to whipping lines in certain circumstances and can cause serious injury. When carrying out work on the product, always make sure that the product and its parts are not pressurized. If unpressurized working is not possible, take the recommended safety precautions and wear the recommended personal protective equipment (PPE). Keep other people away from the danger zone.
- The operating elements of the product should be easy to access and it should be possible to use them without the risk of touching hot, sharp or moving parts.
- Always install the product and/or components in such a way that operating/display elements and safety information on the vehicle and/or other devices are not covered.
- When installing the system, keep the field of vision of the driver clear.
- Before using the product, familiarize yourself with its characteristics and operation. For this purpose, it is essential that you read these operating instructions.
- Fully venting the tire may have caused it to become dislodged from its seat on the rim. Unless properly seated on the rim, the tire may become dislodged from the rim unexpectedly. When refilling, make sure that the tire is properly positioned on the rim seat! Observe the maximum permissible seating pressure specified by the tire manufacturer!
- The product must only be used for filling and venting processes on tires in a technically flawless condition.
- When filling tires, keep away from the danger zone. Also, follow the safety instructions provided by the tire manufacturer.
- It is essential that you comply with the minimum and maximum permissible pressures specified by the tire manufacturer, while also taking into account the wheel/axle loads present and the conceivable driving speeds of your vehicle.
- In the event of additional loads resulting from dynamic shifting of the wheel/axle load (e.g. driving up, down or across gradients, heavy towing tasks, heavy attachments), adjust the tire pressures according to the information provided by the tire manufacturer.
- Damaged components may affect the operational reliability of the product and/or result in serious injuries and must be replaced with original parts immediately.
- Once they have become defective, products and/or components may no longer be used in operation.

2.2. Format and meaning of safety information

DANGER

DANGER indicates a risk that WILL cause serious injuries or death if the safety instructions are not complied with.

WARNING

WARNING indicates a risk that MAY cause serious injuries or death if the safety instructions are not complied with.

