MOVE

Securing loads:
A must for safety
and efficiency

Focus on mental health:
Interview with
Dr. Manuela Sirrenberg

45 years of living history:
Steinigke Showtechnic cel-
ebrates its 45th birthday

**BBQ &
Genesis**
How Moving Heads
came into existence

STEINIGKE
S H O W T E C H N I C

iFOG Series

Unleash Your Creativity, Whatever the Weather!

Dear readers,

Autumn is here and, thus, that time of year when we focus more on indoor events and cozy get-togethers. While the leaves are falling and the temperatures are dropping, creative ideas are emerging indoors. In this issue of MOVE magazine, we invite you to dive deep into the world of event technology – with exciting insights, inspiring stories, and useful tips for your work. A special highlight of this issue is a look at the origins of the moving head – under the title "BBQ and Genesis", you can discover how this revolutionary lighting technology found its way into the world of events and what developments it has undergone to date. We also shed light on an impressive anniversary: 45 years of Steinigke Showtechnic. In the company portrait, we take a look at the history of the company and clarify the question of what connects Steinigke Showtechnic with companies such as Apple and Microsoft. Another key topic in this issue is mental health in the workplace. In an insightful interview with Dr. Manuela Sirrenberg, we talk about the challenges that many in our industry face on a daily basis and how to keep yourself and your team mentally strong. A topic that is more important than ever, especially in stressful times. Safety is and remains a core issue in event technology – and this includes securing loads correctly. In our article, we discuss what is important when securing equipment and how you can minimize risks – since only those who work safely will be successful in the long term. Of course, the topic of "seasonal decorations" should not be neglected either: We take a little trip into the world of Halloween fans and provide you with a few ideas for quick but effective Halloween decorations that work well for front gardens and event locations. We hope that this issue of MOVE magazine will provide you with lots of new insights, inspire you, and perhaps even provide you with an eye-opening moment or two. We hope you will enjoy reading and have a good time.

Your MOVE editorial team

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PRODUCTS

NEW MIXERS ON THE BLOCK

OMNITRONIC presents two new DJ mixers: The devices, named PM-202F and PM-202FX, are powerful models that are versatile both in the party room and for mobile applications. Both devices offer a wide range of functions that make DJs' work easier.

Similarities

Both mixers have a DJ microphone channel with volume control and 2-band-equalizer, which allows precise control over the microphone level. Pre-listening to all input channels and the master sum is possible via an adjustable stereo headphone output. Another common feature is the crossfader, which offers an adjustable curve and a reverse switch. The dedicated, bipolar filter on both channels, which can be used to fade in low- and high-pass curves, ensures creative frequency mixing: In the center position, the potentiometer is neutral; when moving to the left, only the bass becomes increasingly audible, and when moving to the right, the treble. The master channel of each mixer is equipped with a volume control and a stereo LED level meter. Both models offer four line inputs and two phono inputs via RCA sockets, enabling the connection of various audio sources. An additional record output is available for making recordings or conneting additional audio equipment. The Bluetooth function on both devices enables wireless music transmission with a range of up to 15 meters.

Differences

The main difference between the two models lies in the additional effects offered by the PM-202FX. This function opens up further creative possibilities for integrating dynamic sound effects into the sets. In summary, both models are excellent options for DJs looking for flexibility and quality. The PM-202F covers all the basic functions, while the PM-202FX offers even more possibilities for creative sound design thanks to the additional effects.

OMNITRONIC PM-202F 2-Channel DJ Mixer with Filter and Bluetooth

DJ mixer with Bluetooth connectivity and sound filter

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

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

OMNITRONIC FH-18 hornloaded Subwoofer

18" horn subwoofer with 800 W RMS, 8 ohms

PURE POWER

The OMNITRONIC FH-18 is a powerful 18" horn subwoofer with an RMS output of 800 W and an impedance of eight ohms. This robust professional subwoofer is ideal for a wide range of applications, including clubs, dance schools, party rooms, stages, and concerts.

Thanks to its four recessed carrying handles, the subwoofer is easy to transport. It can be optionally equipped with four castors, which makes mobile use even easier. The OMNITRONIC FH-18 offers powerful and clear bass that perfectly complements any sound system and ensures an impressive listening experience.

OMNITRONIC HS-62 Music Horn Speaker

Weather-proof 6,5" speaker (IP66) with mount, Public address systems 100V, 60 W RMS

OPEN AIR FREAK

The OMNITRONIC HS-62 is a weatherproof 6.5" pressure chamber loudspeaker with an RMS output of 60 W and a robust plastic housing. With a protection rating of IP66, this speaker is ideal for outdoor use, e.g. on sports fields, at swimming pools, or open-air events.

The 2-way speaker system combines a 15 centimeter cone speaker and a tweeter, resulting in an extended frequency response and a high sound pressure level. The HS-62 impresses with its wide transmission range and is ideal for outdoor sound reinforcement systems. Thanks to the practical mounting bracket, the speaker is easy to install and ensures a reliable, clear sound reproduction in any environment.

THE HISTORY OF DJING:
FROM RECORD PLAYER TO SUPERSTAR
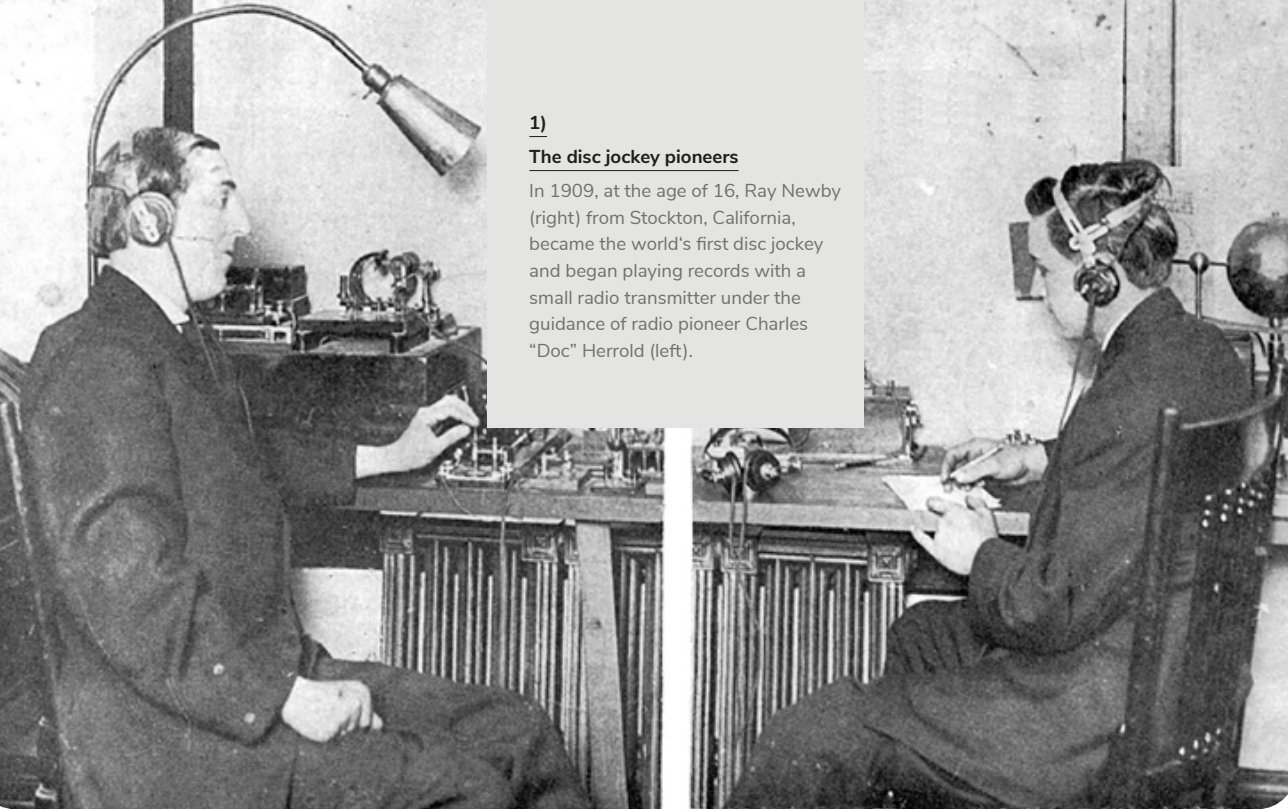
THE HISTORY OF DJING

The beginnings of DJing in radio broadcasts

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The history of DJing begins in the early 1900s. At Christmas 1906, the first record was played during a radio broadcast on the American East Coast. In the 1920s, the term "disc jockey" (DJ), originally a radio presenter who presented music on the radio, became established. One of the first prominent DJs was Christopher Stone, who played records on the BBC in 1927. In the 1930s and 1940s, DJs such as Martin Block and Alan Freed shaped the radio scene in the USA. Freed in particular, known as the "Father of Rock 'n' Roll", made a significant contribution to the popularization of rock 'n' roll.

The importance of radio

Radio played a crucial role in the dissemination of music and culture in the early 20th century. DJs became the first "influencers", popularizing new styles of music and setting trends. The broadcasts of DJs like Wolfman Jack in the 1950s and 1960s became popular not only for the music, but also for their charismatic personalities and their ability to connect emotionally with audiences.
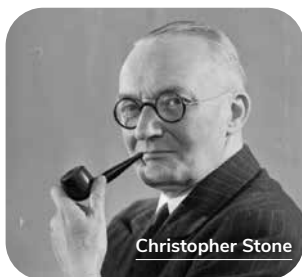
Christopher Stone

Martin Block (r.)

Wolfman Jack

Alan Freed

DJing in New York in the 70s

The 1970s marked a significant shift in DJing, especially in New York City. With the rise of disco music and the club scene, DJs became central figures in nightlife. They developed new techniques such as seamless record mixing, which kept dance floors constantly filled. Pioneers like Grandmaster Flash and Kool Herc revolutionized DJing by introducing scratching and backspinning. These techniques quickly became the cornerstones of hip-hop. Clubs such as "Studio 54" and the "Paradise Garage" became cult venues where DJs not only played music but also created new sounds and remixes.

Grandmaster Flash (1999)

The evolution of DJ techniques

The 70s brought an explosion of creativity and technical innovation in DJing. Kool Herc, often referred to as the father of hip-hop, developed the concept of 'breaks', where he isolated and repeated the rhythmic sections of a song to give dancers more time to dance. Grandmaster Flash perfected this technique and introduced precision mixing and scratching, transforming DJing into an art form. These techniques were not only innovative, but also the basis for many future developments in DJing.

Kool Herc (1999)

PARADISE GARAGE

STUDIO 54

THE HISTORY OF DJING

-> DJing today

Today, DJing has evolved and diversified. Modern DJs use digital technologies such as laptop software, CDJs and controllers to mix and produce music. Festivals such as **"Tomorrowland"** and **"Ultra Music Festival"** show the immense popularity of DJs, especially in the electronic dance music scene. DJs today are not only music players, but also producers and artists who release their own tracks and remixes. Well-known names such as David Guetta, Calvin Harris, and Martin Garrix are not only present in clubs, but also in the charts. In addition, turntablism has established itself as an art form in its own right, with DJs putting on impressive performances using techniques such as beatjuggling and scratching.

The role of technology

Technological developments have revolutionized DJing. While vinyl records and turntables were the dominant tools in the 70s and 80s, today it is digital devices and software that provide DJs with unprecedented creative freedom. Programs such as "Ableton Live", "Serato", and "Traktor" allow DJs to plan their sets in advance, remix live, and incorporate effects that would not be possible with traditional means. These technologies have made DJing more accessible and created a new generation of DJs who are constantly pushing the boundaries of what is possible.

The cultural importance of DJing

DJing has evolved from a simple activity of playing music to a central cultural practice that is deeply rooted in various music and youth cultures. In the 80s, DJs played a key role in the emergence of the house and techno scenes in Chicago and Detroit. The 90s saw the rise of rave culture in Europe, where DJs such as Sven Väth and Carl Cox shaped entire generations of clubbers. Today, DJs are global artists celebrated in all corners of the world.

DETROIT TECHNO
Juan Atkins is a co-founder of Detroit Techno
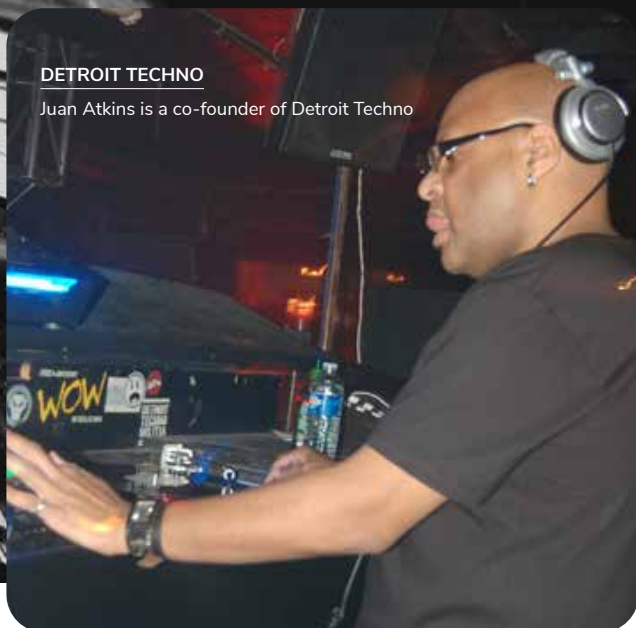
Sven Väth 2012 Amnesia Ibiza

Carl Cox, Martin Garrix and Chip E. in Miami after the release of the film "What We Started" which features the three as well as others in 2018.

Community Feedback

The TRM-222 Rotary Mixer by OMNITRONIC was launched in early summer 2024. What makes the mixer so special is that it was developed with the customer's wishes and feedback from the community in mind. It is no wonder that this very community has words of praise for the mixer:

Arrived today. I'm excited. Looking good already 😍 «

robu_music

Thank you, OMNITRONIC! Tons of respect! This thing sounds really good and is a lot of fun. «

Janny Schubert

What an awesome mixer! «

landwehringo

Sheesh, there goes all my money.😢 «

deejaydysfunktion

I have the TRM 202 mk3 and for some reason I freaking love it!!! (Also have a DJM-A9) but this 222........... I need it!!!!!! Gorgeous piece. «

dj_carlos_alicea

We did a test session that evening and everyone was really impressed. We were all surprised by the low price and that the mixer felt and sounded so valuable. One of us ordered a TRM straight away.🔥 «

laurin_joel_schafhausen

OMNITRONIC
TRM-222 Rotary Mixer

2-channel rotary mixer
with 3-band frequency
isolator, VCF filter, and
FX loop

» You really pulled off a coup with
this mixer! I'm actually considering
selling my beloved "TRM-202 MK3" and
getting the new model… There will
probably be some discussions at home
again ("Another mixer?"), but hey… «
Marcel Si

» That looks f***** sexy!!!! «
trominomusic

» I ordered mine thru Music Store
since they ship to NYC. Can't wait
for my TRM222 to be delivered «
lulu_money_bags_the_puggle

» The best Mixer do mundo «
dj_leresende

» Looks hella fresh! 🙏💯 «
soilbornsoul

» I love that mixer 😍 «
megatraum420nyc

» Great design. Awesome
features. Top price. Well
presented. Definitely worth
considering... «
djkhetama

» She's a beauty 😍😍 «
durosai

» It's finally arrived 👏👏👏
👏 I still can't believe it😍
😍😍😍 I'm already on pre-or-
der, I'm just waiting for it
to arrive with the courier,
I loved it straight away from
its presentation last year!
🙌🙌🙌🙌🙌🔥🔥🔥🔥🔼🎉🎉🎉🎛🎛
🎛🎚 «
ramondrsax

» Extremely impressed with the mixer. I
own nearly a dozen rotary mixers and
have tested everything available on the
market. What Omnitronic has put together
at that price is truly impressive. «
Laurin Joel Schafhausen

» Awesome piece of gear 🔥. I had the
ECLER before. There's a world of differ-
ence between them. Great job!. «
robu_music

The renaissance of the
vinyl record

A retro revival for modern audiophiles

It is the gentle crackling sound that makes many people reminisce: The vinyl record, which until a few years ago could only be found in special record stores, is now experiencing an amazing comeback. Long displaced by the digital revolution, the black disk has made an impressive return to the hearts of music lovers and collectors. However, what exactly is behind this phenomenon?

A journey back in time

Vinyl records have a long and eventful history. In the 1950s, they conquered the world and became the dominant music medium. Their analog sound and large format offered music lovers not only acoustic enjoyment, but also a visual and tactile experience. Collectors passionately displayed their record collections and guided visitors through shelves full of artfully packaged vinyl records. But with the introduction of the CD in the 1980s, the slow decline of the vinyl record began: Digital technology promised better sound quality, more convenience and, above all, portability. First the Disc-Man, then the MP3 player made music "to go" possible and gradually pushed the good old record off the shelves. In the mid-2000s, the fate of the vinyl record seemed sealed.

The comeback: Why now?

Contrary to all predictions, vinyl records experienced a real renaissance from the 2010s onwards. This trend can be attributed to several factors:

1. Nostalgia and retro trend:
At a time when everything is digital and fast-moving, many people long for the analog. The record offers a connection to a supposedly simpler and more authentic time.

2. Sound quality:
Audiophiles swear by the warm sound of vinyl records, which is often described as "livelier" than digital recordings. The latter are often described as "sterilized" by fans of vinyls.

3. Collector's items:
Record covers are often works of art in their own right. The large, often detailed designs make collecting records a visual pleasure. Limited editions and special pressings increase the appeal and value of the collection.

4. Experience and ritual:
Playing a record is a conscious experience. Selecting, cleaning and placing the record, setting up the needle – all this requires time and attention, which is perceived as a pleasant deceleration in the hectic digital world.
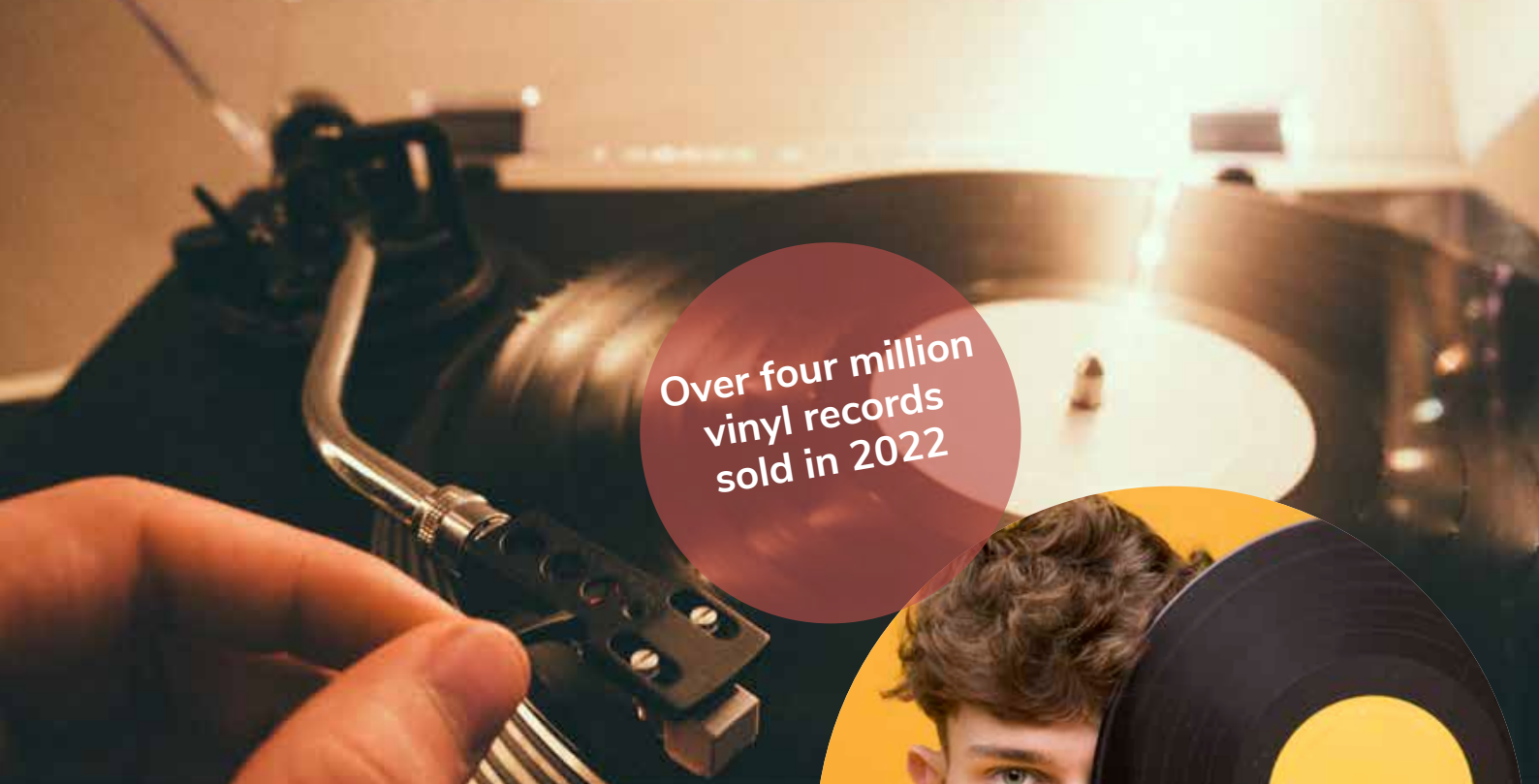
Over four million vinyl records sold in 2022

Facts and figures

According to the German Music Industry Association (BVMI), over four million vinyl records were sold in Germany in 2022 – an increase of over 10% compared to the previous year, and the trend is still rising. Vinyl sales figures have risen continuously worldwide over the last ten years. In the US, vinyl sales reached a 30-year high in 2021, overtaking CD sales for the first time since the 1980s.

