

<mark>Conti</mark>PressureCheck[™]

The system for permanent tire pressure monitoring



ContiPressureCheckTM

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1 General

1.1 Information on this user manual

The information listed here serves to become familiar with the display and the ContiPressureCheck[™] system and make full use of its functions.

	NOTE
1	 This manual applies to the ContiPressureCheck[™] software package with firmware (FW) 7.00 or higher. The user can see this from the software status of the display or the Central Control Unit, (CCU). The software status of the display is indicated by simultaneously pressing the SET and OK buttons and must be software (SW version) 03.40 or higher. As an alternative to the display, the software status of the CCU can be read using the hand-held tool in the respective vehicle via the Diagnosis - SW Update menu and must be software 1.27 or higher.
	If the software of the display or CCU is older, please contact your CPC supplier or the authorized workshop that installed the CPC system and have the system updated

The user manual must always be in the immediate vicinity of the display. It must be read and observed by everyone who is involved with

- Installation,
- startup and
- operation

of the display and of the ContiPressureCheck[™] system.

1.2 Liability disclaimer

The manufacturer assumes no liability for damage and operational faults resulting from:

- failure to observe this user manual,
- use for other than the intended purpose,
- faulty installation,
- technical changes and modifications.

1.3 Copyright

This user manual is copyrighted.

This user manual may not be duplicated either wholly or in part without the express permission of Continental Reifen Deutschland GmbH.

1.4 Abbreviations

The following abbreviations are used in this user manual:

Abbrevia- tion:	Meaning
ATL*	Auto Trailer Learning
СРС	ContiPressureCheckTM
SO*	Surrounding Observer
SWE*	Single Wheel Exchange
ННТ	Hand-held tool

* Optional functions that are not activated for all CPC systems.

1.5 Explanation of symbols

Warnings in this user manual are also indicated by warning symbols.

The following warning symbols are used in this user manual:

Symbol	Meaning
	General warning
i	General instructions and useful suggestions on handling
A.A.	Note on observing environmental regulations for disposal
<u>X</u>	Electric/electronic components with this symbol may not be disposed of in the normal household waste.

1.6 Warnings

In the current user manual, the following warnings are used:



A WARNING

A warning of this hazard level indicates a hazardous situation.

If the hazardous situation is not avoided, it can result in serious injuries.

 Follow the instructions in this warning to avoid serious injuries to persons.



ATTENTION

A warning of this category indicates potential danger to property.

If the situation is not avoided, it may lead to damage to property.

 Follow the instructions in this warning to avoid damage to property.



1.7 Manufacturer's address

Continental Reifen Deutschland GmbH

Büttnerstraße 25

30165 Hannover

Germany

www.contipressurecheck.com

1.8 After-sales service

In the case of technical questions on the display, pressure control indicator or the entire ContiPressureCheckTM system, please contact your CPC supplier or the authorized garage that installed the CPC system.

2 Technical data display

Dimensions (L x W x H)	117 x 107 x 40 4.60 x 4.21 x 1.57	mm inch
Weight	240 8.47	g oz
Supply voltage	12/24	V
Number of plugging cycles, min.		
Connecting plug diagnosis	100	cycles
Connection plug supply	10	cycles
Number of plugging cycles, min.		
Connecting plate holder for the display	5	cycles
Operating temperature	-40 to 85 -40 to 185	°C °F
Readability of the LCD without restrictions	-20 to 80 -4 to 176	°C °F

3 Safety

3.1 Intended use

The display is only intended for displaying the data detected by the CPC system (air pressure and temperature of the tires) as well as warning messages.

The pressure control indicator installed in the trailer is intended to be used for displaying the status of the CPC system at the trailer using light signals.

Use for any other purpose is not considered as intended use.



No claims of any kind will be accepted for damage resulting from use of the appliance for other than its intended purpose.

In such cases, the risk must be borne solely by the user.

3.2 General safety instructions

Observe the following general safety instructions to ensure safe handling of the CPC system:

- The operator must ensure that tires in which tire sensors are installed, are only operated in vehicles, in which monitoring is ensured by the CPC system.
- If continuous technical monitoring is not ensured, the operator must make sure that the condition of the tire sensor is checked regularly, at the latest after 20,000 km (12,425 miles).
- In the case of continued use of the tires on other vehicles where monitoring is not ensured, the tire sensors must first be removed from the tires.
- The operator of the vehicle must ensure that the CPC system is properly installed and put into operation. This includes setting the nominal pressures recommended in the tire guide, correct assignment of the tire sensors to the wheel position, etc.