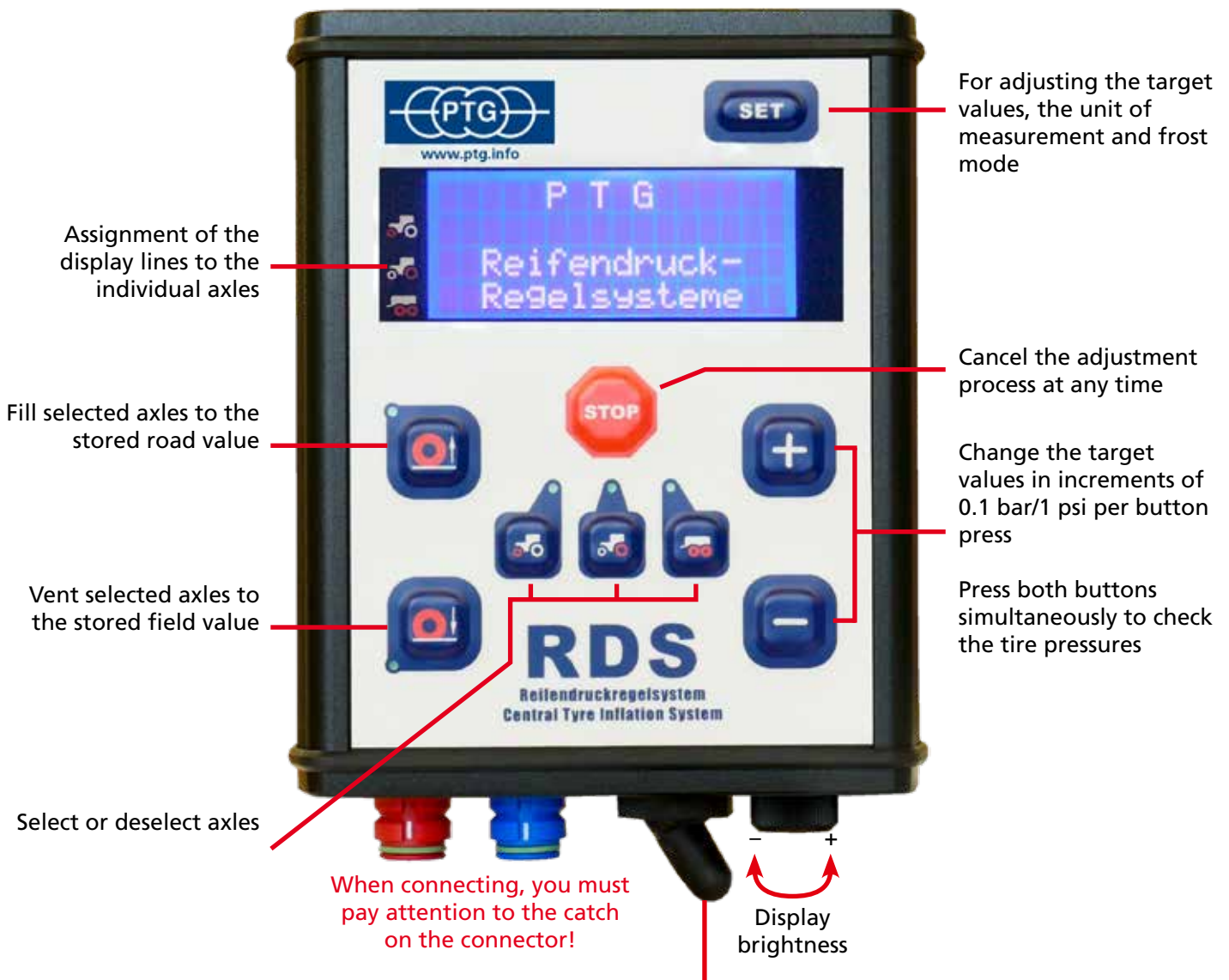
CAUTION

CAUTION indicates a risk that MAY cause minor injuries.

NOTE

NOTE indicates a risk that MAY cause material damage to or malfunctioning of the product, the vehicle or other devices.

Some actions are performed in multiple steps. Where one of these steps involves a risk, safety information is provided.



For adjusting the target values, the unit of measurement and frost mode

Assignment of the display lines to the individual axles

Cancel the adjustment process at any time

Fill selected axles to the stored road value

Change the target values in increments of 0.1 bar/1 psi per button press

Vent selected axles to the stored field value

Press both buttons simultaneously to check the tire pressures

Select or deselect axles

When connecting, you must pay attention to the catch on the connector!

Display brightness

On/off

The black toggle switch of the operating console acts as the main switch for the power supply of the central tire inflation system and is usually in the ON position.

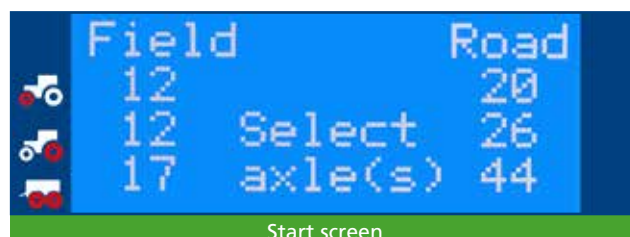
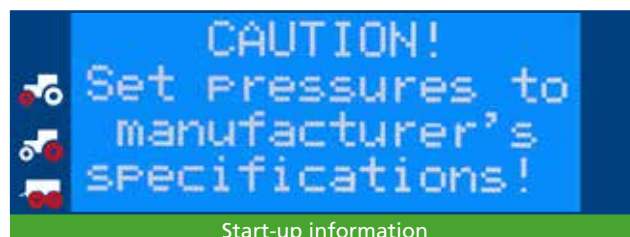
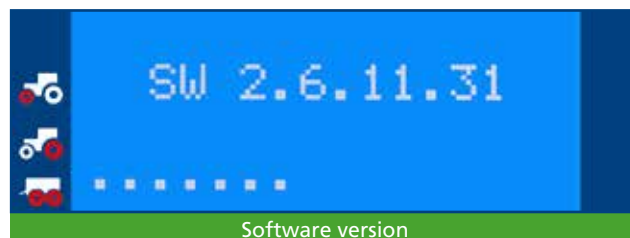
Starting digital control

NOTE




Operating the central tire inflation system is only possible when the engine of the vehicle is running, because air must be continuously supplied by the vehicle compressor. Otherwise, the information displayed may be incorrect and system functionality may be limited.

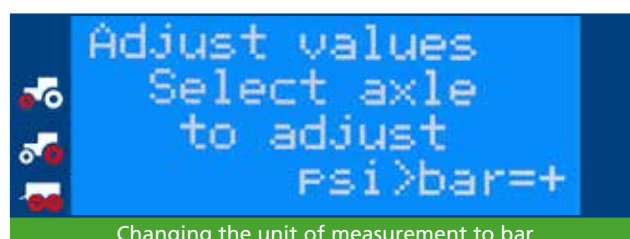
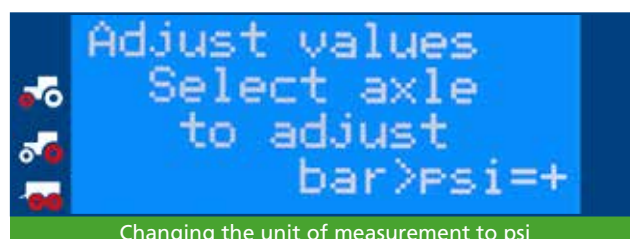
To switch on the display, actuate the black toggle switch on the bottom of the operating console.