The future of the vinyl record

The revival of the vinyl record has also influenced the music industry. Many artists are now releasing their albums on vinyl again and more and more record companies are investing in modern pressing plants. Even young, digital-savvy generations are discovering vinyl for themselves and contributing to the steadily growing fan base. The trend towards vinyl also has its downsides – the high demand is creating a "traffic jam" in the pressing plants. It is possible that smaller artists without a lobby have to wait several months for their records to be pressed because the artists on the major labels have also acquired a taste for it again. The same applies here: If you want a record, you need patience – not only when consuming music, but also during production.

The record as an experience

The vinyl record has managed to assert itself in a digital world and reinvent itself. It stands for a return to quality, a conscious musical experience and the charm of the analog. A phenomenon that shows that some things are simply timeless. So, dust off your record player, flick through the record crates, and let yourself be enchanted by the warm sound of the past – vinyl records are here to stay.

OMNITRONIC BD
Turntables

Belt drive DJ turntable in black or silver

TRM-222
IT'S YOUR TURN!

Analog rotary mixer with 3-band
master frequency isolator

- VU meter for each channel
- Dipswitches for individual adjustment of the EQ curve
- Booth output with 2-band EQ and volume control
- Crossfader with adjustable crossfade characteristic
- Adjustable send-return effect path
- Adjustable record out

INTERVIEW WITH OLIVER LIEDER AND STEFAN KIETZ OF
DJ ALLIANZ

DJ Stefan Kietz and DJ Oliver Lieder have been working as professional mobile DJs for many years. With their previous project "DJ-Talk", they were able to build a large community in the scene through news, product reviews, and tutorial videos. With their new project, DJ ALLIANZ, they aim to bring this community together even more, to inform, to educate, and to support DJs in their careers. We met with the guys to learn more about the project for you.

Oliver Lieder

My name is Oliver Lieder, and I've had this name since my birth in Dresden. I discovered my passion for music and technology during my school years. Even before graduating in 2005, my career began in several clubs and small festivals. However, a few years later, out of spite, I decided to change directions and established myself with growing passion as a wedding and event DJ. In 2012, I decided to start fresh in my chosen home in Mecklenburg-Vorpommern, where I still enjoy working today. Thanks to fortunate circumstances, I met Stefan in 2018, and from then on, I contributed to "DJ-Talk." It was through this project, that I truly recognized the importance of unity and education within the DJ community.

Stefan Kietz

My name is Stefan Kietz, and I discovered my passion for music and DJing at around 12 years old. Even at a young age, I was responsible for the music at family gatherings, events with friends, and acquaintances. Shortly after my 18th birthday, I DJed in a club for the first time, and in 2013, I had the opportunity to DJ at my first wedding – out of necessity, as the original DJ had canceled at the last minute. In 2013, I also started a YouTube channel, which now has nearly 23,000 subscribers, and in 2018, I was finally able to become a full-time DJ. At that time, I also founded my DJ agency, "PfalzDJs", through which I now manage 30 DJs in the Palatinate region. Also in 2018, we rebranded my YouTube channel to "DJ-Talk" to work on it with a larger team.

How did the idea for the founding of DJ ALLIANZ come about?

Through our work, we are excellently connected within the event DJ industry in Germany. In numerous conversations, it became increasingly clear that in Germany, there is a lack of representation which seriously advocates for the interests of the DJ community in politics, media, business, and industry. With DJ ALLIANZ, we not only took a bold new step but also created an opportunity to incorporate all our experiences from DJ-Talk and our involvement with other associations into this new project.

For us, it is especially important to enhance both the appreciation among colleagues and the public perception of our services. This includes internal efforts, such as the training and education of DJs, as well as external outreach. Sharing and embodying structure and competence within our own ranks is essential to being taken seriously by society. With this goal and the ambition for even closer, personal contact with members, the idea for this new project was born.

What can members of your DJ community expect?

Every member can expect, in addition to their welcome package and immediate access to high-quality training offers and tutorials, plenty of discounts with numerous partners, including online retailers, hardware and software providers, as well as cross-industry service providers. However, most importantly, each member will have the opportunity to build new networks or dive into existing ones. Our favorite keywords here are: bundling and sharing expertise! Younger members benefit from the experience of seasoned colleagues, while experienced DJs can learn about the musical preferences of the younger generation and the work with social media, to name just a few examples.

Through close partnerships, we are also able to develop individual solutions for ideas and problems. In addition to a free sampling option for all members, where current tracks are available for download at any time, the focus is, of course, on our regular nationwide DJ meetings called "Crossfades". Meetings are held at least twice a year in each region, where relevant content is also presented in the form of workshops and live tutorials. Numerous additional events, such as trade fairs and special events, complete the opportunity for personal development both online and in person.

How can one become a member of the DJ Allianz?

Basically, anyone can become a member, regardless of age or level of experience. It only takes a few clicks on our website www.dj-allianz.de. After completing the online registration, membership is immediately confirmed, and the relevant access details are provided. While our primary target group is mobile DJs, who often perform at various venues with their own event technology, we are, of course, also very happy to welcome members whose focus lies in other areas. This includes club DJs, festival DJs, and event service providers in general. You do not even have to be a DJ yet for membership to be possible and worthwhile. For example, we welcome newcomers or – please excuse the term – basement entertainers who have so far only pursued their passion privately. The overlaps within the entire DJ industry, whether professional or private, are enormous. We are all passionate about technology, strive to stay up to date, share a love for rhythmic entertainment, and, most importantly, have the same passion for music. Therefore, the benefits are equally relevant for everyone. The more members we have, the greater the advantages for each individual member.

What other plans do you have for the future with your community?

Our plans and long-term goals depend heavily on the future growth of our membership. Primarily, we are committed to making DJing a true profession with social and economic recognition. To have the necessary influence on politics and the institutions involved, we need more than just a handful of members. Only with a large community and a strong, active association – one that we aim to establish – can we create the necessary lobby to represent the interests of each individual DJ. Admittedly, this is a very ambitious goal. However, we firmly believe that with our enthusiasm and motivation, we can start something here and now that should have happened 30 years ago. A not entirely incorrect concept for certifying "record entertainers" established in the former German Democratic Republic (GDR) was already known as a possible model during the reunification period.

MADRIX
LIGHTING CONTROL

5.7

New Software Update
OSC
Scheduling & Calendar
Extreme 3D Performance
& Much More

www.madrix.com

Made in Germany

News from

INTUSONIC

**Intuitive audio technology
at a professional level**

INTUSONIC 4VM100T
2-Way Fullrange
Column Array Speaker

Column Array (4x4") with waveguide for multimedia applications, 280 W

Slim column for the middle distance

The 4VM100T by INTUSONIC is a versatile column speaker specially designed for multimedia applications. With its precise sound dispersion, unwanted reflections from ceilings and floors are avoided, while a wide horizontal coverage is guaranteed. Thanks to customized waveguides and phase plugs, this speaker is perfect for medium distances, and ideal for seated listeners in classrooms, lecture halls, chapels, and conference rooms.

Inside the speaker are four 4-inch woofers with phase plugs in a closed housing and four 1-inch silk dome tweeters in a 5° downward-facing waveguide. This combination ensures focused vertical and wide horizontal dispersion, which enables optimum sound distribution. The passive crossover guarantees the best possible sound quality.

For the connecting options, the speaker offers dual parallel Speakon-compatible connections as well as a 5.0 mm 4-pin screw terminal connection (2x2 parallel). Various mounting options are available: 75 mm VESA mount (rear), one M10 mounting point (top) and three M6 mounting points as well as two slotted mounting plates for flush wall mounting.

The speaker's housing is made of 12 mm MDF and has a textured, scratch-resistant black or white paint finish. A robust steel front grille with foam on the back reliably protects the speaker components.

The 4VM100T offers high-quality, reliable audio quality and is perfect for a variety of applications where precise sound dispersion and flexible mounting options are required: whether in classrooms, chapels, or conference rooms.

INTUSONIC PAA42+ Dual Output Stereo Media Preamplifier

19"-preamp/mixer with media player, DAB+, wireless audio, IR remote controll and RS485 control option

Athletic media player

The INTUSONIC PAA42+ is a versatile media preamp/mixer that offers a wide range of functions for professional audio applications. It combines a 6-channel stereo preamplifier with two microphone inputs and an integrated media player. Particularly noteworthy is the combination of phantom power and high-pass filters in the microphone section and the automatic attenuation of the music signal (talk over/priority), which is ideal for fitness trainers in sport courses and similar applications. The integrated media player supports USB playback, FM reception, the LINK-OUSTIC™ 5.0 Wireless Audio Link, and an IR remote control. A DAB+ receiver provides additional music enjoyment.

The amplifier offers three unbalanced stereo line inputs (RCA) and one balanced stereo input (1/4" FOH input) with gain control and an unbalanced 3.5 mm jack stereo input on the front. Two balanced microphone inputs with 3.5 mm screw terminals at the rear and an additional 1/4" TRS socket for a second microphone at the front offer flexible connection options. The microphone inputs have gain controls, switchable phantom power (12V), high-pass filter as well as a 2-band EQ, volume control, on-air switch, and adjustable talkover.

The media player supports USB playback with access to files and folders, has a 128x64 LCD display, regular/random playback, FM/RDS tuner mode, and a 4-jingle player with scheduled playback modes. The player is supplied with an IR remote control.

The amplifier has two master outputs with an evacuation function, which can operate in mono or stereo. It also offers an emergency input function that replaces the master signal with an emergency signal at an adjustable level. The INTUSONIC PAA42+ is an excellent amplifier for a wide range of applications where high audio quality, versatility, and ease of use are crucial, for example, in gyms, schools, or conference rooms.

INTUSONIC HMA72 2-Zone Audio Router

19" audio router, five stereo and two mic inputs, IR remote, and RS485 control option

INTUSONIC HMA74 4-Zone Audio Router

19" audio router, five stereo and two mic inputs, IR remote, and RS485 control option

Keep the overview

The INTUSONIC HMA72 and HMA74 zone distributors each form the heart of INTUSONIC's digitally controlled audio zone and paging system. Together with the HZE11 zone remote control wall panel and the HPA41 paging station, a flexible and scalable system for background music and announcements is quickly created.

These zone distributors offer a variety of inputs, including four unbalanced stereo line inputs (RCA) and one balanced stereo input (1/4'' FOH input), each with gain control. An unbalanced 3.5 mm jack stereo input on the front provides additional flexibility. Two balanced microphone inputs on 3.5 mm screw terminal inputs are equipped with gain controls on the front and a phantom power switch on the rear. The two or four-zone outputs can be flexibly configured and offer mono switches, 100 Hz high-pass filters, maximum level control, 2-band EQ and adjustable volumes for announcements and emergencies. The zones can be conveniently controlled via the 2x8 LCD display, the encoder, or the IR remote control.

For emergencies, both the HMA72 and the HMA74 have an input that replaces the master signal with an emergency signal and an output muting circuit. The robust metal housing with removable handles ensures a long service life and easy installation.

Accessories

The HZE11 zone remote wall panel allows remote control of all zone settings and enables local audio feed. It is powered by the HMA72 via a Cat5 cable and offers the same zone settings as the main unit.

INTUSONIC HZE11 Zone Remote Control Panel

Flush-mount volume control, RS485, incl. IR remote control

CHURCH ST. MICHAEL //WEIDENTHAL, GERMANY

Excellent speech intelligibility, harmonious music reproduction, and a discreet, white look – these were the requirements for the new audio installation in St. Michael's Church in Weidenthal, Germany. ACG Sound & Light met these requirements superbly with the help of four OMNITRONIC ODC-244T and four OMNITRONIC ODC-264T speakers.

OMNITRONIC ODC-244T Outdoor Column Speaker white

Weather-proof column speaker in aluminium cabinet (4x4"), with mount, 130 W RMS

OMNITRONIC ODC-264T Outdoor Column Speaker white

Weather-proof column speaker in aluminium cabinet (6x4"), with mount, 200 W RMS

ROOM ACOUSTICS

WHAT ROLE DOES THE ROOM PLAY FOR THE LISTENING EXPERIENCE?

Not only in a studio environment does it make sense to strive for good room acoustics for listening to and mixing music. In event rooms, clubs, bars, or even your own living room, successful room acoustics also contribute to a sense of well-being, good speech intelligibility, and enjoyment when listening to music.

The theory of room acoustics deals with sound propagation and the acoustic properties of rooms. It is a focal point which plays an important role in both architecture and sound engineering. Even in ancient Greece, for example, amphitheaters were designed in such a way that the sound from the stage was directed as far as possible into the auditorium. Even today, the room acoustics of concert halls and event halls are still taken into account when planning new cultural buildings.

Sound propagates in the form of waves. In indoor spaces, this propagation is influenced by the room's boundary surfaces such as walls, ceilings, and floors. As a result, there are different ways in which we can perceive sound with our hearing:

Direct sound, which travels directly from the sound source to the listener, and reflected sound, which bounces back from room surfaces.

The greater the proportion of **reflected sound**, the poorer the speech intelligibility in a room. It is also extremely difficult to create a good mix in a studio or concert hall with a lot of indirect or reflected sound. The sound quickly builds up and becomes undefined and "muddy". Listening becomes very tiring.

Speaker   Speaker

Sound

a^1
$ß^1$ $a^1 = ß^1$

$a^2 = ß^2$ a^2
$ß^2$
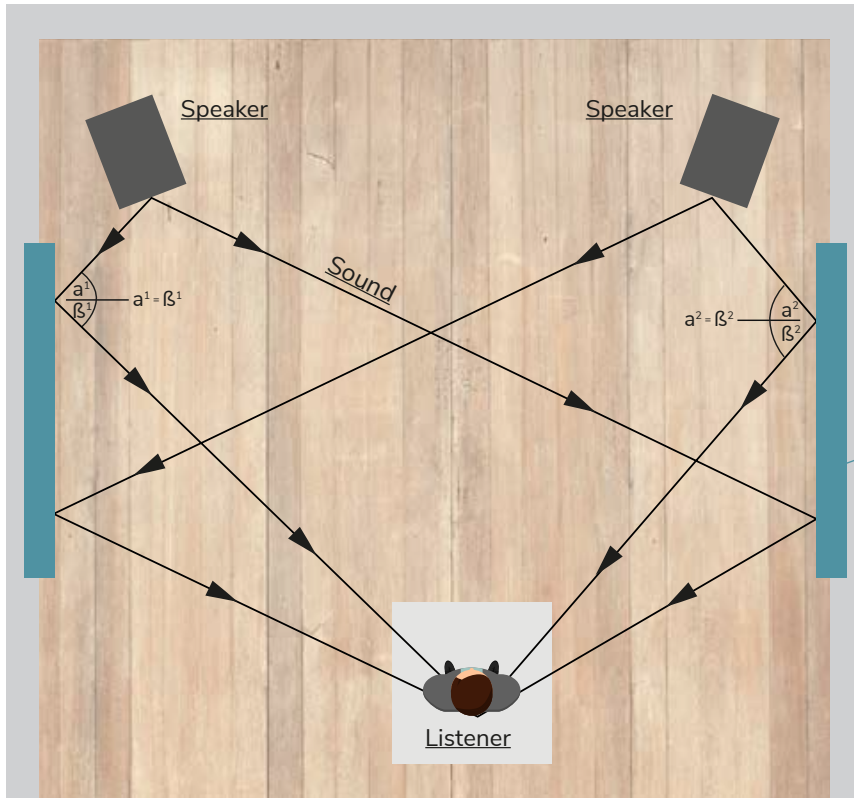
Ideal location for an absorber against initial reflections

Listener
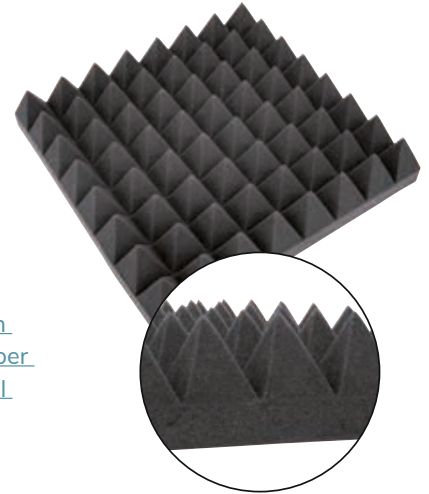
OMNITRONIC Accoustic Foam, Pyramid 100mm, 50x50cm

Acoustic foam for sound absorption

In smaller rooms in particular, it is not only the higher frequencies in the speech range that are problematic, but also the bass range with the lower frequencies. Due to the long wavelengths of up to several meters, the sound in this range can not only build up unpleasantly, but can also completely cancel itself out in some places in the room. These so-called room modes are standing waves caused by the reflection of sound between parallel surfaces.

The result is an inhomogeneous experience on the dance floor of a club, at a concert, or even on the sofa. In some cases, the sound changes enormously within a few centimeters, so that one listener hears and feels extremely over-emphasized bass, while the listener directly next to them hears almost none.

The **reverberation time** is also a key parameter in room acoustics. It indicates the time it takes for the sound to drop to one millionth of its original sound level after the sound source has been switched off.

The optimum reverberation time varies depending on the use of the room: in concert halls, a slightly longer reverberation time is appreciated, while a shorter reverberation time is preferred in lecture halls or classrooms. Acoustic treatment are essential in most rooms to ensure that music or speech reproduction from loudspeakers reaches the listener with as little distortion as possible.

The most important thing here is a loudspeaker system that ideally only radiates in the direction of the audience. To achieve this, the individual sound sources should be aimed as precisely as possible at the listeners. It is also important to ensure that the mid and high frequencies are not emitted further than necessary to avoid unwanted reflections on the walls and ceiling.

In addition, the most effective means of increasing speech intelligibility and directness is the so-called dampening of initial reflections. For this purpose, absorbers are attached to the first reflection point of the sound, on the wall and/or ceiling. These can absorb the undirected and unwanted sound before it reaches the auditorium. **The absorbers must be so thick that they can ideally absorb all frequencies up to the three-digit Hz range.** This is due to the physical properties of sound: the lower the frequency, the longer the wavelength. At 500 Hz, for example, the wavelength is 68 cm. As a rule of thumb: for porous absorbers, such as acoustic foam or insulating wool, to work effectively, the thickness must be at least 1/10 of the wavelength. This means that an absorber with a thickness of at least 6.8 cm is required to sufficiently dampen sound at 500 Hz. Molton or thin pyramid foam is generally not sufficient for this. Depending on the material, a thickness of 10 cm is a good guideline for sufficient dampening.

