TrailerConnect®
The Telematics Solution for Your Transport Operations
Benefits of Trailer Telematics

Industry Solutions for:
- Pharmaceuticals
- Food
- Parts supply
- Multimodal transport
- High-security freight
- Rental
- and many more ...

The future of the transport industry lies in digitalisation. That is why Schmitz Cargobull is consistently pushing telematics as a standard component in its trailers. You benefit from real-time information about your trailer and freight provided by a secure system:

- So that you can ensure a continuous cold chain or provide documentary evidence of the transport.
- So that you can monitor the technical status of your trailers.
- So that you can maximise your trailer uptime and reduce your process costs.
- So that you can optimise your environmental emissions and plan more efficiently.

For all Schmitz Cargobull trailer types, from the S.KO through to the SCS and S.KI, and naturally also as a retrofit solution for your entire fleet.

We Know What Challenges You Master Every Day

Trailers with this symbol are already equipped ex works with the TrailerConnect® telematics as standard. Currently this applies to all S.CS SMART curtainsider semi-trailers, S.KO COOL refrigerated trailer bodies, and S.KO EXPRESS SMART dry-freighters.
Good Reasons for TrailerConnect®

There are many reasons to opt for our TrailerConnect® trailer telematics solution. The most important reason: it pays off rapidly, providing you with a highly reliable investment. Take advantage of our many years of telematics expertise and experience as the #1 trailer manufacturer.

**Intelligent Trailer Scheduling**
- Overview of the location/availability of the trailer
- Proof of just-in-time deliveries
- Improved capacity utilisation, avoidance of empty runs

**Reliable Temperature Management**
- Active real-time temperature monitoring with alarm function
- Registration and archiving of all temperature data
- Two-way communication including certified temperature recording function according to DIN EN 12830

**High Transport Security**
- Continuous information from all connected sensors and actuators
- Immediate alarms in the event of stops or entry/exit from zones with monitoring using geofencing
- Two-way communication with the cooling unit and remote control for the door locking system

**More Trailer Availability**
- Advance warning about the wear and status of the technical equipment prevents breakdowns and shortens the downtime
- Improved planning of trips to the workshop for maintenance and servicing

**Optimised CO₂ Emissions**
- Avoidance of empty runs
- Optimised trailer capacity utilisation
- Reduction of fuel consumption and wear through tyre pressure monitoring

**Reduced Process Costs**
- Increased transparency and efficiency reduces costs and offers faster payback
- A telematics portal for all trailers increases efficiency and process security. The TrailerConnect® portal consolidates data from almost all telematics providers and accessories suppliers

**Efficient Fleet Management**
- Real-time information on the current status of the fleet, reliable documentation and reports on semi-trailer history as a basis for strategy and planning

**Future-Proof Technology**
- Always the latest standard of technology and ideally tailored to development and integration in the trailer
- One single gateway: standardised telematics solution for the secure transmission of data from connected sensors and actuators. This creates quality and maximum system availability, and makes time-consuming retrofitting of third-party systems unnecessary

**The Benefits for You:**
- Intelligent networking of all trailer components including cooling unit, running gear, EBS, brakes, tyres and locking system
- Central display and operation of sensors and actuators via the TrailerConnect® portal, the beSmart app and on the Schmitz Cargobull Cooling Unit S.CU display
- Rapid diagnosis of all components – using the telematics control unit as the central diagnostics gateway
Regardless of the Type of Trailer – A SmartTrailer is Always an Advantage

The TrailerConnect® telematics system sets the standard in your semi-trailer. Currently, all S.CS SMART curtainsider semi-trailers, as well as S.KO COOL SMART and S.KO EXPRESS SMART box body semi-trailers are already equipped with telematics ex works. Comprehensive sensor technology, optimally networked with the TrailerConnect® control unit, gives you more opportunities to obtain even more real-time information from your trailers and link it for intelligent results.

A good solution should be simple – for our customers. So that you get more time for your business.

All light-blue symbols show the basic functions for every trailer and are available even with just the CTU control unit. The mid-blue symbols require the use of the CTU3 and can be used for every type of semi-trailer. The CTU3 is also the basis for temperature-controlled transport in the S.KO COOL SMART with its specialist requirements (blue symbols).

A Few Practical Examples:

**Monitor the cold chain everywhere:** Even when the trailer has been decoupled, you can use the TrailerConnect® portal to control the cooling unit from your desk. In two-way communication you receive the current status in real time and can adapt settings and setpoints on the cooling unit to the situation.