The display shows first the software version, then the introductory information, then an overview of the target tire pressures for all adjustment circuits (= group of tires with the same tire pressure) that are installed on the vehicle. Each adjustment circuit is displayed in a row next to the corresponding symbol (front axle, rear axle, trailer) on the left edge of the screen. The target tire pressures for field work (left) and road travel (right) are displayed. The current pressure in the tires is not displayed until the central tire inflation system is activated.











Changing the units of measurement


To change the stored unit of measurement from psi to bar, **press and hold** the  button in the top right corner of the operating console, then press the  button. Pressing again changes the unit of measurement back to psi. Release the  button to store the unit of measurement.





Defining the target tire pressure

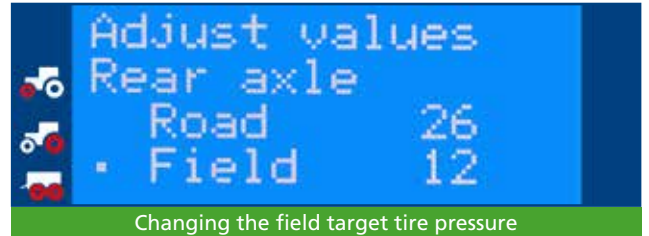
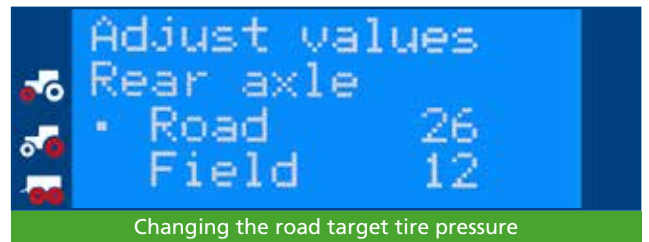
To change the stored target tire pressures, **press and hold** the  button in the top right corner of the operating console throughout the setting process.

Now use the    buttons to select an axle, and press the  or  button to set the field or road pressure. The selection is displayed via the LEDs on the buttons. In addition, the selected axle is shown on the display and the selection of field or road pressure is marked with a dot. You can now use the  and  buttons to increase or decrease the target value by 0.1 bar/1 psi per button press until the desired value is reached.


Once you have used the described method to set the desired values for all axles, store the values by releasing the  button. The successful storing of the changed settings is shown on the display.

To quickly check all stored pressures, use the   buttons to deselect all axles. The display then shows the start overview of all stored target tire pressures.



After an axle is deselected, an exclamation point appears for approx. 2 seconds; while the exclamation point is displayed, the axle cannot be reselected.

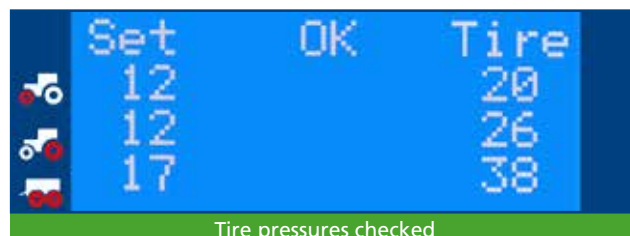


Measuring the tire pressure

To check the tire pressures outside the adjustment process (e.g. directly after starting the tractor), use the 




buttons to select the adjustment circuit(s) for which the tire pressures are to be ascertained. Press the  and  buttons simultaneously for 2 seconds. The ascertained current tire pressure is displayed in the column on the right. The column on the left displays the last selected field or road pressure.



Selecting the wheels to be adjusted


If a central tire inflation system with more than one adjustment circuit is installed on the vehicle (e.g. front axle and rear axle), it may be useful to only activate one adjustment circuit.


You can use the following buttons to individually select or deselect the installed adjustment circuits: .

The selected adjustment circuits are displayed via the corresponding LEDs.


Which adjustment circuits are selected can be changed at any time, even during the adjustment process. For example, when using heavy rear implements, you can therefore use the power of the vehicle compressor to fill only the tires on the rear axle at first, and then fill the tires on the front axle later.

Filling/venting



Use  to fill the tires to the road pressure.

Use  to vent the tires to the field pressure.