On the other hand, greater effort is required to dampen unwanted bass modes. The thickness of an absorber for broadband damping in the bass range can quickly reach up to 1 m, depending on the material. In addition, so-called bass traps can be set up in the corners of the room, as room modes can build up here in particular. In contrast, targeted absorption of individual problematic bass frequencies is possible with relatively compact "Helmholtz resonators".

In addition to damping unwanted sound, it may also be necessary to use diffusers to create pleasant acoustics, depending on the room. These break up the sound and scatter it evenly and diffusely into the listening area. In contrast to absorbers, which convert sound energy into heat, diffusers retain the sound energy and merely redistribute it. This is usually useful at the back of a room, as it prevents the room from sounding unpleasantly overdamped and "dead". Diffusors help to eliminate problems such as comb filter effects, flutter echoes and harsh reflections. Used in the right places, they enable an open and lively sound impression.

Uneven diffuser surface
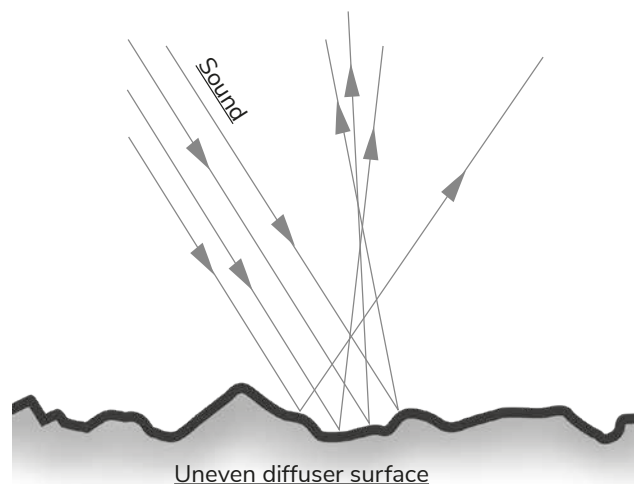
All acoustic elements are available in various designs, sizes, and effects to suit every application. Custom-printed coverings with sound-permeable fabric are also common practice to ensure a visually appealing overall appearance in any environment.

Good room acoustics can significantly improve people's well-being and performance, whether in productive or working environments, or in the cultural sector. Through targeted planning and the application of acoustic principles, rooms can be created that are optimally adapted to their respective use.

ABSORBERS ARE EASY TO BUILD YOURSELF WITH A LITTLE MANUAL SKILL

Materials required:
- Wooden planks with a width of 10 cm (for a desired thickness of 10 cm) for the frame
- Rock wool or insulating wool for sound insulation, 10 cm thick
- Weed fleece in black
- Preferably sound-permeable fabric for the covering (color and/or print depending on the desired look); molleton or thick curtain fabric are not recommended
- Stapler with staples to stretch the fabric over the frame
- Wood screws
- Woodworking tools (saw, sandpaper, cordless screwdriver, etc.)

Instructions:
1. First, a frame is built from the wooden boards in the desired size of the absorber. Depending on the size, a few cross struts can be added to the frame to increase stability. Many DIY stores offer a free cutting service if you do not want to use a saw yourself.

2. The weed fleece is placed in the finished frame and the insulation wool cut to size is inserted. To prevent the rock wool fibers from escaping, the weed fleece is wrapped around the insulation wool so that it is completely enclosed and then stapled to the frame all the way around.

3. Finally, the fabric for the covering is laid over the absorber and stapled to the frame from behind with as few creases as possible.

The result is a cost-effective and visually appealing absorber with a very good absorption effect.

The absorption rate per frequency is usually specified by the manufacturer of the insulating wool in the data sheet. This information can be used to determine the required thickness of the absorber in order to effectively dampen the desired frequency range.

BLUETOOTH TRANSCEIVER

OMNITRONIC BDT-5.2PRO Aptx HD Bluetooth Transceiver
3-in-1 Bluetooth audio adapter with transmitter/receiver/bypass mode, dual link, and aptX HD

MULTI-ROOM-TIP

Good to know: Control speakers with Alexa® or Google Nest®

The 3-in-1 Bluetooth audio adapter can also be used for a multi-room solution with Alexa® or Google Nest®, for example: To do this, the adapter is connected to the main audio device (e.g. TV or stereo system) via the optical, RCA or AUX connection. In receiver mode, the adapter receives audio signals from Alexa® and Google Nest® devices via Bluetooth and sends them to the connected speaker. In this case, the adapter is paired with the Alexa® or Google Nest® speakers. The music is controlled via the app or voice commands to Alexa® or Google Assistant®.

The 3-in-1 Bluetooth audio adapter is a versatile and user-friendly device that provides quick and easy Bluetooth connectivity to entertainment devices. With three main functions – transmitter, receiver, and bypass mode – it offers flexible use for various audio applications.

In transmitter mode, the adapter transmits the sound from non-Bluetooth-enabled devices such as televisions or old music systems wirelessly to Bluetooth headphones or speakers. This ensures a wireless listening experience without the hassle of cables. The dual-link function makes it possible to stream sound to two Bluetooth devices at the same time, which is particularly practical for listening to music or watching movies together.

In receiver mode, the adapter transforms conventional audio systems into modern Bluetooth-enabled systems. This allows music from smartphones, tablets, or other Bluetooth-enabled devices to be played wirelessly on the stereo system. The multipoint function allows two audio sources to be paired simultaneously, enabling seamless switching between different devices without having to reconnect.

The bypass mode offers the option of wired audio transmission if a Bluetooth connection is not desired or possible. This provides additional flexibility and ensures reliable audio transmission at all times.

Thanks to the optical, RCA, and AUX connections, the adapter is compatible with a wide range of devices. Supported codecs such as SBC, AAC, aptX, aptX Low Latency, and

Works with All TVs- universally compatible
with any TV that has optical audio output ports

Audio Streaming Box-
a multifunctional audio adaptor for home appliances

All-in-One Audio Streaming Hub

EASY to USE- Big LCD display
shows you all headphones/speakers available for connection

aptX HD guarantee high-quality audio transmission without delays. With a range of up to twenty meters at the line-of-sight, there is plenty of freedom of movement.

Operating the adapter is particularly easy thanks to the 1.8" LCD display and the large rotary control. In receiver mode, playback can also be controlled, paused, and the volume adjusted directly on the device. The adapter stores up to eight devices and automatically reconnects when they are switched on.

The compact and lightweight design makes the adapter portable and perfect for mobile use. Whether at weddings, galas, events, for mobile DJs, or in restaurants, bars, and hotels – the 3-in-1 Bluetooth audio adapter offers a reliable solution for wireless audio applications everywhere.

Specifications

Power supply:	5 V DC 500 mA
Power connection:	Via USB C (W) mounting version
Bluetooth:	Version: 5,2
Supported codecs:	SBC, AAC, aptX, aptX low latency, aptX HD
Coupling:	Multipoint: simultaneous pairing up to 2 audio sources
	Duallink: up to 2 devices simultaneously streaming
Range:	Range up to 20m with line-of-sight
Frequency band:	2.4 GHz
Connections:	Input: line via 1x3.5 mm jack (stereo)
	Input: optical via 1 x toslink
	Output: line via 1x3.5 mm jack (stereo)
	Output: optical via 1 x toslink
Dimensions:	Length: 8,4 cm, Width: 11,2 cm, Height: 3 cm

Interview with
SG BACKLINE SERVICE

The team of SG BACKLINE SERVICE
left to right: Matze, Chris, and Carmen

Hello Carmen, Chris and Matze – thank you very much for answering our questions! Could you briefly introduce yourselves to our readers? Who are you and what do you do at SG Backline Service?
Matze:
My name is Matthias "Matze" Schneider. Like my colleagues, I actually work in all areas and, as Managing Director, I am responsible for everything :-)

How did your company come about? Where does the "SG" in the company name come from?
Matze:
Actually, "SG Records" was supposed to be the name of a recording studio. The name came about many years ago in Laby [nightclub in Würzburg, editor's note] together with my colleague at the time, Stefan Gößwein (SG), after several shots of Jacky Cola. Not particularly creative when you look at it soberly. At some point I joined in: Schneider (S) Gößwein (G) Somehow the idea of a recording studio turned into a backline rental company. In the meantime, it is actually just the "S", as Stefan has taken a different career direction. Nevertheless, the SG has remained. Only the "Records" had to give way. SG Backline Service GmbH is simply more appropriate.

Why did you choose Würzburg as your location and why have you never moved to another city?
Matze:
We set up our own business almost at the same time as the Posthalle [event location in Würzburg, editor's note] came into being. In the first few years, the Posthalle was our number one customer and we worked as technicians at almost every event. The backline rental business came into being at the same time. But the Posthalle and the building connected to it were always our location. There are certainly bigger cities where there is more going on. But we like being here, even if we are slowly having to think about relocating due to the construction work and other cities are also being considered.

Please take us into your everyday life: What does a typical day or week look like for you? How can we imagine your work?

Chris:
We usually gather in the office at nine o'clock and have a quick look over the day together. Well... actually we head to the coffee machine first. Mails are checked. Quotations are written.

Then it is off to the warehouse. On Mondays, we usually get things back from the weekend and from tours. In other words: check amps. Clean and check drums and mend everything again. Depending on what is coming up, we start packing for the weekend on Tuesday or Wednesday at the latest. Occasionally bands rehearse on-site before their tour. We then entertain them a little at the same time.

Carmen:
I try to help out in the warehouse as much as I can. However, I quickly reach my limits when it comes to loading and unloading due to a lack of strength :-). But there is also a lot to do in the office, so I do the accounting and whatever else comes up.

You have been in the business for many years and must have met some interesting personalities. What have been the most challenging projects that you have accompanied? What moments have stayed in your mind (or heart)?

Matze:
That is the most difficult question. For me, there really is not just one project. Some people can still tell the same heroic story for the 100th time after 10 years. For me, it is more about

the many small moments and experiences with the people at the events. The friends you get to know over the years and look forward to the one meeting a year at festival XY.

Carmen:
My personal highlights were the Tui Tattoo Cruise and the DJ Bobo tour kick-off at Europa Park Rust. In the run-up to each event, we really worked our tails off, but everything worked out well in the end. However, I also like the small festivals and events that are often organized with a lot of love and passion.

Which band/musician would you like to work for one day – and why?
Matze:
I can only speak for myself at this point. There are bands that I am almost like a fan of. And that is exactly why I do not want to work for them. I am not going to have my little fan bubble destroyed.

What advice would you give to young people in the music/show/event industry? Looking back, what would you perhaps do differently or always do the same in your career?
Matze:
The industry has changed a lot in recent years. You used to get ahead with ambition and commitment. Recommendations and contacts were extremely important. Heart and soul and passion for the industry – that was important. Nowadays, there are a lot of young people in this profession who did not really know what they were getting into. The job sounds cool, but it also demands a lot. It is definitely not a "nine to five" job. However, you also get to travel a lot and experience things that you might not have in a "normal" office job. 1) I can only recommend everyone to do an internship to find out exactly what you want to do.
2) I often hear "I do not work for less than xy . After six hours, every additional hour costs ..." Money is not everything. Sometimes you would rather drop a few Euros and have the job every year instead of "milking the cow" until nothing works. Due to the circumstances of the last few years, I do not know if I would put everything I have into an entertainment company again. After all, we are not relevant to the system.

Thank you very much for the exciting insights into your everyday life! We wish you all the best for the future and hope you continue to enjoy your work.

RESTAURANT KRÁLOVSKÁ SRDCOVKA //KARLOVY VARY, CZECH REPUBLIC

The "Královská Srdcovka" restaurant in Karlovy Vary, Czech Republic, was equipped with a reliable 100 V sound system from OMNITRONIC as part of its modernization last year. A 6-zone MPVZ-350.6P mixing amplifier, which feeds four pairs of OMNITRONIC OD-6T and six pairs of OD-5T loudspeakers, ensures good sound for background music. The owners of the restaurant placed particular emphasis on simple operation of the zone control system, which has been excellently solved by using the MPVZ-350.6P.

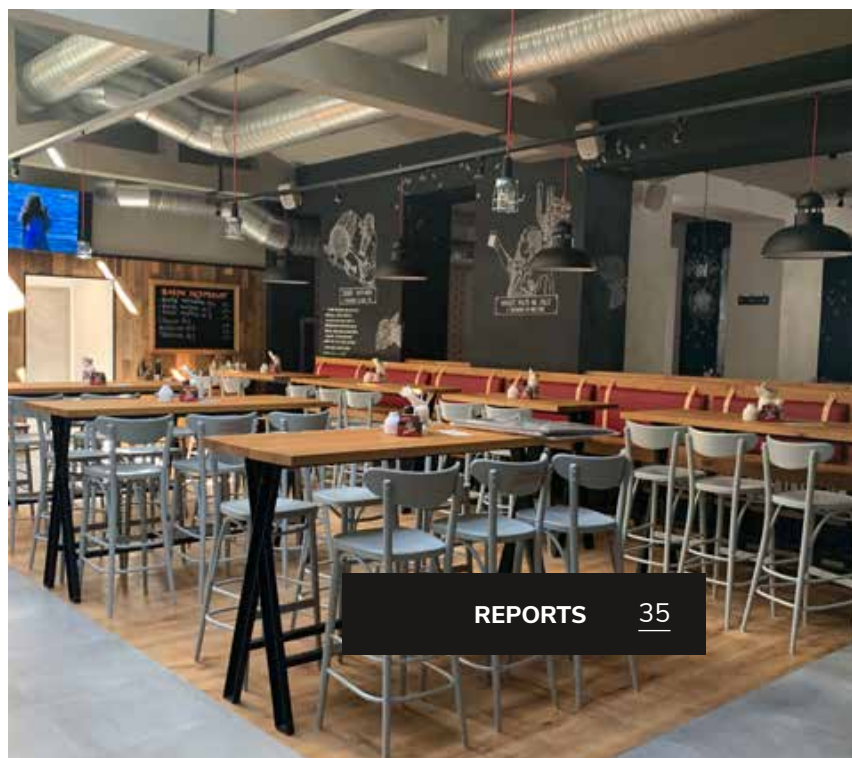**OMNITRONIC OD-6T Wall Speaker 100V white 2x**

Weather-proof wall speaker pair (IP65) with 6,5" woofers and 50 W RMS

OMNITRONIC MPVZ-350.6P Mixing Amplifier

6-zone-PA mixing amplifier with audio player and remote control, adjustable zones, 350 W RMS

RESTAURANT LA HOSPODA //KARLOVY VARY, CZECH REPUBLIC

The "La Hospoda" restaurant in the center of Karlovy Vary offers modern Czech and international cuisine and draft beers. The gastronomic experience in the beautiful surroundings of the restaurant is now enhanced by the new sound system in the taproom, the main restaurant and the outdoor area. HDT Impex (Karlovy Vary, CZ) installed OMNITRONIC OD-5T loudspeakers and OMNITRONIC CSUB-12 subwoofers as visually unobtrusive wall-mounted loudspeakers. This combination provides a harmonious sound backdrop in the restaurant with a discreet appearance.

OMNITRONIC OD-5T wall speaker 100V white 2x

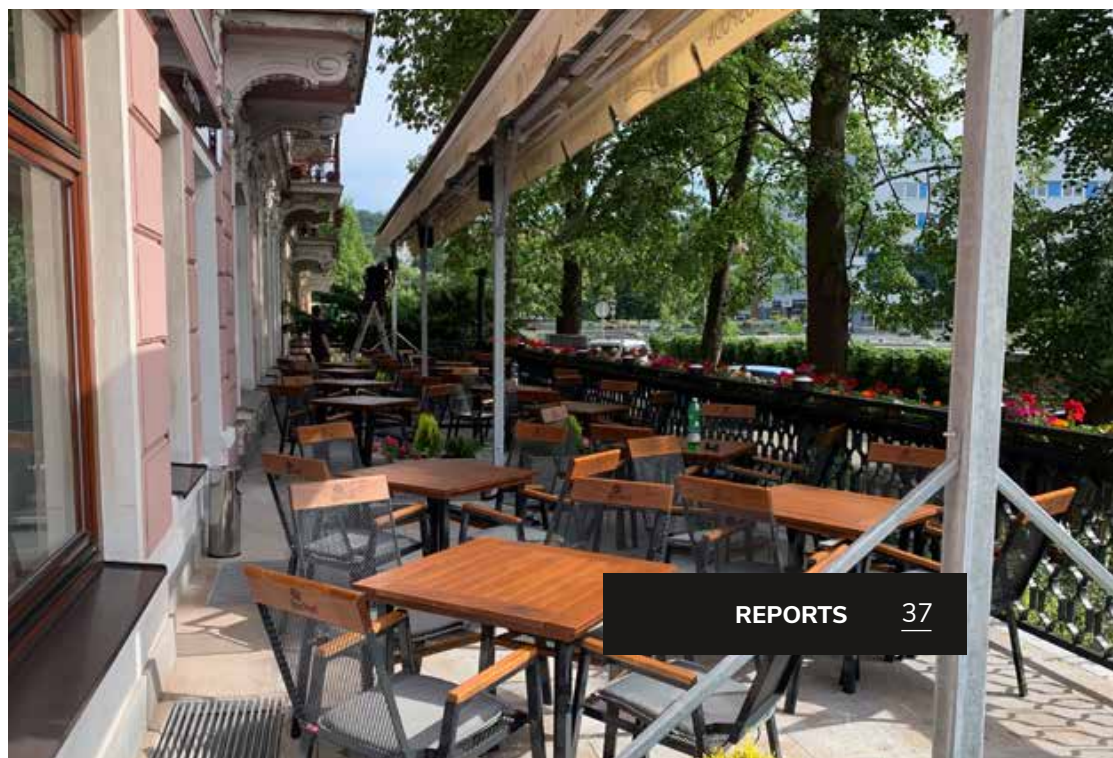Weather-proof wall speaker pair (IP65) with 5,25" woofers and 40 W RMS

OMNITRONIC CSUB-12 Ceiling Subwoofer

12" flush-mount speaker, dual voice coil, 110 W RMS, 2x8 ohms, 33 cmx33 cm

**OMNITRONIC TUNA-NET
19" Internetradio with DAB+
and Bluetooth**

Internet radio with DAB+
and FM tuner, Bluetooth, and
UPnP/DLNA support

SPORTS ARENA
//CHEB, CZECH REPUBLIC

The multifunctional sports arena in Cheb, Czech Republic, has undergone extensive modernization. As part of the project, the hall was equipped by HDT Impex (Karlovy Vary, CZ) with modern, professional lighting, including effect lighting for the court. A EUROLITE SL-400 searchlight provides the right light for the players' run-in, while four DMH-160 MK2s by FUTURELIGHT project the logos of the home team and the main sponsor onto the arena floor. The installation also included a new sound system for the venue, including a PSSO WISE Two.

ANTARI M-7X RGBA Stage Fogger
1500 W fog machine with LED illumination, vertical, and horizontal operation

FUTURELIGHT DMH-160 MK2 LED Moving-Head
PRO moving-head with 200 W COB LED and extensive features

OMNITRONIC ODX-215T
Installation Speaker 100V white

Weather-proof 15" wall speaker (IP56) with mount, 400 W RMS

OMNITRONIC ODP-206T
Installation Speaker 100V white 2x

2 weather-proof 6" wall speakers (IP65) with mount, 80 W RMS

SPORTS STADIUM
//EGER, CZECH REPUBLIC

For the sound system of the Cheb sports stadium with Jaroslav Přibáň's famous "Golden Runway", OMNITRONIC ODX-215T loudspeakers were used, which meet the demanding year-round outdoor conditions and guarantee excellent speech as well as music intelligibility thanks to the coaxial loudspeakers. OMNITRONIC ODP-206T speakers are used for the sound reinforcement of the grandstand.