Observe the following general safety instructions to ensure safe handling of the display:

- Check the display for visible damage before using. Do not put a damaged display into operation.
- Never open the housing of the display.
- The display is designed for a temperature range from -40 °C to 85 °C (-40 to 185 °F) however, temporary display errors may occur at temperatures lower than -20 °C (-4 °F) or above 80 °C (176 °F).
- Protect the display against moisture and penetration by liquids.

3.3 Particular hazards

Special characteristic in the case of vehicles for hazardous substances (ADR):

- If the CPC system is installed in a vehicle for hazardous materials (ADR) and the CPC system remains switched on although the vehicle ignition is switched off, it is possible that sparks, other ignition sources or similar could lead to a reaction with the hazardous material in the event of a fault. This can result in accidents and serious injuries.
 - For this reason, it is absolutely necessary when parking vehicles for hazardous substances to disconnect the CPC system fro the power supply (normally via the battery main switch)

4 Tool overview

4.1 Operating keys



But- ton	Symbol	Task
1	SET	Switch between vehicle view and setup
2	Û	Navigation between menu items and warning messages
3	ОК	Confirmation of the selected menu item
4	(··)/(<u>)</u>	Switch between pressure or temperature display in the vehicle view

5 Mounting the display

A WARNING
Risk of injury!
The risk of injury cannot be ruled out if the installation instructions are not followed.
Mount the display offset to the side of the driver and the front passenger(s).
Do not mount the display in the impact zone of the body or the head and not in the airbag area (driver & front passenger).

	NOTE
1	The vehicle driver must have a sufficient field of view under all operating and weather conditions.
	Mount the display so that the field of view of the driver is not restricted.

5.1 Display holder with suction caps for attaching to the windscreen

To attach the display to the windscreen to the display holder, use the suction caps.

- Connect the display with the display holder supplied. Make sure that the display is completely snapped and locked into the holder.
- Choose a suitable location on the windscreen. Pay attention to possible dazzling by sunlight.



National regulations!

If national regulations stipulate that devices may no be attached to the windscreen, mount the display with the holder according to chapter "5.2 Display holder for screwing to the dashboard"

5.2 Display holder for screwing to the dashboard

To mount the display to the dashboard, glue and screw the display holder to the dashboard.

- Connect the display with the display holder supplied.
- Chose a suitable location on the dashboard. Pay attention to possible dazzling by sunlight.



- Remove the display from the holder.
- Pull of the protective foil of the contact surfaces on the holder and glue the holder to the desired location.
- Also screw the holder into the dashboard with the 2 screws supplied.
- Connect the display with the display holder supplied. Make sure that the display is completely snapped and locked into the holder.

	NOTE
1	It is recommended to fix the display by gluing and screwing!
	The adhesive foil compensates unevenness between the holder and installation location and ensures a tighter fit.
	The screws secures the holder against vibration during operation and therefore against unintentional loosen- ing.

-	NOTE
	Dismantling the display holder!
	After dismantling the display holder, two holes remain
	in the dashboard. In addition, residual adhesive could
	remain on the dashboard.

5.3 Adjusting the display

• Adjust the display with the help of the holder.



6 Commissioning

6.1 Start screen



The start screen is displayed for **10 seconds** after ignition.

6.2 Warnings

After the start screen is displayed, the applicable warnings for proper use of the system are displayed for 30 seconds at a time.

The warning message for deactivated warnings only appears if the warning messages on a special vehicle have been deactivated.

The setting can be selected during configuration with the hand-held tool and suppresses any warning messages except for the pressure loss warning message.



In addition to the warning, the corresponding icon for deactivated warnings is permanently displayed on the screen.

6.3 Automatic Language Query



If the automatic language query is activated, the display switches from the start screen to setup - Language view, see chapter "6.3.1 Setting the language for automatic language query".

If no button is pressed within 15 seconds, the display switches automatically to the vehicle view.

If the automatic language query is deactivated, the display immediately switches from the start screen to the vehicle view.

6.3.1 Setting the language for automatic language query

If the automatic language query is activated, the Settings - Language view appears for 15 seconds.



- Press the OK button to confirm the language selection.
 The display switches to the vehicle view.

6.3.2 Activate/deactivate automatic language query

- Press the **SET** button, the Setup view is displayed.
- Press the ${f J}$ button to select the "Language" menu item.
- Press the **OK** button to confirm.
- Press the \mathbf{J} button to select the "Autostart" menu item.
- Select "Autostart ON" or "Autostart OFF" with the **OK** button.

