

MOVE

The magazine for show technology **02|2025**

Conveying emotions to the audience

Interview with Carsten Kümmel,
Sound Engineer

XNG

XNG series from OMNITRONIC:

Versatile sound in a compact
format

A WOW experience for 50,000 people
Hardcore Festivals in the Netherlands

Better safe than sorry
Security at large events

 **STEINIGKE**
SHOWTECHNIC

Antari[®]
FOG MACHINE



DNG-50 LOW FOG GENERATOR



ANTARI LIGHTING & EFFECTS LTD. WWW.ANTARI.COM

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Dear readers,

Winter is just around the corner, bringing with it a time when we not only relax, but also pause to reflect and look ahead. For the events industry, this means that the big summer productions are behind us and now there is room for reflection, new ideas and looking ahead to the coming months. As always, this issue brings you plenty of reading material to browse through: For example, we take an in-depth look at the topic of safety at large events. Crowd control barriers and crowd management may not be glamorous topics, but they are crucial to ensuring that audiences can celebrate carefree and that events are not only successful but also truly safe. Our interview partner Markus Englert is also very familiar with such large-scale events; together with his colleagues, he organizes the major event “Challenge Roth,” the world’s largest long-distance triathlon with 5,500 participants.

A little more light-hearted, but no less exciting, is our article on the effect of

music on humans and animals. Who would have thought that sounds and rhythms could trigger such diverse, sometimes astonishing reactions?

Another real highlight awaits you in our interview with Carsten Kümmel, a sound engineer who, among other things, was in charge of the controls at the last Eurovision Song Contest. He talks about the challenges, emotions and special moments of his work and shares his career story with us.

Of course, technology is also a must this time around: We present exciting innovations in the fields of lighting, sound and hardware—tools that support you in your daily work. And because Christmas is approaching, we have collected a few gift ideas that are not only practical but also heartwarming.

We hope you enjoy reading this issue, have a stress-free pre-Christmas period and a good start to the new year!

Your MOVE editorial team

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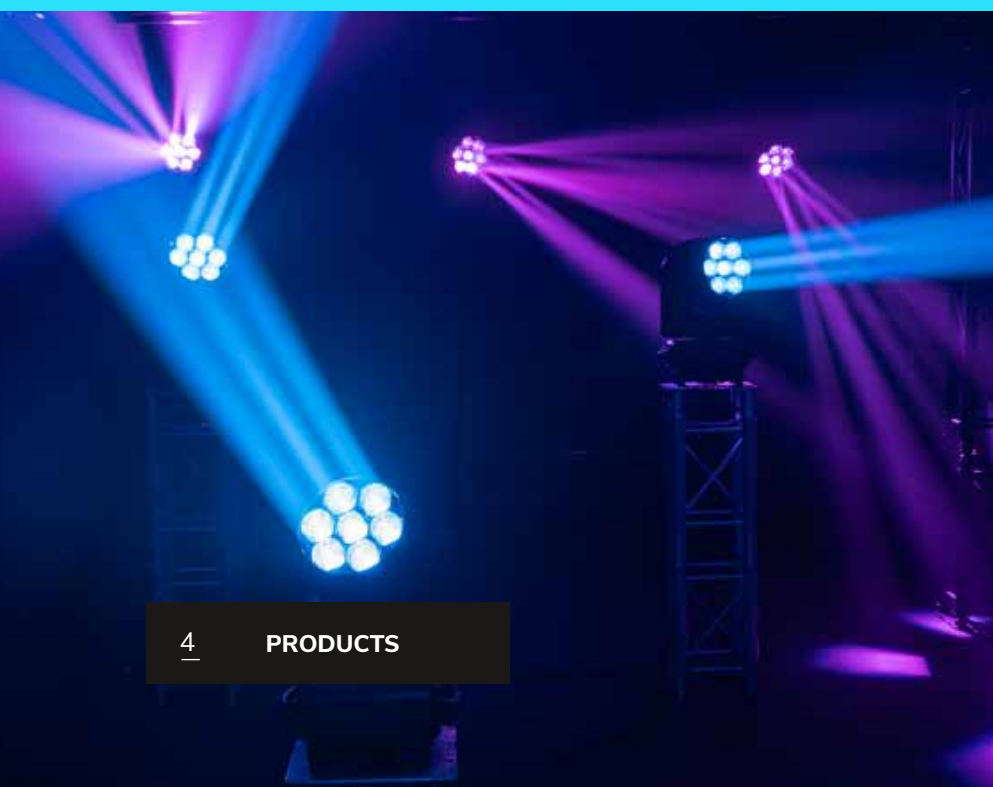
LED IP TMH-H420

BEAM/WASH/FLOWER EFFECT

The EUROLITE IP TMH-H420 is the smaller sibling of the popular TMH-H760. Like its larger counterpart, this version is also an outdoor moving washer that operates reliably even in adverse weather conditions. The spotlight is equipped with seven 60 W LEDs, which enable a color mix of red, green, blue and white. The beam angle can be flexibly adjusted from 2° to 55°. In addition, the H420 offers the option of rotating the lens unit, turning the wash light into an impressive flower effect. The seven LEDs can be controlled individually. For users who want to avoid a high number of channels, smaller DMX modes are available. These enable the use of macros and offer front and background color settings in the mid-sized mode.



In addition to outdoor use, the H420 is also ideally suited for indoor events. Thanks to its weatherproof housing, the fixture is dustproof and extremely low-maintenance. Weighing only 17 kilograms, it is also pleasantly light for an IP device. Another highlight is the silent mode, which can be activated via the menu and makes the spotlight whisper-quiet – ideal for use in theaters. The flower effect can be set not only in motion but also statically and with soft edges, making it perfect for projecting structures and atmospheric effects.



THE COMPACT OUTDOOR MOVING WASHER



EUROLITE LED IP TMH-H420 Beam/Wash/Flower effect

Weatherproof moving head with bright 7x 60W RGBW LEDs, rotating flower effect and pixel control



ROADINGER Flightcase 2x IP TMH-H420 with wheels

Trunk case with castors

Technical specifications

Power supply:	100-240 V AC, 50/60 Hz
Power consumption:	450 W
IP classification:	IP65
Power connection:	Mains input via IP T-Con (M) mounting version power supply cord with safety plug
Fuse:	5 x 20 mm, T 5 A fuse replaceable
LED type:	7 x 60 W SMD 6065 4in1 QCL RGBW (homogenous color mix)
Max. TILT movement:	205° exact positioning (16 bit resolution) auto position correction (feedback)
Max. PAN movement:	540° exact positioning (16 bit resolution) auto position correction (feedback)
DMX channels:	18; 26; 46
DMX input:	3-pin XLR (M) mounting version IP 5-pin XLR (M) mounting version IP
DMX output:	3-pin XLR (F) mounting version IP 5-pin XLR (F) mounting version IP
Control:	Stand-alone; DMX; master/slave function
Beam angle:	2° - 55°
Beam angle (1/2 peak):	2° - 40°
Beam angle (1/10 peak):	6° - 55°
Dimensions (WxDxH):	34.5 cm x 23.5 cm x 52.0 cm
Weight:	17.05 kg

INTERVIEW WITH LEX WILLEMS, SPECTRUM AV

What makes a festival a wow-experience? Besides the music, what makes people love an event like the DOMINATOR Festival? Lex Willems from SPECTRUM AV is definitely part of the answer: With his team, he transports not only light and sound, but also a whole lot of emotions to the audience.



Lex Willems, Commercial Director of Spectrum AV

Hi Lex, thank you for taking the time to answer our questions! Would you please introduce yourself and your company to our readers?

My name is Lex Willems and I am the Commercial Director of Spectrum AV, a full-service audiovisual supplier specializing in large-scale festivals and live events across the Netherlands, Belgium and Germany. We deliver cutting-edge lighting, audio and video solutions for some of the most renowned names in the dance music industry. Our focus is on creating powerful, immersive experiences that push creative and technical boundaries, while keeping our operations efficient and reliable for clients.

Can you describe your process when it comes to lighting design?

For us, lighting design starts with understanding the event's story and the emotional journey we want the audience to experience. We look at the music, the stage design, and the artist's style, and then build a lighting concept that enhances every beat and visual cue. From there, we choose fixtures and programming approaches that support both creativity and practicality, making sure the design looks stunning in real life and on camera. Collaboration with the creative team is key; we often work hand-in-hand with stage designers, VJs, and operators to ensure a seamless result.



Uptempo Area at Supersized Kingsday Festival

Regarding technical equipment, what features do you pay most attention to? What is most important for you?

Reliability is number one! Festivals and large-scale events cannot afford downtime. We also look at flexibility and output: A fixture has to perform across different looks, intensities, and weather conditions. We require a good business case for all items in our inventory. A good ROI ensures investments in the future! Ease of rigging and programming is another big factor, because in the field, time is always tight. Finally, energy efficiency and durability are increasingly important as we push toward more sustainable production methods.

You have been working on numerous projects in the past years. Can you name one project that has been special to you – either particularly good or challenging?

One of the most memorable projects was the Thunderdome area at Dominator Festival. Together with technical producer Guido Zwarts and lighting operator Mitchel Hajdu, we created an immersive dome concept on the beach, partly covered but largely open to the elements. The design incorporated 180 EUROLITE IP PIX Strobos, arranged to fully

surround the audience in high-impact visuals that pulsed with the energy of the music. Most of these fixtures were directly exposed to dust, sand and precipitation, a true test of both the equipment and our planning. Despite the challenging environment, the result was a spectacular, fully immersive experience that became a standout moment of the festival.

Where can our readers follow you on Social Media and learn more about your work?

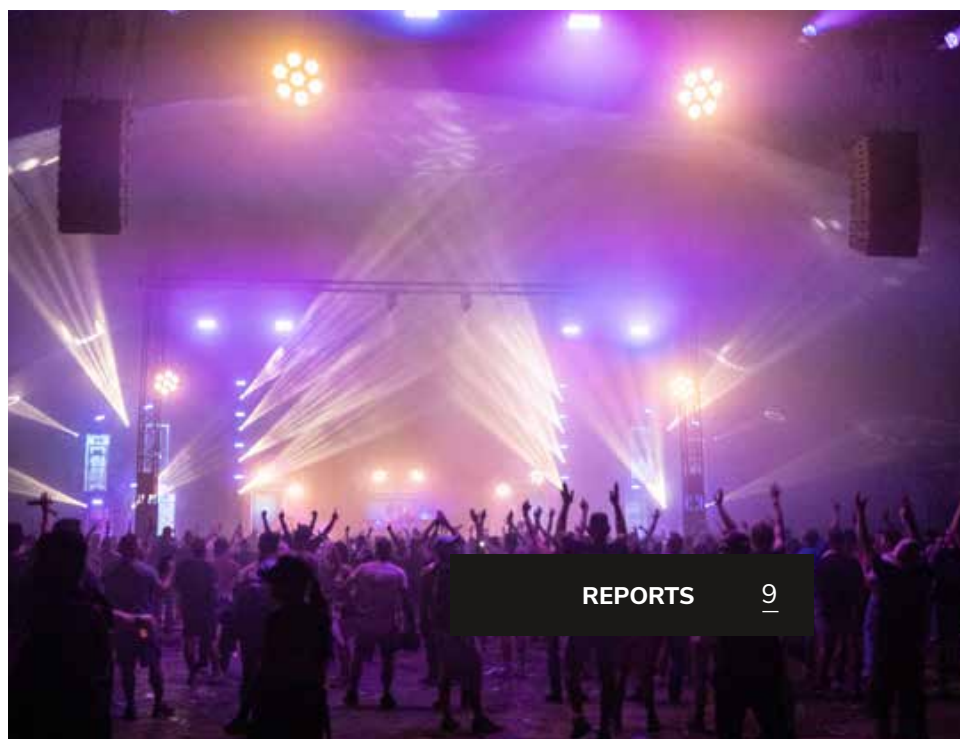
You can find us on Instagram and Facebook at @Spectrum_AV and on LinkedIn under Spectrum AV. Follow my personal TikTok @SpectrumLex for backstage content and check our website, www.spectrumav.nl. It showcases special projects and an overview of our services.

Thank you so much for answering our questions. We wish you all the best for your future projects!



DOMINATOR 2025 // EERSEL, NETHERLANDS

The hardcore festival DOMINATOR celebrated its 20th anniversary in 2025. Around 50,000 partygoers flocked to Eersel (Netherlands) for the anniversary edition to celebrate for 12 hours. SPECTRUM AV from Udenhout provided the technical equipment for the stages. Among other things, 180 EUROLITE LED IP PIX Strobe RGB CW+WW were installed.





EUROLITE LED IP PIX Strobe RGB CW+WW

Outdoor spotlight (IP65) for strobescope, ambient and animation effects



PIXEL HIGHLIGHTS

VARIABLE COLOR
TEMPERATURE
3200 K - 6600 K

ELECTRONIC
FROST FILTER



IP 65

240 RGB LEDs
(8 SEGMENTS)
+ 40 WHITE LEDs
(CW/WW, 4 SEGMENTS)



NEW BRACKET

38×11×17.6 CM,
3.60 KG



XLR
CONNECTORS
EITHER
3-PIN
OR
5-PIN

Highlights in the truest sense of the word: EUROLITE's **IP Pix Strobes** are small yet very bright strobes in a high-quality, weatherproof housing with segment pixel control – and all at a sensational price. All devices in the series can not only flash in cool white and/or warm white light, but also generate intense colorful light based on RGB.

The series now comprises five models: In addition to the popular IP PIX Strobe, there are now two **MK2 models** with a redesigned bracket. It is now longer, so that the device no longer conflicts with the connections

when in a vertical position. It has also been equipped with omega brackets which can be attached to the corresponding openings on the mounting bracket via quick-release fasteners.

This device is available in two versions: Either with **3-pin or 5-pin** XLR connectors – depending on the user's individual preference. The series also includes the **IP PIX Strobe FROST**, which additionally features an electronically switchable frost filter. This device is also available in a 3-pin and a 5-pin version.

For lovers of the old bracket shape, the MK1 version will still be available, and the old bracket will be offered as an accessory.



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MASTERS OF HARDCORE // 'S-HERTOGEN- BOSCH, NETHERLANDS

The hardcore festival "Masters of Hardcore" celebrated its 30th anniversary in 2025 under the motto "Temple of Resonance" in 's-Hertogenbosch (Netherlands). The impressive stage design was equipped with over 150 EUROLITE LED IP PIX Strobe RGB CW+WW 5pin MK2. SPECTRUM AV from Udenhout was responsible for the technical implementation.



EUROLITE LED IP PIX Strobe RGB CW+WW MK2
Outdoor spotlight (IP65)



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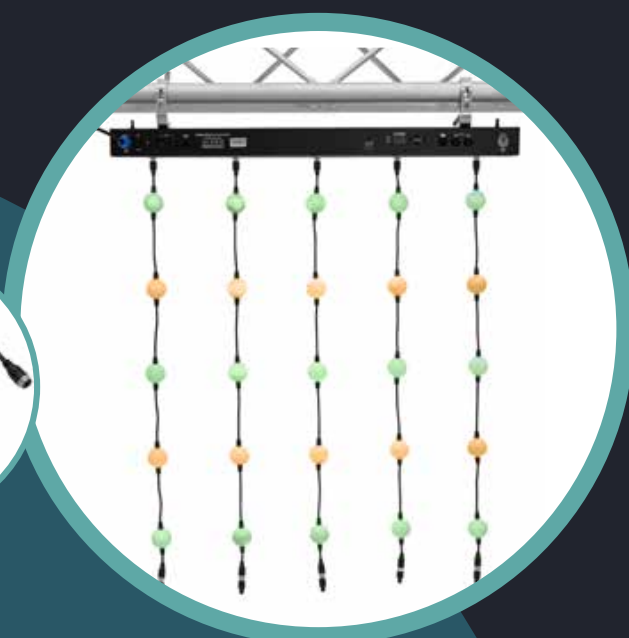
eurolite®

LED PIXEL BALLS

EUROLITE's Pixel Balls are a tried-and-tested classic effect that is now available in a redesigned version. At the heart of the system is a one-meter-long bar with five connections for the ball strings. Each string is one meter long and carries five LED balls. Up to six strings can be operated per connection, which corresponds to a length of six meters and 30 balls. A single bar can therefore accommodate a maximum of 150 balls. Each ball is equipped with RGB LEDs that can be mixed to produce a wide range of colors. The light effect is uniform in all directions. Optional end pieces can be attached to the terminals at the bottom. These are purely for aesthetic purposes and are not essential.

EUROLITE LED Pixel Ball 360°
1m MK2

Flexible LED pixel string



ART
NET
ETHERNET



**EUROLITE LED Pixel Ball PSU-5
ArtNet/DMX MK2**

Control unit for EUROLITE LED Pixel
Ball 360° 1m MK2

Multiple bars can be mounted seamlessly together so that the ball strings hang at regular intervals. There are two threads on the top for mounting couplers and eyelets for safety bonds. Power is supplied via P-Con inputs and outputs. All inputs for power, Artnet, and DMX are located on one side. The outputs are located on the opposite side, which allows for particularly clean cabling. In addition, each bar has a wireless DMX USB socket. This allows the system to be easily upgraded for Quick DMX or CRMX.



**EUROLITE
Terminal plug for LED
Pixel Ball MK2**



Seven DMX modes are available for control. The simplest mode uses three channels and controls all balls together. In pixel mode, each ball can be addressed individually. In the maximum configuration, 450 DMX channels per bar are used. For this purpose, the devices are equipped with Artnet connections. Even in 19-channel mode, impressive effects can be achieved with integrated macro programs in freely selectable colors. In this configuration, up to 26 bars fit into one DMX universe.



EUROLITE LED Super Strobe ABL
LED lighting effect with threefold effects



MALLE FESTIVAL // WOMBACH, GERMANY

Over 1,200 visitors came to the Malle Festival grounds in Wombach to party with their stars Pamela Power and DJ Sunshine. The highlight of the evening was the performance of Mallorca star Lorenz Büffel, who made the crowd go wild. Soundnight Events was responsible for the technical implementation. Among other things, EUROLITE LED Super Strobes ABL, EUROLITE LED TMH-W555 Moving Heads and EUROLITE LED PIX-12 Swing QCL Zoom Bars were used on stage.





CREATIVE LIGHTING POWER FOR INDOORS & OUTDOORS

EUROLITE LED IP PT-100/34 RGB/WW Pixel DMX Tube

Weatherproof DMX pixel tube with
RGB/WW color mixing

With the LED IP PT-100/34 RGB/WW Pixel DMX Tube, EUROLITE presents a weatherproof, DMX-controllable pixel tube with RGB/WW color mixing. Equipped with 102 powerful LEDs (0.5 W SMD 5050 4in1 QCL RGB/WW), it creates a homogeneous color mix that is incredibly versatile thanks to 34 individually controllable segments.

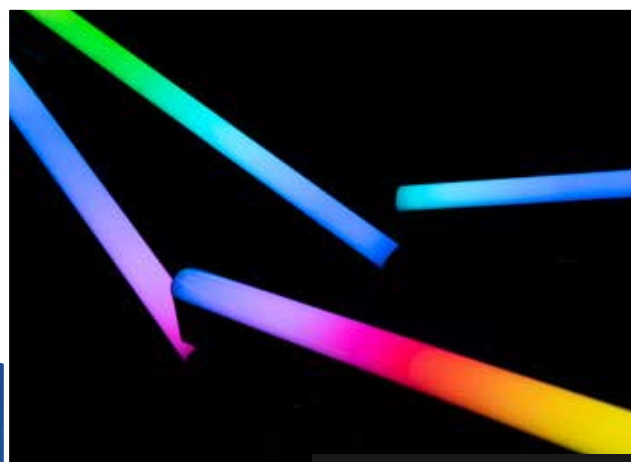
With 12 pre-programmed show programs and the option to choose from 19 colors directly, there are no limits to your creativity. Whether in stand-alone mode, via DMX, or in master/slave mode, the Pixel Tube always cuts a fine figure. Features such as adjustable color changes, electronic dimmer, adjustable speed, background colors and running lights offer plenty of scope for impressive effects.

