

# Berghaus-News

Traffic Technology · Mobile Crash Barriers

Issue 36

December 2010 / January 2011



Fachbetrieb und Mitglied im Verein für Verkehrstechnik und Verkehrssicherung e.V.

## At a glance

### Contents

#### Page 2

- Awards for long-standing employees
- Remote SMS switching with feedback
- 30 years at the service of traffic safety
- The ABC of roadworks safety

#### Page 3

- The German Roadside Equipment Congress 2011 in Neuss
- AVS Traffic Safety expanded in Hesse
- German Road and Transportation Congress

#### Page 4

- Fast installation, dismantling and conversion = less congestion
- Mobile crash barrier ProTec 160 in Cologne
- Good impression – no impression

## TL screw-type ground anchor for road signs

Quick & easy



1

Place the screw-type ground anchor in position



2

Screw into the ground with the special tool



3

Fit the pole onto the anchor



4

Fasten the road sign to the pole with clamps

The new TL screw-in ground anchor is a real alternative to the previous impact ground anchors when it comes to swift, mobile installation of road signs in verges and soft shoulders. When using the special tool, it takes little force to simply screw the TL screw-type ground anchor into the ground as far as the surface plate. The large galvanised screw holds the anchor firmly in the ground. A commercially available 40x40 mm pole is then simply fitted onto the TL screw-type ground anchor and clamps are used

to fasten the required road sign in position. This makes it easy to erect signs firmly and perpendicularly in next-to-no time.



Robust galvanised design with large screw for a firm hold.

Up to now, it took quite a lot of effort to hammer the ground anchors into the ground with a sledgehammer. The impact often set the ground anchors at the wrong angle which had to be corrected by pulling around the pipe. In turn, this loosened the anchor in the ground, depriving the road sign of a firm hold so that it tended to wobble.

But now with the new TL screw-type anchor, mobile road signs can be erected straight and firmly in next-to-no time!

## "Green light" for the new year



We wish all readers of the Berghaus News a happy, blessed Christmas, with good luck and health for the New Year!

Your Peter Berghaus Team

### Imprint

Published by:  
Peter Berghaus GmbH  
Herrenhöhe 6  
D-51515 Kürten-Herweg

Editor:  
Dieter Berghaus  
Text and layout:  
Michael Kronenberg

Circulation:  
55,000 copies in German  
1,000 copies in English

Printers:  
Druckerei Brocker  
D-51515 Kürten-Dürscheid

## Invitation to traffic light training 2011

In our role as manufacturers, we have already turned around 1,300 employees from authorities, road maintenance depots, construction companies and those responsible for traffic safety into "traffic light experts".

Once again in **February and March 2011** we will be offering our coveted traffic light training courses, providing participants with necessary basic know-how about traffic light systems, making reference to current statutory regulations, e.g. the **new RiLSA 2010**, the ZTV-SA and the TL-LSA 97. The course looks at practical examples for drawing up signal timetables and how to implement these phase plans in the traffic light controllers.

**Course I** (always Monday / Tuesday) is ideal for beginners or users of mobile traffic light systems for alternating one-way, T-junction or crossroads traffic situations. For those with more advanced knowledge, **course II** (always Wednesday / Thursday) works on the basis of the know-how from course I and consists of a user seminar for crossroads system controllers. Learn the simple graphic procedure for drawing up signal timetables with our traffic light software and how to implement the resulting phase plans in your controllers. Comprehensible software solutions are available for convenient laptop programming of our portable

traffic light system MPB 4400 and the crossroads controller EPB 12/48. As a premiere, we will be introducing you to



From the simple alternating one-way traffic system through to complicated crossroads: we offer training in the practical use of traffic lights for road works

the **new Ampel Tools software** during the courses.

You are invited to attend the courses in **Kürten**, North Rhine-Westphalia in week 7 or in **Mellingen**, Thuringia in week 11.

Take this chance to have your service staff trained, as good qualifications are always worthwhile!

