

# soundings

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Volume 11

# Live Earth



 **SENNHEISER**

# Editorial



Dear Readers,

The worldwide Sennheiser family has just gotten bigger! We are now even closer to our Japanese customers since Sennheiser Japan K.K. opened in February 2008, and the opening of Sennheiser Consumer Electronics in Singapore is allowing us to identify future trends in headphone business. We wish our teams in Japan and Singapore every success!

This time Soundings is also reporting on some exciting projects where Sennheiser technology is used. It has reached great heights, with microphone and wireless links at the top of one of the world's eight thousanders, and has also been getting sporty, with our mics providing an unparalleled sound experience at the Pan-American Games and the Burghley Horse Trials.

Cultural highlights are now even more exciting thanks to our guidePORT audio system. In this issue, we'll be taking you off to the Topkapi Palace and looking back at the Frida Kahlo exhibition. See behind the scenes at the Störtebeker Festival and the Einsiedeln World Theatre, where Sennheiser's wireless technology produced perfect sound quality.

You can also read about our commitment to the next generation. Whether we're taking part in the IdeaExpo or supporting the Pop Institute, we want to infuse young people's passion in technology and encourage up-and-coming artists.

I hope you enjoy reading this issue.

Regards,

Susanne Seidel  
President Global Marketing

# Contents

## Top News • Management Report

Sennheiser Scouts for Trends in Singapore .....	03
Learning in the Sound Factory .....	04
Sennheiser Japan Celebrates Its Opening .....	05
Worldwide Service .....	06
Sound Logo Contest .....	06
A Wealth of Ideas .....	07

## Cover Story

Live Earth: Singing to Save the Planet .....	08
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## International Stories

### Central Europe

With GuidePort in the Tracks of the Scythians .....	12
The Microphone for Peak Sound Quality .....	13
Pirate Treasure .....	14
The Sound of the World .....	15

### Western & Southern Europe and Africa

The Treasures of the Topkapi Palace .....	16
---	----

### Northern and Eastern Europe

Firmly in the Saddle: Burghley Horse Trials .....	18
Carmen Uses Wireless Technology from Sennheiser .....	19

### Americas

KOOZA™ .....	20
Reaching for the Skies .....	23
Frida Kahlo 1907-2007 .....	24
MKH 8000 Series Scores Points on the Baseball Field and with Legendary Mixer .....	25

### Asia and Australia

Sennheiser Speeds Ahead .....	26
Timbre Rocks .....	27

## New Products • Highlights

New "Accessories for the Ears" .....	28
Huge Sound for Hobby Film Makers .....	29
New Line of Boomsets for the Professional Pilot .....	30
Sennheiser CX 6 Travel Ear-Canal Phones .....	30
Professional Sound for all Music Enthusiasts .....	31
One for All and All for One .....	31
Discover the Heart and Soul of Sound .....	32
Premiere at the CES: MX W1 Wireless Stereo Earphones ...	33

## Musik Scene

Revolverheld .....	34
Pleasing on the Ear... ..	36

## Reference Projects

Alfacam Turns to Sennheiser for Pan-American Games .....	38
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## Sennheiser Partner

Sennheiser Japan K.K. ....	39
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# Sennheiser Scouts for Trends in Singapore



Festive opening of Sennheiser Consumer Electronics Singapore (l/r): Linda Sein of the Economic Development Board, German Ambassador Folkmar Stoecker, Volker Bartels, Speaker of the Executive Team, and the two Managing Directors Stijn Jans (Singapore) and Peter Callan (Ireland)

**With obvious pride, Volker Bartels, Speaker of the Sennheiser Executive Team, used a giant Sennheiser flag to mark Singapore on a map of the world – and officially opened the Singapore branch of the subsidiary Sennheiser Consumer Electronics GmbH.** This was accompanied by the unveiling of an ice sculpture of Merlion, the trademark symbol of Singapore, wearing headphones in honor of the occasion. Around 200 invited guests attended the ceremony, including the German ambassador Folkmar Stoecker and Linda Sein from the Singapore Economic Development Board.

“With Sennheiser Consumer Electronics GmbH, we have laid the foundations for future growth in our headphone business,” explained Volker Bartels. Last year, headphones already accounted for approximately a quarter of Sennheiser’s annual turnover – and Stijn Jans, Managing Director of the Singapore branch, intends to increase sales even further. “This is our opportunity to become a key player in the consumer electronics market.”

#### Two centers of excellence: Singapore and Tullamore

The German company Sennheiser Consumer Electronics GmbH is split between two branches, Singapore and Ireland. The Irish plant in Tullamore is responsible for transducer manufacturing, assembly of Sennheiser’s high-performance headphones and worldwide logistical fulfillment. The Sennheiser plant, headed by Managing Director Peter Callan, was founded in 1990 and now has a workforce of 160 employees. The Singapore office, currently with a staff of 23, is home to product marketing, part of product development and purchasing. “We’re at the heart of the Asian consumer industry, in an exciting city which offers the perfect blend of Western and Asian cultures,” said Stijn Jans. “We’re right

in the center of things when it comes to identifying new trends in consumer electronics. Singapore is already a base for a wide array of multinational corporations focusing on consumer electronics, and the large number of universities here ensures a very healthy climate for research and development.” The Singapore Economic Development Board has no doubts about the benefits of this location: “Singapore is a global city and a microcosm of Asia. It is a vibrant hub to gain deep consumer insights and discern fast-changing lifestyle trends.”

Stijn Jans sees the new millennium as the age of mobile solutions. “Sennheiser delivers optimum sound quality in very compact designs. Our developers and trend scouts are already working on new, exciting headphone solutions offering that something extra in terms of design and function – and the legendary Sennheiser sound, of course.”

# Learning in the Sound Factory of Fury in the Slaughterhouse & Co.

The Hannover Pop Institute moves into the old Peppermint Park recording studio with support from Sennheiser

Song writing, live mixing and band coaching – these are the titles of workshops on the curriculum at Hannover’s Pop Institute. Set up by the University of Music and Drama, the institute offers its students seminars which are also open to “outside” musicians, composers and producers. Their huge popularity soon made space a premium at the institute. However, since its relocation in December 2007, the institute has now plenty of room for studying and making music.

The old Peppermint Park recording studio, where the band Fury in the Slaughterhouse produced their hits, now contains the most up-to-date rehearsal rooms, seminar rooms and a fully equipped recording studio. Sennheiser was one of the organizations to offer assistance in renovating and equipping the facility. The audio specialist sponsored the mixing desk in the recording studio, and has also undertaken to provide annual sponsorship. “Nurturing talent and education are areas that traditionally lie close to my heart,” explained Prof. Dr. Jörg Sennheiser at the official opening. “We already support similar institutions in other core markets, like the Liverpool Institute for Performing Arts for example. But we are delighted to have and be able to assist a top-class institution like the Pop Institute right on our doorstep.”

The recording room in the Pop Institute, Sennheiser Studio 1, is fitted out with the very latest technology and meets the professional criteria of large studios. “The layout and acoustic equipment are so flexible that really any recording scenario can be accommodated here,” explains Gregor Zielinsky, Artist Relations Manager at Sennheiser. Rike Pfeiffer, a student and singer in the band *à la phonk*, is also really pleased with the recording technology and new opportunities available: “Since we’ve had a complete demo package for the band – demo recording, professional photos and a website – we’ve been able to present ourselves really effectively as a band. It’s enabled us to make plenty of contacts and build up a large fan base. We even won the Battle of the Bands 2007 organized by North German radio station N-Joy with one of the numbers we recorded at the Pop Institute.”

The institute’s huge practical relevance is also reflected in the high-quality and constantly alternating choice of lecturers. Most of them are from the music industry. For example, regular visitors to the Pop Institute include musicians from Fury in the Slaughterhouse and Guano Apes. Sennheiser is also on hand to offer students practical support: next term, the institute and the audio specialist are jointly offering a two-day “Live Mixing Seminar” where participants will gain first-hand knowledge of the tools of the trade such as FOH and monitor sound, microphone positioning and live mixing.

“In Sennheiser we are delighted to have found a long-term supporter and close partner who shares our requirements for excellence and quality,” says Prof. Dr. Herbert Hellhund, Director of the Jazz/Rock/Pop course at the University of Music and Drama. “Working closely with a private company of Sennheiser’s size and importance in the music industry is pioneering in the German university scene.” Since the Pop Institute opened in 2006, there has been a huge expansion in the courses offered. In fall 2008, the success continues with the new bachelor course in *Popular Music* at the Pop Institute. The university is now seen as one of the leaders in the field of pop and rock.

At the heart of the Hannover Pop Institute: the recording studio





# Sennheiser Japan Celebrates Its Opening

Sennheiser opened its Sennheiser Japan K.K. subsidiary on February 13, 2008 with a traditional Kagamiwari ceremony. The Japanese custom of solemnly breaking open a cask of sake was the highpoint of the official opening in Tokyo. Alongside Sennheiser Japan's Managing Director Sho Kubo, Prof. Dr. Jörg Sennheiser (Chairman of the Sennheiser Supervisory Board), Volker Bartels (Speaker of the Executive Team and President of Manufacturing and Logistics), Paul Whiting (President of Global Sales), Dr. Bernd Fischer (Chargé d'Affaires at the German embassy) and Manfred Hoffmann (Executive Director of the German Chamber of Commerce and Industry in Japan) opened two cedarwood casks and served the rice wine to guests. The opening party featured appearances by the world famous Yoshida Brothers, who enthralled their audience with modern music played on traditional Japanese shamisen, and Judy Ongg, currently Japan's best-known female singer.

"The opening of our Japanese subsidiary is an important step for us," said Prof. Dr. Jörg Sennheiser in Tokyo. "The Japanese market has always been crucial, and in General Traders we have always had a dedicated local partner working alongside us. With Sennheiser Japan, we now have the opportunity of being even closer to our Japanese customers and their market-specific needs." The importance that Sennheiser attributes to

these market-specific requirements was reflected in a high-ranking panel discussion the following day. Prof. Dr. Jörg Sennheiser discussed "Analog microphones in a digital world" with local audio specialists from the worlds of economics, broadcasting and education.

The team in the newly formed Japanese company have set two initial priorities: professional audio and consumers. "We want to continue our excellent cooperation with our customers in the professional sector and further increase and strengthen our bonds with them, while providing customized solutions," explained Kubo. Sennheiser's professional products play a solid and crucial role in many institutions in Japan. Clients like the New National Theatre Tokyo, the Imperial Theatre, the Shiki Theatrical Company, the state television company NHK and soon also Disneyland Tokyo, rely on the benefits Sennheiser technology offers. But Sennheiser Japan would also like to be at the forefront in the consumer sector. "In order to succeed in the consumer market, we will be putting a lot of effort into our marketing activities and aiming to increase Sennheiser's brand awareness and recognition," added Kubo. These goals have gotten off to an auspicious start because the Kagamiwari ceremony brings luck, health and prosperity to all present.

(l) Judy Ongg with Sho Kubo, Managing Director of Sennheiser Japan

Opening with a Kagamiwari ceremony: Paul Whiting, Sho Kubo, Dr. Bernd Fischer, Manfred Hoffmann, Prof. Dr. Jörg Sennheiser and Volker Bartels

The Yoshida Brothers



# Worldwide Service

**When touring bands cross national borders, the logistical and technical challenges can quickly assume unknown proportions.**

That is particularly the case when wireless technology is involved. The wireless microphones that might be perfectly legal in one continent may well be prohibited in another.

All the better, therefore, when international productions and sports events, performers, PA rental companies and sound engineers can rely on Sennheiser as a partner. Whether it is support in selecting the right equipment or assistance with frequency planning for wireless microphones – the worldwide network of Sennheiser partners and subsidiaries has always been a source of expertise. And their service has now gotten even better.