Operation

7 Operation

7.1 Safety precautions



- The ContiPressureCheckTM system supports monitoring of tire pressure. The responsibility for the correct pressure lies with the driver.
- Increase the tire pressure only when the tire temperature corresponds to the ambient temperature.
- The ContiPressureCheckTM system is a comfort system. It cannot be completely ruled out in the event of adverse conditions that the CPC system does not display any warnings or conversely, that the CPC system displays an incorrect warning.



7.2 Setup menu

Day/night mode Buzzer ON/OFF ★ (100%) English bar / °C Language selection and automatic language query on/off Selection of units

The following functions can be set in the settings menu:

7.2.1 Open the settings menu

- Press the **SET** button to open the settings menu.
- 7.2.2 Navigating the settings menu

Button	Task
Û	Select between the menu items, selection is highlighted
ОК	Change settings or open submenus
SET	Return to vehicle view

If no button is pressed within 30 seconds, the display switches automatically to the vehicle view

7.2.3 Day/night mode

	NOTE
1	The display brightness is adjusted to the day and night conditions with the day/night mode. No dazzling during night driving and sufficient readability during the day.



Press the OK button to switch to the night mode or the vice versa. Switching depends on the last setting. The display switches back to the vehicle view.

7.2.4 Switching the buzzer ON/OFF



NOTE

- The buzzer can be switched on to emit an alarm when a warning message is displayed.
- A deactivated buzzer switches itself on again automatically after the display has been switched on 50 times.



- Press the **OK** button to switch the buzzer on or off.
- Press the SET button to confirm the selected setting and switch to the vehicle view.

7.2.5 Display brightness

	NOTE
	The display brightness can be adjusted to the needs of the driver.
	Day mode: it is possible to select a brightness level of 50 %, 75 % and 100 %.
	Night mode: it is possible to select a brightness level of 5 %, 10 % and 20 %.



• Press the **OK** button to display the Brightness settings sub menu.



- Press the OK button to confirm the selection and return to the settings menu.
- Press the SET button to return to the settings menu without changes.

7.2.6 Selecting the language





- Press the **OK** button to display the Language sub menu.
- Press the I button to select a language (the selected language is highlighted).
- Press the OK button to confirm the selection and return to the settings menu.
- Press the SET button to return to the settings menu without changes.

Operation

7.2.7 Selecting units





- Press the **OK** button to switch between
 - "bar/°C"
 - "psi/°C"
 - "psi/°F"
 - "bar/°F"

The change depends on the last setting.

7.3 Switching between the vehicle view and the settings menu



 Press the SET button to switch between the vehicle view and the settings menu. 7.4 Vehicle view: standard screen pressure/temperature monitor



Area	Display
1	Info menu item
2	Symbol for a 4x2 truck (the vertical line is the symbol for truck)
3	Information box for: inner twin tires, 2nd axis, left side truck
4	Symbol for a 4-wheel trailer
5	Information box for: tires, 2nd axis, left side trailer
6	Information box for: tires, steering axle, right side truck
7	Information box for: tires, 1st axis, right side trailer

- 7.5 General operation (without automatic trailer detection)
- 7.5.1 General



The following shows some truck versions and truck-trailer combinations:





7.5.2 Start screen pressure/temperature monitoring

After starting up the vehicle, the following appears in the display:



The CPC system is ready for operation. Tire data is displayed just after the journey begins.



Tire data is received for the wheel position of the 2nd outer left axis.



Tire data is received for all wheel positions.

The values for the pressure and the temperatures inside the tires are within the permitted value range.



7.5.3 Switching between pressure, temperature and target pressure indicator



- Press the $(\underline{\cdot})/(\underline{!})$ button to switch between the following:
 - Pressure indicator
 - Temperature indicator
 - Target pressure indicator (Recommended Cold Pressure "RCP")



7.5.4 Warning message overview

	NOTE
1	The driver can be warned by a signal tone in the case of a warning message. The "Buzzer" function must be switched on for this purpose.
	In the even of a warning, respond as described in the following sections. If the warning persists even after taking action, the tires must be checked and the instal- lation/configuration of the CPC system checked by a specialist garage.
	All actions described in the following sections must be performed at a traffic-free location (such as a car park, parking lot etc.).