Up to eight devices can be
operated in series.



With a generous beam angle of 120°, the pixel tube illuminates even large areas evenly. Passive convection cooling ensures that operation remains silent. Thanks to the mains input and output, up to 8 devices can be conveniently connected together.

With protection class IP65, the pixel tube can withstand wind and weather and is ideal for use on outdoor stages or in architectural lighting.





BENEFIZ MUSICAL GALA // CONCERT HALL HEIDENHEIM, GERMANY

On 21 June 2025, the well-known charity musical gala for children with cancer and leukaemia and a special needs school took place for the tenth time. The gala was performed by six professional musical performers and a band. For years, the organiser has relied on products from FUTURELIGHT and EUROLITE for the lighting.

Products used:

FUTURELIGHT DMH-380 HYBRID CMY
FUTURELIGHT EYE-1940 QCL
FUTURELIGHT Profile 200, 15-28°
EUROLITE PIX-12 Swing QCL Zoom Bar
EUROLITE LED PAR-64 COB 3000K
EUROLITE LED THA-100F MK3



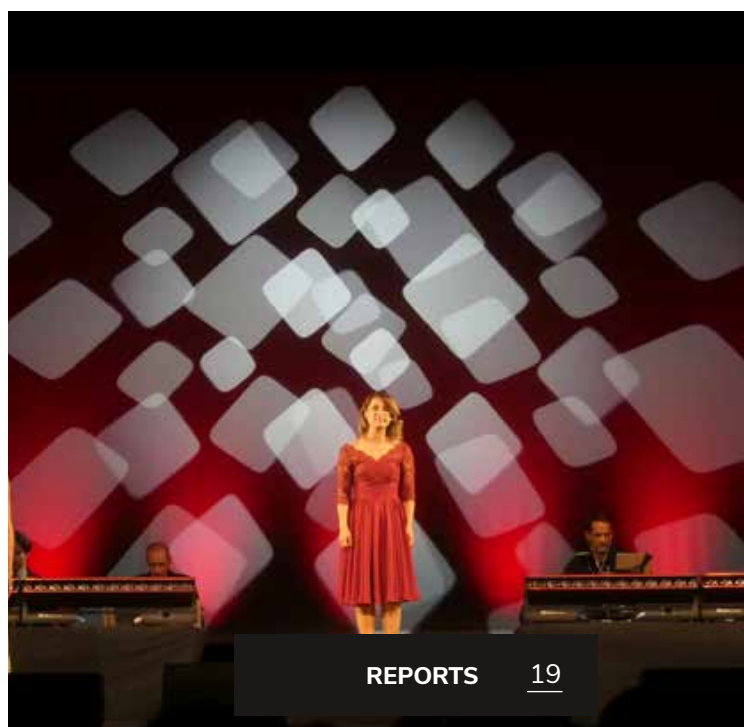
**EUROLITE LED PIX-12 Swing QCL
Zoom Bar**

Motorized tiltable LED light effect bar with 12 high-performance LEDs, two zoom ranges from 2° to 28° and 164 effect LEDs



**FUTURELIGHT DMH-380 Hybrid CMY
Moving Head Spot/Beam**

PRO spot/beam/wash moving head with 380 W COB LED, large zoom, frost, CMY color mixing and animation wheel





eurolite®

LED THA-250F P.O. THEATER-SPOT

Particularly in permanent installations, but also in touring productions, there is often a problem: The spotlights for the front lighting are positioned where the audience seats are located. This makes it difficult to use a ladder for lighting, and climbing up to each spotlight with a ladder is generally very time-consuming, laborious and not without risk. Is there no better solution?

The **EUROLITE LED THA-250F P.O.** offers such a solution. It is based on the popular THA-250F, a warm white LED spotlight with a 250 W LED. The addition of P.O. in the name stands for Pole Operated. This means that the spotlight hangs in a special bracket that can be operated from below with a pole. This bracket has two “cones” on one side into which a special pole can be inserted from below. The cones can then be turned, allowing the adjustment of the spotlight position: One cone horizontally, the other vertically.

Previous systems had a third cone that adjusted the zoom of the spotlight. However, this is not necessary with the THA-250F, as it can be adjusted via DMX command anyway. The pole can also be used to adjust the spotlight's barn doors. To do this, simply pull or gently knock them into the desired position using the pole. With just a little practice, this technique is not only much faster than working with a ladder, it is also much safer.



AKKU IP UP-4 PLUS

WITH CRMX WIRELESS
DMX SYSTEM



BATTERY
POWERED



**EUROLITE AKKU IP UP-4 Plus
HCL Spot CRMX MK2**

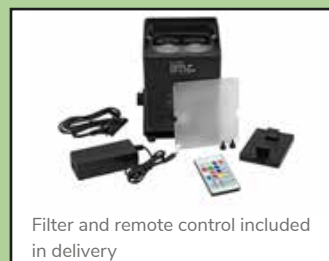
Weatherproof uplight with
CRMX receiver



The premium model in the AKKU-UP series, bearing the suffix "Plus" in its name, has been redesigned and is currently available as an MK2 version. The weatherproof uplight is now equipped with a CRMX receiver, meaning it can be controlled wirelessly via LumenRadio's DMX system. Another new feature: The battery management system displays the remaining runtime in the current mode

and allows for optimized battery use. The four powerful 10 W HCL LEDs in red, green, blue, white, amber and UV, as well as the removable and replaceable battery, remain unchanged. The charging function and housing have also been retained, so the MK2 version can continue to be used with existing transport and charging options.

 lumenradio



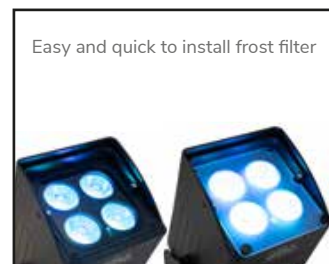
Filter and remote control included
in delivery



Replaceable battery



Sturdy bracket
with adjustable
tilt angle



Easy and quick to install frost filter





Photo: Stephanie Singer

SUMMERLIGHTS // MARIA EICH, GERMANY

From July 4 to 25, 2025, the "SummerLights" concert series took place at the Maria Eich pilgrimage site (near Munich), where musicians of various styles performed live music in the open space in front of the church as well as inside. Everything from big band sound to classic rock to indie folk was on offer. Carsten Meister was responsible for the technical implementation of the concert series. Among other things, moving heads from the brands FUTURELIGHT and EUROLITE were used.



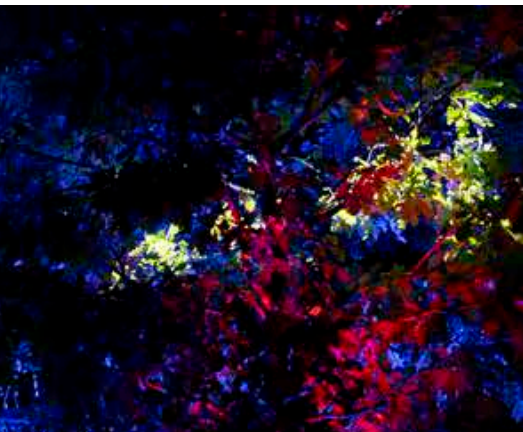
FUTURELIGHT DMH-380 Hybrid CMY Moving Head Spot/Beam

PRO spot/beam/wash moving head with 380 W COB LED, large zoom, frost, CMY color mixing and animation wheel



EUROLITE LED IP TMH-H760 Beam/Wash/Flower Effect

Powerful weatherproof moving washlight with 19 x 40W RGBW LEDs, rotating flower effect and pixel control



FUTURELIGHT EYE-1940 QCL Zoom LED Moving Head Wash

PRO Washlight with 19 Osram Ostar 40W RGBW LEDs, large zoom range and pixel control



Products used:

- 4 x FUTURELIGHT EYE-1940
- 8 x FUTURELIGHT EYE-740 MK2
- 6 x FUTURELIGHT DMB-100
- 10 x FUTURELIGHT DMH-380
- 8 x EUROLITE LED Par-64
- 2 x EUROLITE LED TMH-760
- 7 x EUROLITE Akku IP UP-4 QCL
- 4 x EUROLITE LED Multiflood IP SMD
- 4 x EUROLITE LED Multiflood Pro IP Wash MK2



CHILL & JUMP //ACHENSEE, AUSTRIA

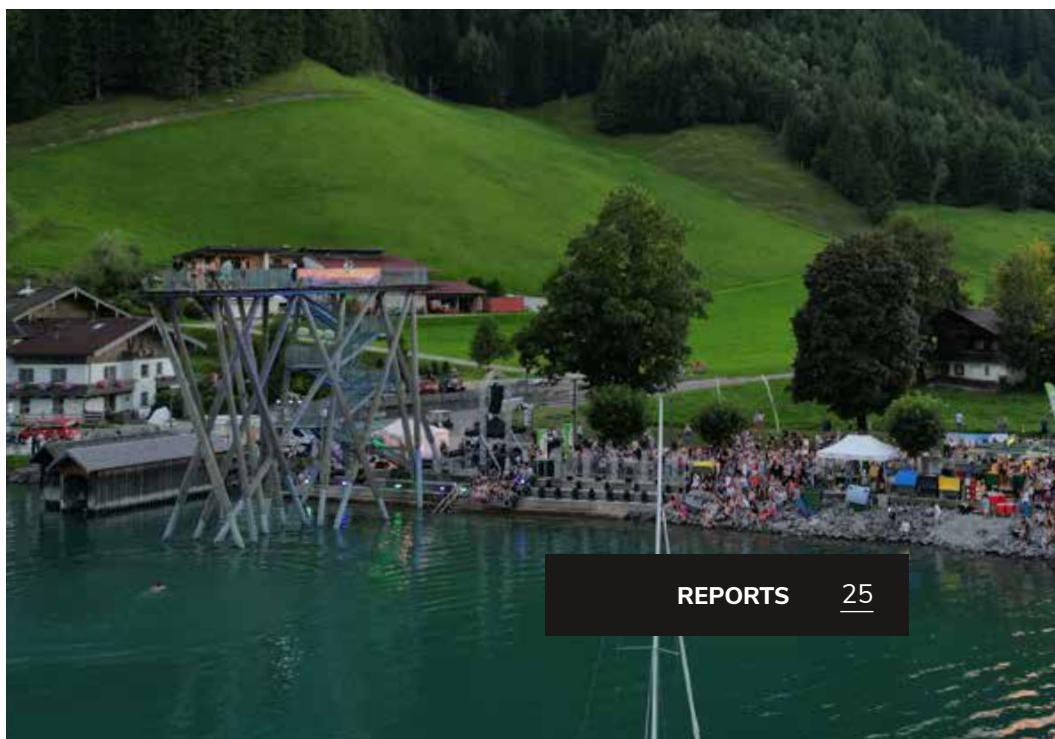
On August 8, 2025, the viewing platform in Pertisau on Lake Achensee was transformed into a stage for spectacular jumps: At "Chill & Jump #Achensee," professional cliff divers, including Red Bull athlete Alain Kohl and the freerunners of the 4 Elements Academy, performed breathtaking acrobatics directly above the lake. Around the 14-meter-high high bridge, the "Jungen Achenseer" created a relaxed event zone with snacks, cocktails, and cool beats, perfect for a summer evening right by the water. Eventus Veranstaltungstechnik from Volders was responsible for the lighting design. Among other things, FUTURELIGHT IP PLH-420 moving heads were used.



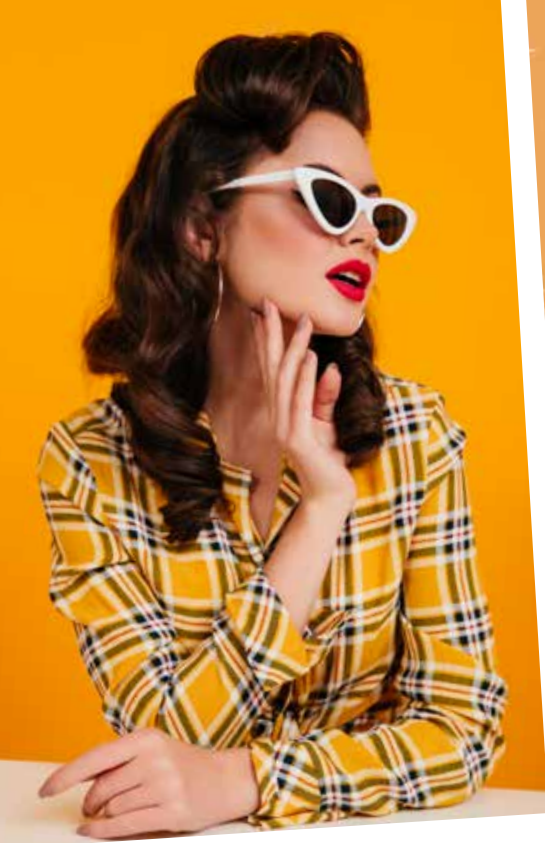


**FUTURELIGHT IP PLH-420 Moving Head
Spot/Beam**

Weatherproof beam/spot moving head (IP65)
with 420 W discharge lamp & CRMX wireless
receiver



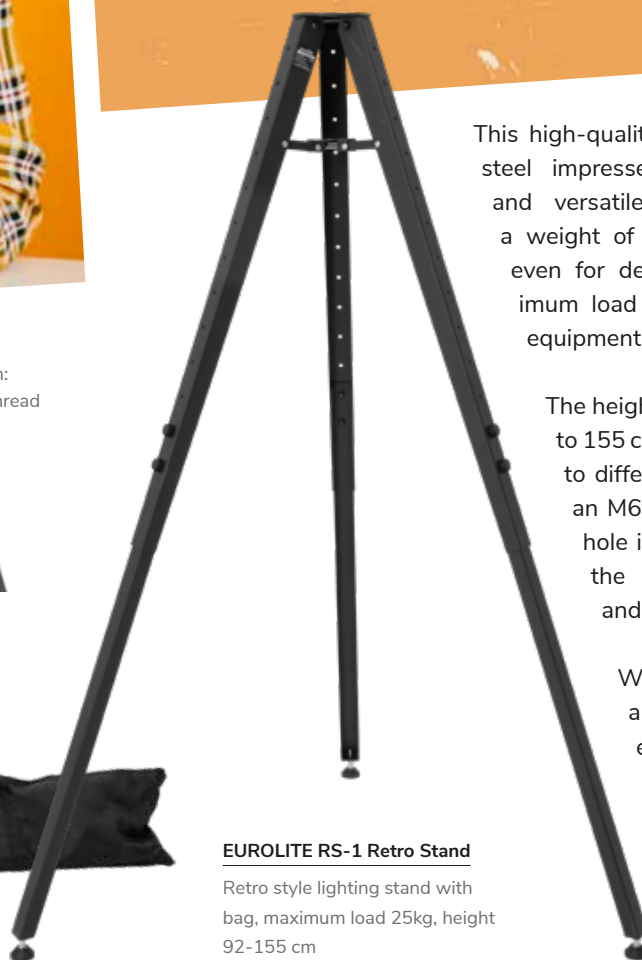
Retro-style stand



Attachment system:
Ø 12 mm, 6x M6 thread



Includes practical
carrying bag



EUROLITE RS-1 Retro Stand

Retro style lighting stand with
bag, maximum load 25kg, height
92-155 cm

This high-quality tripod made of powder-coated steel impresses with its stable construction and versatile application possibilities. With a weight of 9.5 kg, it offers a secure stand even for demanding applications. The maximum load capacity of 25 kg allows heavy equipment or structures to be carried.

The height is flexibly adjustable from 92 cm to 155 cm – in 12 steps – to optimally adapt to different requirements. The tripod has an M6 thread mounting system (12 mm hole in the center, 6 x 6 mm thread on the outside), which allows for easy and secure attachment of equipment.

With a base diameter of 120 cm and a stable design, the tripod offers excellent stability. Its compact transport size also makes it easy to store and transport.

WHETHER FOR LIGHTING, SOUND OR CREATIVE DISPLAYS: THIS TRIPOD IS THE STAGE FOR YOUR IDEAS.



EUROLITE POLARSTAR RGB LASER STARLIGHT & NORTHERN LIGHTS



EUROLITE PolarStar RGB Laser

Star laser for colored and white
star effects and LED northern
light effect

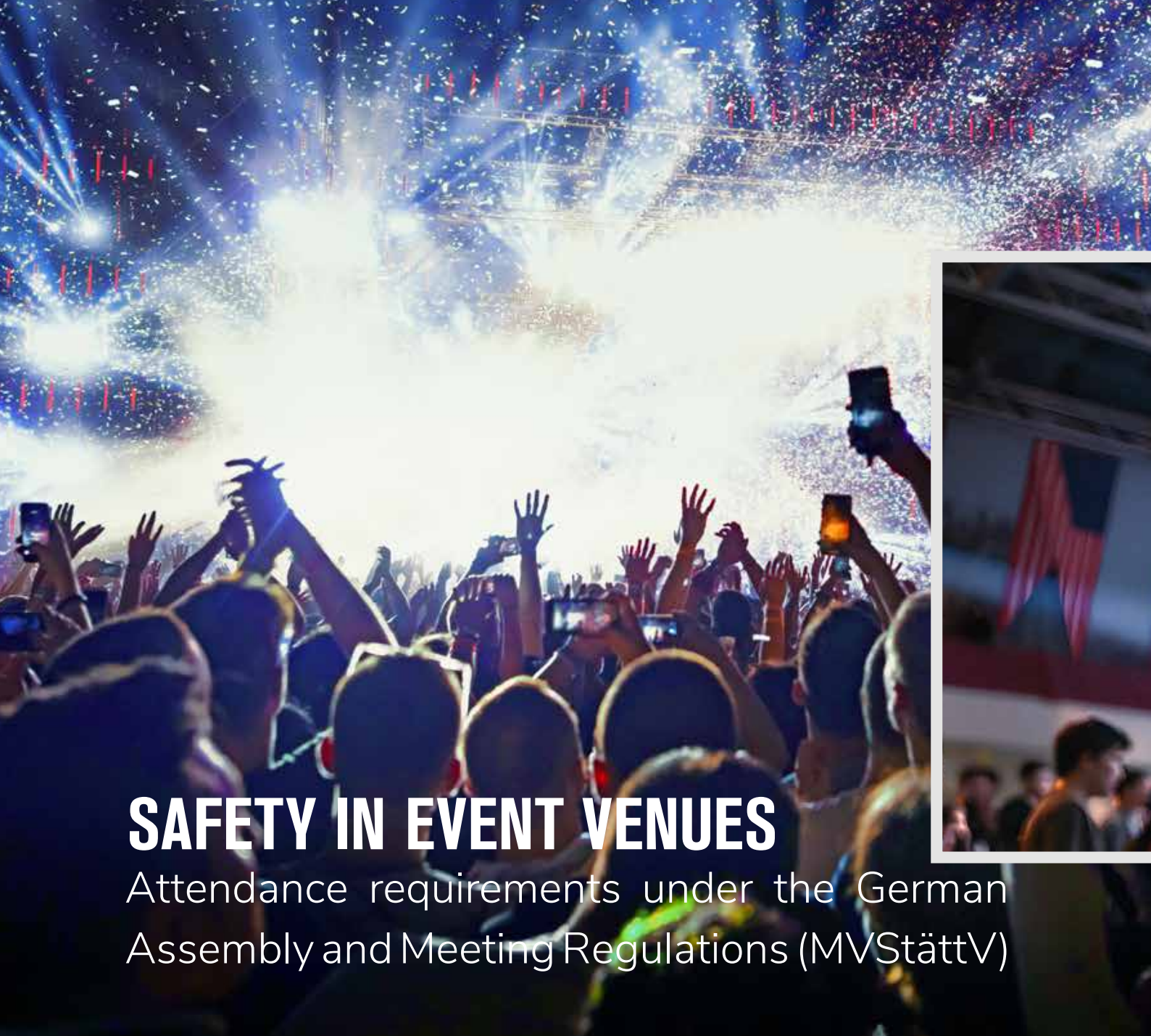
A very special star laser is the **Polar Star RGB** from EUROLITE. First things first: This is a Class 2M laser, which means that no laser safety officer is required (according to German regulations). While lasers of this class usually only use red and green, the PolarStar RGB goes one step further: It is based on the colors red, green and blue, which can also be mixed cleanly. This means that the beams can be generated not only in the primary colors, but also in mixed colors, including white. Colors such as blue or white are much more impressive than red or green, especially in a star laser, which consists of a multitude of light points or beams. The rotation speed of the star points can also be adjusted individually.

