New: safe city roadworks with ProTec 50 City

At the INTERTRAFFIC in Amsterdam, for the first time we will be presenting the latest innovative addition to the ProTec family: ProTec 50 City. This is the “handy” version of the proven ProTec 50 mobile crash barrier, rated specifically for use in the urban setting. As with all ProTec crash barriers, reflectors are fastened at regular intervals on both sides at the top and bottom of the elements, thus eliminating the need for additional yellow road markings parallel to the barrier. The wide water opening prevents any dangerous accumulation of rainwater at the barrier. The low element weight of just 23.5 kg per metre and the easily handled element length of 2 metres make this crash barrier ideal for city use. The planning-relevant width of just 10 cm is even narrower than a road marking line.

For the Intertraffic 2016 in Amsterdam

• Overview: safely through the roadworks with mobile ProTec crash barriers
• Perfect control: mobile traffic light technology from Berghaus at a glance
• Innovation at the Intertraffic: mobile remote traffic-light controller EPB24
• New Berghaus product catalogue 2016 / 2017
• 120 years in the service of traffic safety
• Professional traffic safety, naturally with AVS – your Number One service partner
• BAB 2: swift modifications to 10 km of crash barriers
• Berghaus trains around 100 traffic light experts

NEW

2016 Intertraffic

Contents at a glance

Your entrance ticket to the INTERTRAFFIC 2016

Are you planning to attend the INTERTRAFFIC in Amsterdam and would you like to visit our stand to find out about all the latest products from Berghaus Traffic Technology and AVS Traffic Safety Professionals? Then we will gladly deal with your admission, and cordially invite you to the trade-fair, as this year once again we have a number of free tickets for our loyal customers. Would you like to take up this sincere invitation? Then please use the registration link on our homepage berghaus-verkehrstechnik.de to register free of charge directly with the trade-fair organiser RAI by 28 March.

An entrance fee of €40 will be charged for online registrations made after 28 March or later registrations without an invitation from an exhibitor. RAI will be charging admission of €70 on the trade-fair days.

Exact documentation of your roadworks maintenance

New: roadworks maintenance with Service Control GPS

Punctually for the INTERTRAFFIC, we present the new Service Control GPS with innovative technology in an even handier design. The Service Control GPS allows for comprehensive control of all maintenance criteria demanded in point 7 (6) ZTV-SA 97 in next-to-no-time, with reliable recording of your daily inspection trips. The system gives you counterfeit-proof documentation stating the date, exact time and GPS coordinates, together with the work performed. You can thus reliably prove at any time that and when you fulfilled your inspection obligations and that the road signs, markings, directing elements, traffic systems, lighting systems and road restraint systems at the roadworks have been checked beyond any shadow of doubt. During every inspection, the respective CURRENT status of the traffic safety measures is registered using the menu, with electronic documentation of the maintenance work that has been performed.

Service Control GPS also gives customers or awarding road construction authorities reliable proof that the controls specified in the framework of the road safety obligations have been regularly fulfilled on-site. The new handy Service Control GPS comes in a robust housing with IP code 65. The innovative OLED graphic display is always easy to read. The charge status and satellite signal strength are clearly shown, while the integrated clock and GPS module is responsible for precise position tracking. It is easy to change over to the new system because the RFID reader also reads the Berghaus roadworks ID chips that have been used up to now.

Four soft keys permit intuitive use of the Service Control GPS, which can save up to 499 maintenance assignments. Digital signatures have been set up for counterfeit-proof data storage and printout. Long operating phases are ensured by the Li-Po high-powered battery. The accessories include a vehicle battery charger with holder so that the Service Control GPS has a defined position in the maintenance vehicle and is always ready to use.

New mobile crash barrier ProTec 50 City: ideal choice for professional traffic safety in urban settings. Handy element length of 2 m and low weight of 23.5 kg per metre makes it ideal for flexible use.
Overview: safely through the roadworks with mobile ProTec crash barriers

Perfect control: mobile traffic light technology from Berghaus at a glance

**ProTec 50**
With just 10 cm planning-relevant width, the new ProTec 50 is the narrowest mobile road restraint system by Berghaus up to now, and also the lightest, weighing just 28.7 kg per metre. Containment level T1/W2, ASI value A. All crash barriers in the ProTec family are always connected by a force-fit transition – naturally also as a cross-system solution or connected to stationary road restraint systems.

**ProTec 100**
The compact mobile crash barrier ProTec 100 fulfils containment level T3/W2 with an outstanding ASI value of 0.2 (A). Only 12 cm is needed as planning-relevant width. Another advantage of all ProTec barriers is that the flexible reflectors are protected in recesses and can’t be torn off by passing vehicles. Furthermore, they are always fitted at the same height on all ProTec systems.