Susanne Seidel, President Global Marketing: "Our aim was to consistently further develop this service philosophy. We believe that providing cutting-edge products is not enough – the service, expertise and support provided together with this "hardware" also need to be first-class. In addition to the local Sennheiser support network, we established the Global Relations department because it will allow us to focus even more on customer satisfaction, and to operate harmoniously across borders, wherever our customers need assistance."

Global Relations is headed by Greg Beebe, and his work focuses on customer satisfaction. "We have recognized that many high-profile users such as Beyoncé and The Police, as well as many companies and a myriad of major events such as the Pan-American Games or



The Sennheiser Global Relations Team (l/r): Mark Saunders, Maryam Larki-Bavi, Greg Beebe, VinceTan, Kristy Jo Winkler, Mick Whelan

Live Earth travel the globe with our products or have permanent facilities in multiple countries," says Greg Beebe. "It was therefore imperative to offer a level of global support that sets a new standard in the professional audio industry. Global Relations ensures that these customers have unfailing support at all times, right through the end use of our products on site, including worldwide frequency management."

Greg Beebe and his team already survived their "baptism of fire" at the Live Earth concerts, where Global Relations together with the worldwide Sennheiser network provided global support for PA suppliers, production companies and performers. The events demanded a concerted effort by the three relations managers Kristy Jo Winkler (Americas and Canada), Mark Saunders (Europe, Middle East, Africa and India) and Vince Tan (Asia and Australia), as well as Mick Whelan as the coordinating Global Support Manager and team assistant Maryam Larki-Bavi. The professional customers, such as the production company Britannia Row, were more than happy with the results: "The quality of Sennheiser's equipment speaks for itself, and their radio crew, as always, was there to help deal with last-minute changes and the inevitable glitches."



## Sound Logo Contest

You hear them and they stick in your mind: sound logos are to the ear what a visual symbol is to the eye. So what does an 'audio specialist' sound like? "That's precisely what we'd like to find out with the help of music enthusiasts around the world," says Susanne Seidel, President of Global Marketing at Sennheiser. "Our customers have huge creative potential, and having fun composing and messing about with music and sound lies at the heart of the sound logo competition."

The contest was launched at the WinterNAMM in Anaheim on January 17, 2008, and professional and amateur musicians alike have started composing their tunes. An entry is allowed to be up to eight seconds long, and each entrant may send in up to five contributions. The entries need to be uploaded onto the [www.sennheiser.com/soundlogo](http://www.sennheiser.com/soundlogo) website in MP3 format (stereo, 128 kb/s, max. 10 MB) by July 17, 2008.

By the end of August thirty finalists will be selected, at which point their sound logos will be appraised by an international jury. "The public will be a virtual member of the judging panel of five," adds Susanne Seidel. "You too can vote for your favorite sound logo via the website!"

It wouldn't be a competition without a prize: the winner will receive 5,000 euros, as well as an optional 30,000 euros if Sennheiser acquires unlimited rights to use the winning logo. Those placing second to tenth will win first-class sound for their home: they can choose between Sennheiser's dynamic top-of-the-range HD 650 headphones or equipping their rehearsal room with an evolution wireless ew 300 G2 microphone system. Says Susanne Seidel: "We're really looking forward to receiving entries from all corners of the world. There'll be an explosion of musical creativity."

Find out more about the competition at [\[www.sennheiser.com/soundlogo\]](http://www.sennheiser.com/soundlogo)

# A Wealth of Ideas



**As they go deeper and deeper into the ground, the light fades and the air smells of ore...** This "expedition" to the raw materials

exploited in Lower Saxony was just one of the many experiences offered by the IdeaExpo, an event that gave more than 160,000 – mostly young – visitors the chance to explore science and technology as a tangible experience. From October 6 to 14, companies, authorities, universities and associations demonstrated the fascination of science and technology in the German Pavilion at the former Expo site. There was particular interest in the smaller stands presented by school pupils. There, the scientific potential of the future could be seen mixing medical creams, building solar boats or even formulating the perfect sherbet powder.



Sennheiser was also one of the sponsors of the initiative, which has one aim above all: to arouse young people's enthusiasm for technical subjects. "Inspiring a passion for science and technology among young people is an aim that we have been pursuing for many years through our involvement in schools, institutes and universities," explained Volker Bartels, Speaker of the Executive Team. "Innovations are key to Sennheiser, and so it goes without saying that we do everything we can to nurture the scientists and engineers of tomorrow. The IdeaExpo is the ideal forum for us to arouse a spirit of inventiveness and to provide young people with a playful pleasure in science and technology."

(top) A different way of playing music...

(bottom) Lower Saxony's Prime Minister Christian Wulff at the virtual instruments

"Technology needs to be a hands-on experience," Bartels continued, and visitors had plenty of opportunity to use their hands at the specially designed Sennheiser booth, which, of course, focused on music. Touch pads gave youngsters – even the musically inexperienced ones – the chance to play the guitar, drums, bass and keyboards and to help a virtual breakdancer leap around on a giant screen.

The organizers of the event – the State of Lower Saxony, the Employers' Association of Lower Saxony and Hanover Chamber of Commerce – were delighted with the response from the young visitors. In fact, they were so delighted that new plans are already underway for IdeaExpo 2009 – "a forum of ideas that we hope will be imitated throughout the world," said Volker Bartels.



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# Live Earth: Singing to Save the Planet

They supported the good cause: Fergie of the Black Eyed Peas and Dave Grohl, frontman of the Foo Fighters

**Under the Live Earth banner, musicians and actors all over the world committed to doing their bit to protect the world from climate change. Sennheiser was there.**

It was the biggest pop event ever, a unique experience for everyone involved and ultimately about something really important: saving the planet from the impending disaster of climate change. 150 musicians and bands played under the Live Earth banner on all seven continents during this global 24-hour pop concert in New Jersey, London, Sydney, Tokyo, Johannesburg, Shanghai, Rio de Janeiro and Hamburg, including top stars like Madonna, The Police, Shakira, Yusuf Islam alias Cat Stevens, Lenny Kravitz, Roger Waters, Bon Jovi, The Red Hot Chili Peppers, James Blunt, and Jack Johnson. Even a group of scientists stationed in the Antarctic strapped on their guitars and broadcast their performance live over the internet.

But the biggest show in the world was not just about entertaining its audience. Live Earth, an initiative from Kevin Wall and former US Vice-President Al Gore, who had raised awareness of the acute dangers of global warming with his double Oscar-winning documentary "An Inconvenient Truth", was aimed at making people around the world aware of the impending climate crisis and encouraging those listening to modify their behavior. The consequences of global warming caused by constant CO<sub>2</sub> emissions are expected to be devastating within just a few decades. According to the event, averting this impending climate catastrophe can happen only if each and every one of us plays a part in minimizing carbon dioxide emissions in our everyday lives. And what medium is better suited to generating worldwide attention for a global problem than pop music? What could be better than entertaining millions in favor of a good cause, one vital for our very survival?





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Organizers went all out to be environmentally-friendly. Electricity for the events was to be obtained from renewable energy sources and artists who did not have far to travel were engaged for individual concerts. Musicians' fees were paid directly into the "Alliance for Climate Protection" account. The artists were self-critical too: "Our work innately harms the environment," said musician Damien Rice on the Live Earth stage in London, giving us food for thought. "I live off selling plastic and I transport tons of material and dozens of people around the globe on tours. I have to accept responsibility for it." But that's not a reason not to sing out for a good and important cause.

In the end, Live Earth wasn't just the biggest pop event ever. It was an overwhelming success in every other respect too. In London's Wembley Stadium, Madonna sang a song specially written for the occasion in front of ten thousand enthralled listeners. In New Jersey, The Police gave a new interpretation to their hit "Message in A Bottle", turning the legendary refrain "Sending out an S.O.S." into a warning cry for climate protection, and the Rolling Stones classic "Gimme Shelter", sung by country star Keith Urban and Alicia Keys, was aimed at the ozone layer.

It wasn't just musicians who were backing this great cause. Actors like Leonardo DiCaprio, George Clooney and Cameron Diaz joined numerous pop stars at the various events and committed themselves to climate protection. It proved to be successful too: more than two billion people in 130 countries followed the concerts in the arenas and on TV, the internet and radio. More than eight million viewers saw the different acts live over the internet, a number no previous event has been able to achieve on live streams. And in Germany alone, more than 50,000 people signed a voluntary commitment during the concert via SMS to do what they could to protect the environment in their everyday lives.

Sennheiser's technological expertise made a huge contribution to ensuring that everything at the concerts and the huge logistical task of broadcasting worldwide went smoothly. Technical staff were on site supporting production companies as they went about their work. Sennheiser's monitor technology was used by all artists in London's new Wembley Stadium, for example, and most of the musicians and announcers there entrusted their voices to Sennheiser's wireless microphones, including Madonna who relied on Sennheiser's transmission technology just as she did during her "Confessions" tour. "It's always a pleasure working with the Sennheiser crew," said Jason Kirschnick,

(top) The Brazilian concert took place on the Rio de Janeiro beach

(bottom) Jack Johnson performed in Sydney

a member of Madonna's team with responsibility for wireless technology. "They make my job a little easier." For an artist who, like almost no one else in pop, makes a living from constantly reinventing herself, technical equipment, constancy and reliability are crucially important.

Madonna's co-performers also used Sennheiser microphones and monitor technology around the world: The Police in New York, Rihanna in Tokyo, Sarah Brightman in Shanghai, Jack Johnson in Australia and Joss Stone in Johannesburg all relied on the audio specialist's technical expertise. Sennheiser technology also featured throughout Hamburg's HSH-Nordbank arena. A large majority of the 23 performers used Sennheiser microphones and monitors during their appearances: Shakira had a customized SKM 3072, while most of her co-performers, including Yusuf Islam (Cat Stevens), Roger Cicero and Sasha, opted for the SKM 5200 with the new MD 5235 capsule: a microphone nicknamed "Rockheiser" by rock and pop sound engineers because it is so robustly constructed and produces such excellent sound quality. After all, if you're singing for a good cause, you're going to want to be heard and understood...



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(top) Singer/song writer Corinne Bailey Rae sang in London's Wembley Stadium with an SKM 935, Joss Stone with an SKM 5200 in Johannesburg (l.)



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## With GuidePort in the Tracks of the Scythians

Ice mummies, magnificent horse jewels and tombs filled with gold – the legacy of the Scythians is one of the greatest archaeological sensations of the last few years. In the Martin-Gropius-Bau in Berlin, visitors have been astonished at the culture of the fascinating horsemen shown for the first time in an extensive exhibition. “Under the Sign of the Golden Griffin. The Royal Tombs of the Scythians”, illustrates their history from the early Scythian period in the South Siberian steppes up to the gates of Central Europe and proves the existence of long-distance relationships between Asia and Europe long before the use of the silk route.

The award-winning audio system guidePORT proved to be the ideal companion for following in the footsteps of these nomads. A small receiver and light stereo headphones enabled visitors to move around freely within the exhibition and retrieve exciting information on the culture of the Eurasian horsemen. And should the visitors want more information about a particular exhibit, they simply pressed a number on their smart electronic companion. 200 receivers offered the choice of German, English or Russian to the museum visitors. Six mobile transmitters enabled groups to have their own tailor-made tours. The system was set up by guidePORT partner GPT audio GmbH and the contents were produced by Birge Tetzner from audio Konzept.

Children could look forward to their own audio play which spirited them away into the midst of the mysterious world of the Scythians. On their acoustic journey, they accompanied Fred and his father on their archaeological excavations in Siberia and even got to know two Scythians in person! guidePORT transformed history into fascinating stories and a true multimedia experience.