The registration flyer for the courses is now available on our website:

[www.berghaus-verkehrstechnik.de](http://www.berghaus-verkehrstechnik.de)

/Courses unfortunately available only in German/

**Course 1** lasts two days (Monday and Tuesday) and deals with the following topics:

**Day 1:**

- Brief explanation of ZTV-SA, TL-LSA and the **new RiLSA 2010**
- Calculation of signal phase plans for alternating one-way traffic systems
- Implementing the phase plans in traffic lights MPB 3200, 3400 and MPB 4400
- Fault-finding and troubleshooting.

**Day 2:**

- Laptop calculation of signal phase plans for T-junction and crossroads signal systems
- Implementing the phase plans in traffic light systems MPB 3400 and MPB 4400
- Instructions on using the SMS remote monitoring system

**Course II** lasts two days (Wednesday and Thursday) and deals with the following topics:

**Day 1:**

- Explanation of RiLSA 2010, TL-LSA
- Writing signal timetables on laptops
- Implementing the signal timetable in controllers EPB 6000 S, EPB 2400 and EPB 12 together with EPB 48
- Instructions on using the SMS remote monitoring system

**Day 2:**

- Practical applications for controllers EPB 6000 S, EPB 2400 and EPB 12 together with EPB 48
- Analytical fault-finding and troubleshooting
- Video detector with presence detection

## Awards for long-standing employees



Group photo of the long-standing employees with the company founder and Managing Directors (MD), left to right: Ralf Gressler (MD Peter Berghaus GmbH), Uwe Banischewski (30 years), Axel Keller (MD AVS Overath GmbH), Christian Michels (10 years), Christoph Elsner (10 years), Guido Krämer (25 years), Andreas Dorff (30 years), Siegfried Plötz (10 years), Peter Berghaus (company founder) and Dieter Berghaus (MD AVS Holding GmbH)

In September we had altogether 6 reasons to celebrate with long-standing employees, and so the whole workforce gladly took up the invitation from the company management. Together with the colleagues from our partner company AVS Overath GmbH, a splendid buffet in the Zur Linde pub in Kürten-Spitze was duly enjoyed by all.

Uwe Banischewski and Andreas Dorff both look back on a total of 30 years working for Peter Berghaus GmbH.

Guido Krämer celebrated 25 years with AVS Overath GmbH, the traffic safety service provider (formerly M+V GmbH). His colleagues Christian Michels,

Siegfried Plötz and Christoph Elsner have each been with the traffic safety professionals since 2000.

The management expressed its gratitude and appreciation to all the long-standing employees, who were congratulated by all their colleagues. Following a brief speech after which the certificates were handed over, the relaxed part of the proceedings began with a copious hot buffet and plenty of draught beer.

Everyone enjoyed the informal, cheerful setting to share all the latest news with their colleagues.

## 30 years at the service of traffic safety



The colleagues at AVS Lehrte GmbH congratulate Barbara Schröter on completing 30 years with the company

Barbara Schröter is without doubt the heart and soul of AVS Lehrte GmbH. In August she celebrated a total of 30 years with the company.

On 1 August 1980, Ms. Schröter started to train as an office clerk with what was formerly AED GmbH, the company that eventually became AVS Lehrte GmbH. Since then, she has done the wages for the traffic safety professionals as well as working in HR.

Managing Director Jens Selling commen-

ded her loyalty to the company in a small ceremony, extending the congratulations of all AVS employees. The corporate motto naturally also had a role to play, with all kinds of road signs decorating the bouquet of flowers for Ms. Schröter. Everyone was very pleased when she then opened the plentiful buffet by cutting the large cake which had been lovingly designed to look like German road sign "274-53" (30 km/h).

## Remote SMS switching with feedback

Berghaus's new additional module "SMS remote switch with feedback" now makes it easy for our customers to use their mobile phones for remote operation of traffic lights, advance warning blinking lights, illuminated arrows, LED pre-warners and many other traffic technology products. The SMS remote switch is mounted as a module in the waterproof housing and can be plugged into the Berghaus traffic light for example as the need arises. The power supply (12 VDC) comes directly from the traffic light. The SMS remote switch can be actuated from practically anywhere on earth with a functioning mobile phone network.

A short text such as "red" or "green" that is freely defined in the user software triggers a gateway traffic light for controlling access to company premises. Confirmation that the SMS remote switch has received the command is also sent back by another text such as "RED coming", which again is freely defined on the PC.