**ProTec 50 City**
The new mobile crash barrier ProTec 50 City is the ideal choice for professional traffic safety in the urban setting. The "handy" element length of 2 m, a planning-relevant width of 10 cm and the low element weight of 23.5 kg per metre make this crash barrier particularly suitable for city use while offering a containment level of T1/W2 and an ASI value of A. Tested in impact tests according to the strict stipulations of DIN EN 1317 for 80 km/h. In addition, the speed limit through urban roadworks is usually reduced to 30 km/h which makes the ProTec 50 City even safer!

**ProTec-Tor 50**
ProTec-Tor – speedy access for emergency services. The ProTec-Tor can be opened quickly by hand by the police, fire brigade or emergency services. All it takes is for a cotter pin to be pulled in front of and behind the ProTec-Tor elements to remove the locking wedge and open the crash barrier. Fitted at regular intervals or at strategic points e.g. before and after tunnels, with the ProTec-Tor the crash barrier can be opened in next-to-no time for all emergency services to drive through – no tools needed!

**ProTec 120 / ProTec 121**
The ProTec 120 mobile crash barrier manages with a planning-relevant width of just 14 cm in containment levels H1/W5 and T3/W2. The new model variant ProTec 121 with the same dimensions has been successfully tested with T3/W2. All ProTec systems have a wide opening to let water through, preventing any puddles from accumulating at the barrier.

**ProTec 160**
The mobile crash barrier ProTec 160 fulfils containment level H1/W4 and needs a planning-relevant width of just 18 cm. ProTec 160 can be used for all applications as per TUV-SA (A to E).

**ProTec 120 / ProTec 121**
The ProTec 120 mobile crash barrier manages with a planning-relevant width of just 14 cm in containment levels H1/W5 and T3/W2. The new model variant ProTec 121 with the same dimensions has been successfully tested with T3/W2. All ProTec systems have a wide opening to let water through, preventing any puddles from accumulating at the barrier.

**ProTec 160**
The mobile crash barrier ProTec 160 fulfils containment level H1/W4 and needs a planning-relevant width of just 18 cm. ProTec 160 can be used for all applications as per TUV-SA (A to E).

**Perfect control: mobile traffic light technology from Berghaus at a glance**

**MPB 1400**, quartz-controlled signal system as per TL-LSA 97 for alternating one-way traffic (export version also for T-junction and crossings/roads)
- Simple handling with menu-driven infrared remote control
- Menu language in German, English, French, Spanish, Dutch, Italian or Turkish (other languages possible)
- Fixed-phase mode, manual mode with continuous red or continuous green, blinking lamp, lamps off
- Can be extended by simple addition of identical signal heads to obtain T-junction or crossings/roads control (for export)
- Standard halogen lamp or innovative LED technology on request with night-time dimming

**MPB 3400**, radio-controlled signal system, vehicle-actuated for alternating one-way traffic, can be extended through to crossings/roads control
- Simple handling with menu-driven handheld terminal for up to 4 signal groups
- Programming possible for up to 12 signal groups with maximum 24 monitored signal heads and up to 24 parallel signal heads per laptop with AmpelTools
- Printout of all relevant data as per RiLSA and TL-LSA possible from the working traffic lights on site
- Timed program changeover with day and week programs for flexible traffic control
- Also for pedestrians, local public transport, coordination of progressive signalling, SMS module, fire brigade control, and much more besides.

**MPB 4400**, radio-controlled signal system, vehicle-actuated for alternating one-way traffic, can be extended through to crossings/roads control
- Technical features as MPB 3400, with the following in addition:
  - All signal heads identical: can be extended immediately by simple addition of more signal heads to obtain T-junction or crossings/roads control - technically also by radio. (To comply with the TL-LSA, in Germany traffic lights for crossing traffic flows must be connected by cable).
  - In contrast to the competition, a crossings/roads traffic light consists of four identical full traffic lights that can be combined at random, instead of one transmitter and three receivers.
  - Different modes can also be mixed, for example: main road with green phase extension and side road (or roadworks exit) on request

**MPB 3200**, radio-controlled signal system, vehicle-actuated for alternating one-way traffic, can be extended through to crossings/roads control
- Technical features as MPB 3200, with the following in addition:
  - All signal heads identical: can be extended immediately by simple addition of more signal heads to obtain T-junction or crossings/roads control - technically also by radio. (To comply with the TL-LSA, in Germany traffic lights for crossing traffic flows must be connected by cable).
  - In contrast to the competition, a crossings/roads traffic light consists of four identical full traffic lights that can be combined at random, instead of one transmitter and three receivers.
  - Different modes can also be mixed, for example: main road with green phase extension and side road (or roadworks exit) on request
The new mobile traffic-light controller EPB 24 multi-
processor controls temporary signalling systems at
major crossroads with minimum timing and cabling
requirements.