Exhibits from the magnificent Scythian tombs



© www.amica.de

# The Microphone for Peak Sound Quality

Snow storms, plus freezing cold and thin air – the MKE 400 camera microphone could not have had a more adventurous outing for its first practical application. The microphone – and other Sennheiser equipment – accompanied Austrian extreme mountaineer Gerlinde Kaltenbrunner and her team on a climb of two eight-thousand meter mountains.

Her passion is mountain climbing: Gerlinde Kaltenbrunner has already climbed nine of the world's fourteen highest peaks and is well on the way to becoming the first woman to conquer all eight-thousanders on the planet. The professional mountaineer began her six-week tour of the Himalayas on June 27, 2007, setting her sights for this expedition on Broad Peak (8,051 m) and K2 (8,611 m). She was accompanied by teammate and husband Ralf Dujmovits and – from a distance – two cameramen, who were documenting the climb. Capturing the atmosphere was an MKE 400 mini-shotgun microphone which was well-equipped for adverse wind conditions thanks to its switchable wind filter and a hairy cover. For the commentary, Gerlinde Kaltenbrunner carried a digital recorder for recording herself directly and her husband over a Sennheiser radio link.

Broad Peak was the first destination. On June 28, 2007 the two mountaineers headed for the upper camp over a hanging glacier during heavy snow fall, followed at a distance of around 100 meters by the camera team, who also had to battle gradients of over 45 degrees.

After a good two weeks of climbing and becoming accustomed to the altitude, the team set up camp on July 12 just beneath the summit. The cameramen did a sound test and, thanks to the wind filter and windshield, practically none of the wind noise was picked up. Next day the team again had to battle wind speeds of around 60 km/h – and at temperatures of minus 25 to 30 degrees Celsius. Yet the last phase was equally successful, with the team reaching the top of Broad Peak and enjoying the view over the surrounding peaks. Despite the weather conditions, the MKE 400 performed reliably and with excellent sound quality.

With K2 close by towering into the sky, their next destination lay ahead. So after spending only a few days recovering in base camp, Gerlinde Kaltenbrunner and her three companions set off on the extremely difficult ascent of K2 on July 28. After nine hours Gerlinde was the first to reach the base camp on July 29 from where they would climb to the summit.

The climb was scheduled for the following morning, but Gerlinde and her team's plans were thwarted by poor weather and they had to return to base camp. Sadly a storm also put an end to their second attempt ten days later. But they have perfect recordings from Broad Peak and their attempts to climb the most difficult of all eight-thousanders. The MKE 400 will be back in their luggage again soon, because their next attempt is scheduled for the spring.



© G. Kaltenbrunner/www.amica.de

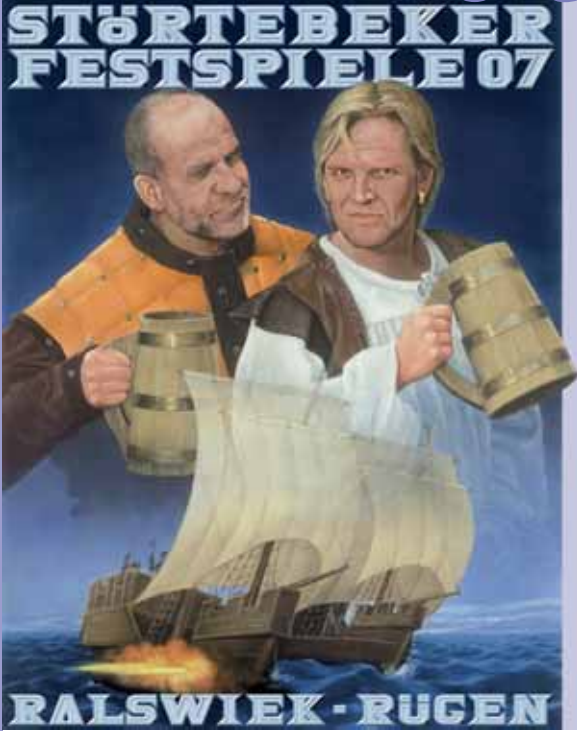
Well-equipped against the storms: the MKE 400 with its hairy cover



© Ralf Dujmovits/www.amica.de

Climbing Broad Peak (l/r). The two cameramen Daniel Bartsch and David Göttler with Gerlinde Kaltenbrunner at a height of approx. 6400 meters. In the background: the K2

# Pirate Treasure



Sennheiser offers technical support to the privateer during his fight against the Hanseatic League at the Störtebeker Festival on Rügen.



This year, for the time being, he kept his head on his shoulders: for 13 years the Störtebeker Festival in Ralswiek on the German island of Rügen has been telling the life story of the legendary German pirate Klaus Störtebeker in lavish productions that in the meantime have been seen by over four million enthralled spectators. The privateer, who went into battle against the “Hanseatic moneybags” at the end of the 14th century and captured numerous ships owned by the Hanseatic League, is considered by many to be a kind of Robin Hood of the seas. According to legend, he owes his name “Störtebeker” to his ability to hold his drink – he is said to have downed a four-litre tankard in one. His end is also bound up in myth: his body was said to have walked past eleven of his accomplices after he was beheaded in Hamburg. He had extracted a promise from the Mayor of Hamburg beforehand that any of the pirates whom their captain was able to walk past after being beheaded would be saved from the executioner.

The performance of “Betrayed and Sold”, which started in the summer of 2007 with established actors like Sascha Gluth, Ingrid van Bergen and Kristina Kraft, marked the start of a new narrative cycle. It focused on the privateer’s early days. When Klaus von Akun returned home in 1397 to Barth in Mecklenburg to find the family property had been burned down and his mother and father killed, the young man seethed with fury and hatred. He embarked on a search for those responsible, along the way meeting the pirate captain Goedeke Michels who was to become a close friend. The bloody legend of Klaus Störtebeker was born.

“Betrayed and Sold” continues the success of the Störtebeker festival, selling over one hundred thousand tickets months before the first performance. Alongside festival director Peter Hick and his team, 120 actors, four ships and three dozen animals, Sennheiser technology and manpower also had a role to play in this great success. This season Sennheiser engineer Volker Schulz, as well as 24 Microport links with EM 1046 receivers and SK 50/SK 5212 bodypack transmitters, two SR 300 monitoring transmitters, one special transmitter, two special Kathrein antennas with special adjustable boosters (the latter manufactured in Sennheiser’s workshop) and dozens of headset mics and clip-on microphones ensured the performances went well, even if the actors and equipment did get extremely wet at times. “The mics got a really good soaking eight or ten times,” recalls sound engineer Wolfgang Rumler. But as soon as they dried off they were back in full working order. And, according to Rumler, they would have been lost without Sennheiser’s Volker Schulz – someone with every reason to carry his head high!

# The Sound of the World

The “Einsiedeln World Theater” is one of the most impressive cultural performances – and one of the greatest challenges for its sound engineers! Whether they were asked to provide gigantic special effects in surround sound or to reproduce the music of portable glass harps, Sennheiser partners Bleuel Electronic brilliantly solved the complex PA problems of this major open-air event.

The historic play has been performed on the baroque monastery square in Einsiedeln since 1924. Enveloped in ethereal sounds or accompanied by blood-curdling roars, the performers crawled, leapt and ran across the square, while Father Kassian stood four meters above the stage on a scissor lift. The 78-year-old monk was the most important actor in the play, as he represented nothing less than “the world”. A monk representing a planet? It seems somewhat odd, and probably is. But in the “Einsiedeln World Theater”, anything is possible. The current production is the most elaborate and expensive one so far. The person responsible for the three million euro production was playwright and novelist Thomas Hürlimann. He not only persuaded Father Kassian and 500 other performers to take part in the spectacle on the monastery square, he also put new individual touches to the show with his impressive scenery: a gigantic red skirt 40 meters in diameter and weighing 180 kilograms.

The play was not only a visual feast, but a spectacular sound event as well – even though an open-air performance like this presented immense challenges for the sound engineers. After all, their job was to produce a clear, natural sound at a pleasant volume on a huge square in front of the monastery. What is more, the audience had to be able to see which particular actor was speaking while the choir was singing or the musicians were playing.

The solution was provided by the Timax system, a computer-controlled sound system that created an exact acoustic replica of the action taking place on stage. “It really was possible to locate the positions of the actors on stage even with your eyes closed,” said Hans Jürg Baum, editor of av guide.ch. Such an impressive sound experience was achieved only after intensive planning by the companies – above all Bleuel Electronic. Among the equipment organized by the Swiss Sennheiser partner was a PA system from Klein + Hummel consisting of 65 loudspeakers, which allowed them to reproduce the entire action on stage in perfect surround sound.

A 14-meter-long truck was needed to transport almost three tons of sound equipment into the small monastery town. Loudspeakers were suspended at dizzy heights above the square, while more than 30 amplifiers and the receivers for the 62 wireless Sennheiser microphones were positioned beneath the grandstand. The wireless microphones allowed the musicians to play unusual instruments such as portable glass harps. In addition, forty HSP 4 headset microphones ensured that the actors had maximum freedom of movement. The sound, light and directing staff also relied on Sennheiser Communications technology: they communicated via DW 800, a wireless intercom system with a range of about 100 meters.

“Acoustic sensitivity is particularly important in the presentation of such a spectacular play. We are therefore very happy to have found a partner in Sennheiser that not only offers state-of-the-art technology but also many years of experience and tremendous commitment,” said director Volker Hesse in praise of the company’s valuable contribution to the highly successful event.

## “The Einsiedeln World Theater”

...took place from June 22 to September 8 on the square in front of the monastery in Einsiedeln. The script was written by Thomas Hürlimann, the most famous Swiss playwright and author of today. It is based on the play “The Great Theater of the World” by Pedro Calderón de la Barca, which was originally written in the 17th century and is considered to be just as significant as Shakespeare’s “King Lear” or Goethe’s “Faust”.



# The Treasures of the Topkapi Palace

The first “museum visitor” to see the riches of the Topkapi palace was an English ambassador for whom Sultan Abdülmeçid opened the doors of the treasure chamber in the 19th century. Over time, it became the custom to show high-ranking foreign visitors the most beautiful pieces in specially appointed rooms. This continued until 1924 when the Topkapi seraglio was finally opened to all visitors.

The Topkapi seraglio is the most visited museum in Turkey today: each year around four million visitors from all over the world come to see the palace city and its rich collection of Islamic art. Immeasurable riches await visitors: fine jewellery, richly decorated practical items, a valuable collection of clothing and the ruby and pearl-bedecked ebony throne of Shah Ismail. And now they can learn all about the palace museum in an even more exciting way – using a guidePORT audio guide.

Two hundred receivers have been in continual use since the start of the winter season. Sennheiser’s Turkish distributor Metan and its IT partner Ipek Bilgisayar set up the system for seven languages. Ten automatically triggered commentaries bring the Sultan’s era to life; other descriptions can be retrieved by visitors as desired. Highlights for tourists include the Topkapi dagger, set with diamonds and precious stones, and the 86-carat Spoonmaker’s diamond, as well as illuminated manuscripts and prized wall tiles – not forgetting the palace kitchen that houses one of the largest collections of china in the world. 100 more receivers are available for the harem section of the palace. This beautifully preserved complex comprises 400 rooms, including the Sultan’s private rooms and the magnificent apartments of the Valide Sultan.

Owing to its huge success, Metan will be extending the system during the heavily visited summer months – allowing even more visitors to experience the world of the Ottoman rulers in all its splendor.





### The Topkapi Seraglio

Construction of the Topkapi seraglio began in 1465 under Sultan Mehmet II Fatih (“the Conqueror”). The palace was the Sultans’ official residence and seat of the government of the Ottoman empire. It originally covered some 700,000 square meters and at times housed over 5,000 people. The buildings were continually extended and extensively renovated, for the last time in the 19th century. Sultan Abdülmecid finally moved into a new residence in the mid-19th century. The Topkapi palace might no longer have been the Sultan’s residence, but it lost none of its importance.