In addition, the PolarStar RGB offers another effect that gives it its name: A psychedelic-looking aurora effect. Behind a second lens, a fascinating play of colored streaks is created, reminiscent of the typical aurora. This

effect is generated by LED light, which is also based on red, green and blue. Unlike with the laser stars, the colors do not mix here, but create a lively play of colors. The movement of the aurora borealis can be continuously adjusted. Both the star effect and the aurora – and especially the combination of the two – are impressive, whether in fog or as a projection.

The effects can be controlled either directly on the device via the menu or remotely via DMX. The PolarStar RGB comes in a robust metal housing and can be operated standing, on a tripod or hanging. All connections and controls are located on the rear panel. Three-pin sockets are available for the DMX signal. Wireless DMX can be quickly and easily retrofitted via the wireless DMX USB socket. A key switch or connection for an emergency stop switch is not required for a laser of this class.





SAFETY IN EVENT VENUES

Attendance requirements under the German Assembly and Meeting Regulations (MVStättV)

Assembly locations such as theaters, concert halls and sports arenas are places where large numbers of people gather, placing special demands on safety. The Model Assembly Venue Ordinance (MVStättV) plays a central role in this regard by setting out regulations for the construction, operation and organization of such facilities. A key component of this ordinance is the attendance requirements for certain individuals who are essential for the safe running of events. In this article, we shed light on the background and specific requirements of the MVStättV.

WHAT IS THE MVSTÄTTV?

The MVStättV is a set of regulations issued by the Building Supervision Commission of the German Building Ministers' Conference. It serves as a template for state governments, which adopt and adapt it into their own state regulations. The aim is to ensure uniform safety standards in places of assembly, particularly with regard to fire protection, escape routes and technical safety. The MVStättV applies to event venues with a certain capacity, for example, more than 200 visitors or outdoor events with more than 1,000 people. The federal states each have their own regulations for such locations, which are based on the content of the MVStättV. When preparing an event, it is therefore essential to carefully review the applicable regulations.



ATTENDANCE REQUIREMENTS: WHO MUST BE PRESENT ON SITE?

One key provision of the MVStättV concerns the presence of specialist personnel during event duration. This regulation is intended to ensure that any hazards that arise can be responded to immediately and that the event proceeds in compliance with all safety regulations.

AI-generated

RESPONSIBLE PERSON FOR EVENT TECHNOLOGY

Attendance requirements depend on the size of the stage and the technical equipment used. In small stage areas with limited technical equipment, one qualified event technology specialist is sufficient. For more complex stage setups or stage areas larger than 200 m², the presence of a certified master of event technology is required. They monitor the operation of the lighting, sound and stage equipment, ensuring their safe use.

FIRE SAFETY GUARDS

Events with an increased fire risk, such as those involving the use of pyrotechnics or stage areas with flammable materials, require a fire safety officer. This is also mandatory for events with more than 1,000 visitors. The fire department provides trained personnel who monitor potential fire hazards and can intervene quickly in an emergency.

EVENT MANAGER

In venues with more than 5,000 seats or at events with complex scenarios, the presence of an event manager is mandatory. This person is responsible for the entire organization and communication with all other responsible persons on site. Event managers need in-depth knowledge of event organization, safety regulations and crisis management.

QUALIFICATIONS AND TRAINING

The professionals listed in the MVStättV must have specific qualifications. Certified event technology specialists undergo in-depth training that provides them with knowledge in areas such as electrical engineering, safety regulations and event organization. Certified masters for event technology have advanced qualifications that enable them to take responsibility for complex technical systems and assess hazards independently. In addition, there are certified advanced training courses for event managers and special training courses for fire safety officers. Some federal states also offer their own training courses and examinations to ensure that the requirements of the MVStättV are met. This helps to further increase safety at event venues.



ATTENDANCE REQUIREMENT: OVERVIEW TABLE

Condition	Required person	Qualification/Requirement
Stage area up to 200 m² with simple technology	Certified event technology specialist	Successful completion of training in event technology
Stage area from 200 m² or complex technology	Certified master for event technology	Advanced qualification or equivalent knowledge
Use of pyrotechnics or increased fire hazard	Fire safety guard	Trained firefighters
Events with more than 5,000 seats	Event manager	Proven knowledge of event organization and safety
General operation of event venues	Operating staff	Expertise in accordance with state regulations

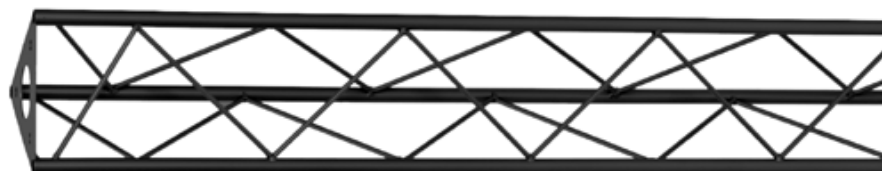


CONCLUSION

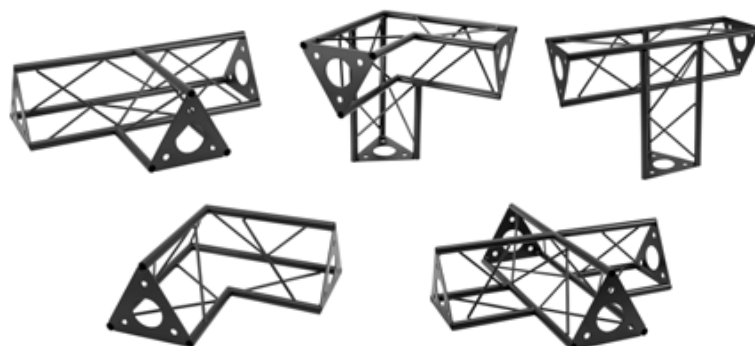
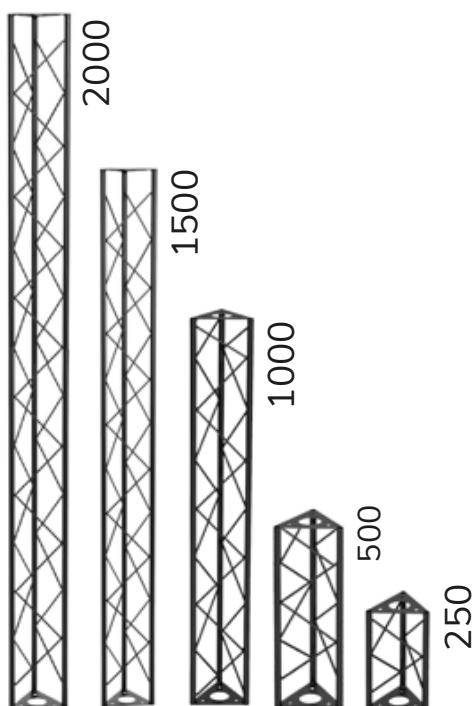
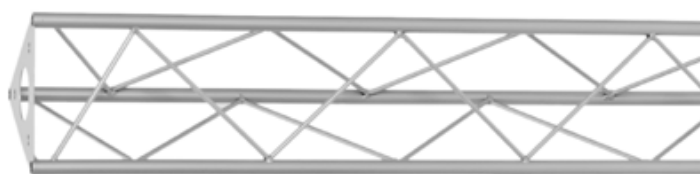
The attendance requirements of the MVStättV are key for ensuring safety in event venues. By having specialists with specific qualifications on site, hazards can be prevented, quickly identified and eliminated. Organizers, operators and authorities must work closely together to ensure compliance with these regulations. In this way, all parties involved can warrant that events are not only successful but also safe.

decotruss ST 3

Decotruss is a small, lightweight and decorative truss system for shopfitting. It is used wherever the industrial look of filigree trusses is required, but no heavy loads need to be carried. The 3-point system offers straight sections in various lengths between 25 and 200 cm, as well as numerous corners and connectors for creative structures. It is available in black and silver.



Also available
in silver



The system offers flexible design options thanks to various universal corners and base plates.

TIDY AND WITH A CLEAR VIEW

Steel cabinets with glass doors

The new SSC series of modular steel cabinets from ROADINGER is ideal for permanent installations with 19-inch devices such as power amplifiers or as server cabinets. The sturdy cabinets are delivered disassembled, can be quickly mounted, and flexibly adapted to the respective application.



An **integrated fan** is installed to ensure reliable cooling, effectively dissipating the heat generated.



Four **swivel casters** are available, two of which are equipped with a **parking brake**.

In addition, four **leveling feet** are provided to enable precise alignment of the cabinet even on uneven floors.

The **removable side panels** allow quick access to the interior, which greatly simplifies maintenance and modifications.



A front panel made of 4-millimeter-thick **ESG safety glass** provides a view of the built-in equipment.



The combination of robust construction, well-designed features and attractive appearance makes these steel cabinets a reliable and elegant solution for use in professional fixed installations.



Prepared cable bushings facilitate cabling, and a **grounding screw** provides additional safety.

Both the front and rear doors are secured with a **cylinder lock**.

The door hinge on the front can be changed if necessary, allowing the cabinet to fit perfectly into any room or working environment.

The ROADINGER SSC series comprises practical steel cabinets with glass doors in **various sizes** between 16 and 40 U.



SAFETY AT LARGE-SCALE EVENTS: WHEN CROWDS BECOME A RESPONSIBILITY

The anticipation is high, the lineup is set, tickets are long sold out. When large-scale events attract thousands of visitors, one thing is of central importance: A well-thought-out safety concept. What may sound like bureaucratic red tape at first glance is in fact the foundation of a successful event. In a serious situation, it can make the decisive difference.

Planning with Responsibility: The Safety Concept

Behind the scenes of every large-scale event stands complex safety architecture. Starting from a certain audience size – typically from 5,000 attendees – state regulations such as the German Versammlungsstättenverordnung (Venue Regulations) require an official safety plan. This must include a risk assessment, an analysis of visitor structure and clearly defined measures for evacuation, communication, medical care and access control.

The responsibility for developing the safety plan lies with the organizer. Authorities such as police, fire departments and emergency services provide support. In most federal states, the concept is reviewed and, if necessary, supplemented with additional requirements.

An established planning tool is the so-called Maurer Schema. It evaluates risks based on factors such as event type, visitor density, alcohol availability, target audience and more. From this, the recommended number of security and medical staff, as well as suitable organizational measures, can be derived.

Visitor Guidance Systems: Structure Creates Clarity

For large crowds to move safely and in an orderly manner, clear structures are essential. Well-planned guidance systems provide orientation, prevent congestion and defuse potential danger zones. Signage, barriers, mobile displays

and targeted announcements are part of the standard toolkit. If such systems are missing or unclear, the consequences can be dangerous—as demonstrated by the tragic Love Parade accident in 2010.

Crowd Barriers and Fences: Structures with a Purpose

In high-density areas such as front-of-stage zones, crowd barriers are essential. They divide the flow of people into smaller groups and prevent dangerous pressure waves. According to the German Model Venue Regulations, crowd barriers are mandatory at events with more than 5,000 standing places in a venue (e.g., stadiums or concert halls). Other barriers—such as those between entrances, concessions or restrooms—also serve not only as orientation but as protective structures.

However, barriers must always be designed so that escape and emergency routes remain unobstructed. Access for emergency personnel must also be ensured at all times.

Escape Routes and Emergency Exits: Clear, Visible, Accessible

In an emergency, every meter and every second counts. Escape routes and emergency exits must be continuously illuminated, clearly marked, freely accessible and wide enough to allow a rapid evacuation. Temporary structures such as vendor booths or technical equipment must not restrict them.

CROWD CONTROL SYSTEMS: SAFETY THROUGH STRUCTURE



As an additional measure, so-called buffer zones have proven effective, going beyond legal requirements. These non-mandatory open spaces between the audience area and stage provide security staff with more flexibility and enable controlled crowd dispersal in the event of a panic. A modern safety concept also integrates communication tools such as LED boards, announcements and alerts via event apps, ensuring visitors can be informed quickly and precisely.

Security Personnel: People for People

Safety concepts only become effective through people. Stewards, medical teams, security staff and command units work closely together to ensure protection. They handle access control, monitor crowd movement, intervene in conflicts and provide assistance in medical emergencies.

Crowd barriers are central elements of visitor safety at major events. They structure large groups of people, prevent dangerous pressure waves and create vital corridors for emergency personnel. But how exactly must they be positioned? Are there strict requirements, or is there room for flexibility?

Clear Regulations for Permanent Installations

For grandstands and permanently installed standing areas, clear legal requirements exist. The German Model Venue Regulations (MVStättVO) specify:

- Crowd barriers are required for more than five tiered standing rows or for more than 5,000 standing places
- Minimum height: 1.10 meters (3.6 ft)
The construction must be stable and secured against tipping
- The structure must withstand pressure loads of 3.0 to 5.0 kilonewtons per meter, depending on the slope (according to DIN EN 13200-3)
- Escape and rescue routes must not be restricted by barriers

These requirements apply primarily to permanently installed systems in stadiums or arenas.

Flexibility in Outdoor Use

At open-air events and temporary gatherings, setup and positioning are more flexible. Here, the use of crowd barriers depends on site layout, visitor density and event character. Authorities evaluate the concept together with the organizer. In practice, the following recommendations have proven effective:

- Division of large standing areas into smaller segments using mobile barrier systems
- Maximum distance between barriers:
Ten meters (33 ft)
- A free rescue lane of at least two meters (6.5 ft) in front of the stage
- Cross connections between sectors to ensure access for security staff

Not all of these measures are legally mandatory, but in many approval processes they have become standard practice today.



A SUCCESSFUL EVENT IS ONE WHERE EVERYONE GETS HOME SAFELY. EVERYTHING ELSE IS SECONDARY.

In addition, the concept of so-called safety spokespersons has proven effective in practice. They act as a communicative interface with the audience, build trust and provide clear instructions in case of an emergency. While not legally required, this model is explicitly recommended by many authorities and expert bodies.

Technology in Action for Safety

Modern large-scale events rely on digital technology to enhance safety. Intelligent camera systems with image recognition track crowd movements in real time. They detect unusual patterns such as congestion, excessive density or counterflows and send early warning signals to security staff. Event apps are also increasingly used for communication. They deliver real-time updates, warnings or directions directly to visitors' smartphones. Combined with geofencing, messages can even be sent with pinpoint location accuracy.

Follow-Up: Learning from Practice

Responsible safety management does not end when the curtain falls. During the follow-up, organizers analyze together with all stakeholders what worked well and where improvements are needed. Such debriefings provide valuable insights for future events and support the continuous development of safety concepts.

Conclusion: Safety Through Interaction

Safety at large-scale events is no coincidence. It is the result of thoughtful planning, professional staff, clear communication and technological support. Anyone taking responsibility for thousands of people must think not only about music, lighting and catering, but above all about pathways, zones and people.



EVENT APPS

EVENT APPS ARE INCREASINGLY BEING USED FOR COMMUNICATION. THEY DELIVER REAL-TIME UPDATES, WARNINGS OR DIRECTIONS DIRECTLY TO VISITORS' SMARTPHONES.

Crowd-Control-Barrier

A cost-effective solution, ideal for crowd separation or guiding visitor flow.



Stage Barriers

Robust aluminum construction with step platform for security personnel and modular design. Also available with passageways.

Mobile Systems and Their Applications

Different types of crowd barriers are used depending on requirements:

- Stage barriers made of robust aluminum construction with step platform for security personnel and modular design
- Stage barriers with passageways: Flexible and lightweight, often foldable, ideal for temporary use
- Crowd-control barriers: Cost-effective, primarily suitable for separation or guiding pathways, not designed to withstand high pressure forces

Which system is appropriate depends on the expected crowd dynamics, site layout and safety requirements.

Safety Through Structure and Access

When properly planned and positioned, crowd barriers serve several functions simultaneously:

- They prevent dangerous crowd pressure build-ups
- They structure audience areas and improve orientation
- They create retreat zones and workspaces for emergency personnel
- They support targeted crowd management during entry, show highlights and evacuations

LITTLE HELPER



Marking Tape PVC red/white or yellow/black

Perfect to mark separated zones

Marking Tape Antislip

- Slip resistance classification R13
- Classification R10 (administrative sector)



EUROLITE Cablebridge 5 Channels 900x500x50mm

Rugged cable crossover with antislip yellow cover, maximum load 9000 kg

next Generation



OMNITRONIC MAXX-1508NG 2.1
Active System

OMNITRONIC MAXX-1810NG 2.1
Active System

OMNITRONIC introduces the MAXX NG active system, a powerful all-in-one solution available in two versions, designed especially for applications demanding both sound volume and mobility. As a classic 2.1 system, consisting of an active subwoofer and two passive tops, the MAXX NG delivers a punchy, clear sound and impresses with deep bass that can both be heard and felt. Users can choose between a 15-inch or an 18-inch version, each paired with a matching top unit.

At the core of the system is the integrated amplifier module with a digital signal processor. Factory-tuned features include a multiband compressor, multi-stage limiter, active phase correction and delay compensation—ensuring an optimally calibrated and reliable system. For fine-tuning, users have access to five DSP presets (MUSIC, LIVE, SPEECH, 80 Hz Low Cut and FLAT), along with a 3-band equalizer and separate level controls for subwoofer and tops. An integrated 4-channel digital mixer is also available in the DSP menu, enabling multiple input channels to be mixed directly: Ideal for smaller setups without an external mixer. With selectable 1.1 and 2.1 speaker configurations, the system can be adapted perfectly to different requirements.

The built-in fan cooling operates pleasantly quiet, as the fan is located inside the subwoofer and the control panel is fully enclosed. This makes the system suitable even for noise-sensitive environments. For added flexibility, Bluetooth audio with a range of up to 10 meters indoors is included, making it perfect for wireless playback of music or speech.