The mobile phone numbers with remote switching authority can be entered in the easily understood user software. Here too there is a choice of whether all incoming phone numbers are always accepted or whether only the numbers deposited in the phone book are authorised.

The software also defines whether the feedback text is sent just to the sender of the SMS command or whether up to four other numbers also receive SMS confirmation of every commutation.

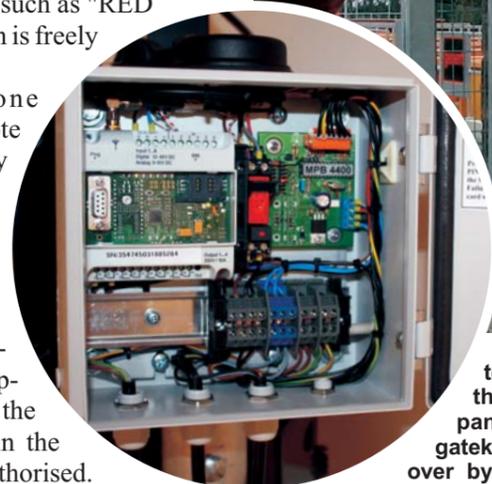
On request, the SMS module also sends a text when the electronic component of the module registers power failure on site. The SMS remote switch is fitted with a

buffer battery so that the text can still be sent even when there is no operating voltage.

You can see that the new SMS remote switch module offers many interesting possibilities. Perhaps you also have an idea for a possible application – just talk to us about it!



top: Traffic light at the entrance to a company site which the gatekeeper can change over by SMS between red and green as the need arises



top left: View inside an SMS control unit for our mobile traffic light system MPB 4400. Here the SMS feature switches all the traffic lights at a bridge construction site to "continuous red" to let emergency vehicles through without any oncoming traffic. The system then reverts to automatic mode with another SMS or at the end of a certain period of time adjusted in the software.

## Video: the ABC of roadworks safety

**Instruction pursuant to Section 12 Labour Protection Law – Kirschbaum Verlag in cooperation with "Büro für Verkehrstechnik J.-R. Oppermann"**

/Video film unfortunately only available in German/ Entrepreneurs and senior executives face a particular challenge in their fiduciary duty to instruct employees about health and safety in the workplace. Section 12 of the Labour Protection Law states that new employees in particular, also including temporary staff, must receive corresponding instruction about the company and their particular tasks before beginning work.

Instructions also have to be provided when the tasks change and when new equipment or technologies are introduced. The training film "Das kleine 1x1 der Baustellensicherheit" /The ABC of roadworks safety/ by the Kirschbaum Verlag helps you to provide corresponding instruction for your staff.\* In an understandable, vivid fashion, construction worker "Mario" provides both new employees and the "old hands" with clear explanations about the principles

involved in safeguarding roadworks. Among others, this includes

- personal safety gear
- correct staff conduct in public traffic situations when assigned to roadworks
- correct installation of road signs and warning devices
- how to avoid expensive mistakes.

The lively, practical presentation of constant potential hazards in everyday working situations keeps the employees' attention while they watch the film and ensures that they take due notice of its contents. Your liability risk as the responsible entity is then further minimised when the employee signs the training verification (disc 2).

Furthermore, the training film helps you to make an important contribution to the safety of colleagues and employees.

For more information, go to

[www.kirschbaum.de](http://www.kirschbaum.de)

\* This instruction film does not replace the kind of training required pursuant to MVAS 99.

## German Roadside Equipment Congress 2011 in Neuss

Peter Berghaus GmbH is represented on many professional bodies. We are also a member of the Industrial Association Roadside Equipment e.V. (IVSt), where we contribute our know-how in the Traffic Safety Department.

Under the auspices of the Federal Ministry of Transport, Building and Urban Affairs and in cooperation with the German Road and Transportation Research Association (FGSV), the 5th German Roadside Equipment Congress is being held from 16 to 17 March 2011, this time in Neuss.

The Roadside Equipment Congress provides stimuli for the future shaping of regulations, directives and standards. Many professional experts traditionally use this opportunity to share their experiences with other competent contacts, elucidate points of view, discuss problems, find joint solutions and formulate recommendations.