View of Istanbul from the balcony of Topkapi Palace

# Firmly in the Saddle:

## Sennheiser Technology is a Winner at the Burghley Horse Trials

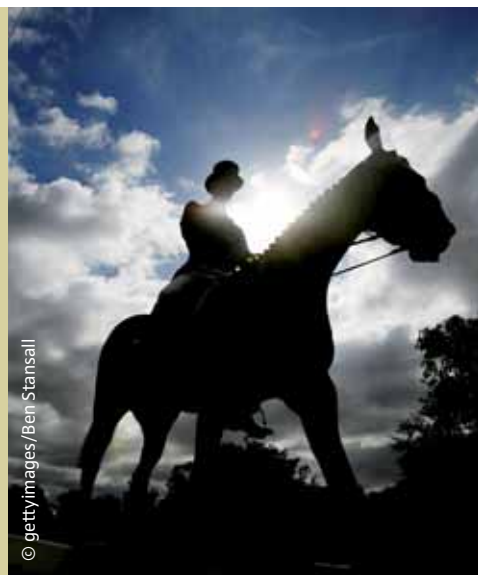
**Perfect sound at Britain's top riding event.** With horses galloping around the course, interim results being announced from loudspeakers and a competitive mood in the air, the Burghley Horse Trials in Stamford is one of the most famous cross-country events in the world. With over 150,000 visitors, it is also one of Britain's biggest sporting occasions. In late summer every year since 1961, the best riders come here from all over the world to compete in front of an international crowd. In the 2007 trials, Sennheiser audio technology was also involved, not just covering the cross-country course, but also high up on horseback in the show-jumping and dressage arena.

One of the main challenges faced by the audio team is the size of the competition field which comprises the cross-country course and a 10,000-seat arena. Announcements about the numerous performances, competitions results, prize ceremonies and safety bulletins also have to be broadcast. To do this Chubb and his team, with the support of chief engineer Andy Lillywhite from Sennheiser UK, zoned different sound systems together. In the cross-country area alone, over seven kilometers of speaker runs were laid.

The biggest technical problem posed time and again is the size of the dressage arena: "Our main problem at Burghley," said Chubb, "is this arena that we have to cover, that's 125 meters square. From corner to corner that's a really long throw. We've looked after the audio at Burghley for fourteen years and in the past achieving that range has been a challenge. But I spoke to Andy Lillywhite at length about it before this year's event and he put together a clever diversity system for us, just using standard EM 550 receivers with paddle antennas." To increase the range, they used two pairs of these aerials with AB 1036 amplifiers, each 50 meters from their control point. Along with the EM 550 twin receivers, they used SKM 535 handhelds and SK 500 bodypacks with HSP 2-ew headset microphones. Chubb was delighted that transmission worked impeccably: "Just to give one example, on the second day of the event a dressage expert conducted a master-class in the arena and it was absolutely packed. He put on a Sennheiser HSP 2 and did a 45-minute presentation on horseback with no cutting out or hissing. The clarity was faultless. We had full signal for the entire duration of the display."

Chubb was also won over by Sennheiser's technical expertise: "I approached other microphone companies, but I didn't get anything like the good advice I got from Sennheiser." Chubb has long been a fan of Sennheiser technology and quality: "It's tough. We've got an ancient G1 Series wireless mic system. It's almost ten years old and still going out every single day. It never lets us down."

As well as the Burghley Horse Trials, Show Hire Ltd. also provides the audio at the Badminton Horse Trials, another of the UK's highest-attended sports events, using Sennheiser technology for perfect sound. And as a sound expert at the two biggest equestrian events in Britain, Chubb already has his sights firmly set on his next goal: "We'd love the opportunity to take our equipment and our know-how to provide the audio for the equestrian events at the 2012 Olympics. If we do get the chance I know I'll be straight on the phone to Andy Lillywhite at Sennheiser."



Riders and horses are really put to the test during this varied three-day event featuring show-jumping, dressage and cross-country elements. Course designers also come up with new refinements each year to present participants with tough challenges. And it's not just the riders who face a hard task every year – so do the people responsible for optimal sound quality during the event: Nick Chubb and his team from Show Hire Ltd.



# Carmen

## Uses Wireless Technology from Sennheiser

Have you ever packed a basket and headed for the opera? This has become a wonderful tradition enjoyed by thousands of opera fans in Denmark's Hedeland amphitheater. Before the evening's world-class performances, guests can picnic in style on their lush green 'theater seats'.

Open-air opera without the wonderful acoustics of an auditorium presents a major challenge for audio technology, which is why Claus Pedersen initially had mixed feelings when the Hedeland Theater asked him to manage the sound design for Bizet's "Carmen". The freelance sound engineer with Livemix describes Carmen as "a very exceptional job, because the dialog between the songs and the choruses plays such an important role."

Director Lars Rudolfsson and his assistant director Garnett Bruce wanted soloists and choruses to be wireless for the open-air performances. The performers should be able to move around perfectly freely without being restricted by technology, in order to make the performance even more dramatic than conventional productions.

"One of the things that worried me most from the start of the project was the risk of noise from a malfunctioning wireless microphone that would then be transmitted to the soloists' wireless in-ear equipment. Such an event early in the process could result in an opera soloist completely losing their trust in the technical production, leading to a negative atmosphere spreading throughout the production at lightning speed," explained Pedersen. "So I sent a request for 40 wireless microphones for soloists, the children's chorus and adult chorus to ETP, the theater's technical supplier, and asked for support."

A few hours later he got his reply. ETP, in conjunction with Lydfabrikken and sound designer Anders Stadelund, were offering a complete Sennheiser solution – with full support provided by Sennheiser Nordic.

"The system was amazingly silent. In fact, the noise levels were so low that I sometimes began to doubt whether the belt-pack was even turned on when listening in with headphones to make sure everything was set up correctly. From the time that I was given the keys to the system upon set-up until the conclusion of the third act in the final performance I never experienced even a hint of a problem. It was an indescribably secure feeling to go into a cue that opened 40 Mikroports at once."

Claus Pedersen already knows which wireless equipment he will have on his wish list for next season: "After experiencing how trouble-free such a large and complicated assignment like 'Carmen' can be managed with the optimal equipment, it would feel like a serious step backwards and reckless to use anything other than Sennheiser for similar future assignments."



Reliable reception with the EM 1046 receiver system



Photo: Olivier Samson Arcand - Costume: Marie-Chantale Vaillancourt - © 2007 Cirque du Soleil inc.

# ™ KOOZA

Written and directed by David Shiner, KOOZA is the latest *Cirque du Soleil*® touring show – and a return to the origins of *Cirque du Soleil*.

KOOZA is a return to the origins of *Cirque du Soleil* that combines two circus traditions – acrobatic performance and the art of clowning. The show highlights the physical demands of human performance in all its splendor and fragility, presented in a colorful mélange that emphasizes bold slapstick humor. KOOZA had its world premiere under the Grand Chapiteau in Montreal in May 2007 and is currently touring the USA. Several of the 50 performing artists have received awards from important circus arts competitions, notably in juggling and trapeze. The show presents an unprecedented approach to the High Wire and a breathtaking Wheel of Death – an act that *Cirque du Soleil* has never before presented under the big top.

## An interview with Leon Rothenberg, Co-Sound Designer of KOOZA.

### KOOZA plays under the Grand Chapiteau – what are the special challenges for the sound?

The tent is a highly reflective, plastic-coated, weather-proofed canvas – sound bounces off it like a super bouncy rubber ball. The speaker focus has to be very tightly controlled to keep the sound on the audience and nowhere else. So the speakers are really focused right to the edge of the seating sections. The top of the line arrays just sort of hits the tops of the heads of the people in the back row, and we try and keep it off of the slope ceiling of the tent as much as possible. I mean you're going to get a bounce anyway, you can't avoid it, it's just the nature of it. You just try to minimize it as much as possible. What we're trying to do in a show like this is to give everybody a little bit more than what they would expect. You want to try to exceed expectations and create a sonic experience that fits the show, that draws you into it. We hope that people will say "Wow, it was really great; we felt a part of the show!" And we try to use the sound to do that.

### Who of the artists are miked?

The clowns are miked. There are three main clowns and a pickpocket. He picks somebody out of the audience and steals everything from them. And there's a jack hammer which is miked with an MKE 2 *platinum*. The two singers are miked. Teresa is more sort of a soul singer, and she's using an SKM 5200 handheld with the Neumann capsule. She's got two big numbers, a show-stopper song and dance at the top of Act 2 and a great ballad at the end, during the Chinese Chair act. And then Tara, the Indian singer, is miked with the SK 5212 and a boom mike. Oh, and there's a percussion performance at the top of Act 2, before the Wheel of Death. There's a skeleton costume, which is a percussive costume, and the percussionist is miked on his wrists; he's got two mikes there.

OFFICIAL TOURING SHOWS SUPPLIER  
CIRQUE DU SOLEIL®

Sennheiser was a proud official supplier of KOOZA when the show debuted and toured Canada in 2007

**You're also using Sennheiser wireless monitoring systems. Who do you use the in-ears on?**

A lot of times in *Cirque du Soleil* shows the musicians move around, they come down on stage; they come out into the audience, and they come out front. So any time the musicians are moving around, we have in-ears for them. For example, the drummer plays a drum solo down on stage, and he uses the wireless in-ears for that. Teresa uses the wireless in-ears because she's moving around. Tara has a wireless for the whole show as well. And then during the big song and dance number at the top of Act 2 the main dancer's wearing in-ears so he can hear the music better. He asked for them so he can keep in time.

**What's the frequency situation like? Were there any problems in finding free frequencies?**

No, because you did it! Sennheiser is an official supplier of KOOZA, and does the frequency coordination for us. Sennheiser also re-tunes or trades up our equipment when the show goes to Europe or Asia which is part of the reason why I decided to go with Sennheiser for this one – it was a good fit for the show. The thing about a touring show like this is that you're outside. You're often near an airport or near transportation hubs because you are on a parking lot, and there's a lot of RF flying around. So you really have to limit your wireless to what you need. We had a meeting months ago where we funneled the wireless needs into just the minimum – because too many wireless just becomes a nightmare when you're moving all over the world and you got a show that depends on it. It becomes very difficult to do outside.

**What about the Sennheiser wireless equipment for KOOZA?**

For this show it was the right choice, also based on the service that was going to be provided by Sennheiser. It was a lot more expensive than what we were looking at initially and it was a risk also to use a new product which was the SK 5212. I certainly did a lot of asking around

before I made that decision. I knew some other shows where people just started using them and I talked to them. "Tell me about the battery life, tell me how it sounds, tell me everything! What's the thorn in your side with this new system? What do you love about it?" And I got good feedback all around, so, even though it was a lot more money it was the right thing to do, because of the service, because of the sound and everything. I'm glad I did it. You never know beforehand what the right choice is going to be – you never know; from year to year one company's doing this and another company's doing that and sometimes there's a clear choice and sometimes there's not – and sometimes this choice changes. So you never want to be locked into 'this is how I do it every time'. But I am very happy with the 5212. The first time we turned them on – great, fantastic. So you're on top. For now!

**Comparing KOOZA with other *Cirque du Soleil* shows, what was different, special for this show?**

Well, I don't know about different, but what was special for me about this show was that the creative team was really great, and got along very well. It really felt like we were a bunch of friends working on a small show that we were going to put on for a bunch of friends, except that it was *Cirque du Soleil* and it was an enormous undertaking! And David Shiner, the director, was always very open to ideas, always wanted to hear ideas, wanted you to say what you thought honestly. You always knew where you stood, which is good. You either keep going in that direction or you throw it away and try something else. And there's a lot of sound too besides the music, there's a lot of sound effects and ambiances that play a major role in the soundscape of the whole show and the soundtrack. David comes from a clown background, so everything has a sound effect with it.