**Secure key service:** The TL3 locking system in the S.KO COOL SMART is PIN-protected and can be locked and unlocked remotely with the TrailerConnect® portal. The driver can then enter the PIN in situ using the beSmart app or on the display of the SCU cooling unit. The fully automated Geo-Lock uses the telematics system’s Geofencing monitoring function to only permit access within defined zones. On request, the doors can be locked automatically 30 seconds after being closed.
Included in all Trailers with Telematics:

**EBS operating data**
Status, operating and diagnostic data is transmitted from the connected brake system

**Motion sensor**
An acceleration sensor in the telematics control unit identifies when the trailer is static or moving

**WiFi**
A WiFi interface integrated in the control unit enables display and operation of the trailer using the beSmart app

**Telematics battery**
The telematics battery, which can be heated for charging, provides standby times of up to four months**

**Cooling unit operating data**
Status, operating and diagnostic data is transmitted from the connected cooling unit

**Temperature recorder**
The telematics control unit and up to four cargo sensors ensure that the temperature is recorded in accordance with DIN EN 12830

Optional Functions:

**Tyre pressure monitoring system**
Sensors in the rim measure tyre pressure and temperature and transmit this to a receiver in the control unit*

**Brake pad wear display**
Brake pad wear sensors determine the brake wear including wheel position

**Coupling sensor**
A coupled tractor unit is reliably detected by monitoring the brake supply pressure

**Precision odometer**
Precise mileage is calculated with the help of an ABS sensor and GPS. Even when the EBS spiral cable is not plugged in

**Tractor unit identification**
An RFID receiver on the bulkhead clearly identifies the RFID transponder on the tractor unit

**Door contact switch**
Only for box body semi-trailer: an electronic sensor integrated in the rear portal monitors the status of the doors – even when uncoupled

**Real-time tyre pressure monitoring at all times:** The telematics control unit is prepared for monitoring and supports the simple installation of a wireless system on the wheel. The beSmart app offers direct control for the driver and the beUpToDate app for every vehicle in the fleet. This helps to avoid flat tyres, reduces wear and improves fuel consumption through reduced roll resistance.

**Demand-led maintenance** reduces costs and improves trailer up-time: the trailer technology data from the EBS module and other sensors informs you about the actual load level and current wear, can help prevent breakdowns and plan the ideal time for your next trip to the workshop in advance.

* Included in the S.CS SMART curtainsider semi-trailer and S.KO EXPRESS SMART dry-freighter as standard, optional for the S.KO COOL SMART box body semi-trailer
** Depending on the trailer type and environmental influences
The TrailerConnect® control units CTU and CTU3 are the heart of our telematics system and meet the Automotive Standard in line with the highest electrical protection class against environmental conditions IP6K9K. This ensures maximum functional reliability in a temperature range from 40°C to +85°C.

Soldered directly onto the circuit board, the "SIM on Chip" has a major advantage compared to conventional SIM cards since there are no failures due to contact problems. The concealed installation underneath the trailer protects against manipulation, while the integrated antennas for GPS and GSM optimise performance. The lithium-ion battery with integrated heating ensures optimum charging, even in the winter and the integrated WiFi module allows for communication with mobile devices.

The CTU control unit is available as a basis unit, particularly for curtainsider semi-trailers and dry-freighters. As it is perfectly tailored to the electronics and electrical system in the vehicle, it also fulfils the maximum standards for safety and reliability in accordance with ISO 21434. As a future-proof form of technology, the CTU uses the LTE standard and is prepared for 5G, yet the Global SIM ensures that no roaming costs are incurred anywhere around the world.

The advanced CTU3 control unit is used particularly when completing temperature-controlled transport tasks with the S.KO COOL SMART box body semi-trailer. Status, operating and diagnostic data is transmitted from the connected cooling unit. The digital temperature recorder, which meets DIN EN 12830, is permanently integrated into the system and communicates with the optional temperature printer on the bulkhead. The locking system can be controlled if necessary. As well as the precision odometer, the CTU3 is also available with other optional sensors in the trailer, e.g. tank sensor, battery monitor, coupling sensor and tractor unit identification, as well as other additional equipment, e.g. cooling units from other manufacturers.