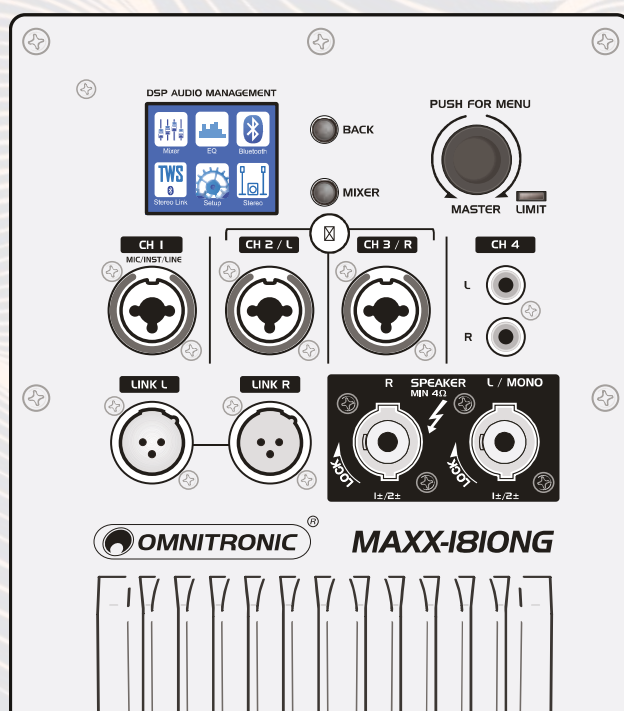
The MAXX-1508 NG, with its 15-inch subwoofer, already provides a solid bass foundation for small to medium-sized events. For those needing more low-end reserves, the MAXX-1810 NG variant with its 18-inch driver delivers its full potential, especially in bass-heavy applications or larger venues. Both subwoofers feature a black metal grille with acoustic foam behind it, two side carrying handles, four rubber feet and fittings for optional caster wheels.

The matching top units are also built with robust construction and deliver a clear, well-balanced sound in the mid and high frequency ranges. The 8-inch model of the MAXX-1508 NG is ideal for compact setups, while the 10-inch top unit of the MAXX-1810 NG offers greater range and dynamics for larger spaces. Sturdy carrying handles and rubber feet once again ensure stability and easy transport.



The MAXX NG is an excellent choice for anyone who does not want to compromise on powerful sound at mobile events. The system is particularly well-suited for mobile DJs, club nights, parties, live bands on smaller stages, as well as presentations with a musical focus or strong bass content. At promotional events with audiovisual elements, the MAXX NG provides the necessary acoustic impact.

Each package includes one active subwoofer with power cable and two matching top units with speaker cables. The combination of easy handling, rugged construction and impressive sound performance makes the MAXX NG a versatile tool for professional sound reinforcement.

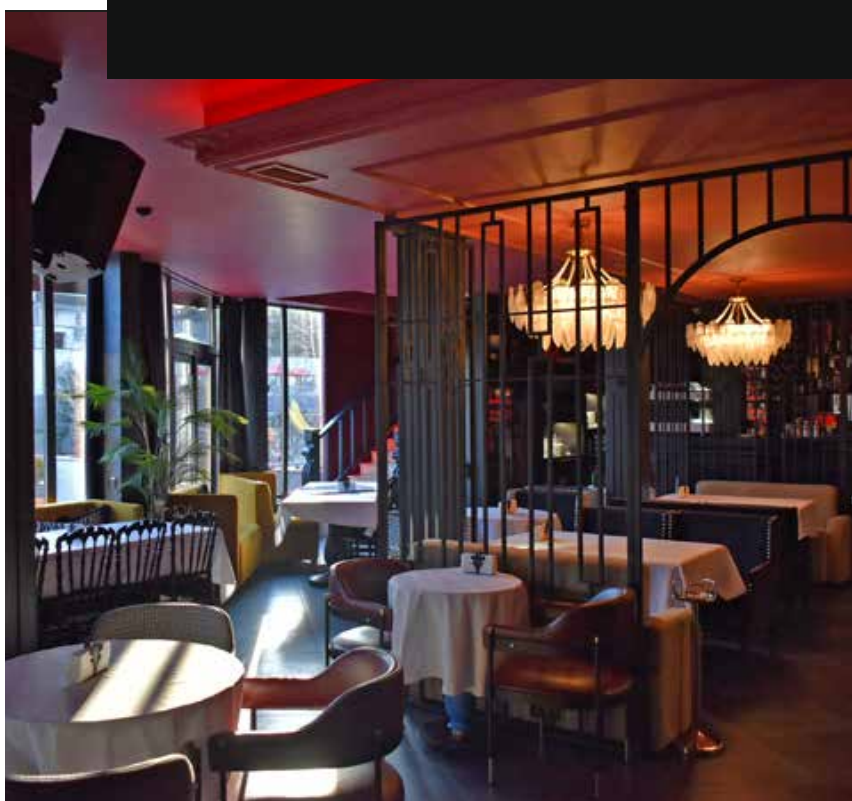


Product	MAXX-1508NG	MAXX-1810NG
Output power:	800 W RMS System	800 W RMS System
Frequency range:	40 - 20000 Hz System	38 - 20000 Hz System
Max. SPL:	132 dB System	134 dB System
Weight:	45.05 kg	56.20 kg
Sub		
Speaker:	1 x 15" woofer with ferrit magnet	1 x 18" woofer with ferrit magnet
Dimensions W x D x H:	43.5 cm x 52 cm x 51 cm	51 cm x 60 cm x 61.5 cm
Top		
Speaker:	1 x 8" woofer with ferrit magnet	1 x 10" woofer with ferrit magnet
Dimensions W x D x H:	27 cm x 27 cm x 44.2 cm	29 cm x 29 cm x 46.3 cm



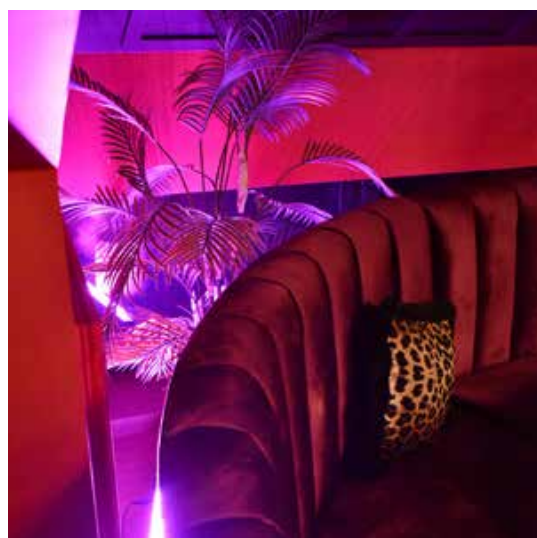
Oro

**RESTAURANT ORO
//ORO; CHISINAU,
MOLDOVA**





A visit to the ORO disco and lounge in Chisinau, Moldova, is an experience for all senses. In addition to the visual highlight, created by installing mirror balls in various sizes and using EUROLITE LED PIX-144 RGB bars and PST-3W pinspots, a visit to this location is also an acoustic delight: PAS-210 MK3 speakers by OMNITRONIC, complemented by DDA-1700 and DDA-2500 amplifiers and K-215 speakers from PSSO, ensure the perfect evening's entertainment.



XNG

XNG Series by OMNITRONIC: Versatile Sound in a Compact Format

With the new XNG Series, OMNITRONIC introduces a practical line of loudspeakers featuring both active and passive 2-way systems in four different sizes, ranging from 8 to 15 inches. Designed for mobile use, the series is particularly well-suited for DJs, rental companies, fitness studios and event venues that value easy handling and reliable sound quality.







OMNITRONIC XNG Series

Available as passive and active 8", 10", 12" and 15" versions



8" and 10"



12" and 15"

Active Speakers with DSP and Bluetooth

The active models of the series – marked with an "A" in their name – come equipped with a powerful Class-D amplifier and DSP. The DSP includes a multiband compressor, limiter, EQ, delay and various presets tailored to different applications. For modern setups, a Bluetooth interface with stereo link is also integrated, allowing two speakers to be paired wirelessly as

a stereo system. Operation is made easy via an LCD display. All models run fanless through passive cooling, making them especially low-maintenance and completely noiseless. Sturdy handles and flexible mounting options further simplify transport and setup.

ACTIVE

Product	XNG-208A	XNG-210A	XNG-212A	XNG-215A
Power:	350 W RMS System 250 W RMS (8 ohms) LF 100 W RMS (8 ohms) HF	350 W RMS System 250 W RMS (8 ohms) LF 100 W RMS (8 ohms) HF	350 W RMS System 250 W RMS (8 ohms) LF 100 W RMS (8 ohms) HF	400 W RMS System 300 W RMS (8 ohms) LF 100 W RMS (8 ohms) HF
Frequency range:	65 - 20000 Hz	58 - 20000 Hz	45 - 20000 Hz	45 - 20000 Hz
Sensitivity:	121 dB	122 dB	123 dB	125 dB
Dispersion angle:	90° x 60°	90° x 60°	90° x 60°	90° x 60°
Impedance:	8 ohms	8 ohms	8 ohms	8 ohms
Speaker:	1 x 8" woofer/ferrit magnet 2" voice coil lows/ferrit magnet 1" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 10" woofer/ferrit magnet 2" voice coil lows/ferrit magnet 1" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 12" woofer/ferrit magnet 2.5" voice coil lows/ferrit magnet 1.35" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 15" woofer/ferrit magnet 3" voice coil lows/ferrit magnet 1.75" voice coil compression tweeter highs 1 x 1" compression tweeter highs
Dimensions:	25.9 cm x 25.0 cm x 43.2 cm	30 cm x 28.6 cm x 51.8 cm	35.5 cm x 34.5 cm x 61.8 cm	42 cm x 38.2 cm x 69.5 cm
Weight:	8.6 kg	10.6 kg	15.5 kg	19.9 kg

XNG



Passive

Active

ACTIVE

- **DSP:** Delay; Multiband Compressor; Multistep Limiter; Active Phase Correction; Delay Compensation; 3-Band EQ
- **DSP-Presets:** DEFAULT; LIVE; DANCE; MONITOR; SPEECH
- **Passive convection cooling**
- **Low Cut:** FLAT, 80Hz, 100Hz, 120Hz,
- **Bluetooth:** With Stereo-Link (TWS)



Passive Models

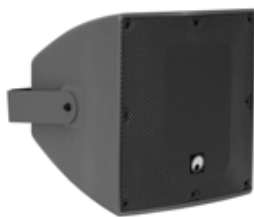
The passive versions – XNG-208, XNG-210, XNG-212 and XNG-215 – are mechanically identical and designed for use with external amplifiers. With power ratings between 200 and 350 watts RMS, they cover a wide range of applications. Here, the focus is on durability and straightforward integration into existing systems.

Conclusion

The XNG Series combines well-thought-out features with an impressive price-performance ratio. Whether as an active all-in-one solution or as passive loudspeakers, the series offers versatile applications in a compact format. For those looking for reliable sound reinforcement at a fair price, the XNG Series delivers.

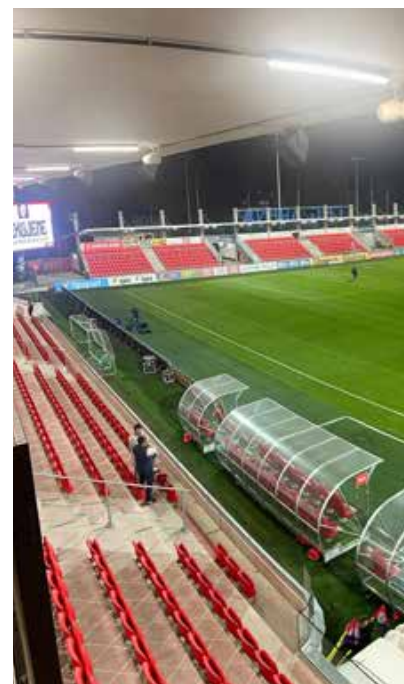
PASSIVE

Product	XNG-208	XNG-210	XNG-212	XNG-215
Power:	Peak: 400W / 200W RMS	Peak: 500W / 250W RMS	Peak: 500W / 250W RMS	Peak: 700W / 350W RMS
Frequency range:	65 - 18000 Hz	58 - 18000 Hz	50 - 18000 Hz	48 - 18000 Hz
Sensitivity:	120 dB	121 dB	123 dB	125 dB
Dispersion angle:	90° x 60°	90° x 60°	90° x 60°	90° x 60°
Impedance:	8 ohms	8 ohms	8 ohms	8 ohms
Speaker:	1 x 8" woofer/ferrit magnet 2" voice coil lows/ferrit magnet 1" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 10" woofer/ferrit magnet 2" voice coil lows/ferrit magnet 1" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 12" woofer/ferrit magnet 2.5" voice coil lows/ferrit magnet 1.35" voice coil compression tweeter highs 1 x 1" compression tweeter highs	1 x 15" woofer/ferrit magnet 3" voice coil lows/ferrit magnet 1.75" voice coil compression tweeter highs 1 x 1" compression tweeter highs
Dimensions:	25.9 cm x 25.0 cm x 43.2 cm	30 cm x 28.6 cm x 51.8 cm	35.5 cm x 34.5 cm x 61.8 cm	42 cm x 38.2 cm x 69.5 cm
Weight:	8 kg	9.5 kg	15 kg	19 kg



OMNITRONIC ODX-212TM

Weatherproof 12" wall speaker (IP56) with mount, 300 W RMS



ARNOŠT-KOŠT'ÁL STADIUM // PARDUBICE, CZECH REPUBLIC





In November 2024, the Arnošt-Košťál Stadium, home stadium of FK Pardubice (Czech Republic), underwent extensive renovation and was equipped with a new sound system. The modernized arena, with 4,620 covered seats, now offers comprehensive sound reinforcement with 42 OMNITRONIC ODX loudspeakers, including the ODX-212TM and ODX-215TM models. These were mounted on galvanized brackets on all four stands and ensure even sound distribution. The system is controlled via a touchscreen control panel in the control room, which regulates the volume by means of a Dante network. The company HDT from Dalovice (Czech Republic) was responsible for the implementation.



CARSTEN KÜMMEL, CERTIFIED SOUND ENGINEER



**“IT IS MY JOB TO CONVEY
THE EMOTIONS FROM THE
STAGE TO THE AUDIENCE.”**

Carsten Kümmel is a master of his craft: He can be found behind the world's biggest mixing desks. In an interview, he told us how he went from Costa Cordalis to the Eurovision Song Contest and what advice he would give to young professionals.

Carsten, you are one of the most sought-after live sound mixers in Europe and now even a professor in your field. The big stages, or rather the FOH booth in front of them, are your world. Recently, for example, you were at the Eurovision Song Contest in Basel, working the controls. How would you briefly describe your job?

In short, my job is to convey emotions from the stage to the audience. Is that short enough? (laughs)

Why did you choose this profession?

Even as a teenager, I was passionate about music. A key moment back then was when I played keyboard in a band myself. I was part of a relatively successful cover band in my hometown. At one concert, I was allowed to mix our opening act and later joined the others on stage. I enjoyed mixing much more than performing. That was a really decisive moment for me. In 1993, I started studying medicine, but at the same time I was in the studio with my band and realized that working as a doctor would never give me the same passion as working with music. So I dropped out of college and applied for sound engineering courses in Detmold and Berlin and a sound engineering degree in Düsseldorf.

Can you still remember your first mixing job? What was it, when was it, and what equipment did you have at your disposal at the time?

LOL – Of course I can. When I was 15 or 16, I started helping out at a small PA rental company. It was a dialect group in Hesse, and the FOH guy let me take over the four voices under his supervision while he mixed the instruments. I was extremely nervous. The equipment was a Dynacord Stagemate and, I think, a Dynacord P7 PA. I also remember the effects unit. It was a Dynacord DRP20. I do not remember the rest.

What was your professional career path like? What did your “training” involve?

In 1994, I passed the entrance exam for the sound engineering program in Detmold and was allowed to start studying there in 1997 after a three-year wait. During the waiting period, I completed an internship at a recording studio and earned my preliminary degree in electrical engineering. During my first semester, I was asked to fill in for Costa Cordalis for the Hico company in Wetzlar. That was my start in really earning money with this job. I then mixed for Costa for the next three years. In 2003, this company also gave me Robin Gibb, who was touring with an orchestra at the time. In 2001, I mixed my first orchestra, and over the

years, this became more and more frequent, to the point where I now almost exclusively mix orchestras. Since 2003, I have also focused on teaching. First at a private school, then at Darmstadt University of Applied Sciences as a lecturer since 2007, and as a professor since 2014. In October of this year, I will be moving to Detmold University of Applied Sciences, my alma mater.

So, it is a full circle moment! What has been the biggest challenge in your career so far?

Phew, that is hard to say. I have had many complex jobs, but with good planning, they all run smoothly. Whether it is Hans Zimmer, Opera for All in Munich, Planet Earth, or the ESC. Everything went smoothly. I cannot really answer that question. Probably a rather small job!

Is there a highlight from all these years that you particularly like to look back on?

My time with Peter Herbolzheimer. Musically, it is still the best I have ever played. Not even the Hans Zimmer Band could match it. My eight years with Robin Gibb were also very special. Who else gets to mix a set list in which every song was a number one hit? The Bee Gees, of course!



What advice would you give to a young person who would also like to pursue this career?

Passion, continuous learning and never looking at the clock. Mix everything you can get your hands on and go the extra mile.

Carsten, thank you very much for your time and the interesting interview!

WIRELESS MICROPHONES:

The Right Frequency for a Stable Transmission

Wireless microphones have become indispensable in event technology. They give performers and technicians maximum freedom of movement while greatly simplifying the setup of audio systems. However, choosing the right frequency is crucial to avoid interference and ensure a stable transmission.

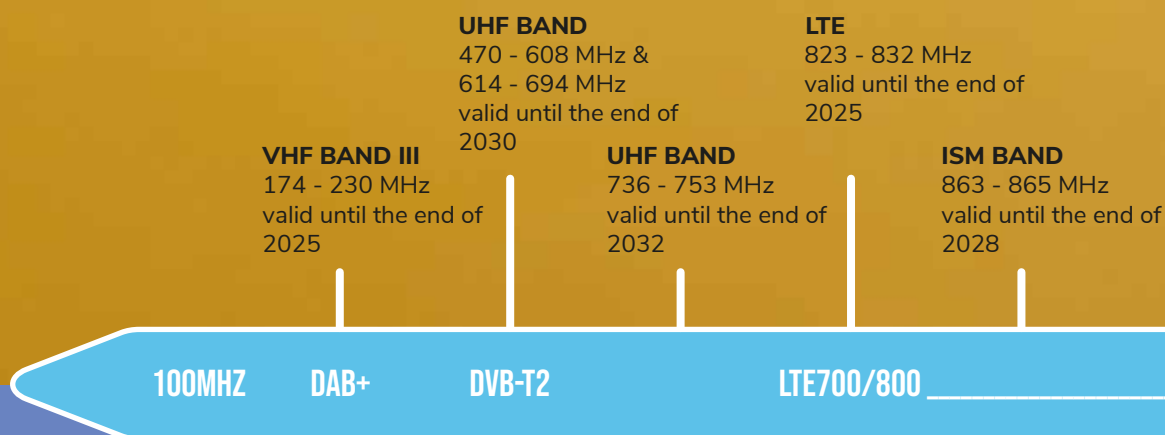
How Do Wireless Microphones Work?

Wireless microphones transmit their audio signal much like radio stations – on a specific frequency or within a frequency band. Whether the signal is transmitted analog or digital is of secondary importance. What really matters is that the available frequency spectrum is limited and subject to strict regulations. Each country has its own rules governing who may use which frequencies. Manufacturers adapt their systems accordingly so they can operate across different frequency ranges.

Which Frequencies Are Stable and Legal?

From a physics standpoint, several factors influence the signal quality of wireless microphones: Temperature, humidity, transmission power and frequency range. The general rule is: The lower the frequency, the greater the range. Systems operating in the 2.4 GHz band have relatively limited range, as many other wireless technologies such as Wi-Fi and Bluetooth are active here. By comparison, systems in the 500 MHz range offer a more stable connection, greater range and less susceptibility to interference.