**What is your personal favorite act in the show?**

They all terrify me. You know, it's hard to say which is a favorite. The 2nd act opens with the Wheel of Death – it's a fantastic opening, the 1st Act closes with the High Wire, it's incredible. The show opens with the contortionists and it's a really amazing style of contortion act – very active, very dynamic and moving. The Chinese Chair is just beautiful. We have one of the best jugglers in the world. How do you compare when you have such a high caliber of things? The teeterboard at the end – they're jumping off a seesaw on stilts. It's – wow!

[\[www.cirquedusoleil.com\]](http://www.cirquedusoleil.com)



Leon Rothenberg, co-sound designer of KOOZA

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# Reaching for the Skies

Sennheiser Canada supports the Dreams Take Flight charity



Excitement was truly in the air in the hangar in Toronto because over 400 children were shortly to board a plane and take off for an unforgettable day in Disneyland Florida.

The aim of Dreams Take Flight is to bring joy and laughter into the lives of physically, psychologically and socially disadvantaged children. Illness, poverty and other difficulties mean that many children all over the world have a very hard life. In Canada and a few cities across the USA, Dreams Take Flight enables some of these children simply to fly away and leave all their cares behind them for a day. The charity was set up in 1989 by Air Canada employees, and just one year later the first "Dreams Take Flight" aircraft took off from Toronto. Since then, more than 10,000 children go on this exciting trip every year. No expense is spared by teams in Toronto, Vancouver, Calgary, Edmonton, Winnipeg, Ottawa, Montreal, Halifax, Los Angeles and Tampa, who lovingly organize this very special day. Air Canada provides the planes for the dream trip and the project also receives financial support from sponsors and private donors.

Last May the plane rolled onto the runway in Toronto with its small passengers aged between six and ten. There were big celebrations in the hangar before take-off and Sennheiser teamed up with BAND WORLD to provide a full PA system for the lively party. Shortly before take-off, the audio specialist gave all the children lanyards and glow pens so they could get autographs from the stars and friends flying with them. The 30 celebrities were also given CX 300 headphones in thanks for their support. And it was not just local stars who had to write their autographs: Sennheiser's Francine Mercier and Anne Joyce, Sennheiser Canada's Marketing Director, were also on board. They were chosen to accompany two groups of children on their exciting journey and make sure that every child felt safe and secure – not just on the plane, but on the roller coaster ride and when they met Mickey Mouse in Disneyland too. "This is a memory I'll carry with me always," said Mercier. "Seeing these children so happy was an unforgettable and very moving experience."

Sennheiser first supported the charity in Toronto back in 2006. The organization had had its microphones stolen and Sennheiser stepped in at short notice and offered to replace the equipment for free. In return, President Jean Langlais and Tim Mell, Director of Aviation, were invited to a take-off party at the airport. Impressed by the organization's hard work, they decided to continue to support Dreams Take Flight, much to the delight of the organization's Executive Team Leader Dennis Hobbs. "A day like this would not be possible without the help of organizations like Sennheiser," said Hobbs after this year's event. "Sennheiser has made a major contribution to making the day something very special for these children. They all come from difficult backgrounds, none have parents and most don't have the means to make their small dreams and wishes come true. Sennheiser's support changes the way these children see the world. Dreams Take Flights is delighted to have Sennheiser Canada on board."



© Adriana Zehbrauskas/Polaris/StudioX

# Frida Kahlo 1907.2007

The Palacio de Bellas Artes in Mexico City

Frida Kahlo has been everywhere recently, even on T-shirts and tequila bottles, because Mexico City has been in the grip of Frida Fever over the past year. The Mexican painter – who was an international star in her own lifetime – was a source of admiration because of her turbulent and rebellious life. To mark the 100th anniversary of her birth, the Mexican capital celebrated its most famous female artist with the largest Frida Kahlo exhibition ever. And Sennheiser was there; guidePORT accompanied visitors from all over the world through the extensive collection and life of this popular artist.

The touring exhibition 'Frida Kahlo 1907-2007' opened last June in Mexico City's Palacio de Bellas Artes (Palace of Fine Arts), where more than 100 photos, 50 letters and an extensive collection of the artist's paintings were on display. Particular emphasis in the retrospective has been given to the unknown aspects of this painter who was to become a 20th century icon. Also featured alongside the valuable works of art was the guidePORT visitor information system. The Sennheiser receivers and headphones allowed visitors to move freely around the exhibition and choose from a variety of languages to learn more about the artist's life and individual exhibits. "In all, 40 EK 3000-0-1 pocket receivers with 80 minutes of memory and 40 ultra-light GP3 headphones were available to ensure visitors could get the right information in the right place," explained Julio Reséndiz Ortiz, Technical Head of Sennheiser's distributor Gilsama. "Four GP L 3000-10 charging units ensured that the receivers were always ready for use."

After the opening months in Mexico, the touring exhibition moved across Latin America and finally reached North America. After stopovers in Monterrey and Minneapolis, the exhibition is currently in Philadelphia at the Museum of Art. The last stop will be San Francisco's Museum of Modern Art from May onwards. While the collection is touring America with loans from the Frida Kahlo museum Casa Azul, celebrations in honor of the artist are continuing in Mexico. Last July, the special exhibition 'Tesoros de la Casa Azul' (Treasures from the Blue House) opened in the house where Kahlo lived with Diego Rivera. This exhibition shows previously unreleased drawings, documents and personal effects belonging to both artists which were kept locked away at Rivera's request since Kahlo's death in 1954. In total the collection contains 22,105 documents, 5,387 photos, 179 items of clothing and more than 6,000 books and magazines. The museum rented 20 additional guidePORT receivers for the special exhibition. The system has already been used here successfully since 2004, enhancing the museum experience for foreign visitors in particular who make up around 85 per cent of the people who come through the museum's doors. Julio Reséndiz Ortiz: "guidePORT has given us a high-quality multi-lingual solution that more than meets the museum's complex needs."



© gettyimages/Juan Barreto

# MKH 8000 Series Scores Points on the Baseball Field and with Legendary Mixer

Since its release, the MKH 8000 Series has captured the sound and affections of master film scoring mixer Bob Fernandez while also lending incredibly natural sound to *The World Series*. Fernandez, a legendary audio guru in the cinema world, relied on a pair of MKH 8050 supercardioid condensers for box-office blockbuster “*Spiderman 3*”. He was blown away by the detailed, warm sound the mics conveyed, so he reached for the MKH 8000 series once again for the recording of Joseph Vitarelli’s inspired score for the much anticipated HBO mini-series, “*John Adams*.” The seven-hour epic series, starring Paul Giamatti, is based on David McCollough’s Pulitzer Prize-winning biography and follows the most important years of the second American President through the revolution and the birth of a nation.

Fernandez chose a pair of MKH 8040 cardioid mics to add warmth and depth to the score’s violin section. “If I had more of them, I’d have used them in other places as well,” he laughed. “The 8040 has an amazingly low noise floor; even when my preamp gain was raised for quiet passages there was no noise. The sound itself is warm and pleasing, and the extended frequency response makes the low-end and high-end sound effortless and natural.”

“Another nice characteristic of the MKH 8040 is its small profile,” said Fernandez. “I can put it up without affecting the musicians, so they’re not looking at a big mic. That gives them an unrestricted and undistracted view of the conductor, which is very nice.”

Additionally, Fernandez enlisted the MKH 8000 series – along with several other Sennheiser and Neumann mics – for his prestigious Scoring for Motion Pictures and Television (SMPTV) program teaching sessions for aspiring film and television composers at the University of Southern California’s Thornton School of Music. The students paid special attention to the magnificent effects the MKH 8000 series had on the violins and harps during their scoring exercises.

In the meantime, baseball enthusiasts experiencing the 5.1 broadcast of the Rox and Sox on Fox in 2007’s Fall Classic may have noticed that the sound of the ballpark was so realistic that it transported them right into the bleachers at Coors Field and Fenway Park. That is due, in no small part, to audio mixer Joe Carpenter adopting the MKH 8000 series microphones for critical field and crowd coverage during the Major League Baseball World Series between the Colorado Rockies and the Boston Red Sox.



Bob Fernandez in the studio

Carpenter reported that, while he might typically use a narrower pattern mic, the omnidirectional MKH 8020 was better suited for pairing with the parabolics. He also noted that he was highly impressed by the ability of the MKH 8020 mics to handle high sound pressure levels. The sound of the crowd was captured by MKH 8040 microphones in center field. They improved the sound of the crowd in the surround channels and had the additional advantage of improving the downmix to stereo, says Carpenter. He typically notches out crowd noise in the 710 Hz to 820 Hz range from the parabolic mics positioned behind home plate in order to focus on the crack of the bat and the pop of the glove in the front channels, he says. “But I also want there to be that nice, bright, big crowd bed in there. I use those cardioids, which sound so warm, and I brighten them up a little bit. Letting the encoders naturally do the downmix, those mics spill back into my front channels and also brighten up my rear channels, which creates a nice downmix.” Not only the players are true experts...



## Sennheiser Speeds Ahead

### The Sennheiser Ric Shaw Performance Team wins four trophies at Targa Tasmania

Targa Tasmania is one of the most demanding road races in the world. More than 2,000 kilometers in six days over a total of 45 stages that get harder by the day – joining competitors on the start line of this fast-paced rally was the Sennheiser Ric Shaw Performance Team.

Each April the world's best drivers compete against each other on Tasmania's streets and mountain passes, challenging the best in their vehicle class. It's not just for sports cars either: touring and vintage cars set off on the route across the Australian island too. "The appeal is having unusual fast cars competing against each other in the toughest conditions," explains Bob Sloss, Managing Director of Sennheiser partner Syntec International Ltd. There is no prize money for winning the rally; it is purely the excitement of taking part in the race, mastering the demanding legs and possibly managing to grab one of the coveted 'Targa Trophies' that entices around 300 participants from all round the world to the start line every year. They include former world champions like Sir Jack Brabham, Walter Röhrl and other heroes from the world of motor sport. The idea of not just awarding trophies for the fastest in the individual vehicle classes, but also to every participant who goes through the 45 race stages in the time specified for their vehicle, comes from the Targa Florio. The name and concept behind Targa Tasmania have also been adopted from the famous Sicilian car race.

The performance of the Sennheiser Mazda RX7 Team on Tasmania's streets last year, with Ric Shaw behind the wheel and James Parish as co-driver and navigator, was outstanding. The team's success began even before the race began, when the starting line-up for the actual rally was being established on the first event day. Shaw and Parish won first place and therefore pole position in the "Modern" race category. In the end, the Sennheiser-backed team didn't just take home the trophy for successfully completing all legs: they won a total of four awards, one of which was for being winner in their vehicle class over the whole distance. "It was a little easier for us this year," Shaw commented about his excellent overall time. "Unlike previous years, we didn't have to cope with snow on the mountain stage, so we were able to reach top speeds of 235 km/h."

The vintage cars took things a little slower on the very scenic but demanding route. Since 2003, participants can also take part in the rally in the "Vintage" category at normal road speed, so the collectors' pieces can be admired throughout the whole field instead of just bringing up the rear at the race. The aim of the event is to bring together an exclusive selection of various types of vehicles and engines representing motor sport from 1900 to the present day. On the start line in 2007 were a Lamborghini Diabolo VT, a Porsche 911 Turbo, a Jaguar SS 100 and a Rolls Royce Silver Ghost. The sports car entered by the Sennheiser Ric Shaw Performance Team also attracted the crowd's attention: "Our Mazda RX7 Twin-Turbo Rotary was admired by plenty of people because it was the only one of its kind among all the entrants," said Shaw delightedly.