### The Control Units in Comparison

<table>
<thead>
<tr>
<th>Function</th>
<th>CTU</th>
<th>CTU3*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle identification number</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Speed</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mileage</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Stationary/movement</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Axle load</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>EBS data</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>EBS error codes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>WiFi module</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Integrated temperature recorder as per DIN EN 12830</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Cooling unit error codes</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Data connection to the cooling unit</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Data connection to the temperature recorder</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Two-way communication with the cooling unit</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Two-way communication with the TL3 door locking system</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Tyre pressure monitoring system**</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Telematics battery</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Brake pad wear indicator BBVA+**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Schmitz Cargobull temperature printer**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Precision odometer**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Door contact switch**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Door locking system TL3**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Tractor unit identification**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Coupling sensor**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Fuel sensor**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>LED fuel indicator**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Battery monitoring for the cooling unit battery**</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>SIM</td>
<td>Embedded SIM</td>
<td>Embedded SIM</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP6K9K</td>
<td>IP6K9K</td>
</tr>
<tr>
<td>GPS /GPRS aerial</td>
<td>Integrated</td>
<td>Integrated</td>
</tr>
<tr>
<td>433 MHz aerial (TPMS receiver)</td>
<td>Integrated</td>
<td>Integrated</td>
</tr>
<tr>
<td>Battery type</td>
<td>Lithium-ion battery</td>
<td>Lithium-ion battery</td>
</tr>
<tr>
<td>Integrated battery heating</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Messaging intervals, ignition on</td>
<td>15 min.</td>
<td>15 min.</td>
</tr>
<tr>
<td>Messaging intervals, ignition off</td>
<td>24 hr.</td>
<td>15 min.***</td>
</tr>
</tbody>
</table>

* The CTU3 is available as an upgrade for all trailers
** Additional hardware required
*** Applies for refrigerated trailers – Messaging intervals for other types, 180 minutes
TrailerConnect® Portal

The TrailerConnect® portal allows you to keep a close eye on the condition of your trailer and the freight. Whether events, messages or location information in real time, all values are extensively visualised or can be filtered. Comprehensive reporting enables data to be documented and provided to third parties.

Status Overview
- All the latest key trailer data at a glance including map extract
- Use of trailer groups and filter sets for demand-led views
- Go directly to the function and analysis you need in a few clicks

Tour Management
- Analysis of individual routes on a clearly arranged dashboard (event, temperature and location history)
- Export function for simple forwarding of data
- Zoom function for simple selection of the analysis period

Fleet Management
- Chronological recording of the service information of all networked trailer components (cooling, running gear, sensors, actuators)
- Avoidance of trailer downtime thanks to servicing-relevant warning messages in real-time
- Documentation of technical events stating the time and place of the event, and rectification

Cold Chain Management
- Legally compliant documentation of the cold chain, proof of the cooling unit's functionality, graphic display of the route with current position, event history and provision as a report
- Monitoring of decoupled trailers, including in unaccompanied multimodal transport by rail and ferry or on drop-and-swap handovers
- Shippers and other stakeholders have their own access to the data to speed up the process chain

The Benefits for You:
- Status of trailer and load in view at all times
- Filter to view the data you need
- The analysis you need in a couple of clicks
- Clearly laid-out event, temperature and location history
- Simple export of data
- Analysis period selection
- Avoidance of trailer downtime thanks to advance warning messages
- Documentation of technical events plus information about when and where the problem was rectified

Access the online portal
Our Apps Keep You Up-to-Date, Even on the Road

In addition to the excellent usability of the telematics portal, our apps offer you even more ease of use and the possibility of obtaining comprehensive information and intervening if necessary while on the move.

beUpToDate
React Quickly to Critical Events

With the beUpToDate app you can keep an eye on your trailers at all times – even with large fleets. As an extract from the portal, you can display the location and condition as well as data on the tyre pressure, wear and load individually for each trailer, or obtain an overview of the status of the whole fleet. Receive messages and alerts directly on your smartphone and also stay informed when on the move. The beUpToDate app offers you the possibility of subscribing to the message and event history of your fleet or individual trailers.

TyreManager
Simply Configure Tyre Pressure Sensors

The TyreManager is your application for configuring and managing the installed tyre sensors in a trailer using the TrailerConnect® telematics system. Changes to the sensor or axle positions as well as the teaching of new sensors can be done quickly, via a mobile device – and without physical connection to the trailer – at all times.

beSmart
Your New Trailer&Cargo Manager

The beSmart app lets your drivers continuously monitor the condition of the trailer and respond rapidly if required. An integrated WiFi module in your trailer provides communication between the telematics control unit and a smartphone with push notifications. You will never again miss important news or messages.