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Priority:	Level	Symbol	Warning mes- sage	Fault
High		3*)	FAST PRESS. LOSS	Continuous, fast pressure loss. Tire damage or even tire destruction is possible.
	High	77 1*), 2*)	VERY LOW PRES- SURE	The tire pressure falls below the recommended alarm threshold value. Tire damage or even tire destruction is possible.
		2*)	CHECK SENSOR	The tire sensor is no longer properly fixed.
	Low	<mark>86</mark> 1*)	LOW PRESSURE	The tire pressure falls below the recommended alarm threshold value. The tire could be damaged in the long term.
		116	TEMPERATURE	The measured temperature in the tire exceeds 115 °C (239 °F). The tire sensor no longer functions at 120 °C (248 °F).
		9.6 4*)	PRESSURE DIFF.	The pressure between two twin tires exceeds a fixed threshold. The tires could wear out differently in the long term.
		\ge	NO SIGNAL	Due to insufficient signal strength, it is not possible to display a sensor protocol.
Low		\times	SENSOR DEFECT	Tire sensor defective

1*) Pressure value is only an example, threshold values can be stored according to the manufacturer's instructions by a specialist garage

2*) High warning levels are indicated by flashing symbols changing between positive and negative mode..

- 3*) The display changes between the symbol shown and the pressure value.
- 4*) The symbol of the pressure difference warning message is displayed for the two affected twin tires between which the pressure difference was detected.

Operation

7.5.5 Low-level warning messages

7.5.5.1 Tire sensor defective



Warning type: low-level warning

Warning message: sensor defect

Error: the tire sensor is defective.

Action: ask the garage to remove the tire as soon as possible and replace the sensor. (In the case of a defective tire sensor, no pressure/ temperature warning is possible).

7.5.5.2 No signal



Warning type: low-level warning

Warning message: no signal

Error: due to insufficient signal strength, it is not possible to display a sensor protocol.

Action: the garage must clarify the cause for insufficient signal strength. If no signal is received, no pressure/temperature warning is possible.

	NOTE
1	Under adverse conditions (e.g., strong electromag- netic radiation, strong radio transmitter etc.), signal transmission from some tires can be disturbed so that a "NO SIGNAL" warning occurs.
	In the case of trucks, this procedure can take up to 20 minutes and for trailers, up to 40 minutes.
	During this time, no warnings are possible for the corresponding tire. The last received value is displayed until the NO SIGNAL appears.
	 If a tire sensor is not received in the case of slow moving vehicles < 20 km/h (12.5 mph) or vehicles not moving (e.g., due to interference), then the NO SIGNAL message is not displayed. However, the corresponding tire position is empty / without content. It is then not possible to monitor the tire at this wheel position during this time and display warnings.
7.5.5.3 Pressure difference



Warning type: low-level warning

Warning: Pressure diff.

Error: The pressure between two twin tires exceeds a fixed threshold. The tires could wear out differently in the long term.

Action: At the next possibility, adjust the pressure of the two twin tires.

	NOTE
1	The function must be activated with the HHT and is therefore not available for every system.
	 The check is only carried out at the beginning of the ignition cycle [A possible warning message then remains open during the entire ignition cycle.]
	Increase the tire pressure only when the tire tempera- ture corresponds to the ambient temperature. Other- wise there is a risk that the wrong pressure is set.

7.5.5.4 Temperature



Warning type: low-level warning

Warning message: temperature

Error: the measured temperature in the tire exceeds $115 \degree C (239 \degree F)$. The tire sensor no longer functions from $120 \degree C (248 \degree F)$.

Action: stop the truck immediately at a suitable location. Allow the tire concerned to cool down and then check it.

7.5.5.5 Low pressure



Warning type: low-level warning

Warning message: low pressure

Error: The tire pressure falls below the recommended alarm threshold value. The tire could be damaged in the long term.

Action: at the next opportunity (e.g., tire service, gas station, etc.) investigate the cause of low pressure and set the correct pressure. If the tire is damaged by a nail for example, arrange for the tire to be repaired or replaced by a specialist as soon as possible.

1

NOTE

Increase the tire pressure only when the tire temperature corresponds to the ambient temperature. Otherwise there is a risk that the wrong pressure is set.

Operation

7.5.6 High-level warning messages

7.5.6.1 Check sensor

Both displays appear alternately at intervals of 1.5 seconds.



Warning type: high-level warning

Warning message: check sensor

Error: the tire sensor is not properly fixed.

Action: arrange for the tire to be removed as quickly as possible by specialist staff at a tire dealer and allow the tire sensor and tire sensor container to be replaced by a specialist.

7.5.6.2 Very low pressure

Both displays appear alternately at intervals of 1.5 seconds.



Warning type: high-level warning

Warning message: very low pressure

Error: the tire pressure falls below the recommended alarm threshold value. Tire damage or even tire destruction is possible.

Action: stop the truck at a suitable location as soon as possible and investigate the cause of the low pressure.

Top up the tire pressure and make sure that the tire is checked by a specialist as quickly as possible.