The whole of Tasmania is gripped by race fever during Targa Tasmania: more than 200,000 enthralled fans line the route every year to marvel at the unusual vehicles and shout encouragement to their drivers. International visitors and locals sit eagerly in the designated spectator zones or simply on folding chairs, blankets or bonnets of cars parked on the side of the street. An estimated 480 million plus viewers watch the race on TV. "Targa Tasmania is more than a car race," says Bob Sloss. "It is a unique event which unlike many other races is freely accessible by the public and thrills thousands of people along the route. Sennheiser is obviously glad to take part." Some towns and places along sections of the route are even stop-offs to ensure drivers have something to eat and drink. In total, more than 3,000 volunteers help out at the rally, making it a unique experience for both visitors and drivers. It definitely was for the Sennheiser Ric Shaw Performance Team: "We're already looking forward to next year," beamed the driver after the race.

# Timbre Rocks

with Sennheiser Microphones and  
Klein + Hummel Sound

Live music and blue Sennheiser cocktails played their part in celebrating the announcement made last summer by Swee Fook Ho, Managing Director of Sennheiser Asia, that Timbre is now an official Sennheiser "Live Venue". More than 100 partners and audio professionals from Thailand, the Philippines, Malaysia, Cambodia, the Maldives and Singapore joined in the celebrations.

There are two Timbre venues in Singapore – true oases of calm in the midst of the city-state's hustle and bustle. Both restaurants actively support the local music scene, with ambitious up-and-coming artists and established bands going on stage in both music clubs every day. No wonder, because for co-owners Danny Loong and Edward Chia, music is one of the most important things in life. Danny Loong is band leader and founder of "Ublues", one of Singapore's most successful bands which has made a name for itself at blues festivals in Asia, Australia and the US. He is also the founder and one of the directors of an artist management company, and on the board of youth organization "Arts for Us All" which was set up by Edward Chia. The charitable association, of which Chia is President, promotes music and art by young people in Singapore and organizes successful charity concerts, jazz events and music-based flea markets.

As an official Sennheiser music club, Sennheiser has provided Timbre with equipment worth around 15,000 euros. Timbre is the first live stage in Singapore to work with Klein + Hummel's Pro X series. The PA system, consisting of Pro X 12-60 three-way loudspeakers and Pro X Sub L subwoofers, provides full and perfect sound. The equipment is combined with microphones from the evolution e 900 stage series and evolution wireless systems.

"Encouraging the local music scene is something very close to our hearts in all Sennheiser markets," said Susanne Seidel, President of Global Marketing, during a symbolic handing-over of the check a few days after the official announcement. "We are delighted to have such an extraordinarily motivated partner alongside us in the form of Timbre. Danny and Edward also support young talent, giving them the chance to work with professional equipment and appear in front of audiences with the very best sound quality."



A top-class venue for Singapore's music scene: the Timbre

A symbolic check for Danny Loong and Edward Chia, co-owners of the two Timbre music bars, from Susanne Seidel, President of Global Marketing, and Swee Fook Ho, Managing Director of Sennheiser Asia (l/r)





## New “Accessories for the Ears”

With mobile music as popular as ever, in-ear headphones are increasingly becoming style and fashion accessories. In keeping with this trend, the new Sennheiser models not only offer perfect sound, they also look extremely stylish. Which means that music fans are now spoilt with choices between eye-catching colors and classical elegance.

Sennheiser’s new MX models with their powerful, bass-driven stereo sound are available in high gloss black or white as well as in fresh aqua, elegant Bordeaux red or luxurious silver or titanium colors. Users also have a choice of wearing styles. They might prefer earphones with an asymmetrical cord, as in the MX 160, MX 260, MX 360 and MX 460 models. Or they might go for lanyard earphones like the MXL 560 with their removable strap for an MP3 player or mobile phone. For those who like practical solutions, the MX 660 has an integrated volume control and, like the MXL 560, comes complete with a carrying

pouch and a cord winder. The ideal partner for a mobile phone is the top-of-the-range MX 760 with its short cord. An extension cable, carrying pouch and cord winder are included as standard.

**Powerful bass and excellent noise attenuation –** these are the benefits of ear-canal phones, which fit directly into the ear canal to keep out disturbing ambient noise and allow the bass sounds to fully develop. The new CX 400, CX 500, CX 55 Street and CX 95 Style as well as the CXL 400 lanyard earphones are a pleasure for both the ears and the eyes. To ensure that the earpieces are always ideally positioned in the ear, all models come with ear fit adapters – and a carrying pouch for storage when the music stops.

The CX 400 provides a powerful, balanced sound for anyone on the move. Its short cord is ideal for mobile phones and MP3 players with a remote control. An extension cable, a cord winder and a cable clip are included. The CXL 400 lanyard version also features a safety catch that opens automatically if too much strain is placed on it.

The CX 500 has the benefit of a wider frequency response, an integrated volume control and special ear adapters for an even better fit. A cable clip and cord winder are also included.

# Huge Sound for Hobby Film Makers

## Add fantastic sound to your videos with the MKE 400 camera microphone

An ideal complement for digital camcorders: the MKE 400 is a compact camera microphone weighing just 60 g that outshines the competition in more areas than just size. With its switchable sensitivity and a filter against wind noise, the robust mini shotgun microphone is best equipped for all types of (outside) use. With one AAA battery the MKE 400 delivers over 300 hours of sound. An LED warns the user of low battery voltage to avoid nasty surprises during filming, and a robust metal case and a microphone shock mount ensure that first-class sound is recorded without any handling noise.

### The sound you want instead of wind noise

Due to its very distinct directivity (super-cardioid/lobar), the MKE 400 records the sound precisely from the direction in which the camcorder is pointing. To avoid wind noise that spoils the recordings, the permanently polarized condenser microphone is fitted with a switchable wind filter that eliminates low-frequency noise. The MKE 400 also features a vol+ /vol- key which not only adjusts the microphone sensitivity to the camera type used, but also serves to increase the range of the shotgun microphone and reliably record soft sound sources. "For users who prefer to film outdoors, we also offer a professional accessories set", said product manager Astrid Vettin. "This includes a hairy cover, familiar from large media reporter microphones, and a 3.5 mm jack to XLR adapter so that the microphone can be used with larger cameras."



MKE 400

### Simply attach and start filming

The camera needs only a shoe mount and a 3.5 mm microphone input to start filming with the MKE 400. For cameras without an accessory shoe, shoe adapters are commercially available that enable the microphone to be fitted onto the side of the camcorder. The MKE 400 comes complete with a foam windshield and battery – ready to go "on-air" immediately.



MX 560



CX 500

As a new member of the Street series, the CX 55 offers an outstanding bass experience and is light years ahead with its special cord routing: a small angle arm ensures that the cord is routed elegantly to the ear from the front. The elegant Style line also has a newcomer: the CX 95 Style with its short cord is ideal for mobile phones or MP3 players with a remote control. An extension cable is standard. These ear-canal phones have a very balanced sound and detailed resolution.

### The new models and their colors at a glance:

- MX 160: High gloss black
- MX 260: High gloss silver
- MX 360: High gloss black, high gloss white
- MX 460: High gloss black, high gloss white
- MX 560: High gloss black, high gloss white, high gloss silver, Bordeaux red, aqua
- MXL 560: High gloss black, high gloss white, Bordeaux red
- MX 660: High gloss black, high gloss silver
- MX 760: High gloss black, high gloss white, titanium
- CX 400: High gloss black, high gloss white, high gloss silver, Bordeaux red, aqua
- CXL 400: High gloss black, high gloss white, high gloss silver, Bordeaux red, aqua
- CX 500: High gloss black, high gloss white, titanium
- CX 55: in Street design, reflective blue casing
- CX 95: in Style design, black and metallic Champagne

# New Line of Boomsets for the Professional Pilot

Airline pilots all over the world depend on Sennheiser aviation headsets for safe and crystal-clear communications. The new HME(C) 46 Series with peak level protection technology combines proven functionality with the latest audio technology and maximum user comfort.

The right headset for every use: the new 46 Series includes both passive models (HME 46 variants) and ANC models with Sennheiser's proprietary NoiseGard™ system (HMEC 46 variants). The lightweight headsets are ergonomically designed with a two-piece headband for a secure fit and extremely comfortable ear pads. They feature separate in-cable volume controls for each ear and a flip-away headphone system for easy communication in the cockpit.

In the HMEC variants, the NoiseGard™ system provides hearing protection by reducing high-level continuous noise in flight by about 50 percent, such as noise from slipstream and

engines. Both the HMEC 46 and the HME 46 models incorporate peak level protection – an innovative technology that gives the pilot reliable protection from excessive volume peaks of more than 110 dB. The 46 Series features a quickly and easily exchangeable single-sided cable, enabling the same headset to be used in aircraft requiring different connector types. The ETSO and TSO approved headsets are available with all common plug configurations and panel or battery powering.

Jörg Buchberger, Sennheiser's Industry Team Manager for Aviation, explains, "These aviation headsets protect pilots from harmful and stressful noise and offer them highest quality communications. They can concentrate on what really matters – the flying."



## Sennheiser CX 6 Travel Ear-Canal Phones

A tiny addition to your luggage – a huge addition to your listening pleasure: with the CX 6 Travel you can while away the hours on long journeys with really good music or exciting films. Powerful bass and detailed sound reproduction have been combined with a high degree of passive attenuation in a compact ear-canal headphone, guaranteeing your listening enjoyment on planes and trains.

Being a real globetrotter, the CX 6 Travel comes loaded with everything that a regular traveler needs: a double mono adapter for in-flight entertainment systems, a cable clip, a hard transport case and adapter rings in S, M and L to perfectly adapt the earphones to the auditory canal. The CX 6 Travel will be available in stores beginning June 2008.



# Professional Sound for all Music Enthusiasts

This summer will see the launch of Sennheiser's Professional headphone series – a range that benefits from all the stage experience Sennheiser has acquired over the years. The ear-canal phones IE 6, IE 7 and IE 8 offer the greatest attenuation with unparalleled sound quality in the portable sector – an advantage for anyone who likes to listen to music with as much precision and detail as possible.

The acoustic concept behind the IE 6, IE 7 and IE 8 is something special: they use dynamic transducers that cover the entire frequency range with one system. This means distortion is minimal, even with high sound pressure levels. Good attenuation enhances their precise reproduction. All models have Kevlar™ reinforced cables and are made from durable materials. Their professional accessories include ear adapters in different sizes, a transport case, a small cleaning tool and a cable clip.



## IE 6: For bass enthusiasts

The IE 6 offers a huge amount of bass for listeners of contemporary rock or pop music. With passive attenuation up to 20 dB and a frequency response of 10 to 18,000 Hz, the silver and black ear-canal headphones take this very accurate and defined sound right into your ear.

## IE 7: The neutral offering

With a frequency response of 10 to 19,000 Hz and attenuation up to 20 dB, the black IE 7 produces a balanced, natural sound. Particular importance has been attached to good reproduction at the top end.

## IE 8: For sound techies

With the top-of-the-range IE 8, you decide for yourself how much bass your ear-canal phones should reproduce. A small adjusting screw on the black headphones enables you to regulate the bass response on the IE 8 to suit. The frequency response ranges from 10 to 20,000 Hz, and passive attenuation can be up to 26 dB. Their transport case additionally contains some small replaceable pads with a drying agent to protect the earphones from any moisture.

# One for All and All for One

When you visit a museum, do you want to be able to roam wherever you like, with the support and information you need at hand? Or would you rather go on a very special tour and listen to what a guide has to say? Well thanks to guidePORT and its new mobile transmitter, you can now do both. guidePORT is the only system on the market to offer visitor information for both group and unguided tours.

Product Manager Norbert Hilbich is particularly proud of this: "The SK 3200 mobile transmitter fits perfectly into existing installations. During a private tour, the tour guide can temporarily release visitors in the existing guidePORT installation, for example for a film or a multimedia show – and always in the visitor's own language. He can trigger the pre-prepared guidePORT commentary on particular exhibits, and then simply switch "his" visitors back to the transmitter and expand on what they have heard." Up to 31 groups can be guided in parallel with the possibility of feeding in additional audio information, e.g. from an MP3 player.