Following the successful, well attended Roadside Equipment Congresses of recent years, the 5th German Roadside Equipment Congress 2011 will once again act as branch meeting point for all interested entities from administration and industry.

The IVSt website [www.ivst.de](http://www.ivst.de) extends an invitation to all interested entities involved in

- traffic safety
- safeguarding construction sites
- road signs
- lane marking
- restraint systems
- tendering and contracting procedures

As usual, the technically first-rate congress will be divided into five working groups where experts will give practical talks on the individual subjects.



The aim of the Roadside Equipment Congress is to provide stimuli for the future shaping of regulations, directives and standards. Each working group is concluded by issuing recommendations for treating the elucidated issues in future, which are then published in the congress proceedings.

The work begun in 2009 in Würzburg to establish a trade exhibition to accompany the congress will be continued in Neuss to give the event an even more practical slant in close physical and contents-related integration between the congress and the exhibition. In this way, at the same time the association also makes a contribution to general advanced training in the branch.

Peter Berghaus GmbH and our service provider colleagues of AVS Traffic Safety will once again be taking an active part at this trade exhibition. See you in Neuss!

## AVS Traffic Safety expanded in Hesse

Wetzlar: new site for the "traffic safety professionals."

Construction work on our roads always has to be carried out in compliance with extensive directives, regulations, technical delivery conditions and contract conditions. In the interest of providing safe road transportation for all road users, this demands special professional qualifications and continuous advanced training for the staff involved.

Particularly when it comes to the responsible task of installing and professionally servicing traffic safety equipment, it is reassuring to know that for years now, many regions in Germany have been able to rely on a competent service partner: AVS Traffic Safety. The AVS network is being constantly expanded for even greater customer proximity. And so we are very pleased to announce that the eleventh AVS site has recently been opened in Germany.

AVS Overath GmbH's Managing Director Axel Keller and the brand-new branch manager Tobias Schweitzer sent corresponding information to all customers, proudly announcing that the company has opened a new branch. As of 1 June, *Schweitzer Baustellenkontrollservice* became part of the AVS Traffic Safety Group as the eleventh base.

The new branch of AVS Overath GmbH will in future be called the "Wetzlar Branch". Needless to say that

Schweitzer's complete service team has been taken on with all employees.

In future too, attention will continue to focus on professional maintenance of traffic safety equipment.



AVS branch manager Tobias Schweitzer in Solms near Wetzlar

Branch manager Tobias Schweitzer and his AVS team look forward to continued trusting and successful cooperation under their new name.

To find out more about the comprehensive range of services concerning all aspects of professional roadworks safety and maintenance at AVS's meanwhile eleven German sites, visit AVS on the internet at:

[AVS-Verkehrssicherung.de](http://AVS-Verkehrssicherung.de)

## German Road and Transportation Congress

Most road users only notice them in passing at many motorway roadworks where they provide reliable separation from oncoming traffic. But now the approx. 1,500 congress participants and trade visitors at the German Road and Transportation Congress had an opportunity to take a close-up, hands-on look at our ProTec mobile crash barrier system.

The congress with accompanying Road and Transportation exhibition was held from 15 to 17 September 2010 in Congress Center Rosengarten in Mannheim. About 150 trade exhibitors were present. The German Road and Transportation Congress is organised by the German Road and Transportation Research Association (FGSV). The FGSV is a nonprofit organisation whose main objective consists in furthering the ongoing development of technical knowledge in the overall road and transportation sector.

It was founded back in 1924 and today delegates more than 2,100 employees to numerous transportation boards and committees in administration, industry and science, where we are also involved as an FGSV member company.

The congress is held every two years in a different German city. For example, in 2008 it was hosted by Düsseldorf and two years before that by Karlsruhe.