THEY CAN STAND THE RAIN

EUROLITE expands the Multiflood series with two new models for outdoor use

EUROLITE presents two new models in the Multiflood series: the Multiflood IP 18x10W RGBW Wash CRMX and the AKKU Multiflood IP 18x10W RGBW Wash CRMX. Both devices are IP65-certified and therefore perfectly suited for outdoor use.

Barn doors and diffuser cover 40° are included in the scope of delivery.

Both devices have an integrated wireless receiver for CRMX operation and are silent in operation. They can be controlled via DMX, W-DMX by Wireless Solution, CRMX by LumenRadio, master/slave function, RDM, stand-alone and an IR remote control. An additional frost filter ensures a wide, homogeneous, and soft light, while four barndoors provide perfect glare and transportation protection. With 18 powerful 10 W high-power 4in1 QCL RGBW LEDs, both models offer homogeneous color mixing. The remote control has three buttons for saving your own settings. Other shared features include stepless color mixing, adjustable color change and color fade, electronic dimmer, adjustable dimmer speed, white balance, direct color selection for 15 colors, 36 integrated show programs, a strobe effect, and flicker-free light. Both devices have a beam angle of 10 degrees.

Both are cooled using passive convection cooling. They are also equipped with a pressure compensation membrane and a KENSINGTON-LOCK anti-theft device.

EUROLITE Multiflood IP 18x10W RGBW Wash CRMX
Silent IP65 LED floodlight with RGBW color mixing, CRMX, diffuser panel, barndoors, IR remote control

EUROLITE AKKU Multiflood IP 18x10W RGBW Wash CRMX
Silent IP65 rechargeable floodlight with RGBW LEDs, CRMX, diffuser panel, barndoors, IR remote control

lumenradio
Creating Connectivity for a Better Tomorrow

up to **5,5h**

IP 65

The difference between the two models is the battery operation ("Akku" is German and translates into "battery pack"): while the Multiflood IP 18x10W RGBW Wash CRMX is designed for operation with main power and is, therefore, particularly suitable for fixed installations and longer events where a permanent power supply is guaranteed, the AKKU version also offers the option of cordless operation: With an operating time of up to 5.5 hours depending on the program used, the AKKU Multiflood IP 18x10W RGBW Wash CRMX is ideal for temporary installations and mobile applications where no fixed power supply is available. It also has an emergency lighting function in the event of a power failure and a display showing the remaining battery life and charge status.

WITH CHARGING FUNCTION

ROADINGER Flightcase 4x AKKU Multiflood IP 8x10W RGBW Wash CRMX with charging function

Trunk case with castors

BARBEQUE
& GENESIS
OR: HOW MOVING HEADS CAME INTO EXISTENCE

The right ingredients are essential for a good meal. For a successful light show, it is the technical equipment. And for 40 years now, this has included moving heads. To be more precise, they are not just part of it, they are indispensable and have become an integral part of lighting technology. There is no major concert or television show that would do without the use of multifunctional spotlights. But who invented them?

This time it was not the Swiss. In the United States of America, the spotlights learned to walk, or rather to move. In 1970, the U.S. company "Showco" was founded, which after a few years had worked its way up to become one of the leading providers of sound and lighting installations for live events and could count such illustrious customers as Led Zeppelin, The Who, David Bowie, and Genesis. However, the Americans were facing competition from England, where they were working with aluminum instead of steel housings and new dimmer technologies, thus taking more efficient paths. The losses at "Showco" were so great that the company seriously considered withdrawing from the lighting business. However, it was not to come to that.

Two technical developments were responsible for this: dichroic-coated color filters and a new generation of discharge lamps: metal halide. Until then, all attempts to construct at least one color-changing spotlight had failed. But now Jim Bornhorst from "Showco" saw the opportunity to put the idea into practice.

In collaboration with John Covington, he set about developing a completely new type of spotlight with an internal color wheel and a discharge lamp. Tom Walsh and John Brooks Taylor took care of the innovative control system. However, as is often the case with ingenious inventions, coincidence came into play here as well. The "Showco"-team had gathered in a barbecue restaurant. While discussing the status of the developments during the meal, one of the "Showco"-bosses interjected with an annoyed undertone: "If you build two more motors on this thing, it can even move." What was actually only meant to be an ironic remark turned into a self-propelled success. The planned color changer was given additional motors. Twelve weeks after the above-mentioned visit to the restaurant, in December 1980, the prototype of a moving spotlight including control system was completed.

One of the first people to see the moving head was Alan Owen, long-time lighting designer for the band Genesis. Genesis and "Showco" had a friendly relationship. After convincing Owen with a brief demonstration in a parking lot, the developers finally presented the moving-head to the memberes of the band Phil Collins, Mike Rutherford, and Tony Banks. Genesis has always been a band that was open to technical innovations. The spotlight was once again able to convince and the band ordered 50 units for their upcoming "Abacab"-tour. Thus, on September 25, 1981, a new era was ushered in at a bullring in Barcelona: Genesis began its tour supported by 50 Vari*Lite VL1 spotlights, which provided impressive effects and launched the triumphant advance of head-mounted spotlights that continues to this day.

BEAM
SPOT
WASH

THE
ALL-ROUNDER

other has twelve static gobos. An absolute special feature is an eight-color gobo on the rotating gobo wheel. This creates very special effects in combination with the other options. The images can then be varied again using two prisms, one prism multiplies the image eightfold in a circular arrangement, and the other places the image six times side by side. Both prisms can be rotated.
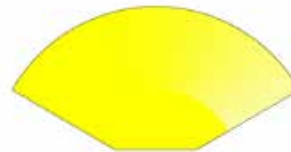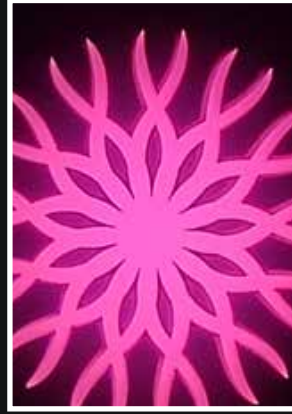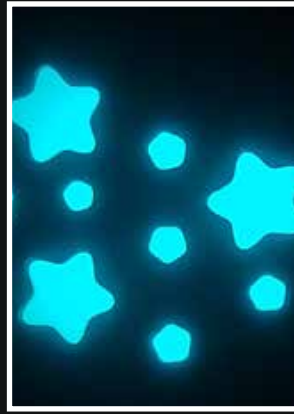
Several options are also available for the color design. The spotlight has CMY color mixing, which enables infinitely variable color generation. However, there is also a color wheel that can be used to create half colors or fast color changes by cycling through the colors. The THM-S400 CMY is an excellent spotlight that can be used to its full potential, especially on concert stages, and in larger clubs. Its versatility opens up countless optical possibilities in fog and projections.

THE S400 IS THEREFORE A REAL BEAM, SPOT AND WASH SPOTLIGHT.

EUROLITE LED TMH-S400 CMY Moving-Head Beam/Spot/Wash
LED Moving Head hybrid with 400 W COB LED, color wheel, CMY color mixing, static and rotating gobo wheel, prisms, focus, zoom and frost

The TMH-S400 is the largest LED moving head that EUROLITE has ever offered. At its core, there is a 400 W LED that generates a particularly high level of brightness. The beam angle of the spotlight can be adjusted from 6° to 32° via a motorized zoom. The S400 can therefore produce narrow beams just as well as very wide images. A retractable frost filter can also be used to soften the light and change its character via focus and zoom. The S400 is, thus, a real beam, spot, and wash spotlight.

The rest of the equipment is equally impressive: Two gobo wheels ensure varied images, both with fog and projections. One of them is equipped with seven rotating gobos, the

With a weight of just under 23 kilograms and a height of 65 centimeters, it is not a small lighting effect, but it is still very easy to handle. The spotlight has a very robust design and has also been developed for tough touring use in suspended or standing applications. It can be controlled via either 22 or 25 DMX channels.
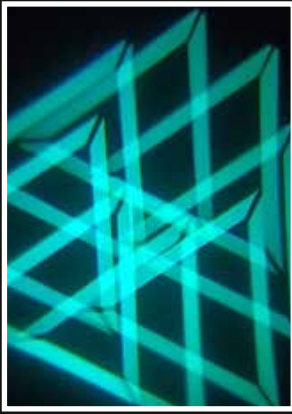
Technical data

Total connected load:	460 W		12 gobos, and open, shake effect
LED:	1x400 W COB (chip-on-board) cold white (CW)	Cooling:	Fan
Max. tilt movement TILT:	220° exact positioning (16-bit resolution)	Control:	DMX; QuickDMX via USB (optional);
	Auto position correction (feedback)		W-DMX by Wireless Solution via USB (optional);
Max. pan movement PAN:	40° exact positioning		CRMX by LumenRadio via USB (optional); stand-alone; RDM;
	(16-bit resolution) Auto position correction (feedback)		Master/slave function
Flash rate:	1-16 Hz	Projection:	Flicker-free
Features:	Color wheel; gobo wheel with static gobos;	DMX features:	DMX forwarding for up to 32 additional DMX devices
	Gobo wheel with rotating gobos; frost filter; motorized zoom;		RDM-capable, for bidirectional communication via the DMX line
	Focus motorized; Prism 6-fold rotating linear;	Beam angle:	6° - 32°
	Prism 8-fold rotating	Beam angle (1/2 peak):	6° - 32°
Color generation:	CMY color mixing for unlimited color variations	Beam angle (1/10 peak):	6° - 32°
Color generation:	Color wheel with 12 dichroic colors and open	Illuminance in lux (lx):	Wide cold white (CW) 1m: 71405 lx,
Gobos:	Gobo wheel with rotating gobos,		3m: 10342 lx, 6m: 2770 lx
	7 gobos and open, slot-in gobo system for easy gobo change,	Dimensions:	Width: 38 cm, depth: 27 cm, height: 64.5 cm
	Shake effect, gobo indexable, gobo wheel with static gobos,	Weight:	22.60 kg

EUROLITE LED IP TMH-H760

IP 65

The new EUROLITE LED IP TMH-H760 is an extraordinary washlight. The "IP" in its name indicates that it is the first weatherproof moving-head from EUROLITE. To be more precise, it is an IP65 device that can be used without any problems even in heavy rain. The entire spotlight and all connections are designed to be weather-proof. A special feature of the TMH-H760 is its mounting brackets with hinged hooks: These are firmly attached to the housing and can be folded in. If the spotlight is to be suspended, the hooks can simply be folded out and the device can be hung in a truss. The H760 is equipped with 19 powerful 40 W LEDs. The color mixing is based on the classic colors red, green, blue, and white and works very precisely. The washlight has a motorized zoom that ranges from a narrow 2° to a wide 30°. This means it can be used both as a beam spotlight and to generate wide light. Another special feature is the rotating lens unit, which creates a flower-like beam effect. The beams of the individual LEDs open and close in relation to each other. The LEDs can be controlled in three rings or each LED can be controlled individually.

ROADINGER Flightcase 2xIP TMH-H760 with castors

Trunk case with castors

Connectors by
SEETRONIC

Technical specifications

Power consumption:	780 W
IP classification:	IP65
LED:	19x40 W SMD 4in1 QCL RGBW (homogenous color mix)
Max. TILT movement:	210° exact positioning (16 bit resolution)
	Auto position correction (feedback)
Max. PAN movement:	540° exact positioning (16 bit resolution)
	Auto position correction (feedback)
Equipment:	Zoom motor-driven rotating; lens rotation
DMX channels:	18; 30; 94
Cooling:	2x temperature-controlled fan at the Head
	2x cooling fan at the Base
Beam angle:	2° - 30°
Beam angle (1/2 peak):	2 - 16°
Beam angle (1/10 peak):	7 - 30°
Attachment system:	Ø 50 mm; 2x bracket with hinged hooks
Dimensions:	Width: 41,0 cm; Depth: 24 cm; Height: 55,5 cm
Weight.	24,60 kg

EVENDS
MANAGEMENT

ENTREPRENEUR FOR EVENT MANAGEMENT, CONCEPTION AND EQUIPMENT

HOW TO TRANSFORM AN EVENT INTO AN UNFORGETTABLE EVENT?

Today we have the exciting opportunity to gain an exclusive insight into the world of event management. In our conversation with Domenik Schneider, who runs a full-service event management company, we not only learn about the many facets of this professional field but also get an insight into how much work and know-how is behind every successful event planning.

Hello Domenik, thank you for allowing us to take a look behind the scenes of event management with you. Can you briefly introduce yourself to our readers?

My name is Domenik Schneider, I am from Munich and I run an event management, conception, and equipment company. On my 18th birthday, I skipped school and went to the municipal trade office to finally register my first business. After graduating from school, I studied event management and established this company in the meantime.

Despite the many events, I try to travel a lot and I am lucky enough to be able to call my work my hobby. A little fun fact: I was not even allowed to drive the first large truck I bought for the company because I did not have a driver's license. The dealer looked rather puzzled that I was able to pay for the truck, but was unable to pick it up myself. And today – a few years later – we run the brands EvenDS-Management, Eventselection, and Fairselection; we provide equipment for events of large international companies; have a young, motivated, and diverse team, and are aiming high in the event industry.

In your introduction, you have already given us a brief insight into the founding and development of your company. Now, of course, we are interested in a more detailed overview of your company and its range of services in event management.

We at EvenDS-Management deal with the industry topics of event management, event conception, and event equipment. We work for our customers mainly in Bavaria,

Germany. Thanks to our broad portfolio of event technology, rental furniture, and event decoration, we can offer our customers holistic concepts and, thus, create an optimal interplay of interior design and technology. We have been using EUROLITE and EUROPALMS products for several years now. For example, we have countless artificial plants, Halloween articles, spotlights, and over 500 mirror balls in stock. Furthermore, we are constantly expanding our pool of materials. We are able to respond spontaneously even in regards to short-term projects.

What are the main tasks and responsibilities of an event manager?

An event manager is responsible for planning, organizing, implementing, and following-up of events. In detail, this includes the analysis of requirements and objectives, budgeting, scheduling, implementation of the occasion, post-processing, and evaluation, as well as parts of the marketing if necessary. At EvenDS-Management, we concentrate mainly on event conception and event equipment.

Given these diverse and demanding areas of responsibility, the question arises: Which skills and qualifications are particularly important to meet the challenges of this exciting field of activity?

The standard answer is the ability to work in a team and reliability. However, I think, above all the ability to calmly master stressful situations and find quick solutions to unforeseeable issues are also very important. A large

network of experts from various areas of the event industry is also essential. You also need a sense of what the customer needs and within what cost and performance framework these ideas can be realized.

Many customers want their event to look like a big festival. However, they only have the budget for a small garden party. Our job is to take all the factors we are provided with – the customer's wishes, ideas as well as the legal framework – and create an event that guests will remember for a long time.

In your opinion, how has the event management profession changed over time? What new requirements and challenges have been added, and how have customer demands, implementation options, and regulatory requirements developed?

Customer expectations in particular have changed significantly over time. The rapid visual communication of events, e.g. through the gigantic reach of influencers, "aftermovies" in Hollywood quality, and the constant comparison of event designs and lineups, have made the demands not only of organizers but also of guests extremely high. The path to the authorities to obtain permits is also becoming increasingly rocky. Did they turn a blind eye in the past on certain aspects, today they look twice or three times as hard. On the one hand, this makes events much safer, of course: On the other hand, however, it makes them more complex and more expensive. Also, when we talk about rising costs, it is worth mentioning that the pressure to distinguish one event from another and to offer even more, means that companies in particular are allocating more budget than ever to put on the best possible show. On the whole, we are very happy about the constant changes in the industry. We are looking positively into the future and look forward to innovations and the most unusual ideas and wishes of our customers.

> **"To develop our holistic concepts, we rely on a great deal of expertise from all possible fields."**

How does your company manage to respond to the individual needs and wishes of customers offering customized and unique event concepts?

To develop our holistic concepts, we rely on a great deal of expertise from all possible fields. We need to be clear about what can be implemented visually, technically, legally, and logistically. For this reason, ideally, we already have all the rental materials we need in stock and can optimally coordinate the technology and equipment. This means that we can also implement our customers' very individual wishes with very short reaction times. Our in-house logistics are constantly improving, allowing even shorter response times.

Are there any particularly interesting projects that your company has implemented that you could tell our readers about? What challenges did you face and what special solutions were used to optimally fulfill the customer's wishes?

Last year, one week before a major event in Munich's Löwenbräukeller, we were given the task of installing over 300 mirror balls in different sizes ranging from 5 cm to 100 cm to create a stylistic break in the rustic, time-honored hall. The first call went straight to our supplier and two days later we were able to pick up several pallets of mirror balls.. After organizing a suitable lifting platform, a lot of steel cables, chain links, Reutlingers, black table linen, and thousands of ostrich feathers in black and white, we were then able to implement our "Glamourous Reflections" concept. Thanks to the Steinigke Showtechnic team for the great support! We are excited to see what else is in store.

Let's take a look into the future: How do you see event management developing in the coming years?

As already mentioned, the demands are becoming greater, the technical possibilities better, and the concepts and ideas more elaborate and extravagant. I believe that we in the event industry in particular are very future-proof. Even if technology makes our jobs easier or perhaps even takes them away completely, we will always need event managers with new ideas and drive who are passionate about cool events and try to turn every wish, no matter how extravagant, into reality.

We would like to thank you very much for the frank words and the exciting look behind the scenes. We wish you and your company continued great success, brilliant projects, and all the best for the future.

LÖWENBRÄUKELLER //MUNICH, GERMANY

In the heart of Munich, Germany, on Stigl-maierplatz, you will find the famous Löwen-bräukeller. From the cozy "Bräustüberl" to the large ballroom, it offers a wide range of options for private celebrations in small groups or large corporate events.
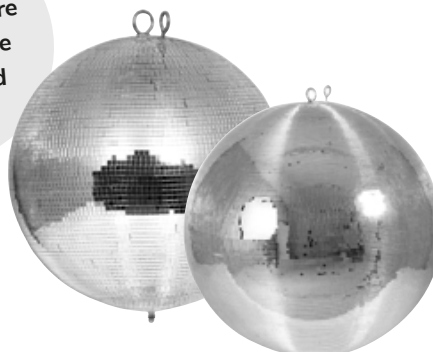
The event concept was perfectly implemented by EvenDS Management. Among other things, over 300 mirror balls in sizes from 5 cm to 100 cm by EUROLITE were used.

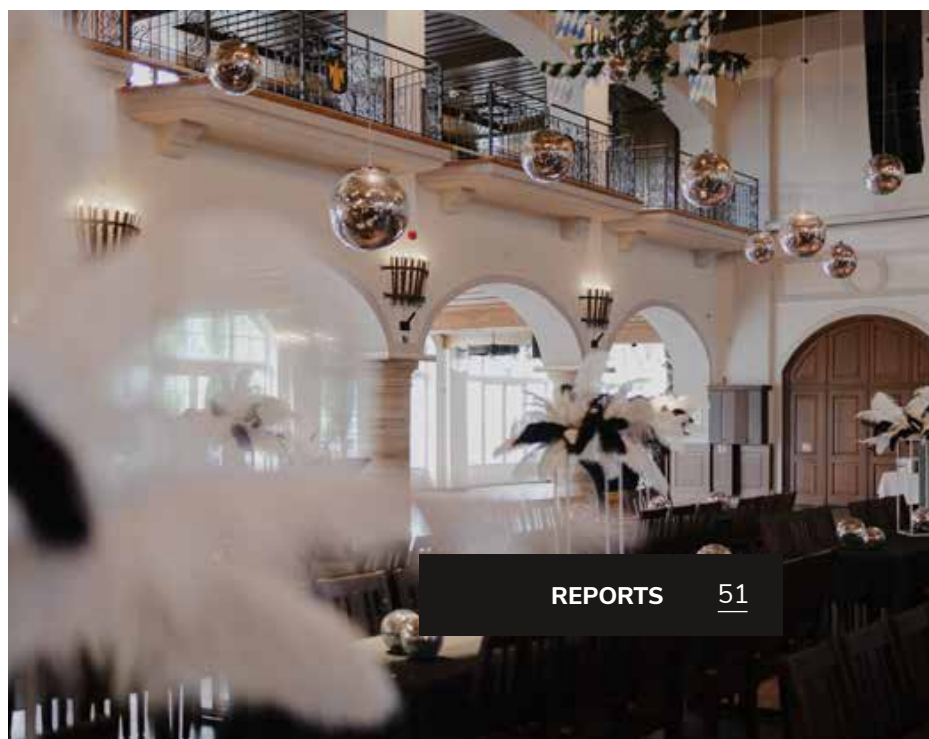EUROLITE Mirror balls are also available in black and gold!