Since the use of the spectrum is regulated by law, not every band can be used. In Germany, the following ranges are approved for wireless microphones:



1. VHF Band III: 174 – 230 MHz

General allocation: Vfg. 59/2015, valid until the end of 2025
This band provides an alternative to higher ranges and has been regaining interest, especially in the professional digital sector. However, its use may be affected by digital radio DAB+. Maximum transmission power: 50 mW.

2. UHF Band: 470 – 608 MHz and 614 – 694 MHz

General allocation: Vfg. 34/2020, 99/2022, valid until the end of 2030
These ranges are the first choice for professional applications such as concerts, theater performances or broadcast productions. Despite DVB-T2 usage, they still provide enough room for large wireless setups. Maximum transmission power: 50 mW.

3. UHF Band: 736 – 753 MHz

General allocation: Vfg. 100/2022, valid until the end of 2032
Maximum transmission power: 50 mW.

4. LTE Duplex Gap: 823 – 832 MHz

General allocation: Vfg. 2/2015, valid until the end of 2025
A license-free band, particularly suitable for smaller, private applications. It is recommended to perform a spectrum scan to avoid interference with LTE signals. Maximum transmission power: 100 mW (82 mW for handheld transmitters in the 823 – 832 MHz range).

5. ISM Band: 863 – 865 MHz

General allocation: Vfg. 107/2018, valid until the end of 2028
This license-free band, available throughout Europe, offers a simple solution for amateur and hobby use. However, with only 2 MHz of bandwidth, usually only a few microphones can be operated simultaneously. Maximum transmission power: 10 mW.



CONCLUSION: Which Band Is the Best Choice?

Professional users tend to rely on the 470–694 MHz range, as it offers an optimal balance of stability, coverage and resistance to interference. Private users benefit from the license-free sections within the LTE duplex gaps or the digital GHz bands. Anyone planning a larger wireless setup should consider combining different ranges to minimize interference.

Whether professional or amateur, choosing the right spectrum ensures smooth performance and prevents unexpected disruptions. It is advisable to check the applicable regulations and regional specifics in advance to guarantee a seamless wireless audio experience.

1,4 GHz BAND
1350 - 1400 MHz
valid until the end of
2032

DECT BAND
1,9 GHz
valid until the end of
2025

1,8 GHz BAND
1785 - 1805 MHz
valid until the end of
2025

WLAN BANDS
2,4 GHz - 5 GHz
Licence-free worldwide

LTE1800

DECT

WLAN

6GHZ

6. 1.4 GHz Band: 1350 – 1400 MHz

General allocation: Vfg. 6/2022, valid until the end of 2032
Maximum transmission power: 50 mW.

7. 1.8 GHz Band: 1785 – 1805 MHz

General allocation: Vfg. 3/2015, valid until the end of 2025
Another range within the LTE duplex gaps, suitable for private users. Due to its physical characteristics, it is best used as a supplement to other bands. Maximum transmission power: 82 mW.

8. DECT Band: 1.9 GHz

General allocation: Vfg. 25/2015, valid until the end of 2025
This range uses the digital DECT standard and offers high coverage and a large number of channels. However, due to high latency, it is less suitable for musicians. Maximum transmission power: 250 mW.

9. Wi-Fi Bands: 2.4 GHz and 5 GHz

General allocations: 2.4 GHz (Vfg. 128/2023, valid until 2033) and 5 GHz (Vfg. 136/2022, 49/2023, valid until 2032)
These globally license-free bands are becoming increasingly popular, especially for digital applications. However, they are heavily used by Wi-Fi and Bluetooth, which can cause interference.
Maximum transmission power: 100 mW at 2.4 GHz and 200 mW at 5 GHz.



INTUSONIC 4FW50T
4" Fullrange Speaker black

CAFE PFEIL // WALDBRÖL, GERMANY

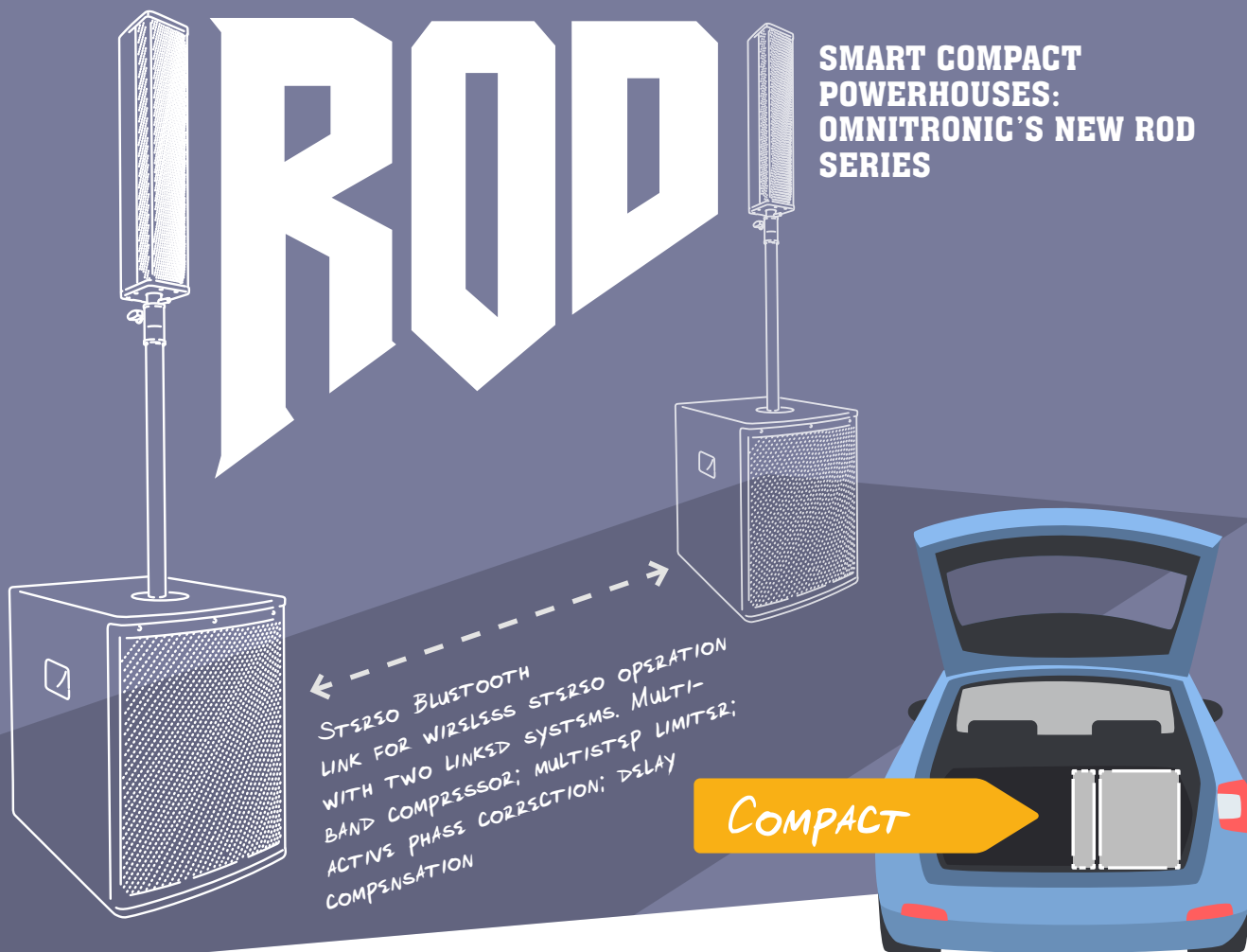
In spring 2025, Café Pfeil in Waldbröl underwent a complete technical overhaul. Owner Mehmet Ümit opted for INTUSONIC technology to ensure good sound quality. The installation was carried out by EventService Oberberg (Steffen Thomas).

In addition to a DLA26 zone distributor, 4FW50T full-range speakers, 2-way outdoor speakers, Class D amplifiers and 8" subwoofers were used.



INTUSONIC 6FP80R
6" 2-way Outdoor
Speaker black





SMART COMPACT POWERHOUSES: OMNITRONIC'S NEW ROD SERIES

With the new ROD series, OMNITRONIC is launching two mobile column PA systems that make a strong statement in terms of sound, features and ease of use. Both the ROD-1043 and the larger ROD-1283 are aimed at demanding users who value professional sound, advanced DSP functions and straightforward mobility.

Both systems impress with powerful amplifiers, high headroom and a balanced frequency spectrum that covers both punchy bass and clear highs. Despite their power, they remain easy to transport and are ready to use within minutes. While the more compact model operates completely fanless – and is therefore absolutely silent – the larger system uses low-noise cooling fan. This also makes it ideal for use in acoustically sensitive environments.

At the heart of both versions is a digital signal processor that goes far beyond classic sound adjustment. Factory-set features include a multiband compressor, multi-stage limiter, active phase correction and delay compensation, ensuring a cleanly tuned system. Users also have additional sound-shaping options with five presets and a 3-band EQ for fine-tuning. In the larger model, these presets influence not only the EQ but also compression and frequency distribution. Available modes include FLAT, MUSIC, LIVE, SPEECH, BASS BOOST

and LOW CUT, each tailored to typical application scenarios. The larger ROD-1283 is particularly practical with its combination of preset selection and an additional 3-band EQ. For example, if you want to further enhance vocal presence in the speech preset or adjust the bass in music mode, this can be done directly on the device. This keeps sound tuning both flexible and precise; whether in rehearsal rooms, on stage or during presentations.

Operation of the ROD-1283 is via a clear LCD color display. A variety of inputs and outputs are available for external sources, including XLR/jack combo connectors, RCA, 3.5 mm aux and Bluetooth. A particularly convenient feature is the wireless stereo link function, which allows two systems to be paired without cables. Bluetooth range is up to ten meters indoors.

The rugged housing is equipped with a black metal grille and sound-permeable acoustic foam. Carrying handles and feet ensure safe handling and stability, even in mobile use.

Whether for DJ sets, live music, corporate presentations or outdoor sound reinforcement: the OMNITRONIC ROD series delivers professional results with maximum flexibility. Anyone looking for a modern, powerful and easy-to-use column PA will find it here.



OMNITRONIC ROD Stand Adaptor
35->25mm



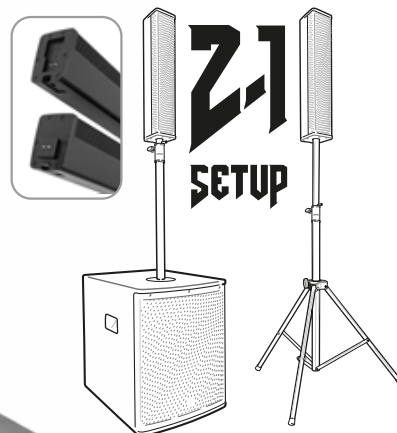
OMNITRONIC ROD Cover set

OMNITRONIC ROD-1043
Active Column Speaker System

Mobile column PA system with DSP,
mixer, stereo Bluetooth link,
350 W RMS



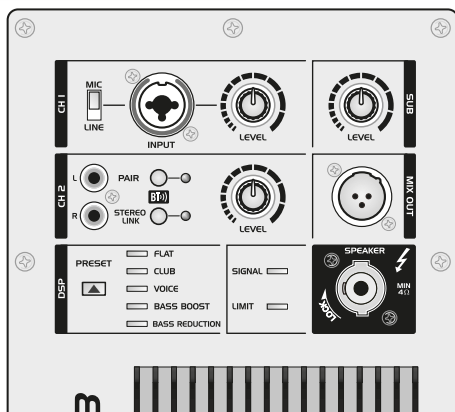
The ROD-1283 offers various modes: The split column can be used as a mono setup (1.1) with two tops stacked on top of each other, or separated and configured as a stereo setup (2.1) with two tops (L/R) and one subwoofer.



OMNITRONIC ROD-1283
Active Column Speaker System

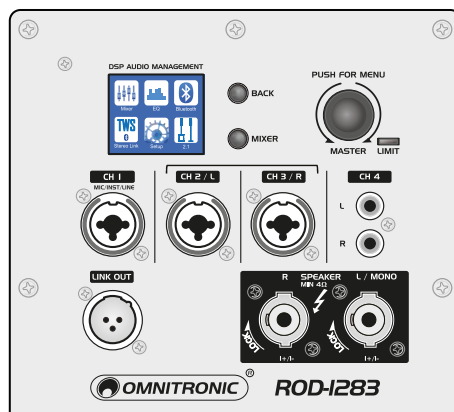
Mobile column PA system with DSP,
mixer, stereo Bluetooth link,
800 W RMS

ROD-1043



Backpanel Bass

ROD-1283



Product	ROD-1043	ROD-1243
Output power:	350 W RMS System	800 W RMS System
Frequency range:	42 - 20000 Hz System	40 - 20000 Hz System
Max. SPL:	125 dB System	128 dB System
Weight:	20 kg	22.5 kg
Bass		
Speaker:	1 x 10" woofer with ferrit magnet	1 x 12" woofer with ferrit magnet
Dimensions W x D x H:	32 cm x 46.5 cm x 44.5 cm	37 cm x 52 cm x 48 cm
Top		
Speaker:	4 x full range loudspeaker 3" neodymium magnet	4 x full range loudspeaker 3" neodymium magnet
Dimensions W x D x H:	8.5 cm x 10.5 cm x 45 cm	8.5 cm x 10.5 cm x 45 cm

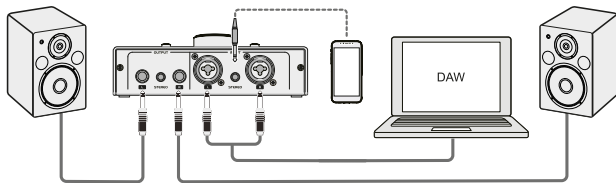


IN FULL CONTROL



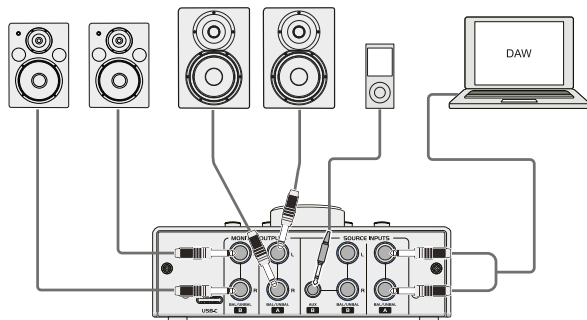
OMNITRONIC VC-11 Volume Controller, passive

Passive monitor controller with mute and mono summation



OMNITRONIC VC-22 Volume Controller, active

Monitor controller with source and monitor selection and Bluetooth connectivity



With the VC-11 and VC-22 models, OMNITRONIC offers two compact monitor controllers in a practical desktop format. They are designed for users who need direct and intuitive control over their speakers – for example in home studios, at workstations or in professional setups. The VC-11 is a passive volume controller that operates without a power supply. It allows precise level control and also provides a mute function and mono summing. Ideally placed between a PC sound card and active speakers or amplifiers, the VC-11 delivers a straightforward yet effective monitoring solution with a large volume knob for detailed adjustments. The VC-22 takes it a step further: In addition to volume control, it enables switching between two signal sources and two monitor pairs. It also features a built-in Bluetooth receiver with a range of up to 10 meters (indoors), allowing mobile devices to be connected wirelessly. This makes spontaneous track playback or quick switching between sources effortless.

Both models impress with a sturdy, ergonomically angled desktop housing and provide control you can both see and hear.





DJ STAND EXTENSION FRAME

OMNITRONIC offers this extension frame as the perfect add-on for DJ stands. The lightweight square-tube construction features six mounting points for lights and effect devices. Assembly and disassembly are completely tool-free and can be done within moments. The frame is designed for DJ stands with a width of 110 cm as well as 25 mm tubing. Four adapter pieces for 20 mm tubes are also included. A practical carrying bag is part of the package as well.

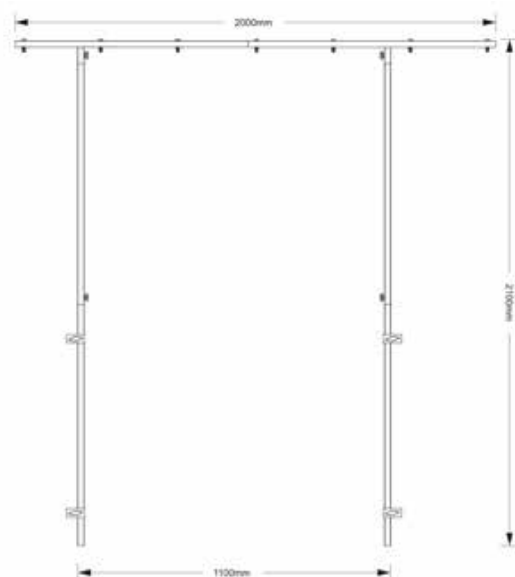


OMNITRONIC Extension Frame for DJ Stand

Attachable DJ stand extension
frame

OMNITRONIC Set Compact Mobile DJ Stand incl. Cover + Extension Frame

Portable DJ table (1 m) with
screen for mobile applications



Maximum load: Distributed 6x 5 kg



incl. bag



FROM CHILDREN'S SONGS TO COW CONCERTS

How music affects children, cattle and other animals

Music is more than entertainment. It is a fundamental part of our biological and cultural development. From an early age, it influences our brains, our emotions and our social skills. Neuroscientific and behavioral biology studies prove that music has a profound effect, not only on humans but also on other mammals. It promotes communication, strengthens bonds and activates complex neural networks. For an industry that shapes experiences and connects people, it is worth taking a look at music – as a force that profoundly shapes how we think, feel, and interact with one another.



For a long time, music was considered a “by-product” of language in research; a skill with no clear evolutionary survival advantage. However, interdisciplinary studies in psychology, archaeology and musicology show that music did not arise by chance, but as a social tool to strengthen bonds, promote communication and hold groups together. Music played a central role, especially between mother and child, for example in the form of lullabies.

WHAT MUSIC DOES TO THE BRAIN

Music is not processed in a single location in the brain, but rather in an interplay between many different areas. When we hear a sound, it is picked up by the ear and transmitted to the brain via nerve pathways. There, the auditory cortex deals with basic aspects such as pitch and volume. When we recognize melodies or rhythms, additional regions of the brain responsible for movement are activated. We start tapping our feet or dancing along.

At the same time, the “emotional brain” also reacts: Music can trigger feelings, evoke memories, and even release happiness hormones. In addition, some brain regions are measurably more developed in people who work with music a lot or play an instrument. This has a positive effect in old age,

for example. A study by the University of Exeter concluded that people who actively played music throughout their lives had better memory performance in old age. A new study also concludes that lifelong music-making has a positive effect on the brain’s abilities and enables it to better compensate for damage or age-related diseases such as dementia and Alzheimer’s, at least for a while. In addition, music can help people suffering from dementia, for example, to recall memories of their childhood and youth. Musical experiences from childhood and youth are particularly memorable and often remain deeply embedded in remembrance.

PRACTICE MAKES PERFECT: MUSIC IN CHILDHOOD

Speaking of childhood: Children who receive early musical training often demonstrate good concentration skills, strong problem-solving abilities, and a high degree of social competence. This is because music affects various areas of the brain during early childhood development, thereby promoting long-term cognitive enhancement. It

therefore makes perfect sense to integrate music into children’s everyday lives at an early age: Through singing together, rhythmic clapping, dancing or playing their first musical instruments. Studies show that rhymes and rhythms support language development. Regular singing also has a positive effect on vocabulary and language skills.

By the way: Babies perceive sounds and audible stimuli even in the womb. They respond to them with movements or changes in their heartbeat.