For further information, go to:

[www.fgsv.de](http://www.fgsv.de)

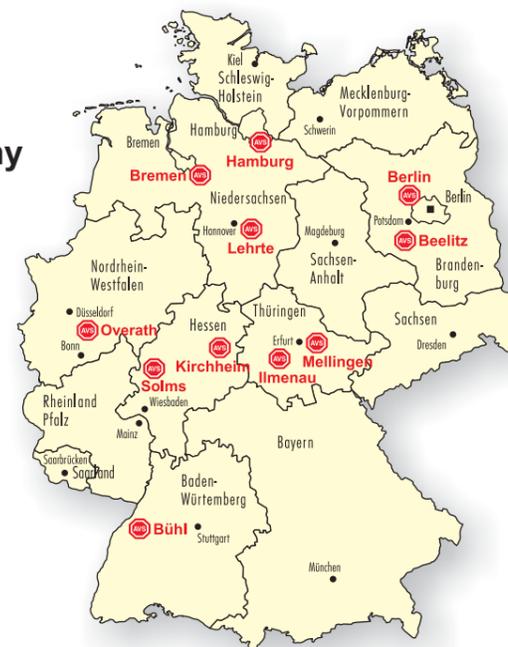


Hands-on mobile crash barrier system ProTec 120 and ProTec 160 with force-fit transition (real-size model; only the original element length of 10 m has been shortened)

Now 11x at your service in Germany



the traffic safety professionals!



Our service provider, the AVS Traffic Safety Group, is at your service in word and deed at 11 sites throughout Germany with more than 250 well trained and skilled experts

Among others, AVS's extensive hire pool includes:

400 radio-controlled traffic lights; 80 traffic light crossroads controllers; 20 mobile tram crossing gates; 300 km of mobile crash barriers and directing curbs; thousands of RAL road signs; lane movement signs for diversions and large signs; crossing-out devices for cancelling

out stationary signs; hundreds of TL sign stands and large erection systems; temporary traffic control light systems; pre-warning blinking lights; countless TL safety beacon systems; marking machines and material for applying BAST-tested lane marking foil or paint for changed traffic situations and many other materials for professional traffic safety

# ProTec: fast installation, dismantling and conversion = less congestion

The Federal Ministry of Transport recently announced "improvements in roadworks management" as part of a plan of action for logistics and freight transportation policy. The government's intention is to promote additional work at construction sites to counteract the development of traffic congestion on the motorways. In future, tendering procedures should reward companies that offer to work on Saturdays, Sundays and at night.

For years now the motoring organisations have been advocating better roadworks management so that the flow of traffic at construction work on the motorways is hindered as little as possible.

High safety standards prevail at German motorway roadworks to the benefit of both the employees working on the sites and all road users. However, considerable traffic hindrances are caused by setting up changed road layouts, for example with mobile crash barriers to protect road users from on-coming traffic. Congestion on the motorways is inevitable – good roadworks management can only have a positive impact on the duration and scope of the hold-ups.

Already during the tendering phase, great

attention must be paid to handling the necessary mobile road restraint systems. How is the system brought to the site? How is the crash barrier erected? How much space is required for installation? Which logistics concepts does the contractor provide? How long does it take to proceed with the necessary installation, conversion and dismantling work? Which day-time and night-time productivity rates can the company achieve per metre of crash barrier? – and always in the context of keeping traffic hold-ups as short as possible to reduce congestion.

While offering comparable containment levels, the systems available on the market often differ considerably in installation performance and necessary transport capacity. For example, the choice of a heavy system is sure to require more truck-loads than a lightweight mobile crash barrier. It is obvious that shorter elements will necessitate more handling and a greater installation workload than crash barriers measuring 10 metres in length that are fastened by tightening just two bolts per element.

It is therefore no great surprise that our ProTec crash barrier system permits very

high daily installation rates, as for example on the A9 Nuremberg to Munich motorway between the Neufahrn and Allershausen junctions. Our customer **FVS GmbH** erected the mobile **ProTec** crash barriers and dismantled them again after a construction period of nearly four months.

Installation took place overnight between 25 and 26 March 2010 with a night-time installation rate of 4,160 metres, while a further 4,760 metres of ProTec 120 were erected in the following night. In other words, **nearly 9 km** of crash barriers were erected in **only two nights**, with just one loading crane truck and six fitters working on site.