## Even more possibilities with guidePORT software

New triggers for greater interactivity, a Visitor Profiler for the rapid issue and configuration of equipment, as well as new statistical possibilities: these are just some of the features of the new guidePORT software.

The Visitor Profiler allocates visitors' guidePORT receivers with the correct language and information level in no time, which means everything can be done more quickly, especially when dealing with groups of visitors. And the Statistics Manager can now be viewed by group, which means exhibition designers have all the important group data at a glance, for example allowing them to see how long visitors have chosen to continue their information gathering even after a guided tour has finished, with guidePORT as their companion.

"The new triggers are fantastic primarily because different information can be played for a location depending on whether the visitor has already been there or based on what he has already seen," explains Hilbich. Without the need for an additional installation, people can be greeted and bade farewell in the lobby, or an introduction can be played on the way to a special exhibition, while other highlights in the museum are advertised on the way back.

# Discover the Heart and Soul of Sound

A unique microphone principle, an extremely small, modular design and a sound reproduction with a unique clarity and a natural, subtle warmth: The MKH 8000 line is a series of microphones that can capture the true heart and soul of sound without losing any of its transparency or power.

“The 8000 Series has set new standards for top-quality speech, vocals and instrumental recordings with an extremely wide frequency response,” explains Sebastian Schmitz, Product Manager for microphones. “It has advanced the high-end technology of the RF condenser microphone. The technical development was supported at a very early stage by sound and listening tests, and the sound engineers involved in the tests confirmed that the new microphones have an incredibly impressive sound quality that even goes beyond that of the innovative MKH 800.” The new series of high-end microphones presently includes three models: the MKH 8020 has an omni-directional pick-up pattern, the MKH 8040 is a cardioid version while the MKH 8050 has a super-cardioid directivity.

Sennheiser’s Tonmeister Gregor Zielinsky: “The heart and soul of music is in the mid-range frequencies – and this is precisely where the new MKH microphones reproduce the sound particularly well and warmly without taking away from the unique clarity that these microphones are famous for. They have an impressive transparency in complex musical arrangements, especially when it comes to providing good differentiation between wind instruments and strings. Their fast transient response, also in the bass range, ensures a very powerful and dynamic sound reproduction and recordings that are musically outstanding.”

## Two parts – a clever solution

The microphones consist of two modules: the microphone head that contains all the acoustically important components, and a separate XLR module. If you need to make the already compact microphone (only 1.9 cm in diameter and 7.4 cm long) even smaller, you can detach the XLR module, connect the microphone head (4.1 cm) directly to one of Sennheiser’s special remote capsule accessories, and then simply attach the XLR module to its end, out of shot of the camera. A further optimized feature for TV recordings is the dark grey Nextel® coating. This ensures that neither the microphones nor the accessories can cause troublesome reflections that might otherwise distract musicians, vocalists or speakers.

## Compact design – huge frequency response

The frequency response of the new MKH microphones ranges from 10 to 60,000 Hz (MKH 8020) or 30 to 50,000 Hz (MKH 8040 and MKH 8050) – allowing them to record even the finest details for high sampling rate digital audio formats. The RF condenser principle means that inherent self-noise is extremely low, while the high sensitivity of the microphones guarantees that voices and instruments are captured in all of their nuances. In spite of this, the maximum sound pressure level is still impressively high, at 138 dB for the MKH 8020 and 142 dB for the MKH 8040 and the MKH 8050. Great attention was paid to achieving an accurate pick-up pattern over the entire frequency response, for example to allow instrument groups to be clearly separated.



## In a class of their own: the accessories

In response to many requests from long-term users, a wide range of accessories for the new MKH microphones was designed, allowing them to be optimally adapted to the highest-quality classical music, stage, broadcasting and film recordings. The range includes floor stands, extension tubes, shock mounts, remote cables, table stands, ceiling mounts, clamps and various fixtures. In all accessories, the signal-transmitting components are systematically designed with two channels to allow stereo signals or dual mono signals to be processed.

In addition, a digital module that transmits audio signals according to the AES 42 standard (24 bit, up to 192 kHz sampling rate) is expected to be available in 2008. The module features a DSP unit for adjusting pre-attenuation, rumble filter, compressor and limiter settings. These settings can also be remote controlled using a digital interface.



## Premiere at the CES: MX W1 Wireless Stereo Earphones

They have been high up the wish list of technology-minded music fans for some time: wireless stereo earphones that reproduce music in CD quality. At the CES, this dream has come true with the MX W1. Two trendy ear pieces (right/left) and a small transmitter are all you need to enjoy music without being tied down by it.

This excellent sound reproduction was made possible by a new transmission technology from Kleer™ that works without compression and therefore without loss of audio quality. "In Kleer we've found the ideal technology partner for our MX W1 wireless earphones", explained Stijn Jans, Managing Director of Sennheiser Consumer Electronics GmbH, Singapore branch. "Kleer's digital radio transmission technology produces excellent sound quality which means that for the first time we are in a position to offer our customers wireless earphones without compromising our special Sennheiser sound."

"For over 60 years, Sennheiser has been at the forefront of its industry," said Levent Gun, President and CEO of Kleer. "As the first OEM to bring to market true wireless, CD-quality stereo earphones, the company is demonstrating once again why Sennheiser is heralded worldwide as a visionary and an expert in delivering high-quality acoustics products. We're proud to provide Sennheiser with the enabling technology to deliver this much-awaited product to earphone consumers worldwide."

### Revolutionary wireless transmission

For the wireless enjoyment of sound, the player gives MX W1's small transmitter a "piggy back". The transmitter makes conventional audio equipment radio-compatible. When using a player with Kleer technology, it will transmit straight to the earphones – without the detour via the transmitter. Further advantages of the new technology include a very low latency of the audio signal and interference-free transmission. Moreover, battery life is considerably longer than with



MX W1

conventional transmission standards. This means smaller batteries that the user can replace – all in a compact and stylish design, as impressively demonstrated by the MX W1. For the first time, thanks to Kleer, you can now share your enjoyment of sound too: this technology allows you to have two completely separate earphones, and to have another MX W1 user listening in too.

The MX W1 combines the new transmission technology with high-quality dynamic systems and Sennheiser's twist-to-fit system that keeps earphones securely and comfortably in the ear. Newly developed transducers – manufactured in Sennheiser's competence center in Ireland – reproduce detailed sound and a well-defined bass. For extended listening pleasure, the MX W1 comes with a transport case which features an integrated rechargeable battery.

The MX W1 will be available beginning May 2008.

Kleer™ is a trademark of the Kleer Corporation.



# Revolverheld

“Chaostheorie”, the new album by Hamburg-based rock band Revolverheld, went straight to number 3 in the charts as soon as it was released. We spoke to the producers about the making of the hit album.

The rock band Revolverheld ([www.revolverheld.net](http://www.revolverheld.net)) sold 160,000 copies of their debut album – and expectations for their follow-up CD released in 2007 were justifiably high. German lyrics, strong guitar riffs and catchy hooklines are again the features of the new album, but the overall sound is now more timeless and is likely to open up an even wider fan base for the band.

The production of “Chaostheorie” was spread over two studios. All the tracks for the album were recorded at Hamburg’s GAGA Studio between the beginning of January and the first week of March 2007, but were then mixed at Home Studios, also in Hamburg. The production team for “Chaostheorie” was made up of Kristoffer Hünecke and Niels Grötsch, the band’s two guitarists, and was extended into a trio with the addition of Berlin-based sound engineer Clemens Matznick, who took care of the recording process and stereo mixing for the album. “Chaostheorie” was mastered by Mazen Murad at Metropolis Studios in London.

## Miking in the Studio

Revolverheld are Sennheiser endorsees and use wired and wireless microphone solutions from the audio specialists for their live concerts. Various Sennheiser and Neumann microphones were also employed for the studio recordings for “Chaostheorie”: the excellent drum sound, for example, was provided by an e 602-II for the kick and a Neumann U 47 placed some distance away from the bass drum. MD 441 mikes were located at the tom toms, while Neumann U 47 fet models picked up the drums from below. Clemens Matznick prefers to use double miking for a more flexible sound design, for example using a Neumann KM 86 underneath the snare drum for the recordings.

For the ambience signals, the sound engineer from Berlin had a special trick up his sleeve. As Matznick explains: “I used a Neumann SM 69 stereo microphone or two U 87s as ambience mikes. For some tracks, I even used three U 87s for the drum ambience – I set up one mike on the left on the floor tom side, one at the level of the snare and another mike above the drum set. All three mikes were at the same distance from the snare drum and I mixed a stereo sum from them, which I then compressed with a breathing effect using a Urei 1176. I panned the upper microphone to the right, the mike for the floor tom went on the left and I kept the front microphone in the middle. This produces a somewhat unusual representation of the drums but one that is very spatial. In a rock mix, the drums are generally a very processed instrument – a drum set always sounds different in a rock recording than it does in nature.”

### Interview with the producers

**Soundings:** *Is it true that you didn't write the songs for "Chaostheorie" until you got into the studio?*

**Niels Grötsch:** No, there was a pre-production where we had already set more than a direction. The demos were recorded in our rehearsal room, which we've recently extended. It's got a small control room with a Yamaha M7CL, which we use as a monitoring console when we're on tour. We record on an Apple using Logic.

**Kristoffer Hünecke:** We were on tour a lot, so our pre-production was done bit by bit. But we had the material with us on tour and worked on it in the tour bus. Niels and I both have a Powerbook. Clemens Matznick was also involved at this stage, so it was clear that the three of us were going to work on the album together. As producers, all three of us had just about equal responsibilities for "Chaostheorie" – that was already the situation for the first album and it worked well.

**Soundings:** *When you listen to the CD, you immediately notice how good the drums sound.*

**Niels Grötsch:** Our drummer, Jakob, carted endless amounts of snares into the studio – I don't know how many there were in the end, but the place was full of them... (laughs). We also worked with different base drums, including 22" and 24" models. Rossi Rossberg (drum sound engineer for Rammstein and others, ed.) was there to help with the recordings and he really did a fantastic job.

**Kristoffer Hünecke:** Rossi is a real tuning maestro... (laughs). He made sure, for example, that the snare sound was tuned for each song.

**Soundings:** *Your first album used synthesized strings, but for "Chaostheorie" you used real musicians.*

**Niels Grötsch:** I did the layouts for the strings and then gave them to Leo Schmidthals (former bass player for Selig, ed.), who is a very good composer. It was important for us to set the instruments correctly if we were going to work with real string musicians. The difference in sound between synthesized strings and real musicians is enormous.

**Kristoffer Hünecke:** Certain things can only be played by real musicians...

**Niels Grötsch:** Leo did a great job of picking up the layouts and working on them meticulously and he also included a lot of his own ideas that took the whole thing a step forward. The strings were recorded at GAGA Studio with musicians from the NDR orchestra conducted by Stefan Pintev – a very professional man with very professional musicians!

**Soundings:** *"Chaostheorie" also includes piano, organ and Wurlitzer sounds. Are they real or virtual instruments?*

**Niels Grötsch:** Half and half. We often used a real grand piano but also some virtual instruments – in the end, it was a mixture. The Wurlitzer is completely virtual and was played by Philipp Steinke, who played most of the keyboard instruments on "Chaostheorie".

**Soundings:** *The record company says that your first album sold 160,000 copies. Did you feel more pressure while you were making "Chaostheorie"?*

**Niels Grötsch:** You always get a lot of pressure as a musician in the band, and if you're also the producer, the pressure is even greater – from the band, from the record company and generally from outside. We've always tried to keep the pressure away from us a bit, although we didn't always succeed. In the end, you can only do what you can – there was never a serious crisis.