EUROLITE Mirror Ball 5 cm or 10 cm

Ideal as versatile table decoration

EUROLITE Mirror Ball 20 cm to 150 cm

Many sizes for individual applications

TURQUOISE PINK RED GREEN AMBER BLUE COLD WHITE WARM WHITE

IN ALL
COLORS

EUROLITE
LED IP PST-10W

Pinspots primarily have one task: They illuminate mirror balls or cylinders and thus create the typical effect of reflected points of light that no disco should be without. They are also ideal as architectural lighting, especially as a weatherproof version.

EUROLITE now offers weatherproof pinspots in almost every rainbow color: The handy spotlights are protected against water jets to IP65 and therefore not only withstand rain but are also insensitive to dust thanks to their compact, closed aluminum housing. They are passively cooled and consequently do not cause any operating noise.

IP 65

up to 10h

EUROLITE AKKU IP TL-3 QCL
Trusslight CRMX

ILLUMINATED TRUSS IN OUTDOOR AREAS

Trusses do not have to be just a construction element – with a little light, they can be transformed into an attractive feature of the stage. With the Akku IP TL-3 QCL CRMX, this is now also possible for outdoor use. The triangular spotlight is designed to fit easily into three-point and four-point trusses. It can be quickly mounted on a truss using a mounting thread in the housing and also has a screw base. This means that the spotlight can be positioned at an angle on the floor as well, making it ideal for use as an uplight.

The housing is IP65, so the spotlight can also be used outdoors in pouring rain. Its light comes from three 10 W LEDs in RGBW color mixing, which emit a relatively narrow 8° beam that can also illuminate a longer truss section without any problems. A frost filter is included with the spotlight for a wider beam. The powerful rechargeable battery provides a runtime of around ten hours; the current runtime can be read and varied via specific settings in the main menu.

The functions can be called up via an infrared remote control or via the menu. Here, you can also create your own colors or call up automatic programs. Care has been taken to ensure that not only colorful party programs, but also atmospheric sequences based on just two colors are possible. Both weatherproof XLR sockets and a wireless DMX receiver are available for DMX control. The receiver is based on CRMX technology from LumenRadio, the current industry standard in professional lighting technology.

IP 65

Frost filter for a wider beam angle

Screw base for use as an uplight

Suited for outdoor use thanks to IP65 protection

EUROLITE LED Flood 210 asym

A COMEBACK OF THE ASYMMETRICAL FLOODLIGHTS

The brighter light takes a longer path to the surface to be illuminated, while the darker light takes the shorter path. The result is a much more evenly illuminated surface.

Asymmetrical floodlights have become rare these days. Yet this type of floodlight is ideal for illuminating areas evenly from above or below: Asymmetric floodlights are designed in such a way that the light shining towards the front is less bright than the light directed upwards. This asymmetrical distribution of brightness compensates for the differences in distance.

In the era of LED technology, however, these floodlights have become rare. With the LED Flood 210 asym, EUROLITE is now launching a floodlight on the market that offers precisely these advantages. The powerful floodlight is equipped with 42 effective LEDs whose color mixture based on red, green, blue, lime and indigo. Indigo, a very deep blue and rarity among LEDs, lends itself particularly to background night-time atmosphere. In combination with blue and the other colors, this combination enables an extraordinarily wide color palette, from deep blue to intense red. Lime, a color produced by phosphor, closes the optical gap between green and red improving the display of yellow and orange tones as well as the quality of white colors.

The housing of the LED Flood 210 asym is designed so that the spotlight can be operated both in a suspended and upright position. The device features P-Con power connectors with the option of looping power through to other devices. DMX operation is realized via three-pin XLR connectors.

EUROLITE LED Flood 210 asym RGBLI

Asymmetrical floodlight for homogeneous surface illumination with RGB, lime and indigo blue

Specifications

Power consumption:	180 W
LED:	42 x 5 W SMD R/G/B/L/I
DMX channels:	1; 3; 5; 7
Cooling:	Temperature-controlled fan
Control:	Stand-alone; Master/slave function; DMX
Projection:	Flicker-free
Dimensions:	Width: 31,5 cm, Depth: 22,0 cm, Height: 28,5 cm
Weight:	5,9 kg

LED PIX 40

EUROLITE LED PIX-40 RGB Bar
LED beam bar with narrow beam SMD LEDs (RGB) and pixel control

The PIX-40 by EUROLITE specializes in narrow beams of light. This bar has 40 LEDs in the colors red, green and blue, which are arranged next to each other. Each LED has a beam angle of 2°. Together they create an impressive "curtain of light" in the fog. However, each LED can also be controlled individually, creating impressive beam effects.

Various DMX modes are available:
- A 3-channel mode in which all LEDs are controlled as one unit.
- A 120-channel mode in which each LED is controlled individually.
- An 11-channel mode, which is particularly interesting. In this mode, various effects can be called up and the speed can be set. Foreground and background colors can also be selected. This makes it possible to create very beautiful and atmospheric effects with just a few channels and little effort.

The PIX-40 RGB bar is 100 centimeters long and professionally finished. P-Con input and output for power and three-pin XLR sockets are located on the rear. The device also has a USB socket for wireless DMX, which can be used with the EUROLITE Quick DMX or the FUTURELIGHT CRMX USB receiver. As the bar operates without a fan, it produces no noise and can also be used in very noise-sensitive environments without any problems.

TECHNICAL RIDER:
More than just a list

Facts and myths about technical riders

If you are out and about at concerts with open ears, you will quickly stumble across a term: technical rider. Listening to some colleagues talk, you get the impression that the technical rider must be something like the "Bible" for everyone involved in the background of the concert – and that is not so far from the truth! But let us start with the basics: What is the technical rider?

A technical rider is a document used in the field of event technology to record technical requirements and instructions for an event or performance. It serves as a guide for technical staff, including sound technicians, lighting technicians, and set builders, to ensure that all technical requirements are met and that the show runs smoothly. The technical rider contains detailed information on the (technical) needs of the artists or organizers: details on the required stage dimensions, lighting equipment, sound system, power outlets and power connections, rigging, backstage areas, and other specific requirements. In addition, it may also contain information on the set-up and dismantling schedule, the personnel required, sound check times, the type and number of microphones, monitor requirements, instrumentation and other details relevant to the performance or event.

It is important that the technical rider is as precise as possible to avoid misunderstandings or problems during the event. Event technicians and other service providers use the technical rider as a basis for planning and setting up the technical infrastructure to ensure that the artists' requirements are met and that the event runs smoothly. The document serves as a means of communication between the artists and the technical staff, ensuring that all technical aspects of a performance or event are implemented according to requirements and wishes.

Depending on the level of awareness and the requirements of the artists, technical riders can either be more open and not specify an exact model of the individual lighting elements, for example, or be very detailed and specific. For example, some riders only state that four moving heads should be hung in the back truss – for some artists, however, not only the number and type but also the brand and model are precisely specified. For world-class bands, these technical riders are usually specified in great detail to ensure the quality of the show regardless of the venue.

STRANGE REQUIREMENTS

In addition to the technical rider, which provides relatively strict technical specifications, there are also other "riders" that artists send to the local crew or the organizer. These include, for example, the hospitality rider or catering rider, which specifies exactly what accommodation, catering etc. must be provided so that the artists feel comfortable and can deliver a good show. Everything is then summarized in the so-called tour rider. A few examples from the history of rock'n'roll show just how strange these tour riders can sometimes be:

No brown M&Ms

1 The following requirement is attributed to the rock band "Van Halen" and their tour in 1980: "A bowl full of M&Ms in the backstage area, from which all the brown ones are sorted out". What at first sounds like absolute rock star behavior had a good reason, according to the story. The band wanted to use this requirement, which was placed on the last pages of the rider, to ensure that it was read and followed in full. No discarded M&Ms in the room? Then presumably other things were not set up to their specifications either.

Seven dwarfs

2 However, Iggy And The Stooges' tour rider was even more unusual: The team set out to write the most entertaining tour rider ever. Not only is this rider written entirely in continuous text and as a conversation – it also poses some almost impossible challenges. For example, a copy of the *USA Today* newspaper, which reports on "morbidly obese people", is to be displayed in the changing and recreation rooms.

In addition, someone dressed as Bob Hope should tell jokes – alternatively, seven little people dressed up like the dwarfs from the Disney film Snow White should walk through the backstage area for entertainment purposes. At the end of this slightly offbeat compilation, the anonymous author then adds his own idea for a reality show on television. Just in case a producer would ever read the rider.

Her own living room

3 The Queen of Pop, Madonna, places high demands on the venues for her concert tours. So it came to pass that on her MDNA tour in 2012, she took her entire living room on tour with her to avoid homesickness. The existing furnishings in the venues had to be completely dismantled for one or two evenings and replaced with the living room supplied by Madonna's team.

Rock'n'Roll is aging

4 Even rock stars are not spared from old age. This might explain why Ozzy Osborne makes sure that an ear, nose, and throat doctor is present at every gig and that an oxygen tent is within reach. The Rolling Stones attach more importance to other things: They demand written instructions for electronic devices such as televisions and the like in their hotel room and backstage area. Technical progress over the past 50 years (they have been touring on and off since 1963!) has apparently overtaken them.

Twenty baby kittens

5 Last but not least, Mariah Carey joins the list of our most curious riders. In 2009, the diva was booked to perform in a shopping center in England. However, the requirements for the location included not only a Rolls Royce, pink carpet, and butterfly-shaped confetti, but also the flight of 100 white doves on her arrival and twenty baby cats in her lounge. The last wish in particular could not be fulfilled by the shopping center due to animal welfare and hygiene regulations. Whether these requirements were meant seriously or a clever move to avoid having to perform in the shopping center remains Mariah's secret.

TWINKLY LIGHTWALL: FLEXIBLE STAGE BACKDROP FOR WOW EFFECTS

Individual visual design

The TWINKLY Lightwall is an innovative lighting solution that has been specially developed for the dynamic and audio-visual design of stages and rooms. Thanks to the ability to adjust the lighting to music and ambient sounds in real time, you can create individual, animated visuals with the Lightwall. You can choose from a variety of pre-installed effects or create and customize your own visual content using an intuitive mobile app.

Synchronization with music

A core feature of the TWINKLY Lightwall is its ability to synchronize to music. Using a USB-powered sound sensor, the Lightwall can recognize and interpret music or sounds in its environment and adjust its lighting accordingly. This is done with precise BPM detection and an intelligent microphone, which also makes the Lightwall interesting for live performances and dynamic shows.

Modularity and scalability

The Lightwall is characterized by its modularity and scalability: Multiple units can easily be connected together to form a large digital screen, making it ideal for use in larger rooms and on stages. These extended configurations can also be combined with traditional stage lighting to create multi-layered and impressive installations.

Convenient and mobile

TWINKLY Lightwall was specially designed for mobile applications: It is therefore ideal for events and performances where quick set-up and dismantling is required. The supplied black aluminum frame guarantees a light and stable setup, while additional water weights ensure a secure stand. The entire setup can be completed in around

Seamlessly Sync with Music
Audio-reactive visual content in real time
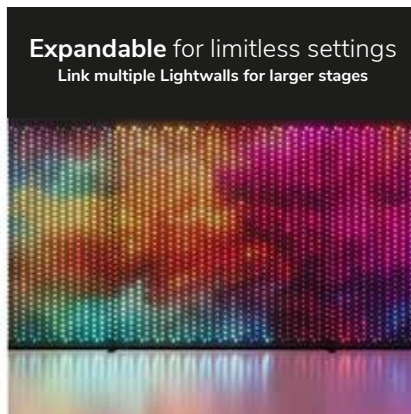
Expandable for limitless settings
Link multiple Lightwalls for larger stages

Take it anywhere
Portable and ready-to-use

Display: 2.6 m (width) →

2.7 m (height)

1.5 cm (depth)

Ready out of the box

Lightwall

Trolley

Frame kit

Water weights

Controller kit

Base

ten minutes, making the Lightwall a practical companion for on the go. All the necessary components – including controller and TWINKLY Music dongle – are included and supplied in a ready-to-go trolley.

Robustness and weather resistance
In addition, the Lightwall is splash-proof and robustly constructed. These features make the TWINKLY Lightwall a versatile and powerful solution for creative lighting concepts that empha-size both aesthetics and functionality.

Specifications

Power supply:	100-240 V AC, 50/60 Hz, 24 V DC
Power consumption:	35 W
IP classification:	IP 44
Wi-Fi:	Standard: IEEE 802.11 b/g/n
Lamp type:	LED lamp, 1120x3in1 TCL RGB
Transport dimensions:	36 cm x 23 cm x 93 cm

Create your own visual content

Take your stage presence to the next level
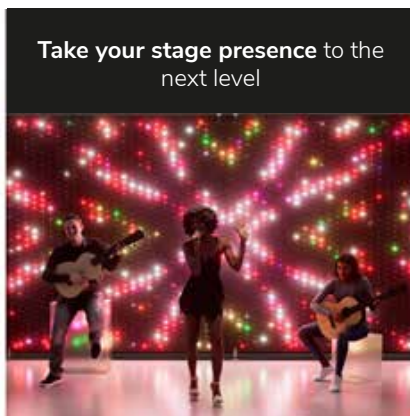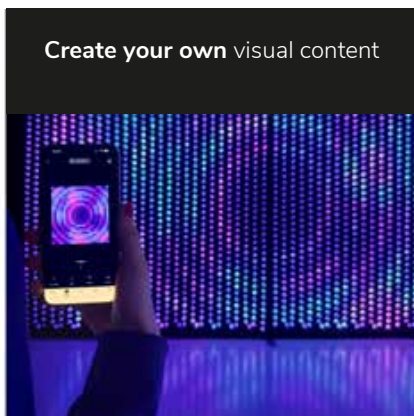
A look at lived history

A company portrait:

45 years Steinigke Showtechnic

In terms of world history, 1979 brought with it some remarkable events: Margaret Thatcher became the first woman to be elected British Prime Minister, Elton John was the first Western artist to give a concert in Leningrad and the first European Parliament was elected. On German radio, Peter Maffay ("So bist Du") and Peter Alexander ("Und manchmal weinst Du sicher ein paar Tränen") competed with Blondie ("Heart of Glass") and the Village People ("YMCA"). All in all, 1979 felt like a new beginning – especially for two brothers in tranquil Lower Franconia: Bernd and Klaus Steinigke, then in their early 20s, founded their first company. From their parents' garage in Würzburg, the two young men, who had already made a name for themselves in the local event scene with their first steps as record DJs and "mobile discotheque", began to sell event technology.

"Steinigke Licht und Ton" sold lighting effects, amplifiers, and loudspeakers from Germany and abroad.

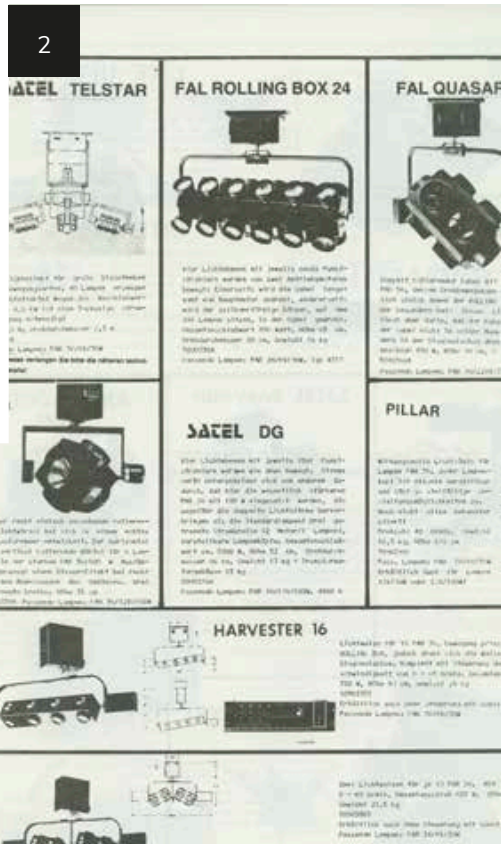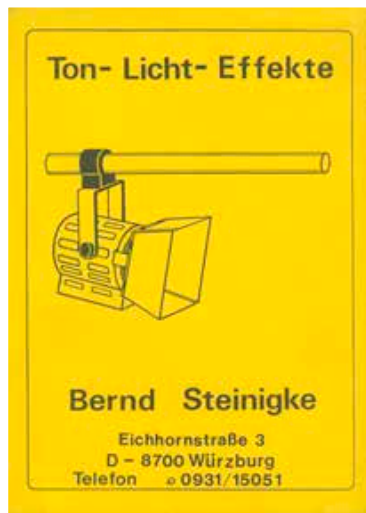The two brothers Bernd and Klaus Steinigke in the 80s

Ton- Licht- Effekte

Bernd Steinigke

Eichhornstraße 3
D – 8700 Würzburg
Telefon ✆ 0931/15051

The first customers are colleagues from the mobile disco scene who want to spice up their own events with the latest technology. However, word quickly spread further afield that the Steinigke brothers had the most modern effects on offer.

The company soon became too big for the garage: In 1985, they moved into their first proper office and produced their first catalog. Demand increased and in the same year the brothers start exporting to other European countries. As the volume of goods moved continued to grow, an external warehouse was rented and the first employees were hired. In 1989, the Berlin Wall fell – and the day after, the first customers from East Germany were on their doorstep: They took the first opportunity to drive through the night in their Trabant to buy lighting effects from the Steinigke company in West Germany. The end of the inner-German border also opened up new prospects for the young company. In 1990, Steinigke not only exhibited at the "Musikmesse" in Frankfurt am Main for the first time, but also in the East German cities of Cottbus and Chemnitz, establishing contacts that would remain for

4
Zell am Main 1993: Team of
"Steinigke Showtechnic GmbH"

5
Warehouse Zell am Main 1993

6
1993: First own buildings as well as specialized
showroom for show technology

the next forty years.

Just one year later, a new strategy is adopted: Instead of lending and distributing products from other suppliers, Steinigke launched its first own brand. In the future, lighting products under its own EUROLITE brand were sold throughout Europe. Success proved the team right and so the brands ALUTRUSS, EUROPALMS, FUTURELIGHT, OMNILUX and OMNITRONIC were also developed by the end of the 1990s. In 1993, "Steinigke Licht und Ton" became "Steinigke Showtechnic GmbH". The name change was accompanied by a relocation in the same year: The company moved into its first own building in Waldbüttelbrunn near Würzburg. On an area of 30,000 m², office and warehouse space is created as well as a showroom for event technology that is second to none. Every three years, the building is subsequently extended and expanded, and a total of nine external warehouses have to be rented from time to time to accommodate the volume of goods.

By the turn of the millennium, the company had already grown up and established itself as a wholesaler for event technology. In keeping with the spirit of the times, Steinigke Showtechnic is one of the first suppliers in the industry to introduce a multilingual online store that allows customers to place their orders electronically. However, it will be another twenty years before the last customer stops faxing.

2006
Construction of a new warehouse with 24,000 pallet spaces

As the existing buildings were bursting at the seams, a further, separate warehouse with a modern, computer-aided high-bay warehouse system is opened in 2006. From now on, 24,000 pallet spaces provide enough storage room for the international trade in event technology, instruments, and decoration. The photovoltaic system, which is installed on the roof of the warehouse the following year, is one of the largest in Bavaria.