CLASSICAL MUSIC IN THE COWSHED, BEATS IN THE LIVING ROOM

But it's not just humans who benefit from music: The animal world also shows how powerful sounds can be. Whether in living rooms, cowsheds, or zoos, animals often react sensitively to music. Some relax when they hear gentle melodies, while others become active, curious, or even more sociable. A look beyond species boundaries shows that music is more than just human. It also moves animals. Cows also seem to react positively to music, for example in regards to milking.

Many farmers are also convinced that music can even increase milk production.

But which sounds are particularly effective in the cowshed? Opinions differ on this: While some swear by

classical music, others prefer rock or brass band music.

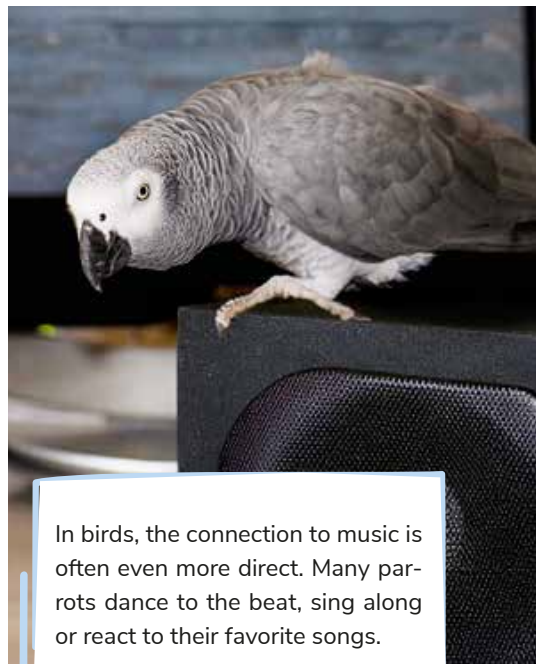
A representative study conducted by the University of Leicester in 2001 provided some interesting insights into this. Over a period of nine weeks, around 1,000 cows were played a wide variety of music genres. The result: On days when the animals listened to slow music with less than 100 beats per minute, they produced an average of 0.73 liters more milk than on days without music. Fast rhythms with over 120 beats per minute, on the other hand, had a negative effect on milk production. The scientists were even able to compile a hit list: Beethoven's Symphony No. 6, Simon & Garfunkel's "Bridge over Troubled Water," and Lou Reed's "Perfect Day" top the list of musical favorites for increased milk production – gentle sounds with a relaxing effect, even in the barn.

MUSIC IN THE ANIMAL BRAIN – WHAT ACTUALLY HAPPENS THERE?

Cows are not the only animals that react sensitively to musical stimuli. Many other animals also show remarkable reactions to certain sounds. Studies have shown that dogs become calmer when listening to classical music, while heavy metal tends to make them restless or nervous. Some animal shelters therefore use music specifically to calm stressed dogs. Cats also react, but more selectively: Researchers have even developed special "cat music." In scientific terms, this is music that has been composed specifically for cats – based on their natural communication. Since cats perceive different pitches

and rhythms than humans, this music is based on purring, meowing or the heartbeats of kittens, for example. It is usually higher in pitch, slower in tempo, and contains soft, gliding sounds.

Even elephants and dolphins show an amazing sense of rhythm and react to certain melodies with curiosity or playfulness. Music therefore not only influences behavior, but can also increase the emotional well-being of animals – provided that the style, volume and rhythms are appropriate for the species in question.



In birds, the connection to music is often even more direct. Many parrots dance to the beat, sing along or react to their favorite songs.

WHAT MUSIC TRIGGERS IN THE ANIMAL BRAIN

But what happens in the brain of a mammal when music is heard? Similar to humans, the sounds activate different regions of the brain simultaneously. The auditory system, the limbic system (responsible for emotions), and, in some animals, motor areas play a particularly important role. The stimuli are processed in the ear, transmitted, and, depending on frequency, rhythm and volume, can reduce stress or increase activity.

In mammals, for example, soft music with a steady rhythm often leads to the release of dopamine. This is a neurotransmitter that promotes pleasant feelings and relaxation. At the same time, the level of the stress hormone cortisol decreases. This effect contributes to cows producing more milk when listening to calm music. They relax, and this relaxation has a positive effect on milk production.

It is also interesting to note that some animal species can develop a sense of rhythm and pattern. Studies have shown that birds and primates in particular have the ability to recognize rhythmic structures. This is an indication that music processing in the brain is not exclusively human, but could be deeply rooted in evolution. Whether it is calming, motivating or arousing curiosity, music has different effects on the animal brain depending on the species and situation – but it is almost never ineffective.

MUSIC: MORE THAN JUST A MOOD ENHANCER

Whether it is a child, a cow or a cat, music transcends species boundaries. It calms, invigorates, connects and often remains more deeply embedded in the memory than language. What neurobiological studies show, is something that experienced event professionals have long known:

Music is not an accessory, but a central design element that creates atmosphere, directs emotions and shapes experiences.

In the event industry, this means that those who use music strategically – whether in stage shows or at trade fairs – have a powerful tool at their disposal. Music appeals to the senses, influences audience behavior and creates atmosphere. It is a key stimulus in emotional experiences and thus an indispensable part of any good production.



THE BEST CHRISTMAS PRESENTS FOR FANS OF LIGHT & SOUND



Christmas is just around the corner! And although the “festival of love” is not all about the presents under the tree, we have a few suggestions for gifts that are sure to bring a sparkle of surprise to the eyes of the recipients. Whether they are light lovers or sound fans, there is something for everyone here. With this in mind, let it sparkle, smell and sound!



LIGHTS UP LIKE A
CHRISTMAS TREE – JUST
MORE COLORFUL

EUROLITE AKKU LED Party Tube IR

Battery operated LED color tube
with IR remote control



FLASHING
INSTEAD OF
BLINKING



EUROLITE LED Mini Strobe ABL

Mini LED stroboscope with bright SMD
LEDs, incl. WRC-10 wireless remote control



less than
100 €

LET IT GLOW, LET IT GLOW,
LET IT GLOW



EUROLITE Mirror Ball 20cm with motor + LED PST-5 QCL Spot bk

Mirror ball set including mirror-ball
with a diameter of 20 cm with motor
and spotlight

FULL CONTROL FOR
YOUR SETUP



OMNITRONIC TMO-4 Monitor Stand 2x

2 monitor stands with
table clamp, adjustable
inclination and height,
max. load 20 kg

THE BEDSIDE LAMP FOR
EVENT TECHNICIANS



EUROLITE AKKU Table Light 2 RGB+WW

Rechargeable outdoor lamp with warm white light and 8 RGB colors

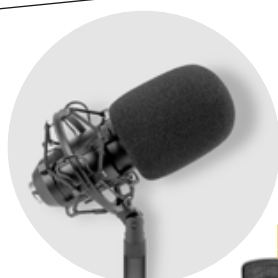


THE SWISS ARMY KNIFE
OF THE EVENT SCENE
FITS IN ANY POCKET - OR
SANTA'S BOOT

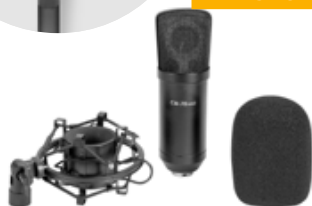


**ALUTRUSS Trusstool
Multi-Tool**

Universal multi-tool for event technicians



PERFECT FOR
VOCALS,
STREAMING,
AND STUDIO USE



**OMNITRONIC MIC CM-78MK2 Large
Diaphragm Condenser Mic**

Large diaphragm condenser microphone for professional studio applications



TWO CHANNELS.
ZERO EFFORT.



**OMNITRONIC UHF E-FLEX 2, Wireless Mic System
559-575 MHz or 559-575 MHz**

License-free 2-channel microphone system with auto sync, incl. rack kit

A FOG MACHINE COULD NOT BE
MORE CHRISTMASSY



EUROLITE NH-50 DMX Fazer

Compact DMX fazer with WirelessDMX port & adjustable output angle



**EUROLITE Smoke Fluid Fragrance, 20ml,
baked apple or vanilla crescents**

Fragrance for smoke fluid



FX MAGIC FOR YOUR
HOLIDAY PLAYLIST

**OMNITRONIC PM-202FX 2-Channel DJ
Mixer with Filter, FX and Bluetooth**

DJ mixer with Bluetooth connectivity, bipolar filter and 6 sound effects





**DREAMING
OF A WHITE
CHRISTMAS**



**EUROLITE Set Snow 3001 Snow
Machine + Snow Fluid 1l**

Powerful mini snow machine including
1l snow fluid for artificial snow



**STARLIGHT MAGIC UNDER
THE CHRISTMAS TREE**



**EUROLITE PolarStar RGB
Laser**

Star laser for colored and
white star effects and LED
northern light effect



**FOUR SPOTS, ONE SOFT BAG –
AND LOTS OF WOW**



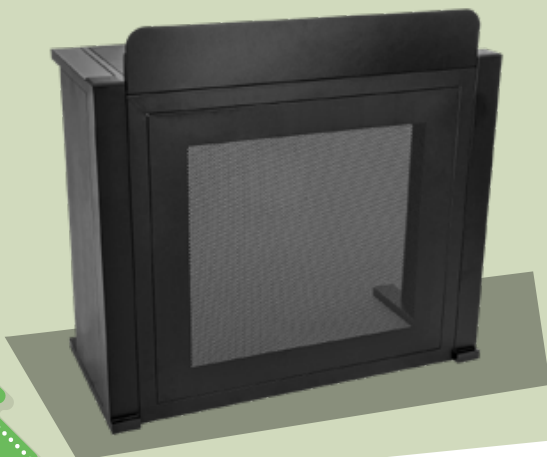
**EUROLITE Set 4x AKKU Mini UP-4 QCL Spot
MK2 + Soft bag**

4x small battery-powered uplight with RGBW
LEDs and IR remote control

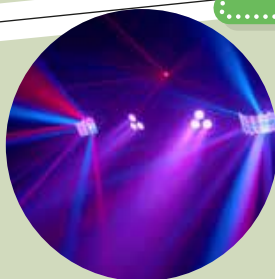
**OPEN IT UP,
SET IT UP,
GET STARTED**

OMNITRONIC BOOZ Event Stand

Foldable DJ table (1.1 m) with bag
for mobile applications



**LASER SHOW FOR
ON THE GO**



**EUROLITE LED KLS Laser Bar
FX AIR**

Bar with 2 spots, 2 derbies,
show laser, twinkle effect, AirW
wireless system (2.4 GHz) and
RF remote control



**SILENT NIGHT?
NO MORE!**



**OMNITRONIC ROD-1043
Active column system**

Mobile column PA system
with DSP, mixer, stereo
Bluetooth link, 350 W RMS



Künstler-Magazin

Fachmagazin für die Show- und Eventbranche



40

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DJ Bobo als Künstler des Jahres 2023 ausgezeichnet



New Additions to the EUROLITE AIR Series

The popular AIR Series is expanding: In addition to two classic KLS systems with four spots each, the Akku Slim Tube AIR now joins the product family. At the heart of all models is the AIRW wireless transceiver, which offers an alternative control option and simplifies everyday use.

Many devices in the series come with a wireless remote control that operates via radio waves instead of infrared. This provides a significantly greater range and eliminates

the need to aim directly at the fixture. With this remote, all AIR devices can be controlled. Three favorite buttons allow users to save lighting scenes – including chasers and effects – for all units and recall them at any time.

The AIRW technology also makes it possible to connect devices wirelessly for master-slave operation. Of course, all AIR devices can still be controlled via standard DMX.

LEVEL 1

"LAMP," "FLASH," "LASER" and "GOBO." With a single press of one of these buttons, the user selects which functional unit of the device is to be controlled.

LEVEL 2

"COLOR," "DIM," "ROTATE," "SFX," "MOVE," "FADE," "AUTO," "MUSIC" and "SENS/SPEED." These buttons control the functions of the previously selected units from Level 1.



EUROLITE Wireless Remote
Control AIR Series

LEVEL 3

Direct color selection for Red, Green, Blue, Yellow, Amber, White and UV, as well as "+" and "-" buttons for fine-tuning the function previously selected in Level 2.

LEVEL 4

"FREEZE," "BLACK OUT" as well as the favorite buttons "FAV 1," "FAV 2" and "FAV 3."

These buttons allow users to trigger previously saved favorite settings, activate the freeze function or initiate a blackout for all devices simultaneously.

The KLS-3002 MK2 AIR is the direct successor of the KLS-3002 and now offers the enhanced capabilities of AIRW wireless technology. Its technical features continue to impress with 28 LEDs, each rated at 12 Watts. The color mixing includes red, green, blue, white, amber and UV, providing a very wide spectrum of colors, including the popular blacklight effect. The DMX modes of the KLS-3002 have been retained and expanded with two additional modes, making it easy to integrate into existing systems. Thanks to its high light output, the KLS-3002 MK2 AIR is suitable for parties, concert stages and mobile theater productions alike. Like the KLS-402, this model operates without a fan, ensuring completely silent performance.



LED KLS-3002 MK2 Compact Light AIR

Bar with four powerful 6-in-1 HCL RGBWA/UV spots, AIRW wireless unit (2.4 GHz), wireless remote control and carrying bag.

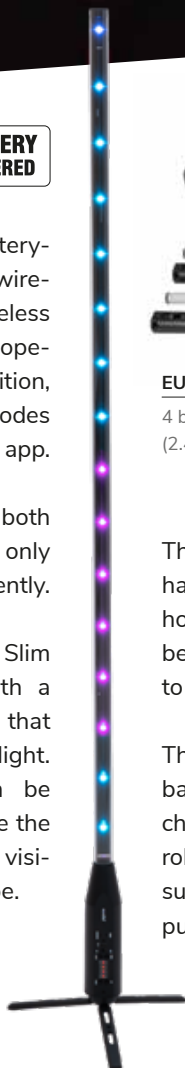


The **AKKU SLIM TUBE AIR** is a battery-powered effect tube, also equipped with the AIRW wireless module. This allows it to be controlled via the wireless remote, transmit a master-slave signal wirelessly or operate in combination with other AIR products. In addition, DMX control is possible, including dedicated DMX modes for the EUROLITE Color Chief and the Light Captain app.

The tube is fitted with 32 SMD LEDs that emit light on both sides. Users can choose to operate only the front or only the rear 16 LEDs, with each side controllable independently.



By default, the Slim Tube comes with a frosted cover that creates softer light. This cover can be removed to make the individual LEDs visible on a dark tube.



EUROLITE AKKU Slim Tube AIR Set

4 battery-powered effect tubes with 32 pixels, AIRW wireless unit (2.4 GHz), wireless remote control and carrying bag.

The built-in battery provides a runtime of five and a half hours in standard operation. Alternatively, a six-hour-modus can be selected. The tubes can either be placed on the included tripod stands or mounted to a truss or pipe using a coupler.

The practical set includes four tubes in a carrying bag, four tripod stands, a charger for simultaneous charging of all tubes and a wireless remote control. Individual tubes are also available, but they are supplied without a charger and remote. Both can be purchased separately if required.

The **KLS-402 AIR** is equipped with four spots, each containing three 10-Watt LEDs. Color mixing is based on red, green, blue and warm white, delivering a wide spectrum of colors and shades. The warm white also provides excellent front lighting for illuminating people. Thanks to its fanless design, the KLS-402 is ideally suited for noise-sensitive environments.



LED KLS-402 Compact Light AIR

Bar with four powerful 4-in-1 QCL RGB/WW spots, AIRW wireless unit (2.4 GHz), wireless remote control and carrying bag.

Two additional devices or effects can be mounted directly on the bar. For this purpose, two IEC outlets are available for power supply. Power is connected via P-Con with an output for daisy-chaining. The DMX connectors are 3-pin. In addition to the AIRW wireless module, a WDMX USB port is provided, allowing the system to be upgraded to wireless DMX using Quick DMX or CRMX in no time. The KLS-402 AIR can be operated on a stand or suspended using the included brackets.

WHEN THE SKY BECOMES A CANVAS

Drone shows as a new dimension of visual storytelling.



DAVID ZAORÁLEK

CEO of Drone Show Europe, offers a fascinating insight into this emerging technology.

FROM A SPARK TO A FLEET OR HOW IT ALL BEGAN

When hundreds of glowing dots dance across the night sky and form patterns, figures or logos, the result is always awe-inspiring. Drone shows are not only spectacular, they also open up completely new ways of telling stories: On a technical, visual and emotional level.

Drone Show Europe is one of the pioneers in this field. For almost 15 years, the team led by CEO David Zaorálek has been developing multimedia productions for events throughout Europe and beyond. "We started working with technologies such as video mapping early on. Many customers wanted such projections to be visible in the sky, but for a long time this was not technically feasible," says Zaorálek. It was only the first drone shows in Asia and the US that opened up new possibilities. The idea of choreographing light sources in the air was born and soon became reality: "We quickly mastered the technology and were able to stage the first shows in Central Europe. An important step at the time was the collaboration with Erste Group, which immediately recognized the potential and enabled us to stage one of the first shows." From there, development took off and today Drone Show Europe is one of the most established providers on the European market.



Photos: droneshoweurope.com

A CHOREOGRAPHY OF LIGHT / HOW A SHOW IS CREATED

It all starts with an idea. What follows is a multi-layered process that combines storytelling, security planning, animation and software development. It begins with a creative exchange:

WHO is the audience?

WHAT should be communicated?

WHAT mood should be created?

"Once we have a rough idea of the direction, we develop initial storylines and static images, which we coordinate with the customer. We think in terms of both motifs and scenes – in motion. We then transfer the specifications into our proprietary software, where we choreograph the entire drone show," explains Zaorálek.

The decision to develop our own show software was strategically important. It enables the team to respond flexibly and quickly to customer requests, even for complex projects involving hundreds or thousands of drones. "Internal programming allows us to implement shows in a very short time. Even complex scenarios with animations, music, voiceovers or interaction are possible."

The process is supported by an interdisciplinary team: Safety engineers, the creative department, programmers, and event logistics work hand in hand. Depending on the scope and complexity of the show, the on-site team consists of five to thirty people. Every flight route is precisely calculated, and every drone knows its role. The precision and the experience are impressive.



Photos: droneshoweuropa.com

CREATIVE FREEDOM MEETS TECHNICAL REALITY

As breathtaking as the possibilities are, creative visions repeatedly encounter technical limitations in practice. One key issue is resolution. "We are used to working with millions of pixels. With drones, we only have a few hundred to a thousand points of light at our disposal. That changes the way you think about images," says Zaorálek.

In addition, there are strict safety regulations such as altitude, distance and maximum flight speeds. The imagery

must be clear, minimalist and easily recognizable from a great distance. It becomes particularly challenging when the show has to work from all sides. This applies above all to so-called 360-degree productions, which are in demand at open-air events and large festivals, for example.

And then there is the weather: "Rain or ice pose a real risk. It can happen that a show has to be postponed at short notice. The decision always lies with the pilot in charge." Although the equipment itself is robust and wind-stable, as in aviation, safety always takes precedence.

PERMITS, SAFETY, RESPONSIBILITY

A drone show is not a spontaneous event, but an aviation event that requires prior approval. Depending on the location, country and administrative structure, the bureaucratic effort involved can be considerable. "Sometimes two or three approvals are enough, but in other cases, as many as ten different permits may be required. The process can take several weeks or even months," says Zaorálek.

The uniform EASA framework within the EU, which at least standardizes the basic norms and regulations, makes things easier. Nevertheless, every site is different and each show must be evaluated individually. The basic rules are: No flying over crowds, defined safety zones and professional risk management.

"Our shows are designed to take place under controlled conditions. If a situation changes, we react, just like a pilot who does not take off in a storm," explains Zaorálek. The idea:

As much technology and planning as necessary, but always with respect for the limits of safety.