The necessary conversion of the road layout 4+2 required as part of the construction work pursuant to RSA traffic regulation plan D II/5a and D II/5b took place overnight from 21 to 22 May. The two lanes heading for Munich had to

be moved from the outside of the right-hand carriageway to the inside, i.e. the crash barrier was moved by approx. 2 metres. Working with altogether three loading crane trucks, altogether **7,375 metres** of ProTec were modified in **just this one night**, thus reducing traffic hold-ups to an absolute minimum. The dismantling work was also carried out overnight and similarly brought to a complete finish in two nights in mid July (picture on the left).

These facts show quite clearly that by choosing the right mobile crash barrier and the right contractor, it is possible to make an active contribution to reducing traffic disruptions, congestion and accident risks when setting up, converting and dismantling changed road layouts to an absolute minimum of time.

**It can be so easy to reduce congestion at roadworks!**



## A3: Mobile crash barrier ProTec 160 in Cologne

In the course of upgrading the A3 motorway to eight lanes, our service company AVS Overath GmbH erected the mobile crash barrier ProTec 160 for the roadworks between the Cologne-Mühlheim and Cologne-Dellbrück junctions.

In only four days, the AVS experts set up the building site and erected altogether **5,080 metres** of mobile crash barriers.

As in so many other previous construction projects, here in Cologne the swift, simple installation of the ProTec systems once again paid off.

A clever logistics concept together with

every 10 metres.

The A3 motorway is at its narrowest between the Cologne-Mühlheim and Cologne-Dellbrück junctions, with traffic flowing through three narrowed lanes in each direction. The currently available width is around 25 metres (for 6 lanes and the central reservation: there is no hard shoulder here) is being expanded to a future width of around 39 metres (8 lanes and the central reservation plus 2 hard shoulders).

The **planning-relevant width** of ProTec 160 is just **18 cm** so that the crash barrier does not restrict traffic any more than necessary in this already narrow section of motorway. This factor, the high containment level (H1) at an ideal structural height of 80 cm and the swift installation on site are without doubt arguments in favour of our mobile crash barrier ProTec 160.

This naturally makes it easy for the relevant authorities to opt for the mobile crash barrier system ProTec.



Mobile crash barrier ProTec 160 on the A3 motorway between Cologne-Mühlheim and Cologne-Dellbrück

the unloading and positioning of the 10 m ProTec elements in one single operation achieves high installation rates with minimum staffing: after all, once the elements have been set down on the road surface, all that's needed is to fix one screw on the right and left



## Good impression – no impression

Rubber-based transportable road restraint systems verifiably protect the road surface.

Evidence has been repeatedly provided that ProTec 120 does **not leave any impression** on open-pore asphalt road surfaces (OPA) even during hot outside temperatures at the height of summer.



Mobile crash barrier ProTec 120 on new OPA road surface: A3 motorway at Cologne

ProTec crash barrier elements stood for approx. 3 months on the new **OPA road surface** on the upgraded eight-lane section of the **A3 motorway** between Cologne-Heumar junction and the Dellbrück exit. At the end of the construction period in September 2008, **no damage** to the new OPA road surface was ascertained during final inspection in the presence of the NRW State Road

Construction Authority. The rubber-based crash barrier proved successful on the demanding OPA road surface.

Another example was provided recently at roadworks on the **A9 Nuremberg-Munich motorway** between 20 May and 16 July 2010. Thanks to a wonderful summer during this period, the German



Mobile crash barrier ProTec 120 on the A9 motorway Nuremberg-Munich

Weather Service measured air temperatures well in excess of 30°C at Munich airport. It is quite certain that the temperatures directly over the asphalt surface were far higher. This really put ProTec and the **OPA road surface** to the test. But once again the rubber-based standing surfaces did their job very well: after dismantling the mobile ProTec 120 crash barriers, here again **no impressions** or any other signs of damage to the road surface were ascertained by the motorway authority.

ProTec therefore makes a major contribution to roadworks safety – while at the same time also protecting state-of-the-art motorway surfaces.



# Peter Berghaus GmbH

## Traffic Technology • Mobile Crash Barriers

Herrenhoehe 6 • D-51515 Kuerten • phone +49 22 07 96 77 0 • fax +49 22 07 96 77 80

www.berghaus-verkehrstechnik.de • mail@berghaus-verkehrstechnik.de