The team, which originally consisted of two brothers, has now grown to over 140 employees. At the company headquarters in Waldbüttelbrunn, professionals are now at work in the areas of sales, warehousing, service, QC, marketing, development, accounting, and human resources. In 2012, Bernd Steinigke appoints long-time employee Matthias Schwab as Co-Managing Director, who gradually takes over the operational business in the following years.

2012
Bernd Steinigke appoints long-time employee Matthias Schwab as Managing Director.

2008
In-house development: The first compact light set with LED on the market – the EUROLITE KLS

With this team, Steinigke developed products that become the industry standard: In 2008, for example, the company launched the first compact light set with LEDs – the KLS, whose principle (four spots on a bar) was adopted by many manufacturers in the following years and which quickly established itself as a must-have for every mobile DJ.

2015
Trade fair booth at Prolight+Sound Frankfurt am Main

In 2022, an era comes to an end – Bernd Steinigke retires from the operational business and the management and hands over to Matthias Schwab, who is now the sole Managing Director of the company. This transition does not detract from continuity: An employee who has been an integral part of the company since 1995 continues to run the business. Remaining true to this line, Matthias Schwab appointed his longstanding colleague Jürgen Mehning as authorized signatory in 2024. With a team of 150 people (and currently five dogs), they ensure that event technology from Waldbüttelbrunn is used all over the world.

Today, Steinigke Showtechnic is one of the largest wholesalers for event technology in Europe and can look back on 45 years of eventful company history: From its beginnings in a garage at home, through what would now be called the start-up period, to becoming an established global player. From Bee Gees and Peter Alexander to Apache 207 and Nina Chuba, from self-printed offer sheets to ultra-modern e-commerce on self-hosted servers. We say: Happy 45th anniversary!

2023
Trade fair team of Steinigke Showtechnic GmbH at the Prolight & Sound

MITICO
COCKTAIL BAR
//BUDAPEST, HUNGARY

Mitico is a cocktail bar with a unique jungle themed interior, located in the historical Mika Tivadar building in Budapest's downtown bar-neigh-borhood. Under the motto "Mixing Spirit and Music", the team organizes live music events and DJ sets every week, entertaining the audience while offering unique signature and classic cocktails. For creating the jungle-like atmosphere, the team from the event company Mangosound used more than twenty different artificial palm trees, ferns, and green plants of the brand EUROPALMS.

- EUROPALMS Philo bush, artificial
- EUROPALMS Pothos bush tendril classic
- EUROPALMS Grass tendril
- EUROPALMS Spider plant
- EUROPALMS Dracena
- EUROPALMS Sago palm tree
- EUROPALMS Croton with coconut trunk
- EUROPALMS Areca palm with big leaves
- EUROPALMS Banana Tree
- EUROPALMS Phoenix palm tree luxor
- EUROPALMS Canary date Palm
- EUROPALMS Kentia palm tree

- EUROPALMS Lady Fern
- EUROPALMS Anthurium
- EUROPALMS Wisteria branch
- EUROPALMS Cymbidium branch
- EUROPALMS Orchid branch
- EUROPALMS Orchid arrangement (EVA)
- EUROPALMS Bird-of-paradise Spray
- EUROPALMS Dahlias Branch (EVA)
- EUROPALMS Buriti Branch (EVA)
- EUROPALMS Dahlia (EVA)
- EUROPALMS Bird-of-paradise Flower

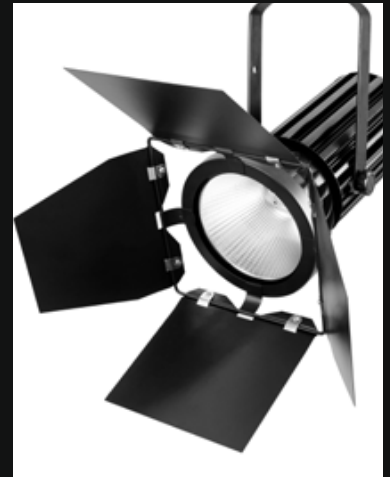**EUROLITE LED CSL-100**
Spot black

Powerful 100 W
spotlight with neutral
white light

EUROLITE LED CSL-100 & CSL-200

SIMPLY BRIGHT

4000 K

Optional barndoors are available
for both spotlights.

If you simply need a high-quality, bright, and neutral or cold white light, the new CSL-100 and CSL-200 are the right choice. The spotlights have no DMX control or other setting options; they simply switch on as soon as they have power. This can be particularly useful at exhibition stands or installations. The CSL-100 is equipped with a 100 W LED that produces a neutral white light with 4.000 Kelvin. This is ideal for neutral environments that should neither appear extremely cozy nor too sterile and technical. The beam angle in the ½ peak measurement is twenty degrees and is therefore ideal for low heights up to around five meters.

The CSL-200 produces a cold white light with 7.000 Kelvin. This high color temperature conveys the impression of seriousness, activity and professionalism, but also creates a certain distance. This color temperature is often used for exhibition stands, for example in the automotive, healthcare, industrial, and other sectors. The CSL-200 is equipped with a 200 W LED and has a relatively narrow beam angle with a ½ peak cone of 7°. This is ideal for higher locations from a height of around six meters or to clearly highlight individual items on the exhibition stand. The CSL-200 is equipped with P-Con inputs and outputs to loop the power through.

EUROLITE LED CSL-200
Spot black

Powerful 200 W spotlight
with cold white light

7000 K

UNDERSTATEMENT
TO CALL THIS BAR JUST AN "LED BAR" WOULD NOT DO IT JUSTICE.

Motorized zoom between 2° and 28°. The zoom unit is divided into two parts and has six LEDs each.

EUROLITE LED PIX-12 Swing QCL Zoom Bar

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

With the LED PIX-12 Swing QCL Zoom, EUROLITE has introduced an interesting LED bar on the market: The one-meter wide bar is equipped with twelve 40 W high-performance LEDs based on RGBW color mixing. Each of the LEDs can be controlled individually. The beam angle of these LEDs can be motorized between 2° and 28°, meaning that both narrow beams and wide-area light can be generated. The zoom is split in two, with six LEDs on each zoom unit. The bar also has 164 SMD LEDs in red, green, and blue, which are located under a clear cover above and below the main LEDs. These LEDs can also generate various animations and effects. The bar's motorized tilt range is 180 degrees.

Three modes are available for DMX control. In the largest mode with 67 channels, each of the twelve beam LEDs can be controlled individually, while the SMD LEDs perform effects with foreground and background colors. The smaller DMX mode with 28 channels also creates impressive effects with all LEDs in adjustable colors. The 34-channel mode is perfect for control via the Light Captain app. EUROLITE has made no compromises regarding the workmanship and excellence of this bar: All components are of the highest quality and designed for professional use.

Specifications

Power consumption:	310 W		USB (optional); W-DMX by Wireless Solution via USB (optional);	
LED:	12x 40 W 4in1 QCL RGBW (homogeneous color mixing)		CRMX by LumenRadio via USB (optional); ArtNet; RDM	
	164x 0.2 W SMD 5050 3in1 TCL RGB (homogeneous color mixing)		Projection:	Flicker-free
Max. TILT movement:	180° exact positioning (16-bit resolution)		Beam angle (1/2 peak):	Ambient light 120° multicolored
	Auto position correction (feedback)		Beam angle (1/2 peak):	Beam 2-20°
Equipment:	Zoom motor-driven		Beam angle (1/10 peak):	Beam 2-28°
DMX channels:	28; 34; 67		Dimensions:	Width: 1 m, Depth: 12 cm, Height: 28.5 cm
Cooling:	1x cooling fan at the base		Weight:	15.00 kg
Control:	Stand-alone; DMX; QuickDMX via			

LOAD SECURING:
A must for safety and efficiency

Inadequately secured loads can have serious consequences – from dangerous accidents to considerable financial losses. In this article, we shed light on the legal requirements for load securing in Germany, the physical principles that must be observed and which lashing equipment is useful for getting your equipment safely from A to B.

In 2023, around 1.000 accidents with injuries and fatalities occurred on German roads due to problems with the loading and occupancy of vehicles. Up to 20 percent of truck accidents in Germany could be avoided by correctly securing loads. The overall damage caused by this is considerable: Costs of up to 500 million Euros are incurred every year. Investing in good load securing, therefore, not only protects people, but also protects companies from considerable financial losses. Since the 1990s, the topic of "load securing" has become increasingly important, both for legislators and the general public. Serious traffic accidents caused by inadequate load securing have contributed significantly to this.

The German Road Traffic Act (StVO) is the first source of contact that prescribes reliable load securing for all vehicles transporting loads and objects. According to § 22 and § 23 of the StVO, the load must be secured in such a way that it does

Accident statistics

In 2023, around 1.000 accidents with injuries and fatalities occurred on German roads due to problems with vehicle loading and occupancy.

not slip, tip over, roll back and forth, fall down, or generate avoidable noise, even during emergency braking or evasive maneuvers. Suitable aids such as lashing straps, nets, anti-slip mats, or tarpaulins that comply with the recognized rules of technology must be used for this purpose.

With regard to load securing, Section 23 of the German Road Traffic Act emphasizes the responsibility of the vehicle driver to ensure that the load is properly secured. After all, the road safety of the vehicle should not be impaired by the load. Violating these regulations can result in fines or even points in the driving aptitude register in Flensburg, Germany. However, it should be emphasized that the driver of a truck can only have limited influence on load securing. Particularly when transporting containers or changing bridges, the driver cannot check that the load is properly secured, for example due to the customs seals used. For this reason, the law not only assigns certain responsibilities to the driver with regard to load securing, but also to other persons involved in the loading process. The consignor, for example, is responsible for safe loading*, while the carrier is responsible for safe operation*.

By the way: The law does not differentiate between commercially and privately used vehicles. This means that the load of a car – suitcases, beverage containers or similar – must be secured in the same way as flight cases and the like in a truck on the way to the next event location.

In addition to the German Road Traffic Act, there are other directives and regulations in Germany and Europe that deal with load securing. In addition to regulating responsibility, these also include a description of the load securing equipment to be used and the various load securing options. These include the VDI guideline VDI 2700 "Load securing on road vehicles", the European standards EN 12195-2 "Lashing straps", EN 12195-3 "Lashing chains" and EN 12642 "Superstructures on commercial vehicles".

Basic principles of load securing

If load securing is to be successful, you cannot just "stuff" a vehicle with your equipment, you have to observe the physical principles of securing force, frictional force, mass, and weight.

The securing force plays a central role in load securing, as it prevents the load from slipping, tipping, or falling. The frictional force created by the interaction between the surfaces of the load and the loading surface also contributes to securing by counteracting movement. Heavy loads require correspondingly stronger securing measures, as both the securing force and the frictional force must be sufficiently dimensioned to ensure safe transportation.

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* Safe loading for operation and transportation is dependent on proper load securing. The shipper/consignor is responsible for safe loading in the vehicle (Section 412 (1) HGB). The carrier must ensure safe operation during loading. He must provide a suitable vehicle with appropriate devices for securing the load (e.g. lashing points) and ensure that the operational safety of his vehicle is not impaired and that the vehicle functions properly at all times. Load securing and safe loading are part of laws, standards, and guidelines.

There are also three main methods of load securing: form-fit, force-fit, and combined load securing. Form-fit load securing means stowing the load against the vehicle body without any gaps, using aids such as locking bars, lashing nets, wedges, or air cushions. In force-fit load securing, lashing equipment is used to press the load onto the loading surface and, thus, increase friction. Anti-slip mats can also be used to further increase safety. Combined load securing uses both methods by combining lateral and rear load securing through lashing down and direct application against load-bearing locking bars.

Lashing equipment and its application

Lashing equipment is an indispensable aid to support load securing. These include polyester lashing straps with ratchets and clamps, which offer a high securing force and are easy to handle. Metal chains with high tensile strength are used for particularly heavy and bulky loads and are often combined with turnbuckles and ratchets to provide the necessary tension. Ropes made of nylon or other synthetic materials can also be used, but are more elastic than lashing straps or chains. Anti-slip mats increase the frictional force and prevent the load from slipping, while edge protectors distribute the pressure on lashing equipment more evenly and prevent damage.

THE 3 MAIN METHODS OF LOAD SECURING

FORM-FITTING LOAD SECURING:
Gapless stowage of the load between each other and against the vehicle body.

FORCE-FIT LOAD SECURING:
Lashing equipment is used to press the load onto the loading surface and thus increase friction. Anti-slip mats can also be used.

COMBINED LOAD SECURING
Load securing by lashing down in combination with form-fit loading and direct positioning against locking bars.
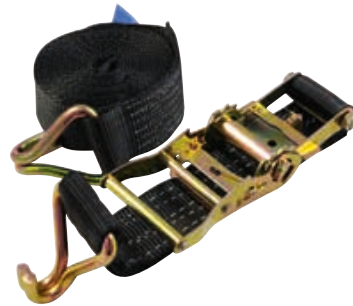
SHZ Clamping Belt H800 Ratchet hook black
- With hooks on both sides
- Single belt force 2000 daN
- Dual belt force 4000 daN
- Preforce 240 daN
- Complies with EN 12195-2
- Ratchet lock
- Made in Germany

SHZ Clamping Belt S800 Ratchet 8m/50mm black
- LC2000/4000daN round sling
- Complies with EN 12195-2
- Ratchet lock

So it remains to be noted:

Proper load securing is not only a legal obligation, but also an important measure to increase road safety and prevent accidents. By using suitable lashing equipment and understanding basic physical principles, serious accidents and considerable financial losses can be avoided. Companies in the event industry, mobile DJs or rental companies that invest in properly securing their loads not only contribute to road safety, but also protect their employees and their valuable goods. Ultimately, everyone - from drivers to companies to other road users - benefits from safe and responsible load securing.

ROADINGER Universal Tour Case 120cm with wheels

Trunk case with castors

ALUTRUSS Truss Transport Ridge Combo

Stacking rail for QUADLOCK and TRILOCK truss elements

Cases for **SCREENS**
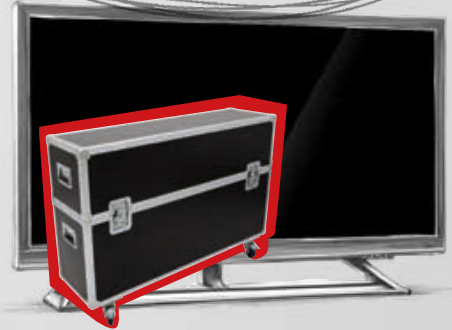
ROADINGER Flightcase 2x LCD ZL50

Cases with **DRAWERS**

ROADINGER Universal Roadie Case Double Drawer DD-2

DIMAVERY Form case E-guitar LP, black

Cases for **MIRROW BALLS**

ROADINGER Flightcase Mirror Ball 30cm

Cases for **INSTRUMENTS**

FOR YOUR FAVORITE PRODUCTS

They are the real superheroes of the event technology industry: cases. With a hard shell and a soft core, they protect what is dear to us: Our technology, but also everything else you have with you on a job. From moving-head to mixing console to laptop, from mirror ball to effect pedal to after-work beer, every item finds the perfect "ride" here. The interior of most of these cases is custom-fitted with foam, while the robust outer walls made of wood can withstand the rough life on tour.

FUN Cases

Cases for DOCUMENTS

ROADINGER SXC-2 Sixpack Case 6x 0.5l Bottle/Can

ROADINGER Cigarette Case, bk
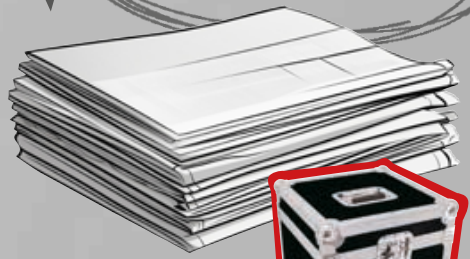
ROADINGER Universal-Dokumenten-Case GR-2

Cases with CHARGING FUNCTION

LAPTOP Cases

ROADINGER Flightcase 4x AKKU Multiflood IP 8x10W RGBW Wash CRMX with charging function

ROADINGER Laptop Case MB-15

TABLE Cases

MIXER Cases
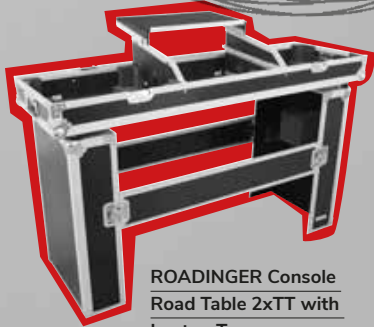
MICROPHONE Cases

ROADINGER Console Road Table 2xTT with Laptop Tray

ROADINGER Flightcase TRM-202 MK3

ROADINGER Microphone Case MRS-1 6 Microphones black

A HEALTHY BACK ...

... also appeals to the event industry. In this Move issue, we take a look at what ergonomics means and how it can be used in the event industry to improve physical health and safety.
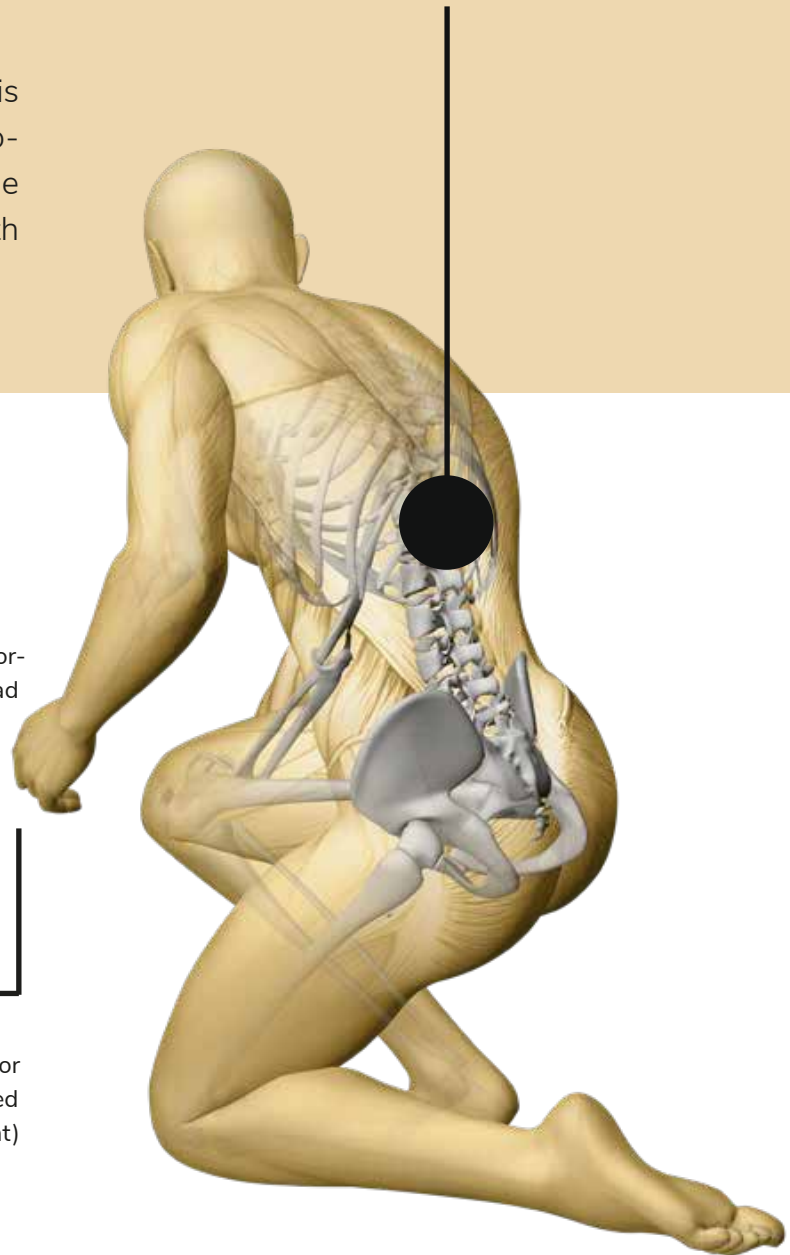
Back pain, joint problems, headaches, and more – unfavorable working conditions can harm the human body and lead to musculoskeletal disorders.