7.5.6.3 Fast pressure loss

Both displays appear alternately at intervals of 1.5 seconds.



Warning type: high-level warning

Warning message: fast press. loss

Error: continuous, fast pressure loss. Tire damage or even tire destruction is possible.

Action: stop the truck at a suitable location as soon as possible and investigate the cause of fast loss of pressure and ensure that the tire is checked by a specialist as soon as possible.

7.5.7 Multiple warnings

If various problems occur simultaneously, a multiple warning screen is displayed. Press the ${\bf J}$ button to call up different warning messages.

Example of warning messages



The number of different warning messages appears in the Info menu tem next to the symbol for truck and trailer (if available).. If there is one and the same warning for several tire positions and no further faults, the warning message (e.g., low pressure) is displayed in the Info menu line. The number of warning messages is then not displayed..

The symbol of the vehicle flashes when there is a high warning level warning signal.

 Press the U button to call up each individual warning screen successively.



Individual warning screens show the symbols of the individual warnings.

The display of the individual screens changes every 1.5 seconds if a high-level warning occurs for the displayed tires.

For the meaning of the warning symbols, see chapter "7.5.4 Warning message overview".

	NOTE	
1	If there are several warnings for a tire position, only the warning with the highest priority is displayed in the multiple warning screen (see also "7.5.4 Warning message overview").	
	These warnings are displayed in the corresponding screen in the individual warning screens.	

7.5.8 Special features when operating on special vehicles

For some special vehicles, it is necessary to set a target pressure of less than 1.8 bar.

In this case, all warnings except the pressure loss warning are deactivated.

The following warning appears each time the system is started:

"Warnings for downstream pressure are deactivated , except 'Pressure Loss'."



The deactivated warnings are permanently displayed on the screen during operation via a crossed-out exclamation mark in the upper right corner.

7.5.9 Automatic Single Wheel Exchange (SWE*)

The "Automatic **S**ingle **W**heel **E**xchange" (SWE) enables easy exchange of a single tire sensor.



If a single tire with tire sensor is replaced during operation, the CPC system detects this automatically. Reconfiguring with the mobile reading device is not necessary.

- The new tire sensor is usually detected automatically during the first journey after replacing the tire.
- This procedure is completed after approx. 10 minutes of driving. Prerequisite is a speed of min. 30 kmh (19 mph) during the duration of driving.
- No pressure value is visible in the corresponding tire symbol during this learning procedure.



* SWE is an optional function and is not activated in all CPC systems.

7.6 Operating with Automatic Trailer Learning (ATL*)

7.6.1 General



* ATL is an optional function and is not activated in all CPC systems.

The following shows two examples for truck-trailer combinations with automatic trailer detection:





NOTE

If an independent, complete ContiPressureCheck[™] system is installed in a trailer (status indicator via a pressure control indicator installed on the trailer), and if the trailer is also monitored from the truck, then all warning messages must always be investigated even when the they are only displayed on one of both systems.

7.6.2 Automatic Trailer Learning with tire position

It is possible to display the tire position of an ATL-monitored trailer if:

- The function has been activated in the truck system.
- The tire position was stored on the sensors of the trailer to be monitored.
- The signals of all tire sensors of the trailer to be monitored are received.

If the display of the tire position for the trailer tires is active, the behavior of the system after completion of the automatic trailer recognition corresponds to the behavior described under "7.5 General operation (without automatic trailer detection)".

If not all of the above conditions are met, the trailer will be monitored without displaying the tire position. In this case, warnings are displayed as described in chapters **7.6.3** to **7.6.5**.

To enable the display of the tire position of trailer tires, all lift axles on the trailer must be lowered until automatic detection is completed.

7.6.3 Start screen for automatic trailer learning

After starting up the vehicle, the following appears in the display:



The CPC system is ready for operation. Tire data is displayed just after the journey begins. The automatic trailer detection (ATL) is not yet complete.



Data is received for all truck wheel positions and the automatic trailer detection (ATL) is not yet complete.

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When the automatic trailer detection has been completed, one of the following messages appears on the display:



This display appears when the conditions for automatic trailer detection with tire position are met. The values of the trailer tires are displayed individually with the position. Their display corresponds to that of truck tires.



This display appears when the conditions for automatic trailer detection with tire position are not met and the values for inflation pressure and temperatures inside the tire are within the permissible value range.



7.6.3.1 No trailers found with tire sensors



Data is received for all truck wheel positions, the automatic trailer detection (ATL) is not yet complete however, no trailer with tire sensors was found.





