

My Smart Home is My Camper Van

For more holiday comfort and security –
the first camper van with KNX

Winner
KNX Award 2010
Category
Publicity



Travelling in the smart camper van – the idea and its implementation won the Publicity Award.

Any higher-spec car contains significantly more technology than your average home. That is surprising, as modern electrical technology has fully developed systems and components for domestic installations which make life more comfortable and secure, and help conserve energy. Somebody owning a 'home on wheels' can make use of many functions in his vehicle which make sense at home.

For this reason, when the team of the KNX User Forum Germany tackled this unusual project, it decided to upgrade the functions of a camper van with KNX. They even integrated an on-board computer for which they used a Gira Homeserver. This unusual idea impressed the jury so much that it honored the project with the Publicity Award. The imaginative creators of the first KNX camper van, Günther Sumser, Markus Schwarz and Matthias Schmid, scored special points for their clever comfort, security and energy management functions.

A holiday is when everything works automatically

In a way, the KNX camper van is even more functional than an intelligent home. This does not mean that mobile operation using a touch panel and sensors

is really new. All functions can also be viewed and controlled externally via the internet. But the control center of the electronic nerve system accomplishes many tasks fully automatically, to an extent that was hitherto not known. Sensors have been installed in the floor, in the bed and the seats of the camper van, which recognize at all times where someone is – the on-board computer will then automatically switch on the respective lights. If somebody gets up at night, the light comes on and is also dimmed. The central intelligence also detects meal times: if somebody sits down on one of the armchairs in the dining area, a pre-programmed lighting scene is called up. When the TV mode is activa-

ted, the flat screen moves out, the SAT system automatically aligns itself and the blinds are lowered if the sun is shining outside – and so on. A real holiday feeling! There is not enough room here to list all the creative functions.

Endurance test on Europe's roads

People travelling in the camper van will also appreciate improved security functions. When the intruder alarm system is set, the automatic control of lighting and blinds is also activated. Alarm messages can be received by telephone provided a potential intruder even considers breaking in, because there is also a programme simulating the presence of persons in the vehicle. It goes without saying that the on-board computer displays tank levels and manages the power supply from a solar system and batteries.

However, the system integrators were not only concerned with finding useful functions for the camper van, but also wanted to test the behavior of KNX components while on the road. The ProLiner Classic 760 S MEB is said to have travelled 22,000 km on Europe's roads without a

single equipment failure. This compact 'luxury liner', with its high-specification technical equipment was presented as a prototype at the Caravan Salon 2007 trade exhibition. In the future, the manufacturer wants to offer this version as a standard high-end solution.

Benefits provided by KNX in this project

- Everything works automatically: during dinner, when watching television, when going to bed – the lighting with scene control, TV and audio system, blackout and solar screening and even the activation of the monitoring functions during the night and absences.
- Improved security on the road through intruder and theft prevention and remote monitoring.
- Helpful functions for everyday camping, such as fill level monitoring and alarms, energy management, window and door monitoring, and recording the overnight camp sites using coordinates on a visualization page.

Technical refinements

- Automatic control and manual operation.
- Visualization via touch panel, iPhone etc.
- Gira Homeserver as on-board computer.
- TV and audio control linked to the KNX system.
- Central switch functions such as setting the alarm, sleeping mode, absence mode.
- Blinds automatically controlled by the weather station.
- Video monitoring and alarm function.
- Presence simulation during absence

Camper van team:

Design and system integration:

Günther Sumser, Freiburg

Communication technology:

Markus Schwarz, Radolfzell

LED lighting, solar screening controls

Matthias Schmidt

Interface with third-party systems:

Christian Berg, Kiel

Software solutions:

Alfred Scherff, Frankfurt/Main

Mobile internet:

Michael Grosalkski, Radevormwald



Visualization on the mobile touch screen