According to a Techniker Krankenkasse press release on the Health Report 2024, back pain is one of the most common reasons for sick leave.

In the last year (2023, editor's note), they accounted for 14.3 percent of all sick days taken by employees insured with Techniker Krankenkasse – after colds (26.4 percent) and mental health diagnoses (18.5 percent).

The health insurance company notes that employers can help to reduce these complaints through occupational health management or the design of an ergonomic workplace and the "teaching of health-promoting movement sequences in physically strenuous occupations". However, what exactly does ergonomics mean, and what measures can be implemented in the event industry to offer employees a healthy workplace?

Ergonomics is not a new concept. Scientists were already working on the design of working environments in the 19th century. The Polish scientist Wojciech Jastrzębowski described the goal of ergonomics as the promotion of prosperity and satisfaction with minimal effort. Today, ergonomics is understood as adapting technology to people's needs to make work easier and avoid health problems.

Importance of ergonomics at the workplace

The activities in the individual occupational fields are varied and the health risks differ. A lack of glasses when working at a computer screen can lead to headaches, while in industrial occupations hazardous substances, dust, noise, or strenuous postures can cause health problems. For this reason, companies are legally required to provide their employees with occupational health care.

First of all, a risk assessment should be carried out, in which the workplace doctor and the occupational safety specialist are involved. Preventive health measures can be derived from this assessment, such as individual occupational health care, protection plans, or investments in ergonomic workplace equipment. A healthy working environment can promote the success of a company by reducing absenteeism and maintaining the health of employees.

However, the workplace of event technicians does not always involve a desk or office workstation. There are certainly times when event technicians spend long periods at a desk, writing offers or invoices, creating concepts for events, or contacting customers. These sedentary activities alternate with carrying heavy loads, holding uncomfortable postures such as kneeling, squatting, or working overhead, and standing for long periods. Depending on the event location, it can be particularly draughty, cold, or hot. It is loud and dusty, or the event technicians are exposed to the elements at outdoor events. The job of an event technician is physically challenging and demanding. The consequences of this hard physical work can be damage to the musculoskeletal or cardiovascular system.

Here, an ergonomic analysis of everyday working life can help to prevent or alleviate health complaints. Ergonomic workplace design aims to enable people to work without negative consequences for their health.

There are many suggestions and measures for the ergonomic design of a desk workstation. A well-designed ergonomic workplace supports and promotes health. Back pain, tension, fatigue, and reduced productivity can be reduced through specific measures. These include an individually adjustable office chair, a height-adjustable desk, and adjusting the screen position. Another recommendation is more movement, as our bodies are not designed to remain in the same position for hours on end.

However, there are also ergonomic measures for setting up, running, and dismantling an event, for example, for handling trusses, cables, decorations, or spotlights. Transport trolleys, pallet cages, sack trucks, forklifts, and lifting equipment should be available to relieve the strain on employees. When designing surfaces and superstructures, care should be taken to ensure that lifting and carrying do not lead to injuries. If an element weighs more than 25 kilograms, it must be marked with its mass. At the same time, every employee should pay attention to back-friendly behavior when lifting, carrying, and moving. ▶


ROADINGER Stage Donkey XL Transport Cart

Easy on the back and makes transportation easier: Foldable and extendable multifunction transport cart for loads up to 150 kg

It is not only when transporting heavy loads that the use of ergonomic measures makes sense. When selecting the right tools, specialized utensils that protect the user from health problems can also be used. Ergonomically designed tools increase working comfort, reduce fatigue, and prevent damage to health. These are characterized by various features. Devices that can be individually adjusted to body size prevent unnatural postures and, thus, pain and permanent damage. Tools with handles that support a natural hand position make work easier. Utensils with low vibrations put less strain on the body and prevent long-term chronic damage.

Ergonomic measures can also make work easier when handling stage and lighting equipment. One example is moving a heavy follow spot during a concert or theater performance. An ergonomically designed chaser can make work more pleasant and comfortable, especially when several functions have to be operated simultaneously. The correct balancing of the spotlight, the use of a counterbalance slide, a revolving operating rod, or the attachment of a heat protection plate are helpful here.
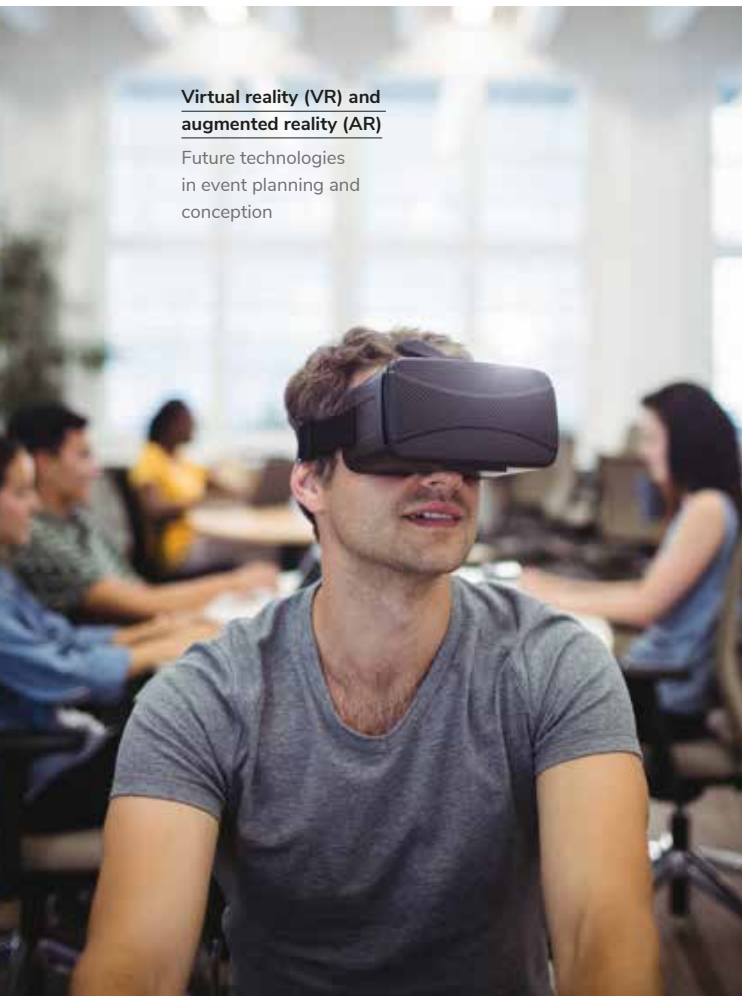
Virtual reality (VR) and augmented reality (AR)

Future technologies in event planning and conception

New technologies, reduced risk of injury

Many technologies are also currently being developed that have a positive impact on ergonomics at workstations. These include the use of exoskeletons. These support people during physically strenuous tasks and reduce the risk of injury. Exoskeletons are made of lightweight, stable materials such as aluminum, carbon fiber, or titanium and support the body when lifting loads or working overhead.

Virtual reality (VR) and augmented reality (AR) can also be used in event technology, for example, in the planning and conception phase of an event. When setting up a stage, AR can project set-up instructions directly onto the objects, which reduces the risk of injury and saves time. AR can also make it easier to search for and find components.

Employees can train and develop their skills in virtual reality. Various scenarios commonly used in the event industry can be learned regardless of time and place. This saves money and enables targeted preparation for various events. The result is well-trained event technicians who can deal with several scenarios in realistic units that would be too expensive, too dangerous, or logistically difficult to implement in the real world.

Everyday work in the event industry is varied, strenuous, and usually time-sensitive. The health of employees should be a priority at all times during an event. After all, an event can only be held successfully and without incident if the employees are physically and mentally well.

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Georg Dull überreicht DJ Bobo das Goldene Künstler-Magazin in der Porsche-Arena Stuttgart — Künstler des Jahres 2023 DJ BOBO

DJ Bobo als Künstler des Jahres 2023 ausgezeichnet

FOCUSING ON MENTAL HEALTH. HOW WORK-RELATED STRESSORS INFLUENCE OUR WORK

INTERVIEW

WITH DR. MANUELA SIRRENBERG

Tons of overtime, usually working in the evenings or at weekends – the stress level in the workplace is particularly high in the event industry. However, what exactly are work-related stressors and what can be done to reduce them? An interview with Dr. Manuela Sirrenberg from the Bavarian Health and Food Safety Authority.

Thank you for taking the time to talk to us about the important topic of "work-related stressors in the workplace". Can you briefly introduce yourself and your work to our readers?

Hello, my name is Manuela Sirrenberg. I am a psychologist and have been working in the field of occupational and organizational psychology for over 15 years. I am currently employed at the Bavarian Health and Food Safety Authority. I work at the Institute for Occupational Health and Product Safety in the Occupational and Environmental Medicine/Epidemiology Department. One of my tasks is to train and educate occupational health and safety professionals in the field of work-related stressors.

The media is increasingly talking about stress and work-related stressors in the workplace. What is stress and how does it affect a person's psyche?

I very often experience misunderstandings about what is meant by work-realted stressors. In the context of work-related stressors, the terms stress, mental illness, mental health, and mental disorders are often mixed up. Work-related stressors mean that something influences our cognitions, behaviour, and emotions, and not that something makes us mentally ill. Moreover, work-related stressors are not always the same. It can vary in type, intensity, and duration.

In the context of occupational psychology, mental stress is defined by DIN EN ISO10075 as "total of all assessable influences impinging upon a human being from external sources and affecting that person mentally"

Work-related stressors can also have both positive and negative effects on us. Negative work-related stressors can lead to fatigue and reduced activation. It can cause stress and possibly lead to the development of illnesses in the long term. Stress arises when there is an imbalance between the demands of the environment, in this case work, and personal performance requirements and coping strategies. Prolonged exposure to negative stress can increase the risk of serious illnesses such as cardiovascular diseases, musculoskeletal disorders, mental illnesses, or degenerative diseases such as dementia.

What kind of psychological work-related stressors can occur in the workplace and what factors promote it?

The factors include the work task, the work organization, the work environment, and social relationships. The work task includes job decision latitude, variability, and completeness of the task as well as the emotional demands – not concerning personal coping strategies, but to the working conditions. Work organization includes working hours and the work process. The organization of communication and cooperation can also be perceived as a positive or negative burden. The working environment includes physical and chemical factors, such as noise, lighting, or the handling of hazardous substances. The ergonomic design of the workplace or the nature of the physical work is also included here. The reliability of work equipment is also a stress factor. Social relationships also only make up part of the mental stress, even if this is often the focus. The keywords here are bullying or conflicts. However, conflict and bullying research has shown that the causes often lie in the organization of work, the distribution of resources, and responsibilities. The lack of qualification of managers, lack of feedback, lack of recognition for services rendered, and gaps in the definition of management responsibilities can contribute to negative consequences of stress.

What are the long-term effects of work-related stressors on the health of employees and on the company itself?

Negative psychological work-related stressors can have various consequences. In the short term, fatigue, poor concentration, and stress can be the result. This increases the risk of errors and accidents. In the long term, this leads to more absences, fluctuation, conflicts, dissatisfaction, internal resignation, and mental, as well as physical illnesses. This can have serious consequences for the company. There is a lack of employees and the quality of products and services deteriorates. High sickness rates and quality deficiencies lead to even greater stress for employees.

Are there places that companies can turn to if employees are suffering from psychological work-related stressors?

Yes, many experts can provide support and help. The employers' liability insurance associations, for example, offer very good information and courses on dealing with industry-specific mental stress. The company physician should also be involved, as should the safety specialist. The regularly stipulated meetings of the occupational health and safety committee can be used to look for solutions with all those involved. To find professional offers of support in the respective region, companies can search online in the psychologist portal of the Professional Association of German Psychologists, for example. The homepage of the GDA, the German Occupational Health and Safety Strategy, also offers a wealth of online information on the topic of mental stress.

In the event industry, shift work, overtime, and working under time pressure with a high level of responsibility are extremely common. How can event technicians in particular protect themselves from work-related stressors? What prevention tips can you give them?

Excessive working hours or unfavorable shift work are factors that are associated with cardiovascular diseases, however, also with increased accident rates. There is simply not enough time to recover. The employer is responsible for reducing these risks for employees. After all, the provisions of the Working Time Act must be complied with. Let us take the example of overtime: In addition to complying with the legally prescribed breaks and recovery times, it is also important to identify the causes of frequent overtime and find a solution with everyone involved. Individually, comparing your own and actual expectations can also help to reduce overtime. It can help to schedule private appointments after work to limit your working hours. And it also really helps to find out about the legal requirements. Knowing what you ▶

are legally entitled to strengthens employees not to simply accept overtime. Those affected can also seek support from the works council or staff council.

According to the Occupational Health and Safety Act, every company is obliged to determine the mental workload of employees as part of a risk assessment. What should be included in such an assessment?

This legal obligation has been in place for a long time, however, I see gaps in practice all the time. Studies show that, despite the legal obligation, companies often fail to take adequate account of the risks posed by mental stress. In the risk assessment, all companies must analyze the work related stress factors caused by the work content/tasks, work organization, working hours, social relationships, work equipment, and the working environment. These are very sector or activity-specific, although some hazards play a role across sectors and activities. These include the organization of working hours, work intensity, job decision latitude, and social relationships, especially with superiors, as well as noise as a key factor in the working environment. These must be analyzed and evaluated. Prevention measures must be implemented, evaluated, and documented.

What tools can be used to create this assessment?

Which procedure is best suited to the respective company depends on various factors, such as the size of the company and whether an expert on the topic is available or is involved in a leading role. Colleagues from Hamburg have made a great tool available in the form of the GB-Psych Compass, in which procedures tested by experts are suggested to suit the industry and the conditions of the company. The GB-Psych Compass is free of charge and can be accessed using this QR code:

What should employers pay attention to when evaluating the risk assessment to ensure a healthy working environment for their employees?

The risk assessment process often stops when it comes to deriving and implementing measures. In a field research project, my colleagues from the Federal Institute for Occupational

Around 20% to 30% of employees worldwide report significant psychological work-related stressors or stress at work.

"HEALTHY EMPLOYEES ARE AN IMPORTANT ASSET, ESPECIALLY IN TIMES OF STAFF SHORTAGES."

Safety and Health, Dr. David Beck and Dr. Katja Schuller, were able to identify a number of factors that make up a good risk assessment process. These include a dialog and communication-oriented approach instead of a TARGET/ACTUAL comparison. Companies should also ensure that the assessment is continuous and relates to specific problems. "One-size-fits-all" solutions are often not helpful. It is also important to address and empower managers and employees and to ensure that they receive advice and support from experts in the field. It can also be very helpful to see risk prevention not as a chore, but as an opportunity to systematically identify and exploit opportunities for risk prevention. This benefits the entire company in the long term. It also makes sense to involve the employees. Very often, the psychological stress factors lie primarily in the organization of work and employees often have good ideas for improvement measures. After all, they are the experts in their work. So, simply ask the employees.

What measures can employers take to improve the working conditions for their employees and prevent work-related stressors?

Unfortunately, there are no blanket recommendations for measures here either, as these depend on the specific conditions. If the key factors already mentioned are taken into account and the appropriate measures are taken, the company has already done a lot to improve working conditions and employee health. These include:
1. Limit **working hours**, ensure sufficient rest, and avoid excessive working hours (breaks, overtime, constant availability).
2. Organize the **intensity** of work, ensure a balance between the amount of work and working hours, and avoid time and performance pressure.
3. Shaping the **job decision latitude**. This plays a very important role in the experience of stress. It is, therefore, very important to allow employees to influence their work and have a say in the organization.
4. To shape **leadership** well. Social support in the workplace can be a resource, especially in difficult conditions. Leadership and social interaction should be characterized by appreciation and care.

5. **Noise** in particular is a burden for employees in many companies. It is essential to check whether noise in the workplace is an issue in the company and to take appropriate measures to reduce noise.

Why should companies in the event industry in particular focus on prevention?

Healthy employees are an important asset, especially in times of staff shortages. This is certainly also noticeable in the event industry. Prevention pays off. Employees are healthier, happier, and more productive. Days of incapacity for work and early retirement can be reduced. Mental illness in particular is associated with long periods of absence. Good working conditions can make an important contribution to mental health here, e.g. through the aforementioned design of working conditions or through workplace health promotion. Psychological offerings can be included there and integrated into the company via the Occupational Health Management. Such preventative measures promote the well-being of employees and reduce costs for companies.

What role do managers play in the prevention and management of work-related stressors in the workplace?

In short, it is a hugely important, if not the most important one. On the one hand, managers themselves can be a stress factor, and on the other, they have an important role model function. And we can see that managers themselves are naturally also exposed to a lot of stress. It is important that managers are involved in creating good working conditions and in turn involve their employees. It is also important that managers are aware of their role model function. A common dilemma: A company creates good offers, however, they are not lived within the company. This is where managers need to set a good example. It can be helpful to support managers with training or coaching to help them reflect on their role, however, they can also improve their qualifications in the area of mental stress with further training.

Favorite color: Colorful

Or: What colors should my LED spotlight be able to display?

There are numerous combinations of basic colors for LED spotlights: RGB, RGBW, RGB/WW, RGB/CW/WW/A/UV, and many more. However, which colors are ideal for which application? We have examined the most important variants along with their advantages and disadvantages.

RGB

RGB

Red and green LEDs have been around for quite a long time. However, the blue LED is considered to be the decisive invention that led to LEDs being used to produce light. The theory is that all other colors can be mixed from red, green, and blue light. The first LED spotlights were therefore based on red, green, and blue. Even today there are still pure RGB devices. The advantages of these spotlights are their bright colors and the fact that they only have to split their power between three colors.

A weakness of LEDs is their monochromatic mode of operation, i.e. they only produce a very narrow-band color. If you mix red and green, the result is not a broadband yellow, but a narrow red and a narrow green area in the spectrum. The result appears yellow to our eye, however, it is very sterile and lifeless. The same applies to pastel shades and white, which are mixed from red, green, and blue – it looks unclean and strange.

RGB color mixing is a very simple color mixing method. However, especially in the party sector, it still has its justification when it comes to rich, strong colors.

EUROLITE LED PARty Spot COB
Compact spotlight with 1 x 15-W-3in1 TCL RGB-LED and DMX control

RGBW

RGBW

The first further development was RGBW LEDs. Cold white is added to red, green, and blue. Cold white means that the white has a relatively high blue content and appears cold, similar to what we know from daylight outside. A white LED is a blue LED in which phosphor is inserted that is stimulated to glow white by the blue light. We are familiar with this technology from fluorescent tubes.

This additional white brings a significant improvement in pastel shades. Still, yellow tones are problematic, as white cannot be used here. Another problem with all LEDs with white or other fluorescent colors is the display of pure blue. As the phosphor is induced by blue light, this effect also occurs if you only want to produce blue light. The blue is not as rich and dark as generated by an LED unit without phosphor. Anyone expecting good white from a classic RGBW LED is usually disappointed. A good white color is produced by light sources that people perceive as natural and "right," such as sunlight or the light from incandescent lamps. The color rendering index (CRI) measures the quality of white light. For the illumination of people or other complex colors, this value should be above 80; professional standards speak of over 90. However, the light of an RGBW LED usually only achieves values around 75, which makes illuminated people look greenish/greyish and unhealthy. Nevertheless, the white is already significantly better than the RGB LED, which only achieves a CRI of around 50.