**Kristoffer Hünecke:** Once you've sold 160,000 albums, you of course develop a certain amount of self-confidence: your first album mustn't have been that bad... We know our fans very well, we know what they want and what type of music they listen to. So we were the best people to make the album.

**Soundings:** *How would you sum up the production of "Chaostheorie"?*

**Clemens Matznick:** We tried a lot of things out and always thought about how we could make it even better or cooler. Because we had a huge selection of equipment available and were able to create each song individually, we spent a lot of time experimenting in the studio. One important factor is certainly that we produced "Chaostheorie" as a three-man team. It really worked well, and we wanted to make sure that everybody was satisfied with the sound, so it always had to go through these three filters. Keeping three people satisfied often means going that extra mile – but the great thing was that, when Niels, Kris and I were working together, there were never any ego trips. For all the tracks, we came to results that all three of us were satisfied with.

**Kristoffer Hünecke:** With the first album, we found a sound that we still think is really awesome. On "Chaostheorie", we tried to make this sound a bit more organic. When you play the CD, you can always instantly recognize it as Revolverheld, which we also felt was important for our second album. For us, "Chaostheorie" is the next level.



# Pleasing on the Ear...

Whether on stage, on the red carpet or during the pre-show, Sennheiser technology made sure the atmosphere was great, the sound was perfect and everyone looked good at both the MTV Video Music Awards in Las Vegas and the MTV Europe Music Awards in Munich, with Nelly Furtado, Avril Lavigne and Snoop Dogg appearing on stage with customized Sennheiser microphones to match their outfits. Nelly Furtado shined with her gold-plated SKM 935 in Las Vegas, while in Munich Avril Lavigne sang with her pink SKM 935 that complemented the highlights in her hair. Snoop Dogg also made a glamorous appearance: his jewel-bedecked Snoop Dogg-decorated SKM 935 glittered under the spotlights all evening as the rapper hosted the awards ceremony in some fairly unusual outfits.

The awards weren't just a success for Sennheiser because of the unusual microphones. In Las Vegas, Sennheiser users Rihanna, Beyoncé, Shakira and Fergie took home at least one of the coveted MTV trophies and went on stage at the awards ceremony in The Pearl theater with Sennheiser microphones. Rihanna sang using a wireless SKM 5200 fitted with a Neumann capsule and Nelly Furtado used her gold-plated SKM 935. In addition to the main show this year, there were also "Fantasy Suites" for the first time, each of which had a band playing together with specially invited guest stars. In all, 29 artists used the audio specialist's equipment on the various stages around the Palms Casino Resort in Las Vegas. Sennheiser technology was also to be found at the pre-show and on the red carpet. MTV VJs took the opportunity to catch up with guest presenters, artists and nominees for interviews, all using SKM 5200 handhelds.

Coordinating the audio and communications for the diverse and far-flung "Fantasy Suite" shows posed a major technical challenge, but according to David Bellamy, who with his company Soundtronics was responsible for most of the RF technology, Sennheiser's equipment performed as expected: "It was seamless." Clair Brothers Audio, in charge of audio production at the VMAs, provided 18 channels of Sennheiser ew 300 IEMs for wireless monitoring. Bellamy's company supplied around 50 more channels on Sennheiser RF equipment, including EM 3532 and EM 3032 receivers and SKM 5200 handhelds for all the presenters in The Pearl.

Sennheiser technology also had a big part to play at the MTV Europe Music Awards in Munich: the Foo Fighters, with lead singer David Grohl holding an MD 431 II, opened the awards show with their new hit "The Pretender". Snoop Dogg hosted the show in some pretty vivid outfits accompanied by his glamorous SKM 935, and Avril Lavigne enthralled the audience time and again with her songs and pink wireless SKM 935. The presenters – ranging from Boris Becker and Franka Potente to Dave Gahan from Depeche Mode and Joel Madden from Good Charlotte – all used the SKM 5200 fitted with Neumann's KK 105 S



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A modest microphone – Snoop Dogg's customized SKM 935; the Foo Fighters played their own "Fantasy Suite" in Las Vegas and cut a fine figure as charming co-hosts in Munich; Avril Lavigne with her pink SKM 935; Rihanna took home the coveted MTV trophies from both awards shows (clockwise from top left)



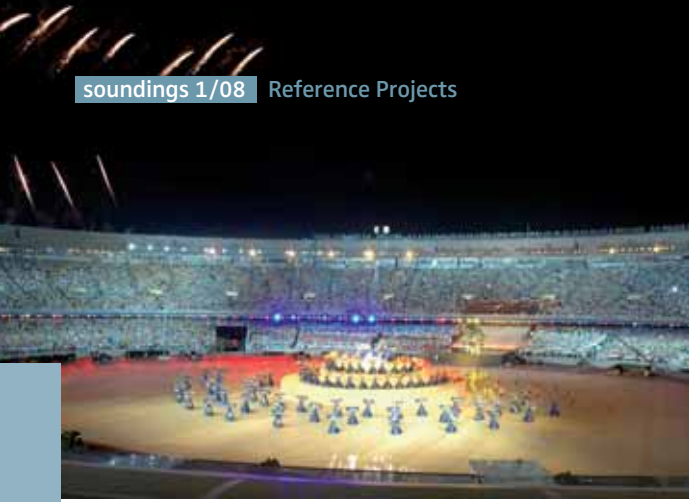
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capsule to present the awards. The coveted awards went to a total of five Sennheiser users. Nelly Furtado won the EMA "Album of the Year" for "Loose". Tokio Hotel won "Inter Act 2007" for their website, and Avril Lavigne won two awards: she was named "Solo Artist of 2007" and "Girlfriend" was the year's "Most Addictive Track". Sennheiser user Rihanna won in the "Ultimate Urban" category while British band Muse were named "Headliner 2007" and also pocketed the "Best UK & Ireland Act" outside the show.



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The MTV Europe Music Awards production was in the capable hands of Britannia Row and sound designer Derrick Zieba. Barry Macleod from Britannia Row Productions: "In all we had 38 Sennheiser channels at the start, twelve of which were in-ears. For instance, eight in-ears were used by the band appearing for Mika's song, ensuring that everything was perfectly in time – that's on top of the in-ears for Mika and his group. We used three A 5000-CP transmitter antennae for monitoring, including an exclusive one for Snoop Dogg. In terms of microphones, we had eight SKM 5200 handheld transmitters with EM 3532 receivers and 16 evolution wireless SKM 935 with EM 550 receivers. The mics and wireless monitoring were controlled and monitored via five NET 1 network systems." Sound designer Derrick Zieba said, "Almost all the wireless microphones at the MTV EMAs were Sennheiser. Having worked with Sennheiser over many years, it is my conclusion that the turnaround in artists' radio mic preferences over the last few years has been due to the superior quality of the product, but even more importantly to the superb standard of technical support and service offered by Sennheiser which is second to none. While Sennheiser continue to offer this superior level of support, their microphones will continue to be the number one choice for discerning professionals worldwide."



# Alfacam Turns to Sennheiser for Pan-American Games



Around 5,500 athletes from the entire American continent came together to compete in the 15th Pan-American Games. The competitors vied for medals in a total of 28 disciplines from July 13 to 29, 2007 in Rio de Janeiro – broadcast live to an audience of millions. In addition, two summaries of the events, including the medals ceremonies, were televised each day – and, for the first time in the history of the Pan-American Games, in HDTV format. About 700 hours were broadcast live, which was also a record for the games.

The outstanding level of TV coverage provided by the host station International Sports Broadcasting (ISB) demanded huge amounts of equipment and a strong team. For that reason, ISB turned to the experts in the field: TV facilities provider Alfacam. The innovative Belgian company has already covered more than 11,000 international events, and has provided technical support for 3,000 international sporting events alone.



In the run-up to the games, Alfacam sent a team of 40 engineers to Rio de Janeiro, accompanied by huge amounts of technical equipment, including microphone technology from Sennheiser. The company took around 260 wired and wireless microphones to South America, first making sure to accumulate sufficient stocks at Sennheiser Benelux in preparation for the games. "For us, service and customer care are the cornerstones of our business," explained Christophe van den Berghe, Marketing Manager at Sennheiser Benelux. "For that reason, we support our customers from the beginning of a project right through to its successful completion. We were very pleased when Alfacam, one of our most long-standing customers in the broadcasting sector, contacted us about the Pan-American Games. We provided the company with on-



## The Pan-American Games

Like the Olympic Games, the Pan-American Games are held every four years, in the year preceding the Summer Olympics. Their aim is to advance the community of athletes from the entire American continent. The events include the Olympic disciplines as well as a number of sports typical of certain countries. The first Pan-American Games took place in Buenos Aires in 1951. The next games will be held in 2011, in the Mexican city of Guadalajara.



site support for this global event, proving that we can be a helpful partner for our customers even for major projects abroad."

Perfect sound for the TV coverage was guaranteed by MKH microphones, whose excellent climatic resistance make them ideally suited for outside broadcasts. In addition to the classic MKH 416 shotgun microphone, the range of equipment also included the stereo version, the MKH 418. Soccer and baseball games were broadcast using the MKH 816, winner of the Scientific and Engineering Award, which is manufactured only at special request. MKH 800 microphones with their wide frequency response ensured optimum sound recording for the SACD and DVD-A formats.

Wireless microphones also played a key part in the games. Located along the sidelines, MKE 2 Gold mini microphones were able to record even the most distant sounds reliably with the aid of a parabolic reflector. Individual athletes were also equipped with microphones, and Sennheiser mikes could even be found in such unusual places as on the fences for equestrian events or underneath the high jump mat. In other words, right at the center of the action, in keeping with the Olympic motto: "Faster, higher, stronger..."

[\[www.alfacom.com\]](http://www.alfacom.com)

Whether swimming or long jump: Alfacom mainly used MKH microphones for picking up the various disciplines – turned into wireless mikes by plug-on transmitters wherever necessary



The team from Sennheiser Japan with their guests of honor at the launch (from left): Asako Arai (Business Support), Paul Whiting (President of Global Sales), Jun Suzuki (Business Operations Leader), Volker Bartels (President of Manufacturing and Logistics), Naoki Watanabe (Sales Force Consumer), Marlys and Jörg Sennheiser, Naoki Kobayashi (Financial Manager), Managing Director Sho Kubo, Tomoaki Yasuda (RF Sales Engineer), Mariko Kubo, Mitsuru Sato (Sales Manager), Sebastian Lehnert (Market Development Manager, Sennheiser Japan). Front: the Yoshida Brothers.

## Sennheiser Japan K.K.

A sign in Tokyo's Shin-Aoyama building points the way: this is where Sennheiser Japan K.K. launched its business operations in January 2008. Seven employees currently work in these modern offices looking after Sennheiser customers, and by the end of the year the team is expected to have doubled in size.

"By setting up Sennheiser Japan, the company is recognizing how demanding the Japanese market is. Sennheiser has been close to this market for some time, but linking up with the global Sennheiser Group gives us even greater opportunities for meeting our customers' needs as effectively as possible," explains Managing Director Sho Kubo.

In addition to this office, Sennheiser Japan also has a showroom in a neighboring retail center where professional and consumer products are displayed and can be demonstrated. In the professional sector, wireless microphones are some of the key products for the theater and broadcasting industry, while for consumers the focus is naturally on the company's wide range of headphones.

The team at Sennheiser Japan wants to attract and retain customers with creative solutions and high standards. In future Japanese customers will have even better access to Sennheiser's high-quality products, systems and services.



# Create our Sound

What does Sennheiser sound like? We're looking for a Sennheiser sound logo – a short, acoustic signature tune. Now through July 17, 2008, share what you hear in our international competition. Find more information about the contest at [www.sennheiser.com/soundlogo](http://www.sennheiser.com/soundlogo). Be part of it!

[www.sennheiser.com/soundlogo](http://www.sennheiser.com/soundlogo)