7.6.3.2 Special cases with automatic trailer learning

Example 1:

Too few tires are detected.		
Cause	Remedial action	
A lifting axle is raised during the learning phase, and this means that the learning process is not detected. For example, only 4 tires are displayed instead of the expected 6 tires.		
If any of the trailer tires are fur- ther away from the towing vehicle or are strongly shielded (e.g., a load-loader), it is possible that the tire sensors are not detected due to bad reception.	 Contact the specialist garage, allow the additional receiver to be suitably aligned / posi- tioned or install a separate CPC system into the trailer 	

Example 2:

The learning phase takes up to 30 minutes.		
Cause	Remedial action	
During the learning phase, an- other, moving vehicle was in the vicinity of a CPC system.		
Some of the tire sensors of the trailer have restricted reception. This prolongs the ATL learning phase.	 Contact the specialist garage, allow the additional receiver to be suitably aligned / posi- tioned or install a separate CPC system into the trailer 	

Example 3:

The values of the old trailer continue to be displayed after the trailer is decoupled or was exchanged.		
Cause	Remedial action	
Trailer decoupled and contin- ue the driving within the next 15 minutes. The system assumes that the trailer is still coupled and con- tinues to display the trailer tires. After approx. 40 minutes, NO SIGNAL is displayed for all trailer tires.	 It is recommended to switch off the ignition for at least 20 seconds after decoupling a trailer. 	
Trailer was exchanged within 15 minutes. The system assumes that the previous trailer is stilled coupled and display the number of tires of the previous trailer. After approx. 40 minutes, the NO SIGNAL warning is displayed for all trailer tires.	 It is recommended to switch off the ignition for at least 20 seconds after exchanging a trailer. 	

Example 4:

Occasionally too many tires are learned.			
Cause	Remedial action		
During automatic trailer detec- tion, all signals from unknown tire sensors in the immediate vicinity recognized. In addition, only signals from moving vehicles are accepted that are in the immediate vicin- ity for approx. 8 to 10 minutes (approx. 5 to 10 m (16 to 33 ft) distance) of the truck (such as the newly coupled trailer). If another vehicle with tire sen- sors is in the immediate vicinity during the entire learning phase, it is possible that some of the tire sensors of the other vehicle are also learned.	Stop the vehicle and restart the learning procedure by switching of the ignition for at least 20 seconds.		

Example 5:

During automatic trailer detection, the same number of tires of excess tires are detected.		
Cause	Remedial action	
For ATL, the Automatic Single Wheel Exchange (SWE) is deacti- vated. If a tire or a tire sensor of the towing vehicle was exchanged, the CPC system of the towing vehicle will not be detected. The new tire sensor is considered to be unknown and interpreted as a tire sensor on the trailer during each ATL learning procedure. The same applies accordingly if more than one tire sensor on the towing machine is exchanged without changing the configura- tion.	 The configuration of the CPC system of the towing machine must be updated with the new tire sensors. For this, the following menu items are available in the hand-held tool (HHT): Installation - New Installation or "Modification - Modify Installation - Modify Sensor IDs" 	



NOTE

Obtain all information and handling instructions on the hand-held tool from the "Hand-held tool user manual".

Example 6:

In the case of automatic trailer detection with position, the tires of the trailer are always displayed without position.		
Cause	Remedial action	
The system checks all tire posi- tions of the received sensors for completeness and plausibility. If	 Re-allocation of all tire posi- tions on the trailer. 	
one of these criteria is not met, the system returns to the display without positions.	For this, the following menu item is available in the hand- held tool (HHT):	
	- Tire sensor - Check all Tires	

 -

NOTE
Obtain all information and handling instructions on the hand-held tool from the "Hand-held tool user manual".

Operation

7.6.4 Warning messages in the case of automatic trailer detection

Example of a high-level warning for a trailer tire:

Both displays appear alternately at intervals of 1.5 seconds.





1 of 8 trailer tires has a problem.

The position of the tire concerned is not displayed.

For the meaning of the warning symbols, see chapter **"7.5.4 Warning** *message overview"*.

7.6.5 Multiple warnings for trailer tires in the case of automatic trailer detection

Both displays appear alternately at intervals of 1.5 seconds.

Example of a 4-fold warning message:



At least 4 of 8 trailer tires have a problem.

If more than 4 trailer tires have a problem, only high-priority warnings are displayed.

For the priorities of the warning messages and the meaning of the warning symbols, see chapter *"7.5.4 Warning message overview"*.

The positions of the tires concerned are not displayed.

Press the \mathbf{J} button to call up different warning messages.



Individual warning screens show the symbols of the individual warnings. The display of the individual screens changes every 1.5 seconds if a high-level warning occurs for the displayed tires. For the meaning of the symbols, see chapter *"7.5.4 Warning message overview"*.