EUROLITE LED PMB-4 COB QCL 30W Bar
LED light effect bar with RGBW color mixing, incl. IR remote control

RGBA

RGBA

Another improvement was the RGBA color mixing. Amber was added to the red, green, and blue colors. Amber describes a shade of orange. This amber helped to close the large gap between red and green and, thus, create significantly better yellow and orange colors. The mixed white is also slightly better than RGB, but not as good as RGBW white.
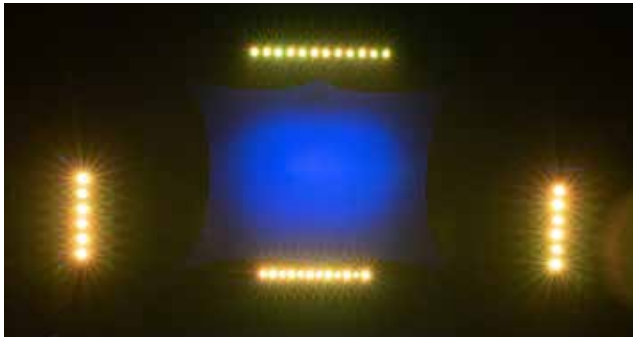
EUROLITE LED BAR-6 QCL RGBA Bar

LED Bar (59cm) with 6x 4 watt 4in1 QCL RGBA LED

RGBWA

RGBWA

The RGBWA LED was then developed from the RGBW and RGBA LEDs. It combines the advantages of both variations. This LED can be used to create good pastel shades and yellow tones. However, a really good white is not possible here either.

RGBWA/UV

RGBWA/UV

The RGBWA/UV LED adds a light range that has been neglected up to now. Below blue are violet and ultraviolet. These colors are partially visible, and ultraviolet light in the non-visible range produces the black light effect making fluorescent materials glow, often used for parties or dance performances. In contrast to classic black light sources, however, most UV LEDs also have a large proportion of visible light. The disadvantage is that the intense black light effect, in which only the fluorescent objects can be seen, is not possible. The advantage, however, is that although you have the black light effect at a party, people can still find their way around. These LEDs also have the advantage that they can be used in color mixing. For example, the mixture of red and UV produces a completely different pink than the mixture of red and blue, and the mixture with amber also produces a very interesting shade.

EUROLITE LED SLS-12 HCL MK2 Floor

Flat LED spotlight with RGBWA+UV-color mixing, incl. IR remote control

RGB/CW/WW/A/UV

RGB/CW/WW/A/UV

With no fewer than seven basic colors, you can go all out here. You have red, green, and blue as the basis for the pop colors. Then there are cool white and warm white to cover the pastel colors and white tones. Amber closes the gap between red and green, and UV extends the spectrum beyond blue. All the advantages of the previous versions are therefore combined. This spotlight is also very good when it comes to white light. The individual white light of cold white and warm white is not yet high quality, however, the mixture of cold white, warm white, and amber can achieve good results for white light. However, there is also a negative aspect: The power of the spotlight is spread over seven colors, so there is less power left for the individual color than with a pure RGB spotlight.

EUROLITE LED 7C-7 Silent Slim Spot

Silent 7in1 LED PAR spotlight in a space-saving design

RGB/UV

RGB/UV

The RGB UV LED is a very interesting LED variant for the party sector. You have the pop colors of red, green, and blue, as well as a mixture of these colors. Furthermore, it is possible to use the black light effect of UV.

EUROLITE LED Party Panel RGB+UV

LED party panel with RGB+UV color mixing and DMX

RGB/WW

RGBWW

Spotlights with red, green, blue, and warm white are now very popular. Many LEDs with this color mixture also have a very good color rendering index (CRI) in warm white light. It is possible to produce both colorful and very high-quality white light. In addition, the warm white produces very beautiful pastel shades when mixed with the colors. And because this LED only has four colors, you do not lose too much power. An excellent option for users who want to produce both colorful and good white light with one type of spotlight.

EUROLITE LED Theatre COB 200 RGB+WW

LED theatre spot with 4in1 QCL RGB/WW W COB (chip-on-board) LED

RGBL

RGBL

Red, green, blue, and lime is a color mixture that is becoming increasingly popular in the professional sector. RGB Lime LEDs are essentially the modern version of RGB Amber LEDs. In contrast to amber, which is either monochromatic or at least very narrow, lime covers the entire range of red and green. This makes very good yellow tones and good white light possible. The light is not quite perfect, as the color information in the blue range only comes from the monochromatic blue LED, however, the result is still good. The disadvantage of this color mixing is that the white light has to be mixed and a certain amount of knowledge and experience is required to achieve really good white tones.

EUROLITE LED IP PAR 7x10W RGBL Spot

IP65 spotlight with RGBL LEDs, frost filters, and IR remote control

RGBLI

RGBLI

RGB with lime and indigo combines this color mixture. You have the positive effect of lime for the white tones and also the indigo. This is a very deep blue, however, not yet in the violet range; the classic blue is deliberately set a little higher in frequency. This has the advantage that you can create different shades of blue in the mixture without adding green. Moreover, the white light is significantly improved here, as the gap between green and blue is also smaller due to the higher blue – a very nice color mixture with many different shades of blue.

EUROLITE LED Flood 210 asym RGBLI

Asymmetrical floodlight for uniform area lighting with RGB, lime, and indigo blue

RGBALC

RGBALC

Red, green, blue, amber, lime, and cyan are the basis of this rare color mixture. You have the three original colors plus the orange amber, the yellowish lime color, and, with cyan, a broadband turquoise. This is one of the most versatile color mixtures in the LED world: Pop colors, pastel shades and all intermediate ranges are possible. With this color mixture, colors can be created that are otherwise not known from LED color mixtures, and excellent results are also possible in the white range in all color temperatures. It is a pity that this color mixing is still so rarely used.

EUROLITE LED PLL-2000 RGBALC Panel

DMX-controlled surface light with 2688 RGBALC LEDs and barndoors

RGBWAP/RGBWACYP

White, amber, and pink or even white, amber, cyan, yellow, and pink are used here in addition to red, green, and blue. However, there is no question of color mixing here. These LEDs are used in light effects that produce very narrow beams in the respective colors. Due to the number of colors, more differently colored beams can be generated. Each additional color offers more possible combinations and, therefore, more variety.

EUROLITE LED D-4000 Beam Effect

Extremely bright derby with three W LED in eight colors, incl. IR remote control

COLOR WHEEL

Does the color wheel still have any justification in the age of color mixing? Certainly not for washlights. As soon as the light is profiled, i.e. becomes hard, things look different. The problem with color mixing LEDs is that their color generation is always side by side and this is visible as soon as the light is directed. The individual colors are visible in the image, at the latest when gobos are added or the light beam is simply directed onto a mirror ball. There are LEDs with special optics that manage to bring the colors together well. However, this technology is very expensive, swallows up light output, is not quite perfect, and is only possible up to a certain brightness class. The color wheel is, therefore, still the method of choice here. In addition, the color wheel usually also enables intermediate colors. Thus, you can color half of an image in two different shades.

EUROLITE LED TCL-150 Color Changer COB

Bright LED color changer with 30 W LED, gobo, and color wheel

CMY

CMY

An alternative to the color wheel is CMY color mixing. Here, too, a white light source is used, which is then filtered via colored glass. In the case of CMY, cyan, magenta, and yellow, these glass discs are designed as color gradients or plumes in which the further they are moved into the beam path, the more intense the color becomes. CMY is the counterpart to RGB color mixing. CMY can be used to display any color. Cyan and magenta become blue, magenta, and yellow become red, and yellow and cyan become green. If you mix them all together in full saturation, the result is black. In contrast to RGB, where colored light is mixed and the result are lighter and lighter colors, CMY is darker.

The advantage of CMY is that it can also be used in moving head spots and beams without any problems. Since it is a color mixture, you can create any color nuance and also program smooth transitions between the color sequences, unlike the color wheel. The disadvantage of CMY is that it takes up a lot of space and is very complex, i.e. expensive. For this reason, this technology is only used by a certain spotlight class in terms of size and price.

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

The beam angle of 20 degrees can be expanded using a supplied frost filter.

A QUIET ALL-ROUNDER

The new Silent Bar by EUROLITE is, as the name suggests, absolutely silent thanks to its fanless design. The mixture of red, green, blue, and warm white, offers a wide range of design options. Particularly noteworthy is the warm white, which has a high quality and is ideal for lighting people. The color mixture is of excellent quality and free of color shadows. Despite using "only" 4 W LEDs, the bar surprises with an impressive light output. The beam angle of 20 degrees can be expanded using a frost filter supplied.

The bar offers several highlights in terms of control options. Six different DMX modes are available: In the two most extensive modes, four segments can be controlled separately. In addition, 41 auto programs work with the four segments and offer a wide range of colorful to atmospheric programs. These programs can be called up directly from the device menu or in 8-channel DMX mode, and all 41 programs can be timed to music.

The housing of the Silent Bar 16x4W has a high-quality, robust design. A sturdy double bracket enables both suspended mounting and standing use. The power connections are made via P-Con, whereby the power can also be looped through to other devices. This spotlight also has a USB socket that enables quick and easy upgrading to the EUROLITE Quick DMX and LumenRadio CRMX system.

CRI > 80

Wireless**DMX** (optional)

EUROLITE LED Silent Bar 16x4W RGB/WW

Compact and whisper-quiet spotlight for colored and white light

STRONG AND STYLISH
DMH-640

_ Moving spotlight with 640 watt COB LED
_ CMY color mixing for infinite color variety
_ Zoom from 10° to 47
_ Frost filter + 2 gobo wheels

CW | 10 - 47° | CRI>85 | (optional) Wireless**DMX**

FLICKER FREE | MOTOR. ZOOM | MOTOR. FOCUS | RDM | LED | IRIS

Future*light* ®

HALLOWEEN GARDEN PARTY

Halloween, the holiday of ghosts and golins, is just around the corner – that special time of year when imagination and creativity know no bounds when it comes to decorations. It is, therefore, important to transform the outdoor area into a spooky backdrop to make clear: "A Halloween party is taking place here" or "Little ghosts and ghouls are welcome on their hunt for sweets"! If the whole thing is not only visually impressive, but also quick and easy to implement, that would be ideal. We present our favorite "quick and easy" solutions for spooky decorations here. Take a look:

EUROPALMS Halloween Banner, Haunted House, 300x90cm

Decorative banner as spooky decoration for any event

Available in various designs and sizes.

BANNERS MAKE A PERFECT BACKDROP

Banners offer a simple and effective way to decorate large areas quickly and impressively. Whether on a garden fence, balcony, gate or in large halls – they transform any environment into a Halloween scene in no time at all. The decorative banners also impress during the day thanks to their vibrant colors and detailed motifs. As a result, they turn any outdoor area into an eye-catcher that announces from afar that Halloween is being celebrated here. Installing the banners is extremely easy and requires no special tools. They can be attached quickly and securely in just a few simple steps using the integrated metal eyelets and the cords included in the scope of delivery. They are available in various sizes and designs so that they can be adapted to many surfaces. After use, they can simply be removed, folded up, and stored for the next use.

If you want to transform your outdoor area into an impressive Halloween backdrop in no time at all, decorative banners are a simple and inexpensive solution. Just hang them and get the party started!

EUROPALMS Halloween Banner, Haunted Forest, Set of 2, 30x180cm

Perfect decoration for doors and fences

EUROPALMS Halloween Banner, Haunted House, 2er-Set, 30x180cm

EUROPALMS Halloween Banner, Haunted Forest, 90x180cm

SMALL EFFORT - BIG EFFECT FOR SPOOKY EVENINGS

In addition to the banners, inflatable figures create a fantastic Halloween atmosphere in no time at all by perfectly complementing the overall picture or forming the basis of a Halloween scene themselves. All they need is a power connection and they inflate to their full size in just a few minutes. A special highlight are the built-in LEDs that light up the figures from the inside or make their eyes glow. This lighting ensures that the figures look impressive even in the dark.

EUROPALMS Self-inflating Halloween scene, ghost with pumpkins and gravestone as decoration object

Self-inflating Halloween scene, ghost with pumpkins, and gravestone as decoration object

EUROPALMS Halloween Inflatable Figure Cat with Pumpkin, 183cm

Self-inflating Halloween scene as a decorative object

EUROPALMS Halloween Inflatable Figure Dragon, 208cm

Self-inflating double-headed dragon as a decorative object
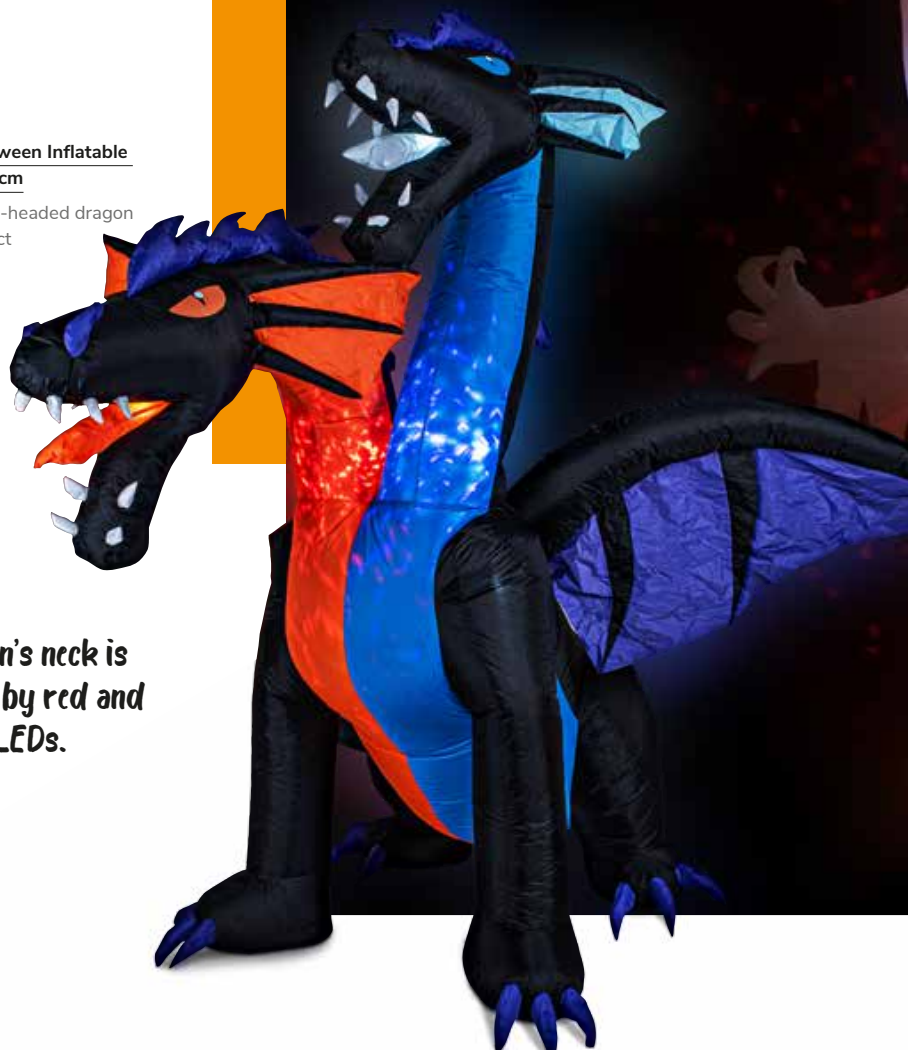
The dragon's neck is illuminated by red and blue LEDs.

That's how easy it works:

For operation, the decoration is permanently connected to the power supply via a two-meter-long supply cable. It then inflates to its full size on its own. Additional ground spikes and guy ropes are included to ensure a stable stand. After the fun, the air is released and the decoration can be folded up again to save space and await its next appearance.
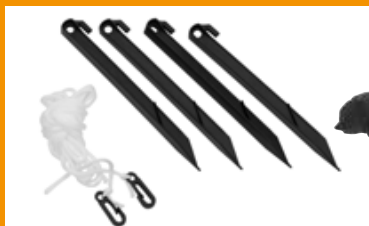
EUROPALMS Inflatable Figure Witch pumpkin, 150cm

Inflatable pumpkin with hellcat

EUROPALMS Self-inflating black cat as a decorative object

Self-inflating black cat as a decorative object

The motifs range from adorable, cute kittens to complete scenes with several figures and impressive, terrifying dragons with a total height of over two meters. The inflatable figures can be placed flexibly in various outdoor locations, for example in the patio or terrace, or next to the entrance area. Thanks to their size and integrated lighting, they cannot be overlooked and leave a lasting impression. After the Halloween party, the inflatable figures can be dismantled just as quickly, folded up and stored to save space until their next use. Easy!

EUROPALMS Halloween Inflatable Figure Ghost, 234cm

Self-inflating sinister giant ghost as a decorative object

IP44 allows placement in sheltered outdoor areas

EUROPALMS Halloween Inflatable Figure Tombstone, 183cm

Self-inflating gravestone with ghosts as a decorative object

THE BOTTOM LINE

Transform your outdoor area into a spectacular Halloween backdrop without much effort – it's possible! With large-scale banners and self-inflating figures, you can create a fantastic Halloween setting in just a few hours. This will delight both young and old alike both during the day – and the night. We hope you have lots of fun celebrating!

DMX

FREE DMX PRO

EUROLITE LED freeDMX AP PRO Wi-Fi Interface
Wireless WLAN DMX interface for apps & programs such as Light Captain

With the Free DMX PRO, EUROLITE now offers a variant of the popular Free DMX AP interface with significantly extended possibilities. Like the previous model, this interface can also be used as a DMX output for the Light Captain and Light'J apps. However, it functions as a wireless Art-Net receiver for a universe, too. The connection is still made via 2.4 GHz WiFi, but the new model can be used as a WiFi access point as well. The WiFi channel is freely selectable. It can also be wired via a network socket for Ethernet control. In addition, the Free DMX PRO offers new features on the DMX side: The DMX input can now be used with a merge function. You can connect the model with a DMX controller

and control the light by using the app as well as the DMX controller. You can set whether the highest DMX value or the last changed DMX value is output or whether the console serves as a backup for a tablet, i.e. outputs its commands as soon as the tablet no longer sends DMX values. The device can also save DMX values and output them the next time the device is started, without the need for a tablet or lighting console. The Free DMX Pro is operated on the interface itself via a multicolored display, but can also be operated via a website or Art-Net. The configuration page and the connection can be accessed particularly quickly using QR codes.

SPLIT/BOOST 8 PRO

EUROLITE DMX Split/Boost 8 PRO 3-pol
Versatile DMX splitter

The DMX Split/Boost 8 Pro is a particularly versatile DMX splitter. It not only distributes a DMX signal, but can do much more. Its flexibility is already evident at the DMX input: There are two inputs that can be distributed to the eight DMX outputs as required. However, it is not only the signal distribution that is extremely convenient, it is also possible to specify how each DMX input signal is to be forwarded. The signal can either be forwarded in the classic way as it comes in, or it is possible to forward DMX and RDM via splitter and set the clocking of the DMX signal to 40 Hz, 30 Hz, 20 Hz, or 10 Hz. In addition, the eight DMX outputs can be labeled individually to improve the overview.

The splitter also proves extremely useful in the event of DMX errors. The DMX Split/Boost 8 Pro shows for each input whether the DMX signal is OK, how many active channels are coming in, and at what frequency. The incoming DMX value can be read out for each DMX channel. If the incoming DMX signal is corrupt or fails, you can specify whether the splitter should hold the last DMX signal or not output a DMX signal in this case. Of course, the outgoing signal is processed and amplified for each output. The DMX Split/Boost 8 Pro is designed for rack installation and is professionally equipped. Power is connected via P-Con sockets and all components are of high quality. The display and status LEDs are designed so that important information can be seen at a glance and allow easy navigation in all areas.

LEaT X

**Weitere Informationen folgen in Kürze.
Bleib gespannt und folge uns für Updates auf Instagram!** @LEaTcon

COLOR MIXING MATHEMATICS

Physics knows two different types of color mixing, additive and subtractive color mixing. Additive color mixing always applies when colored light comes together. The result is brighter than before. We are usually familiar with this color mixing from our LEDs, where red, green, and blue produce turquoise; red and blue become pink. All three together produce white.

However, we are also familiar with subtractive color mixing on the stage. The color of a light source and the color of an object are mixed, for example, when colored foils or colored objects illuminated by light are used. Here, the result is darker: Turquoise and yellow become green; pink and yellow become red; pink and turquoise make a deep blue. In this puzzle, we now combine wildly: What colors come out of these mixtures?

Subtractive color mixing

Additive color mixing