The master and slave controllers in the EPB 24 series
can be used for local control of up to 24 signal groups
with maximum 48 power cards for 96 fully monitored
three-aspect LED signal heads. The controller is
programmed by PC or laptop with the menu-driven
graphic AmpTools software. All necessary signal-
related records can be printed out directly from the
controller for checking and as verification.

The control components for the master controller and
individual slaves are accommodated in IP 55 cabinets.
The operating panel and all control-relevant parts for the
master are accommodated in separately accessible
locked cabinet compartments in 19° design. Depending
on the application, the customer can put together his
own EPB 24 master/slave controller system from four
different types.

For example, there is an EPB 24 master with power cards
for 8 signal groups and a master in a small housing with-
out power cards. There are also two different versions
for the EPB 24 slaves: on the one hand with power cards
for 8 signal groups, or as a slave for 4 signal groups in a
small housing that can be fitted to a mast.

The advantage of using a local controller system such as
EPB 24 that can have several slave controllers physically
remote from the master is that far less cabling is required
because it is no longer necessary to bring all cables toget-
her to a central point above the carriageways. All that's
needed is to connect the traffic light signal heads with the
nearest controller.

The controllers themselves only need two cables: one for
the data bus and one for the power supply. There is no
need for central 230V supply: the individual controllers
can be simply connected individually to the nearest
230V power supply point, depending on the conditions
on site.

Our new product catalogue 2016 / 2017 is being
sent out to customers right on time for the
INTERTRAFFIC. 68 colourful pages give an
overview of our comprehensive range of products.

Well over 200 illustrations and detailed explanations
indicate the strength and diversity of Peter Berghaus
GmbH: innovative traffic technology from a single
source – naturally straight from the manufacturer.

The new catalogue is organised into product groups
and includes for example:

- LED flashing and advance warning lights, LED
temporary traffic control light systems, LED
illuminated arrows, rotating beacon indicator lamps,
mobile pre-warners and warning trailers, mobile
traffic lights and crossroads controllers, software for
traffic-light control, mobile mounting devices for
traffic lights and signs, modular large mast systems,
LED lighting systems, road marking films, TL-
beacons, mobile crash barriers for safeguarding
roadworks on motorways and in urban settings,

- together with many other traffic technology products.

You can naturally also download the current product
catalogue with sales prices from our website, together
with all brochures and operating manuals, quite
openly at any time without having to register:
berghaus-verkehrstechnik.de

In good Berghaus tradition, at the end of November the
staff from Berghaus and AVS Overath came together for
a joint celebration of their long-standing employees.
Michael Kronenberg was honoured for two 10-year peri-
ods with the company. The qualified radio and TV techn-
ician was first employed by Berghaus from 1991 to
2001, initially in production and then a period in service
and rentals, followed by many years on the in-house sa-
les team. In 2005 he came back to Berghaus, where his
technical background and good knowledge of
Berghaus’s comprehensive product range meant that he
was destined for designing technical descriptions,
catalogues and brochures. Today he is responsible for
almost all printed matter by Berghaus and AVS.

Guido Krämer joined Berghaus in 1985 as an apprentice
electrician, with his training taking him through all the
departments from production through to service. He
quickly became a traffic light expert. After completing
his vocational training, he joined the rentals department,
where he continues to work today in this interesting,
varied aspect of traffic safety. He makes successful use
of his more than 30 years of professional experience as
dispatcher for AVS Overath, where he runs and coordi-
nates the assignments for service teams dealing with mo-
bile traffic light systems, signage and traffic safety.

Andreas Dorff has accumulated an impressive tenure of
35 years. He began his career at Berghaus as an apprenti-
cé electrician in 1980. Back then, production and rental
activities were still all in one and the same company.

Andreas Dorff therefore swiftly acquired comprehensi-
ve professional know-how in many areas, including
rentals now and then in the metalworking shop. Today he
is involved among others in the production of mobile traf-
fic light systems, LED illuminated arrows, LED blin-
kering and flashing lights, LED temporary traffic control
light systems and much more besides. Many apprentices
have acquired their know-how about producing
Berghaus’s extensive product range from Andreas Dorff.
Uwe Banischewski also looks back on 35 successful
years with the company. He joined Peter Berghaus
GmbH in 1980 after completing his training as a power
electronics technician. For many years he was involved
in the production of traffic light controllers. Thanks to
his wealth of professional experience in this field, today
Uwe Banischewski works on the development and pro-
gramming among others of the user-friendly software
for our mobile crossroads controllers and runs the tech-
nical support for this product segment. For more than
20 years, he has joined forces with operations manager
Alfred Wurth to hold the popular traffic light training
courses, which means that he has therefore trained well
over 2,000 traffic light experts.
Berghaus trains around 100 traffic light experts

When it comes to professional traffic safety on German roads and motorways, the AVS Traffic Safety Group is without doubt your Number One contact partner. With a network of around 400 well trained, experienced AVS experts at currently 12 AVS sites in Germany, we ensure swift, professional and low-cost implementation of regional and national traffic safety projects.