- Cargo area temperature analysis: you’ll see the current temperature curves on your smartphone and control the temperature printer in the trailer.
- Monitoring and control of the cooling unit: the operating data of the cooling unit at a glance with individually defined alarm messages in the case of deviations.
- Brake pad wear monitoring: avoid breakdowns and plan workshop visits better.
- Axle load: increase road safety and avoid trailer wear and tear.
- Tyre status monitoring: avoid flat tyres and increased tyre wear by displaying the tyre pressure and tyre temperature.
- Rear door locking system: open or close the locking system remotely by entering the PIN.
Our Rate Model – Numerous Options Tailored to Your Business

Our rate models are available on a flexible basis and are tailored to meet your needs. From pure information and monitoring of your fleet with the TrailerConnect® Info module to controlling important functions on your trailers with the TrailerConnect® Control module, with our reliable system you have full transparency when it comes to your fleet. All of your data is saved for 12 months, and even longer upon request. With our three optional functions you are well-prepared for all daily transport demands.

INFO ALERT CONTROL*
1 Cold Chain Management* Temperature and cooling unit data inc. report function
2 Position Data & EBS Information about the trailer location and EBS data (Google Maps)
3 Geo (High Precision Location) Precise identification of the location of the trailer
4 Tour Management Dashboard for detailed analysis and evaluation of routes driven, large fleet map
5 Event Management Alarm configurations inc. reporting and geofencing
6 Data Sharing Data transmission to other TrailerConnect® portal users
7 Fleet Management Dashboard for service and diagnostic information
8 Remote Door Lock* Remote control of the door locking system
9 Remote Control** Remote control of door locking system and cooling unit

Optional functions:
- Data Export API Data transmission by API interface to third-party systems
- Data Storage + Additional 12 month-long data storage extension
- Data Interval 5M Upgrade to 5 minute messaging intervals when the ignition is switched on

* Only for S.KO COOL SMART refrigerated semi-trailers ** Only Schmitz Cargobull Cooling Unit S.CU / Carrier units
All Data at a Glance

**TrailerConnect® Portal as a Consolidation Platform**

Combines all trailer telematics information from leading manufacturers and suppliers in a single portal. This is all possible thanks to the **TrailerConnect® portal**. It tracks your entire fleet of trailers – and that without the time-consuming retrofitting of third-party models and transfers data from your other telematics providers. As such, all the data that the TrailerConnect® portal can display can be imported from the third-party provider. With over 40 interfaces, you can bring together your entire fleet within a single platform and manage your data with a single logic system – simply and directly with a high level of user comfort on our clearly laid-out portal.

The advantages are obvious: you increase your process reliability by using a joint platform. The consolidated display in a portal creates genuine transparency and increases your efficiency, and that's not to mention the comfort. You reduce your operating costs by not having to use multiple applications at the same time. You reduce the amount of training required by you and your employees and you also have a contact partner in the event of questions and plans.

However, TrailerConnect® is also an ideal team player for your other digital information networks. The telematics information of TrailerConnect® flows via an API interface to all other software solutions and platforms you need for your business.

---

* Third-party manufacturers and competitors
** E.g. geographical, road network and traffic
Support and Training

As a full-service provider, we are on hand with help and advice in addition to providing uncompromising hardware quality, and smart telematics services and portals. We train your employees, offer customer workshops at your premises, integrate data into your system and are on hand as a contact throughout the entire service life of the trailer telematics system.

Should you have any questions, our free 1st-3rd level support team will be happy to help. You receive swift support from skilled contact partners for all aspects of trailer telematics with a sophisticated troubleshooting process for both hardware and software installation and use.

And should you wish to retrofit our telematics solution, our Europe-wide service partner network pays off for you. On request, we will also train your own workshop personnel on the subject of TrailerConnect®.

Online Training for Everyone

TrailerConnect® customers are able to access webinars on our telematics portal in six different languages at any time (German, English, Spanish, Dutch, Italian and Polish).

The topics available for online training courses are “Basics”, “Map and Geofencing”, “Trailer Configuration”, “Reporting”, “Push API” and “Leasers/Shippers”. They last 30 to 45 minutes and can be booked over helpdesk@trailerconnect.de.