7.6.6 Multiple warnings for truck and trailer tires in the case of automatic trailer detection

Both displays appear alternately at intervals of 1.5 seconds.



5 different warning messages for truck and trailer tires.

3 from 10 truck tires have a problem. The positions are not displayed.

At least 4 of 8 trailer tires have a problem.

If more than 4 trailer tires have a problem, only high-priority warnings are displayed.

For the priorities of the warning messages and the meaning of the warning symbols, see chapter *"7.5.4 Warning message overview"*.

The positions of the trailer tires concerned are not displayed.

 The number of different warning messages or the individual warning screens appear in the Info menu item.
 Press the button to call up the individual warning screens.

7.6.7 Automatic Trailer Learning with Surrounding Observer (SO*)

The Surrounding Observer (SO) is an additional option for Automatic Trailer Learning (ATL).



 * SO is an optional function and is not activated in all CPC systems.

In order to be able to detect a tire with extreme low pressure at the beginning of the journey, the Surrounding Observer (SO) at the ContiPressureCheckTM system can be activated using the hand-held tool (HHT).

The surrounding observer evaluates all tire sensor signals received after the ContiPressureCheck[™] system is switched on and checks whether there is extreme low pressure.

If extreme low pressure is indicated by tire sensors received, a VERY LOW PRESSURE warning is displayed for the tire. This only happens when ATL has not been completed.

The VERY LOW PRESSURE warning is based on the target pressure set for the ATL. If for example, 9.0 bar (130.5 psi) is set as target pressure for ATL, then warnings for all tire sensors are displayed that measure a pressure lower than 7.2 bar (104.4 psi). Illustration of ATL + SO during the learning phase.



Illustration after successful learning phase.



Whether the surrounding observer (SO) was activated can be seen if an VERY LOW PRESSURE warning is displayed during the learning phase. The learning phase is indicated by SEARCHING FOR TRAILER.

- The illustration on the left shows a warning with activated surrounding observer (SO).
- The illustration on the left shows warnings from a successfully learned trailer.

When trailer learning is completed, ATL and surrounding observer (SO) end automatically.



8 Error messages

If the function of the ContiPressureCheck[™] system is disturbed, the following error messages could be displayed:



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9 Pressure control indicator

The pressure control indicator is located in the trailer.

During operation, make sure that the pressure control indicator is visible in the rear-view mirror. For this, the pressure control indicator lights up for 15 seconds after starting the vehicle each time.



9.1 Pressure control indicator operating states

	NOTE	
1	To check the functional capability of the CPC system on the trailer, it is necessary to switch the CPC system on and off regularly).	
	 If the control device installed in the trailer is not connected to a continuous power supply, the pressure control indicator lights up for 15 seconds during ignition. 	
	 If the control device installed in the trailer is con- nected to a continuous power supply, the pressure control indicator lights up only when the battery main switch is pressed. 	

Automatic functionality checking*

If the trailer is not moved for more that 15 minutes or only very slowly, the pressure control indicator lights up for 15 seconds after moving off in order to signal the functionality of the CPC system in the trailer to the driver.

The pressure control indicator is visible in the left side mirror, it indicates the following operating states:

Display	operational condi- tions	Note
No signal	No warning messages for the trailer pending.	Failure of the pressure control in- dicator or the CPC system on the trailer is not displayed during the journey. The CPC system for the trailer is not ready for operation for the rest of this journey. This failure is detected during the next ignition (see next point).
Lights up for 15 seconds (when switching on the CPC system and when moving off after a longer break)	The CPC system and the pressure control indicator are ready for operation.	If the pressure control indicator does not produce a signal when switching on the CPC system (igni- tion or pressing the main battery switch), either the CPC system on the trailer is not ready for operation or the pressure control indicator is defective. In this case, monitoring of the tire pressure on the trailer is not possible and it is necessary to go to a service garage as quickly as possible.
Flashes slowly** (Blink Code EU: every 2.5 seconds) (Blink Code US: Permanently lit)	There is a "low" level warning on the trailer.	Check the inflation pressure of all trailer tires at the next suitable point (e.g., car park, rest area, gas station) and correct if necessary*. If slow flashing continues after driving off, go to a service garage. Otherwise the same measures apply to low-level warning as described in the chapter "7.5.5 <i>Low-level warning messages"</i> .