AVS is the compact supplier of professional traffic safety solutions on all roads and motorways, including major projects and also for example in the framework of PPP models (public/private partnership).

The range of services extends from initial planning, compilation of road sign and signal plans, applications for approvals and traffic law provisions, setting up diversions with signage and mobile roadworks marking with foil, paint or plastic materials including demarking with the AVS PeelJet after the end of construction without leaving any residues while protecting the road, installation, maintenance, modification and dismantling of TL-beacons and mobile ProTec crash barriers, LED signage and mobile congestion warning signs as well as regular inspection and maintenance of the construction site protection as a 24/7 service, and much more besides.

AVS is your expert service partner supplying all you need for safe traffic control from a single source. You too can benefit from our wide range of experience and the extensive AVS network: simple entrust your road works facilities to AVS, your Traffic Safety Professionals!

Once again this year, around 100 employees from specialist contractors for traffic safety and signalling technology, road traffic authorities, road maintenance depots and municipal depots attended our four traffic light training courses in Kürten (NRW) and in Mellingen (TH).

Given the great demand for our traffic light training, the four courses were fully booked within just a few days of issuing the invitations. The two-day seminars by our traffic light experts are consecutively structured, addressing beginners on the one hand and those with advanced knowledge on the other. The course contents included the necessary regulations and technical requirements for mobile traffic light systems, such as the Technical Delivery Conditions for Mobile Traffic Light Systems (TL-LSA 97) and the new version of the Guidelines for Traffic Signal Systems (RiLSA 2015), published in September 2015. Instructions were also provided on how to calculate and compile signal timetables correctly. The main focus once again was on the practical implementation of the compiled signal timetables. Operations manager Alfred Wurth and technician Uwe Banischewski led the participants through the various topics and passed on valuable tips and tricks accumulated from their 35 years of professional experience with mobile traffic light systems.

Were you unfortunate enough not to get one of the coveted places on the traffic light training courses held at the start of the year? We can gladly provide individual courses on separate dates which we as manufacturers for mobile traffic light systems adapt flexibly to the special needs and specific machinery used by the customer, either in our training facility or naturally “inhouse” at your site. Please contact us so that we can send you a corresponding quotation.

In November, the colleagues from AVS Gladbeck started with the comprehensive modification of road safety measures at roadworks on the A2 motorway between Bergkamen and the motorway interchange Dortmund-Nordost. As the construction project progressed, part of the around 26 km of ProTec 100 mobile crash barriers had to be moved with corresponding modifications to the road layout, working at night. To minimise the impact on the flow of traffic, all the tasks to be performed by the AVS were carried out in just four nights between 8 pm and 5 am. All work along this section of the motorway had to be finished as soon as the morning rush-hour began.

Extra staff were needed to complete the work in this tight time window. Colleagues from other sites joined the experts from AVS Gladbeck at short notice, and everything ran smoothly as all AVS staff are trained to the same standards. On average, about 40 AVS staff were deployed on site for each shift, together with their vehicles and the necessary machinery.

In the four nights, altogether 10,200 metres of mobile ProTec 100 crash barriers were dismantled, modified from phase 3 to phase 4 and then reinstalled again in a changed road layout with the corresponding emergency refuge areas.

At the same time, the extensive signage and beacon guidance elements were dismantled and relocated, road markings that were no longer needed were correctly removed and way over 30 km of thick marking film were applied with primer for the new road layout. Roland Monjau, branch manager of AVS Gladbeck, was highly satisfied with the teams and their achievements, particularly with how the work had gone smoothly during the night shifts, and praised the good cooperation between AVS colleagues from the various sites.

Here once again the excellent AVS network with its uniform standards has paid off. StraßenNRW (North Rhine Westphalia highway agency) was also very pleased with the fast, reliable completion of the modification work to keep traffic flowing safely.

Our photo shows the major roadworks set up in the summer by AVS Overath, Gladbeck branch, on the A2 motorway near Bergkamen, which has been modified in eight shifts. Among others, this entailed moving more than 10 km mobile crash barriers.

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