UNFORGETTABLE PROJECTS, LASTING IMPRESSIONS

Some shows remain forever etched in memories of not only the audience but also the team. One outstanding example was an international open-air event featuring music legends such as Jean-

Michel Jarre and Brian May.

"In Bratislava, we helped create a huge multimedia production – including drone shows during the live concert in front of more than 120,000 people," recalls Zaorálek. The show, featuring music, lasers, pyrotechnics and 3D lighting effects, was choreographed down to the second. "With live productions, there are no second chances. Everything has to work perfectly, but that is exactly what makes it so exciting."

Recent highlights also include shows in the Middle East and at international award ceremonies. Every production brings new challenges and the opportunity to create something truly extraordinary.





Photos: droneshoweurope.com

LOOKING AHEAD – WHAT DOES THE FUTURE HOLD?

Development is progressing rapidly. Drones are becoming lighter, more powerful and cheaper, making them viable for events of any size. Small shows for company parties are just as feasible as large events for tens of thousands of people. “This industry is still in its infancy. We are only just beginning to see what is really possible,” says Zaorálek. Fireworks could increasingly be replaced at smaller events, while a combination of pyrotechnics, drones and other show technology is more likely to be used at large events. The big advantage: Drone shows can be precisely controlled, are more environmentally friendly and offer enormous potential for personalized, brand-specific content. This opens up a whole new playing field for event organizers.

PRACTICAL INSIGHTS AND WHAT ORGANIZERS SHOULD KNOW

Anyone planning a drone show should start developing the concept early on and choose the right partner. “Planning is everything. It is not just about the flight itself, but about the big picture,” explains Zaorálek. Drone shows are most effective when they are dramatically embedded with music, video or live elements. The result can have an impact far beyond the event itself, for example, creating impressive images for social media, press and marketing. The key lies in combining creativity, technology and experience. That is when a show becomes more than just a high-light – it becomes a true experience.





STELLA 8

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EUROLITE EC-2 DMX Controller

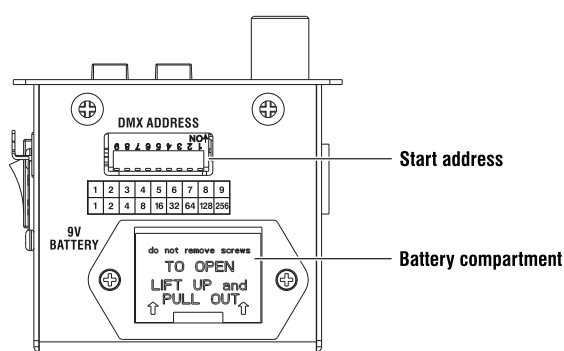
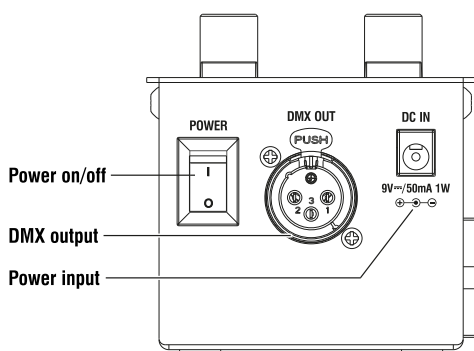
EUROLITE EC-2

The compact DMX controller for special tasks

Who needs a DMX controller with only two channels? For example, someone who wants to control a fog machine or hazer independently, trigger special effects or strobes, operate pure white light or handle specific tasks. With the EC-2, you get a small controller that can be freely assigned to two consecutive DMX channels between 0 and 255, which it then controls.

Users can configure whether the trigger button functions as a momentary switch or a toggle. In momentary mode, the DMX value is only sent while the button is pressed. In toggle mode, the channel can be switched on and off. The colored backlit buttons allow for fast and intuitive operation.

The EC-2 comes with a mounting thread that enables attachment to a stand. Power is supplied either via an external power adapter or alternatively with a 9-volt battery.



EUROLITE freeDMX PRO

+ Usable via WLAN and LAN
+ DMX-IN MERGER



Light
Captain



ART
NET
ETHERNET



Made in
Germany

With the Free DMX PRO, EUROLITE now offers a new version of the popular Free DMX AP interface with significantly expanded features. Like the previous model, this interface can be used as a DMX output for the Light Captain and Light'J apps. It also functions as a wireless Art-Net receiver for one universe. The connection is established either via wired Ethernet or wirelessly over 2.4 GHz WiFi, and the new model can also be used as a WiFi access point. The WiFi channel can be freely selected.

The Free DMX PRO also introduces new features on the DMX side: The DMX input can now be used with a merger function, allowing an additional DMX controller to be connected. This way, lighting can be controlled simultaneously via app and DMX controller. Users can choose whether the highest DMX

value or the most recently changed DMX value is output, or whether the controller serves as a backup for a tablet, automatically taking over as soon as the tablet stops sending DMX values. In addition, the device can store DMX values for a lighting scene and output them without requiring a tablet or lighting console (e.g., for work or cleaning light after the gig).

Operation of the Free DMX PRO is handled directly on the interface via a multicolor display, but can also be managed via a web page or Art-Net. Thanks to QR codes, both the configuration page and the connection are particularly quick to access.

Compatibility

The device can be used in combination with software such as FreeStyler, DMXControl 3, PC_DIMMER or Lightkey (Mac).





WHEN OLD WALLS COME ALIVE



The Halloween House of the Bavarian Red Cross (BRK)



When the days grow shorter and fog drifts through old walls, a modest estate in Gefrees, a town in the district of Bayreuth, transforms into a stage full of secrets. Creaking floorboards, dark cellars, mysterious rooms – year after year, a Halloween House is created here, letting visitors dive into gripping stories and puzzling adventures. At the end of October, the Halloween House is “performed” for two days: visitor groups pass one after another through the elaborately designed rooms, solve riddles and experience an atmospheric adventure full of light, fog and acting.



THE WOMAN BEHIND THE PROJECT

Since 2016, Daniela Neudert has been active as district youth leader in the BRK district association Bayreuth. With much dedication and creativity, she supports youth work – and in 2018, together with her team, she launched a project that has since become a fixed highlight: THE HALLOWEEN HOUSE.



Horror meets volunteer work – the BRK team transforms into eerie characters every year.

HOW IT ALL BEGAN

What started as a spontaneous idea for a Halloween party for young people quickly developed into a large-scale independent project. “A vacant estate offered the perfect setting, and after a visit to the Berlin Dungeon it was clear: We will build our own dungeon,” Neudert recalls.

With four developers, eight actors, and 30 guests, the premiere began in 2018. Today the project includes a script, annually changing mottos, eight rooms, a photo booth for group pictures and over 200 visitors.





Horror within reach...
what awaits the next group of visitors?



A TEAM LIKE A CONSTRUCTION KIT

Behind the Halloween House is a team of volunteers, many of them firmly involved in the Red Cross. Their professional qualifications flow directly into the setup: Bricklayers, carpenters, farmers, technicians or teachers contribute their know-how, complemented by manual skills and improvisation talent. "We exploit the abilities of our helpers mercifully," Neudert says, laughing. Additional support comes from a permanent photographer and changing specialists. Even the children of the members take part – whether in building or as little actors.



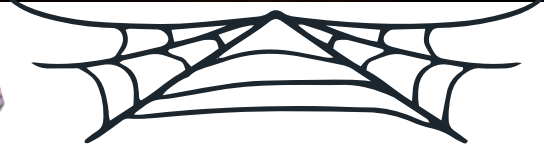
GUESTS BETWEEN TEST OF COURAGE AND COMMUNITY EXPERIENCE

The visitors are mostly children and young people, guided in groups through the Halloween House. Riddles that can only be solved together are at the center. In this way, horror becomes both a test of courage and a community experience. Especially welcome are youth groups from blue-light organizations such as BRK, fire department or THW, as well as

associations from the region. The Bayreuth children's home has been a permanent part for years – one group even regularly travels from the Ansbach area. And: In the late evening hours, the doors also open for adult groups – an offer that is becoming increasingly popular.



Puzzle fun – children's groups solve tasks as a team.



EUROPALMS Halloween Spider Web white 50g

Spider web for eerily beautiful decoration effects



SCENERY, TECHNOLOGY AND ACTING

The rooms are created with the simplest materials: Old beams, boards, pallets, fabric and paint. From these components, themed rooms, a castle backdrop or a mirror labyrinth emerge during a three-month construction phase – new every year. A highlight is the elaborately designed tunnel system with coffin, cobwebs and eerie figures. Lighting effects with LED strips, self-recorded texts, atmospheric sound effects are used – and of course fog must not be missing. Actors in detailed costumes provide the real moments of fright – sometimes as a werewolf hiding among trees, sometimes as a freely roaming “monster.” They are complemented by animated figures such as a witch or a zombie torso that react to sounds and suddenly come to life.



EUROLITE N-19 Fog Machine
black





EUROPALMS Halloween Figure Witch, animated 175cm

Animated standing witch figure with light and sound effect (battery and USB operation)



EUROPALMS Halloween Zombie Theo, 67cm

Animated zombie upper body with light, sound and movement effects



CHALLENGES IN VOLUNTEERING

The effort is enormous – and the budget tight. “We only charge a symbolic entrance fee to make the experience affordable for everyone. With that we finance sweets for the children, photo material or food for the actors.” More difficult is the question of a permanent building: The team depends on borrowed property and moving is always possible. “Then we have to dismantle everything, store it and start all over again.”



GOALS AND IMPACT

The Halloween House is above all a project for the youth groups – it motivates, strengthens community and rewards commitment. At the same time, it radiates outward: Some guests have found their own path into volunteering through the event, from the blood donation service to first aid training. And it changes perspectives: Where Halloween was initially viewed critically, today the project inspires enthusiasm – up

to media reports and invitations to parades. “It is especially beautiful to see how children sometimes enter the house hesitantly and leave after an hour with their chests puffed out in pride,” says Neudert. “Suddenly the smallest ones are the bravest – such moments are priceless.”

INCLUSION ON ALL LEVELS



HOW ACCESSIBILITY BECOMES A GIVEN

What does it take to ensure that truly everyone can participate in events – in front of, on and behind the stage? Two initiatives show how inclusion in the event industry goes far beyond ramps and sign language interpreters, and how accessibility can become a lived standard. We spoke with representatives of Initiative Barrierefrei Feiern (“Barrier-Free Celebrations Initiative”) and Inklusion Muss Laut Sein (“Inclusion Must Be Loud”) about good practices, stumbling blocks and concrete options for action for organizers.





FRANZI LAMMERS

CELEBRATING BARRIER-FREE - SHAPING CULTURE TOGETHER

Since 2019, the Barrier-Free Celebrations Initiative has been working toward an inclusive cultural landscape in which all people can naturally take part. Around 50 people with and without disabilities are jointly committed to making accessibility a fixed component of every event planning process. Their guiding principle is 'Nothing about us without us,' because the perspectives of people with disabilities form the foundation of all their activities. With their affiliated consulting agency WIR KÜMMERN UNS ("WE TAKE CARE"), which serves as the operational arm of the initiative, they support festivals, clubs and cultural institutions on the path to genuine inclusion – strategically in the background and as an awareness team on site. A central element of their work is again their guiding principle, since people with disabilities are involved in all areas of the agency – as decision-makers, consultants and idea contributors. The goal is structural change: Moving away from special solutions toward an event industry in which people with disabilities are naturally part of the audience, the line-up, the crew and decision-making processes. Franzi Lammers from the Barrier-Free Celebrations Initiative explains in our conversation how this can succeed.

MOVE: Thank you for taking the time to talk with us about Barrier-Free Celebrations. What does "inclusion" specifically mean to you in the context of cultural and music events?

Franzi Lammers: For us, inclusion means that people with disabilities can participate without restrictions in all areas of cultural and music events. As audience members in front of the stage, as team members and/or professionals behind the stage as well as artists on stage. The prerequisite for inclusion is full accessibility in front of, on and behind the stage.

MOVE: What challenges do you most often experience when working with event organizers?

Franzi Lammers: Accessibility is often not planned from the very beginning. It is frequently only considered at a later stage, when many structures are already in place. For a comprehensive accessibility concept, consulting agencies like ours should be involved in all processes at an early stage in order to create all-encompassing accessibility. Only when experts in their own right – that is, people with disabilities – are involved in the planning, can it be ensured that the measures actually meet real needs.

We also experience that accessibility is often reduced to structural aspects – but communicative and digital accessibility, orientation aids and offers for people with non-visible disabilities are inseparably part of it as well. In collaboration, it is therefore often also about raising awareness for these comprehensive perspectives and finding common ways to practically implement accessibility for everyone.

MOVE: How do you train or raise awareness among organizers, crews and security staff for inclusive concerns?

Franzi Lammers: Our consultations are always conducted by people with disabilities, usually in tandem – for example, by a blind person and a person in a wheelchair. This way, we bring in different perspectives and raise awareness among organizers and their teams directly from lived reality. Often, they are not aware of the additional organizational effort that people with disabilities face when attending an event, simply because basic accessibility information is missing beforehand.

In addition to these personal insights for raising awareness, we also provide practical recommendations for action and fundamental knowledge for barrier-free event planning.

MOVE: What feedback do you receive from visitors with disabilities?

Franzi Lammers: We receive a lot of emotional and encouraging feedback. Many visitors report that at events where we were involved, they felt truly comfortable and welcome for the first time. What is taken for granted by others is unfortunately still an exception for many people with disabilities: An event where they do not have to worry about barriers, because these have already been considered and removed in advance. Even small gestures, such as a friendly welcome, the visible presence of the service team or spontaneous assistance on the grounds, make a big difference for many. This feedback repeatedly shows us how valuable our work is and how great the need is for truly inclusive spaces.



MOVE: How do you measure the success of your work at events?

Franzi Lammers: We measure the success of our work, among other things, by the feedback from visitors with disabilities – especially when they return, bring friends along and say: “Because it was so good last time, we are here again.” The development on the organizers’ side is also an important factor: Are measures being continued or expanded? Is accessibility being firmly integrated into the organization?

We also consider growing demand and follow-up assignments as a sign of successful collaboration and sustainable change.

MOVE: Are there collaborations with other inclusive initiatives, organizers or cities?

Franzi Lammers: Yes, since we operate nationwide, we are also connected on a nationwide level. We work both with regional self-advocacy organizations as well as with inclusive networks and initiatives active across the country.

Our projects are as diverse as the event landscape itself: From smaller cultural events to large-scale festivals, such as Lollapalooza or the Die Ärzte concerts at Tempelhofer Feld in Berlin.





RON PAUSTIAN

INCLUSION MUST BE LOUD ACCESSIBILITY AS A GIVEN

“Inklusion Muss Laut Sein” (Inclusion Must Be Loud) is a nonprofit organization that has been advocating for inclusion and accessibility at live events since 2006. Founded by an industry professional with a disability, it combines deep expertise with personal experience.

Its goal is also that inclusion should not be treated as a special topic, but rather be naturally considered in all areas of an event. Culture should be accessible to everyone – without pity or separate worlds. Real participation, in other words!

The team provides organizers with practical, individualized consulting, supported by around 25,000 volunteer companions who are active as on-site teams at festivals. Every collaboration begins with a personal preliminary discussion; the work is based on tailored concepts rather than rigid checklists. The organization provides advice especially when facing major challenges.

Through test teams, direct presence and the know-how of people with disabilities, solutions are developed that truly make events inclusive. We spoke with founder Ron Paustian about how this can succeed.

MOVE: Thank you for taking the time to talk with us about Inclusion Must Be Loud and your work. The same question for you: How do you understand inclusion – and how does it become an actionable concept for organizers?

Ron Paustian: For us, inclusion means that all people should be able to participate in cultural and music events – in front of, on and behind the stage. Without separate areas, without pity. The term “inclusion” should eventually become unnecessary, because participation will naturally be taken into account.

To achieve this, we start every collaboration with a personal preliminary conversation – non-binding, but always honest. I want to understand why someone wants to expand accessibility or inclusion. Together, we then set realistic goals and look at where the difficulties lie. There is no standard checklist that fits all events. That is why we are often called in when things are already difficult or something is going wrong. That is precisely when we develop individual, feasible solutions together.

MOVE: What makes your approach stand out in advancing inclusion in the event industry?

Ron Paustian: We can look back on almost twenty years of work. A lot has changed through us, and the industry continues to be in motion. As a consultant, I place great importance on good communication and meaningful measures. These must be individually adapted to each festival or event and tailored to the respective audience. In line with our nonprofit support network, our BUDDIE

network, we want to make events accessible and enjoyable for guests and fans with very different disabilities – and all without pity. With us, fans meet other fans – and together they experience culture.

MOVE: Where do you see the greatest misunderstandings or need for clarification in working with organizers?

Ron Paustian: Often there is a lack of understanding for the purpose of certain measures, sometimes also because there have been poor consultations beforehand or it is not clear why things should be done differently than what previous consultants recommended. Added to this is information from the internet, which is either incomplete or simply wrong.

A large part of our work therefore consists of optimizing communication measures, such as in the design of the event website. Discrepancies can quickly arise here, for example when alternative texts are missing. Inclusion and accessibility are not off-the-shelf products. They must fit or be made to fit. And they are not limited to structural measures, but must always be considered holistically.

MOVE: How do you prepare organizers and temporary teams like security crews for inclusive event situations?

Ron Paustian: With organizers, we usually work on the event a year in advance. We explain why certain measures should be implemented and support them with the right communication. With the crews and security, we usually talk directly on site and provide concrete instructions and guidance on



what to do. Since this often involves temporary staff, comprehensive training is usually unrealistic. That is why we offer our on-site teams – they are available during the event as a point of contact, provide information, give assistance and quickly find solutions when needed.

MOVE: What role does self-advocacy play in your decisions?

Ron Paustian: Self-advocacy is important, but people with disabilities are first and foremost experts in their own right – that is, for their own disability. They are usually not trained in the event sector and often do not know the complex background factors that play a role in events. After all, events are subject to a wide range of requirements – from fire protection and evacuation to monument protection or specific event regulations. These aspects often remain hidden to self-advocacy groups because their focus naturally lies elsewhere.

We therefore specifically train our team members with disabilities in live operations. This way, they develop an understanding of how different areas interlock, what is realistically feasible – and at which points legal requirements may need to be revised.

MOVE: If you could give organizers a single sentence to take with them – what would it be?

Ron Paustian: Do not be afraid of inclusion in front of, on and behind the stage. And: Accessibility is not always expensive. Good communication at the first step usually works wonders.



THE BUDDIE NETWORK OF “INKLUSION MUSS LAUT SEIN”

The BUDDIE universe offers people with and without disabilities the opportunity to experience events together. At its core is a flexible volunteer model, with personal strengths, hobbies and lifestyles taking center stage. Anyone can become a BUDDIE – entirely according to their own interests and available time. Volunteers accompany people with the “B” designation in their disability ID card as free companions to festivals, concerts or cultural events.

The goal is self-determined participation: People with disabilities decide what kind of support they need – and together, the event becomes an experience.

From fans for fans – the motto says it all: Fun, encounters and community are at the forefront.

More information at:



[https://www.i-m-l-s.com/
imls-BUDDIE-universum/](https://www.i-m-l-s.com/imls-BUDDIE-universum/)

LASER^{AS} LIGHT SOURCE?

THE LASER LIGHT ENGINE AS A LIGHT SOURCE IN MOVING HEADS

For some time now, the laser light engine has been attracting attention as a light source for moving heads in the event industry. But what is behind this technology, and what are its advantages and disadvantages?

WHAT IS THE LASER LIGHT ENGINE?