The selected target tire pressure is displayed next to the corresponding symbol on the left edge of the screen. The arrows pointing to the right (four arrows) indicate that an adjustment process is active.

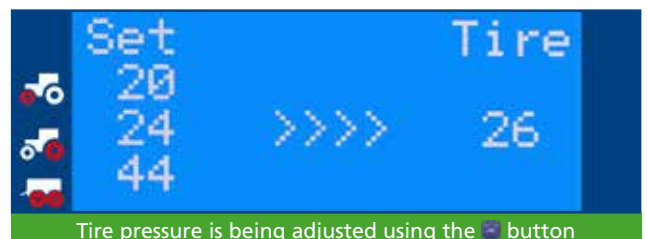
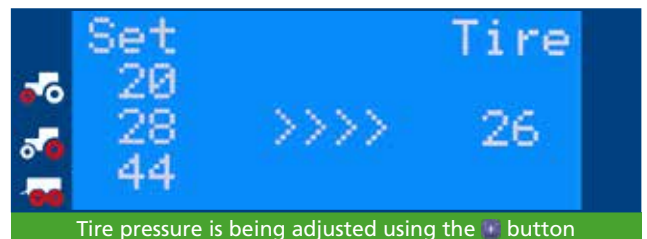
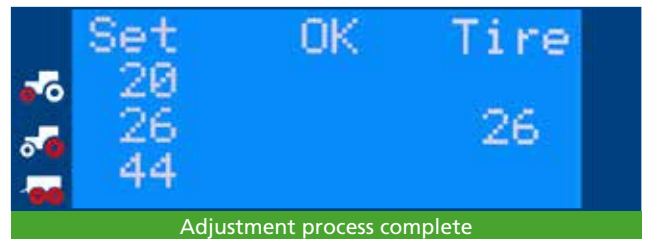
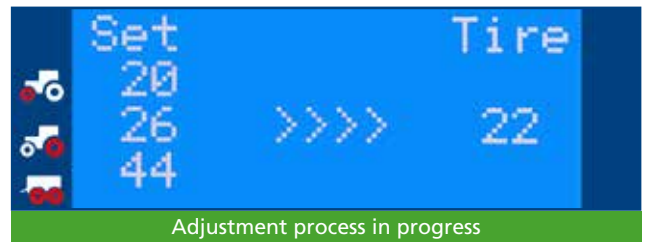
To cancel the adjustment, press the  button at any time! When the arrows disappear and "OK" appears in the top row between "Set" and "Tire", the adjustment process is complete.

Temporarily changing the target tire pressure

If, during or after the adjustment, you notice that the driving conditions are changing, you can adjust the tire pressures on all selected axles via the  and  buttons in increments of 0.1 bar/1 psi per button press, without changing the stored pressures.





Error messages

If an error is detected while the central tire inflation system is in operation, the system stops the current process automatically, an error message appears on the display and an acoustic warning sounds. The error message is displayed as one letter followed by a two-digit number. To acknowledge the error, press the  button (as shown in the image)! However, the affected axle remains excluded from the adjustment.





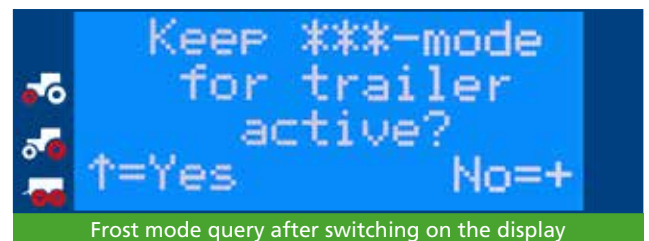
After rectifying the error, to resume full use of the central tire inflation system, it is necessary to switch it off and on again. To acknowledge the error, the operating console must be switched off and on again using the toggle switch.

Frost mode

To activate frost mode on the trailer, **press and hold** the  button in the top right corner of the operating console, then press the  button followed by the  button. Release the  button to store frost mode. To deactivate frost mode, repeat the process.

Frost mode enables the central tire inflation system on the trailer to be briefly operated without the wheel valves closing once the target value is reached. As this operation means increased wear for the central tire inflation system, we advise against permanent use of frost mode.

To remind you that frost mode is active, when switching on, the central tire inflation system shows a query asking whether frost mode should be retained. By pressing the  button, you confirm that frost mode should be retained. Pressing the  button ends frost mode.







PTG Reifendruckregelsysteme GmbH

Habichtweg 9 · 41468 Neuss Germany
Phone: 0 21 31 - 5 23 76 - 0 · Email: ptg@ptg.info
www.ptg.info

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