Pressure control indicator

Display	operational condi- tions	Note
Flashes quickly** (Blink Code EU: 5x per second)	e quickly** Code EU: Second) Code US: Seconds)	Stop the truck as quickly as pos- sible. Check all trailer tires* for fast pres- sure loss or extreme low pressure. In this case, allow a specialist to check the tires and repair or exchange if necessary.
(Blink Code US: every 4 seconds)		flashing begins again after contin- uing the journey, go to a service garage.
		Otherwise the same measures apply to high-level warning as described in the chapter "7.5.6 High-level warning messages" .
Flashes very slowly**		
(Blink Code EU: not available)	There is a system error on the trailer.	At the next opportunity, visit a service workshop and have the system error rectified.
(Blink Code US: every 2 minutes)		

* only top up the tire pressure when the tire temperature corresponds to the ambient temperature. Otherwise there is a risk that the wrong pressure is set.

** The behavior depends on the configuration defined in the HHT hand-held tool..

Power indicator of the pressure control display after parking the trailer



9.2 Readjusting the pressure control indicator

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If the pressure control indicator is incorrectly adjusted and is therefore not sufficiently visible during ignition, it must be readjusted.

To adjust the pressure control indicator, proceed as follows:

- Loosen the locknut on the pressure control indicator and adjust the pressure control indicator on the side mirror.
- Subsequently tighten lock nut to 2 Nm (1.48 lb-ft) (finger-tight) so that the ball joint of the rubber arm can no longer move within the mounting.

	NOTE
1	At temperatures under 2 °C (35,6 °F), the tightening torque should not exceed 2 Nm (1.48 lb-ft) otherwise damage could occur.
	 Adjust the tightening torque accordingly at high tem- peratures.
	 Arrange for a service garage to perform or check adjustment.

10 Cleaning the display

		ATTENTION
		Pay attention to the following cleaning and safety instruc- tions before cleaning the display:
		Clean the display with a dry, soft, lint-free cloth only.
		Even when cleaning stubborn dirt, the cleaning cloth may only be slightly dampened with a little water.
		Do not use aggressive or abrasive cleaning agents when cleaning stubborn dirt and never use solvents that could attack the plastic surface of the display.

11 Maintenance

- Clean the light surface of the pressure control indicator at regular intervals.
- Keep the central control unit and the additional receiver free of soiling such as snow or slush in order not to impair the reception.
- Check all screw and plug-in connections at regular intervals when using the CPC system.

12 Disposal

12.1 General instructions

Continental is committed to the protection of the environment. As with other old devices, the system can be returned to Continental via the normal channels. For details of disposal, please contact your authorized sales partner.

- Sort metals and plastics carefully for recycling or scrapping.
- Dispose of all other components such as cleaning agents or electrical components (such central control unit, additional receiver) according to legal regulations.

12.2 Tire sensor



The tire sensor contains a lithium battery that is cast into the housing and cannot be replaced. After reaching the end of its service life, the tire sensor must be disposed of in accordance with all current local, regional and national laws and regulations. For this, a return to an authorized CPC sales partner or the return to the central CPC collection point is possible (address, see chapter *"12.4 CPC collection point"*).

12.3 Electrical/electronic components



All other electrical/electronic components excepting tire sensors must be disposed off according to the EC directive 2002/96/EC-WEEE (Waste Electrical and Electronic Equipment). Should you have any questions, please contact your communal authority responsible for waste disposal.

12.4 CPC collection point

Address:

Continental Trading GmbH "Abteilung Entsorgung" VDO-Straße 1 Gebäude B14 64832 Babenhausen Germany

13 Declaration of Conformity

The CPC system meets the basic requirements and relevant regulations of the European Union (EU) and the USA as well as other countries listed at *www.contipressurecheck.com.*

The complete original declaration of conformity is included in the scope of delivery. (EC Declaration of Conformity Art. No. 17340510000).

It can also be found at www.contipressurecheck.com/downloads.
14 Certifications

The individual certificates are included with the system documents. The latest version is available at:

www.contipressurecheck.com/downloads.

14.1 Radio permit

A radio permit was issued for the CPC system in the following countries.

 Homologation Certificate Vehicle Components (Art. No. 17340480000)

14.2 General Operating Permit

A general operating permit (Allgemeine Betriebserlaubnis - ABE) from the Kraftfahrt-Bundesamt (KBA) (Federal Motor Vehicle Transport Authority) was issued for the CPC system.

- GENERAL OPERATING PERMIT (GOP) (Art. No. 17340280000)
- 14.3 ADR

The CPC system is principally designed for hazardous material (ADR) vehicles.

A declaration of conformity according to ADR is available for the CPC system and includes the approved hazardous goods classes.

 ADR Declaration of Conformity for the CPC system (Art. No. 17340500000)

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