The technology originally comes from video projection, where it was first used in 2008. Since 2016, it has also been used in event technology. The laser light engine is based on laser light that is converted so that normal light ultimately emerges from the spotlight. There are two procedures: In one variation, red, green and blue lasers are mixed as in a classic RGB LED. In the other variation, only blue lasers generate white light via a fluorescent material. While RGB technology is particularly suitable for vivid, colorful light, the strength of the fluorescent variant lies in white light.

WHAT ARE THE ADVANTAGES OF THE LASER LIGHT ENGINE?

The process generates an extremely small, very bright point as light source. A compact light source is crucial particularly when narrowly focused light is required. This is why discharge lamps often achieve a higher light density than LEDs for extremely narrow beams. The Laser Light Engine combines the advantages of both technologies: It achieves the light effect of a discharge lamp, but at the same time offers the flexibility of an LED, as it can be dimmed and switched on or off without any problems and without requiring ignition or cooling times.

WILL THE LASER LIGHT ENGINE REPLACE LEDS AND DISCHARGE LAMPS?

In the case of discharge lamps, complete replacement is entirely conceivable, as the Laser Light Engine offers all their advantages without any of their disadvantages. LEDs, on the other hand, will continue to play an important role, as they are simpler and cheaper and are used in many industries. For small and medium-sized spotlights or for wide and soft light, there is no compelling reason to switch from LED to laser.

WHAT ARE THE CHALLENGES?

Currently, the devices are relatively expensive. There are also legal issues: Although the fluorescent version is classified as a normal lamp, the required safety distances are considerable, especially for beam spotlights. This is due to the high concentration of light, which ensures that hardly any intensity is lost, even over long distances. Although this is technically advantageous, it is problematic in terms of safety.



LASERWORLD **tarn**
BLAZE Moving Head

Weather-proof moving head
with white light laser

STYLISH GREEN

Modern and Easy to Care for: Artificial Plants reimagined



A CONCEPT

that inspires:

Green plants, acoustic panels and lighting

Natural materials and green plants are playing an increasingly important role in modern interior design. We want to introduce a particularly successful combination here. A careful selection of different green plants was made for a modern and harmonious greening concept. Different leaf sizes, structures and heights create a lively yet balanced picture.

Combining broad, glossy leaves and delicate, narrow structures creates exciting contrasts. While some plants tower upwards, others remain close to the ground, giving the whole a dynamic effect. The different shades of green also complement each other harmoniously and bring freshness to any room.



Delicate structures: Elongated leaves as an elegant contrast.

EUROPALMS Strelitzia,
artificial plant, 170 cm

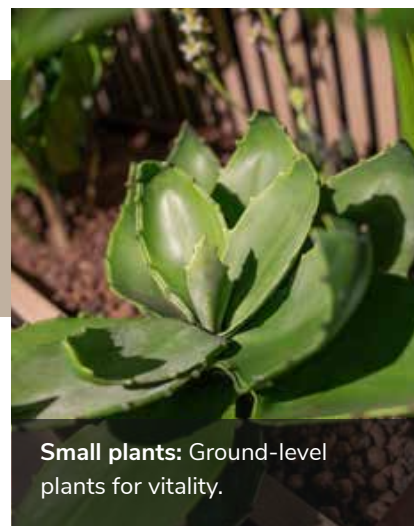
Strelitzia



Shades of green: Freshness and liveliness in the room.

EUROPALMS Zamifolia,
artificial plant, 70 cm

Decorative zamifolia



Small plants: Ground-level plants for vitality.

EUROPALMS Agave (EVA),
artificial plant, green, 35 cm

Century plant with soft-touch leaves - feels "real"



EUROPALMS Hydroculture Substrate, brown

The ideal filler material to stabilize plants

The plants are arranged in simple, elongated planters that draw the focus to the greenery. Hydrocultural substrate not only provides stability as a filling material but also gives the arrangement a minimalist, modern aesthetic.



Easy to care for and versatile

Not everyone has the time or the ideal conditions for natural plants. This is where artificial plants come into play – an easy-to-care-for alternative that can create an impressive effect with the right staging. Especially in the catering trade, for offices, as well as the living room at home, this is an expressive yet uncomplicated solution that is visually stunning.



No watering or
fertilizing necessary



Stays permanently
beautiful



Suitable for any
room and style



EUROLITE LED Strip 300 5m RGBWW 24V

Flexible LED strip with RGB and warm white LEDs

The design concept is based on wood-look acoustic panels - a combination of functionality and design. They improve the room acoustics and, at the same time, create a warm, natural look. The wall design is complemented by LED strips, which create targeted lighting accents. The LED strips can be flexibly adapted. They can be soldered or strung together using the optional connectors available for many models. The only thing to note here is the width and the connection contacts of the strips.



EUROLITE Cover for U-profile 20mm milky 2m

Cover for aluminium profile for LED strips

TIP:

In general, strips with a 12 V power supply can be split at shorter distances than strips with 24 V. However, the latter are better suited for longer distances (more than 5 meters).

EUROPALMS Split philo, artificial plant 38 cm

Split philodendron with leaves made of high-quality PEVA



EUROPALMS Bird-of-paradise Flower, artificial plant, 90cm

Bird of paradise flower made of high-quality PEVA





**EUROPALMS Split Philo Plant, artificial,
120 cm**

Split philodendron plant



TO SUM UP:

Stylish greenery, sophisticated design with added value

The concept of artificial plants, acoustic panels and light creates a modern, stylish environment with a natural look. Depending on the area of application, the overall look can be enhanced with a mirror surface or picture frame. This provides space for a company logo, a special offer or a menu, making the concept not only a visual highlight but also a functional solution with added value.



Finish line with the 2025 winner: Sam Laidlow



ISO DRINKS AND BANANAS INSTEAD OF BEER WITH FRIES

*The DATEV Challenge Roth Triathlon:
A Different Kind of Event*

When people in the event scene hear the word “major event,” the first things that come to mind are festivals like Tomorrowland, Wacken or the Love Parade. Yet there is another type of large-scale event that comes with its very own set of challenges: Sports. The DATEV Challenge Roth is such an event. Thousands of athletes compete at both amateur and professional levels in swimming, cycling and running. We had the opportunity to talk to Markus Englert from TEAMCHALLENGE GmbH to learn more about the background and the challenges of this event.

Hello Markus, thank you for taking the time for this interview! You are part of the team behind the DATEV Challenge Roth. Can you give our readers a brief insight into what the DATEV Challenge Roth is and how big this sporting event actually is?

Hello, thank you for having me! The DATEV Challenge Roth is the largest long-distance triathlon in the world. Every year on the first weekend in July, around 5,500 athletes (3,500 individual starters and 700 relay teams of three athletes each) from nearly 100 nations face the sporting challenge of 3.8 km of swimming, followed by 180 km of cycling and finally a marathon of 42.195 km.

What makes our event so special: Alongside the absolute top stars of the triathlon scene (the current world records for both men and women were set in Roth), all age group

athletes compete together in the same race on the same course. That is something you will not find in any other sport. The race is broadcast live for nine hours on Bavarian Television.

In parallel, we produce an English-language livestream that is broadcast worldwide by numerous sports channels.

”

Unlike a music festival that takes place in a single location, our event covers nearly the entire district.”

Markus Englert | TEAMCHALLENGE GmbH
Head of finance & administration



Wow! Considering the number of participants and the effort that goes into organizing such an event, you must need a lot of people to make it happen. How large is your team, and how many people are involved in the implementation overall?

Our core team now consists of 15 employees who work year-round on the event. For the actual race, we have a team of 28 so-called race directors, each responsible for a specific race segment (swimming, transition swim-bike, cycling, etc.) with their own teams.



Foto: TEAMCHALLENGE / Lars Panlser

The racing bikes of the top athletes in Transition Zone I (swim/bike)



Foto: TEAMCHALLENGE / Heide Leithe

DATEV



CHALLENGE
ROTH

Emotional highlight of the day – the finish line party in the stadium with a spectacular laser show

These race directors also serve as the contact points for the 7,500 volunteers who support the event every year. They are the absolute heart of the event. Without them, it would be impossible to stage the race.



Foto: TEAMCHALLENGE / Lars Panlser

Arrival in Transition Zone II (bike/run)

That is an incredible number of volunteers! How do you manage to bring so many people together to support the event?

In 2025 we actually had so many volunteer applications that we had to initiate a waiting list because we could not use everyone – absolutely amazing! We recruit our volunteers as entire groups from clubs, as families, but also as individuals, including (former) athletes who had such a fantastic experience here that they want to “give back” by volunteering themselves. Every time we hear the reasons why people get involved, we are speechless all over again.

In addition, hundreds of police officers and, above all, several hundred volunteer members of the local fire brigades, the Bavarian Red Cross, the water rescue service and others are on duty to ensure the event runs safely. We even assign two race directors specifically to coordinate with fire brigades, municipal services and traffic authorities.

Let us take a look at the event from an event professional's perspective. What distinguishes your triathlon from other major events (for example, festivals) and where are there similarities?

Like many large-scale events, including music festivals, we require extensive event infrastructure, which we rent through partners: 479 portable toilets, 6,000 sqm of event flooring, 10 office containers, 45 storage containers, 4.1 km of construction fencing, 5.0 km of crowd barriers and numerous tents covering more than 3,000 sqm in total. Add to that a fleet of vehicles: 30 cars, 37 vans, 10 forklifts, 10 golf carts, trucks and trailers.

In contrast, our shopping list for athlete catering is rather unusual – some say a little crazy: Around 3 tons of bananas, 2,700 apples, 1,300 oranges, 13 kg of raisins, 15 kg of dried fruit, 29,000 energy bars, 51,000 energy gels and 40,000 liters of Iso Active Drink.



Transition bags with the athletes' running gear in Transition Zone II (bike/run), organized by start number

Foto: TEAMCHALLENGE / Stefan Schopf

The event with 5,500 participants from 100 nations is extremely popular:

”

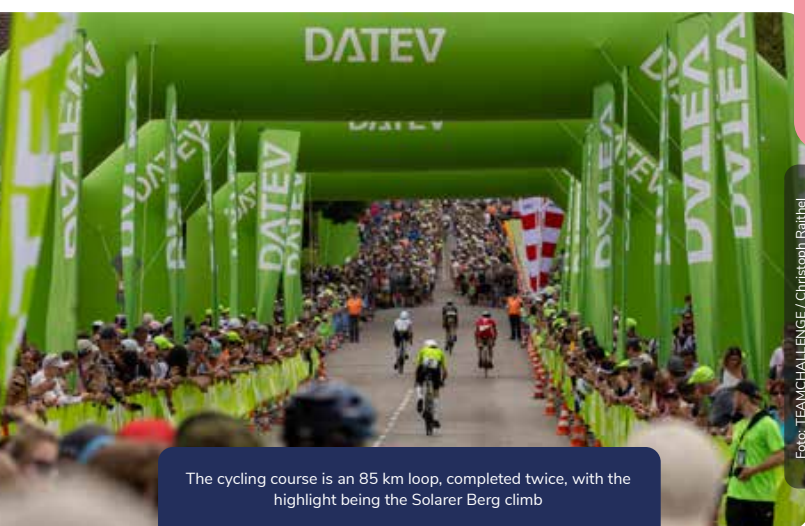
The online registration for 2026 sold out in just 18 seconds!”

”

In essence, we work 18 months for an event that lasts 16 hours.“



The triathlon park with the finish line stadium in Roth's city park



The cycling course is an 85 km loop, completed twice, with the highlight being the Solarer Berg climb



Erdinger Non-Alcoholic cheering zone along the race course at Rother Marketplace

FACTS DATEV Challenge Roth

Founding year:	1984
Employees:	15
Race directors:	28
Volunteers:	ca. 7.500
Participants:	approximately 5,500 from 100 nations

Event equipment: 479 portable toilets, 6,000 sqm of event flooring, 10 office containers, 45 storage containers, 4.1 km of fencing, 5.0 km of barriers

Athlete catering: round 3 tons of bananas, 2,700 apples, 1,300 oranges, 13 kg of raisins, 15 kg of dried fruit, 29,000 energy bars, 51,000 energy gels, 40,000 liters of Iso Active Drink

At major events in general, but especially at sporting events, high safety standards are required. How do you approach creating your safety concept and how much preparation time does it require?

Our event has a lead time of about 18 months, which means we are always working in parallel on two events: The current year and the following year. Essentially, we work 18 months for an event that lasts just 16 hours.

Unlike a music festival that takes place in a single location, our event covers nearly the entire district. The cycling course, for example, is an 85 km loop that is completed twice and extends as far south as Greding. The running course runs for long stretches along the Main-Danube Canal but also right through the center of Roth, effectively dividing the city in two in terms of traffic.

We therefore maintain continuous and close communication with the authorities that issue permits (the district administration and municipal offices), as well as the police, fire brigades, Bavarian Red Cross, water rescue service, the integrated control center and municipal services of the towns and villages along the course. With all these agencies we work productively and in a spirit of trust.

A major advantage is certainly the long history of the event. In 2024, we celebrated 40 years of triathlon in the Roth district.



Transition Zone I (swim/bike)



Hundreds of volunteer members of the fire brigades, Bavarian Red Cross, and water rescue service are on duty



40,000 Liter ISO Active Drink

What challenges do you face when organizing and running the DATEV Challenge Roth? How do you deal with them? Have the requirements, particularly regarding safety, changed in recent years?

As a consequence of the numerous security incidents at Christmas markets and city festivals in recent months, this year we carried out a comprehensive reassessment of all our security measures together with the relevant agencies. As a result, we introduced additional measures in some areas (such as anti-terror barriers) and adapted various organizational procedures.

Here again, our long-standing, trust-based cooperation with the authorities was a huge advantage, as it enabled us to define sensible and effective measures that were also feasible in practice.

In addition to the triathlon itself, you also organize a trade fair for triathletes. Why take on this “extra work”?

In the early years, the event was more or less a one-day affair, which would no longer be feasible today. Over the past years, we have massively expanded the event into a festival week with numerous side events and attractions. There is a NightRun (a 12 km fun run), a kids' triathlon, a family triathlon (Challenge for All), a festival market with food trucks and children's activities, as well as the largest triathlon expo in the world.

This year, nearly 150 exhibitors from around the globe presented themselves here. In addition to product sales – and this is something we are particularly proud of – many exhibitors launched world premieres (bicycles, specialized running shoes, etc.) at our expo. In short: Any brand that wants to be seriously present in the triathlon world must come to the DATEV Challenge Roth Triathlon Expo, where the who's who of the sport gathers.

Markus, thank you for these fascinating insights into your work! If our readers now feel motivated to participate in the DATEV Challenge Roth themselves – where should they go?

Well – that is actually our biggest challenge! Our online registration (on the Monday one week after the race) sells out in about 18 seconds! The safest way to secure a starting place is to line up on-site right after the race, as we sell 1,000 slots for the following year the day after the event. This year, the first athletes started queuing up on race day at 3 p.m. for next year's registration. As I said – some things here are a little crazy.

We wish you continued success and many happy, healthy finishers!



With 150 exhibitors, the team also organizes the world's largest triathlon expo



The Hilpoltstein-Heuberg canal bridge during the swim

SONG QUIZ WITH EMOJIS

The world of music in emojis – sounds crazy? It is! There are no notes here, just colorful symbols. It's time to think creatively and figure out which well-known song is hidden behind the emojis! So, keep your eyes open and let's get started!

1. ❄️ ❄️ 🤪 _____
2. 🤪 1 + 🕒 _____
3. 🌿 🌹 🌹 🌹 _____
4. 🏙️ 🗽 🧠 _____
5. 🎥 🚗 📺 ★ _____
6. 💰 💰 💰 _____
7. 🍏 🌳 _____
8. 🧑 ? 🐱 🐱 📦 _____
9. 100 🕒 ❤️ _____
10. ☁️ 9 _____
11. 🧚 🌕 💡 _____
12. 💜 🌧️ _____
13. 🚦 🔥 🐱 _____
14. 🥾 🥾 ⛏️ 🧑 _____
15. ➡️ 🏠 🧑 🚶 _____



1. Ice Ice Baby – Vanilla Ice; 2. ...Baby One More Time – Britney Spears
3. Bed of Roses – Bon Jovi; 4. Empire State of Mind – Jay-Z & Alicia Keys
5. Video Killed the Radio Star – The Buggles; 6. Money, Money, Money – ABBA
7. Lemon Tree – Fool's Garden; 8. Who Let the Dogs Out – Baha Men
9. Total Eclipse of the Heart – Bonnie Tyler; 10. Cloud Number 9 – Bryan Adams
11. Dancing in the Moonlight – Toploader; 12. Purple Rain – Prince
13. Highway to Hell – AC/DC; 14. These Boots Are Made for Walkin' – Nancy Sinatra
15. Take Me Home, Country Roads – John Denver

NEW GEAR ON THE BLOCK

New hooks from EUROLITE

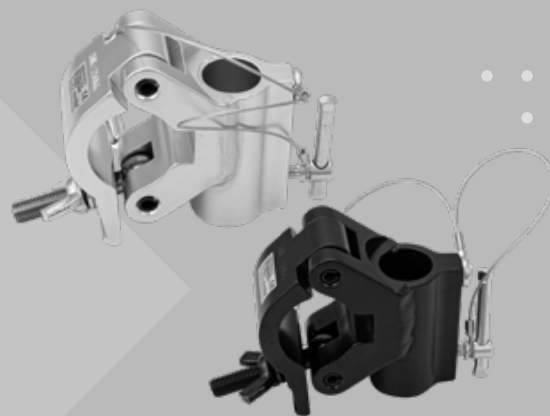
Whether at concerts, trade fairs or theater productions, hooks and clamps are one of the inconspicuous but essential components of professional event technology. They ensure the secure attachment of trusses, spotlights, loudspeakers and other loads. Different models and standards are used depending on the area of application. EUROLITE has two new models in its range:



TPTV-1: Spotlights and devices with TV connectors can be mounted directly onto the truss.



EUROLITE TH-220 QUICK-LOCK Hook SLIM



EUROLITE TPTV-1 Clamp

The TH-220 is an extra-narrow aluminum truss hook. Thanks to its narrow design, it can be mounted between the braces of standard 29 cm wide trusses, providing additional flexibility.

The TPTV-1 clamp is made of aluminum and has a mount for TV pins. With the help of this clamp, spotlights and other devices that have a TV pin can be mounted directly to the truss.



(NOT) A HALF MEASURE!

EUROLITE PowerDome 200

With this hemisphere, you do not do things by halves: The PowerDome 200 does not bear the word "power" in its name for nothing. It is equipped with 20 powerful 10 W LEDs that provide impressive light output. It generates a variety of beams in red, green, blue and warm white and can of course display several colors at the same time. The warm white is particularly atmospheric because it corresponds to the classic light of a mirror ball with a halogen pinspot. It is not as aggressive as cool white, but creates a feel-good ambience. The dome can rotate in both directions at an adjustable speed. When it comes to control options, care has been taken to ensure that impressive light shows are possible even with simple lighting controls.



EUROLITE PowerDome 200 RGBW

Extremely bright
R/G/B/WW LED beam effect,
including IR remote control

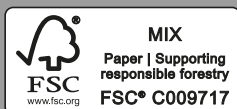
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falkenmedia
Wir begeistern Menschen.

professional
audio



XNG

XNG series from OMNITRONIC: Versatile sound in a compact format

With the new XNG Series, OMNITRONIC introduces a practical line of loudspeakers featuring both active and passive 2-way systems in four different sizes, ranging from 8 to 15 inches. Designed for mobile use, the series is particularly well-suited for DJs, rental companies, fitness studios and event venues that value easy handling and reliable sound quality.

More Information in the Magazine



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