

**Loewe**  
**Reference.**  
Perfect Quality.



**LOEWE.**



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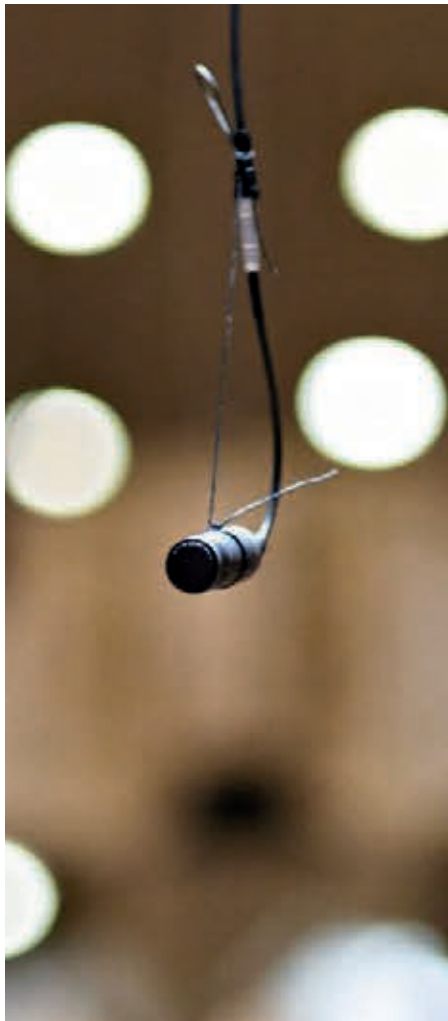
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## Editorial.

### Never Stop Beginning.

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**There has been a lot of talk about new beginnings at Loewe recently. But in actual fact, the thrill of new beginnings has been a constant theme for the company – starting with its creation in 1923, founded by the brothers Dr. Siegmund and David Loewe as a radio engineering business in Berlin, and continuing to drive our development today. A recent example of this is the new Loewe Reference and its exceptionally high quality standards. In this magazine, we tell the story of its creation and bring its achievements vividly to life, through a selection of carefully researched and diverse stories inspired by the concept of quality.**

Did you know that, back in 1931, Loewe played an instrumental role in the world's first public television broadcast? Made possible thanks to the research work of Manfred von Ardenne, Loewe's Chief Engineer, who later went on to become a world-famous physicist. After inventing television, the natural next step is to enhance and improve your creation. With the Loewe Reference, we have taken sound to a new dimension of power and precision, transforming living rooms into concert halls (page 20). We have perfected the Loewe Reference's picture quality to create a fitting showcase for works by the LUMAS Galleries' internationally renowned artists (page 42). And, as you can see, we are maintaining our uncompromising stance in relation to design and material quality (page 30). We are also

remaining true to our roots: unusual in our sector ... but a commitment backed by some strong arguments.

We are therefore embracing this next new beginning – in perpetuation of a tradition. I hope you will continue to accompany us on our journey!

Mark Hüsges  
Managing Director

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“You can see, hear  
and feel our quality.”

Innovation, precision and sustainability:  
for more than 90 years, Loewe has remained true  
to its promise of “Made in Germany”. And we will  
continue to do so in the future – with innovative  
and truly meaningful technologies, award-winning  
design and stringent quality standards.  
Smart Home Entertainment: **Designed for Life.**

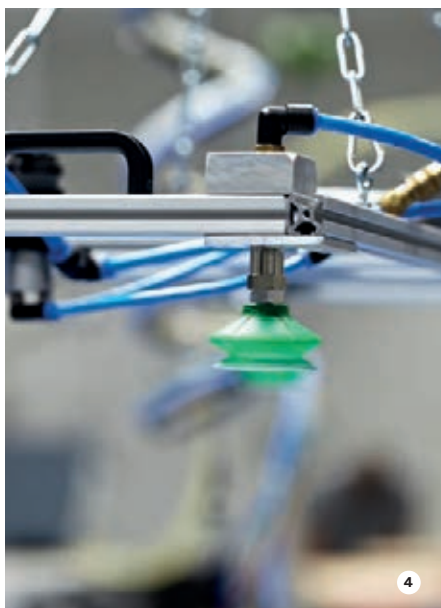
over  
**90**  
years



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1 Each individual contrast filter panel is inspected manually for defects. 2 The prototype for the new Loewe Reference was also built in the company's in-house workshop. 3 All Loewe televisions are produced by hand in the company's factory in Kronach. 4 The higher the quality of the components, the smoother the assembly process. 5 The glass edges of the contrast filter panel are checked carefully for even the tiniest cracks. 6 Always watching; the distinctive operating eye – Loewe's signature – is added just before the final inspection.



For more than 90 years, Loewe has remained true to its promise of “Made in Germany”. The company’s development, production and service departments are still based in Kronach, in Upper Franconia. And this will continue to be the case, because “Made in Germany” is more than simply a seal, it is an attitude. According to Thomas Günther, who has spent three decades with the company – and has 25 years of experience at the helm of its quality assurance.

#### What does quality mean for you?

A Loewe set needs to have that “wow” factor. Meeting expectations is not enough, you need to exceed them – so we aim to be the best. We apply a “zero defects” policy: we don’t wait until a set arrives in a customer’s living room to check the quality, we pull out all the stops to deliver a perfect system.

#### How does Loewe do this?

There’s no secret to it: it’s all about quality. Loewe specifically selects the suppliers offering the best materials. We build long-term partnerships with our suppliers and we check processes and inspect components ourselves. Loewe controls production, development and purchasing quality, because we believe that the only way to raise quality standards as a whole is to oversee each and every component from a central location. At Loewe, we view many things as routine that others regard as superfluous!

#### Does location affect quality?

Absolutely! Every employee has the potential to affect quality. Identifying with a company and feeling a sense of pride in your work are important factors. If our people, with all their experience, are fully committed to the product they are developing and building, you can see, hear and feel this in the end result. Our employees’ sense of identification is a particularly important component of Loewe’s quality.



**Thomas Günther,**  
Quality, Customer Service & Production,  
with the company for 30 years



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# Space meets structure and becomes emotion.

An interview with Christoph Franke,  
Director of Sound and Creative Producer  
with the Berliner Philharmoniker.

**Acoustics is the study of sound and its dissemination. Quite straightforward so far, in theory at least. However, complexities immediately emerge as soon as we attempt to describe the perception and effect of sound, for example music. Voluminous, powerful, light, clear, muffled or precise ... it all becomes very subjective, as we each hear and perceive something different. So how can we define perfect sound? Does such a concept even exist? We put the question to Director of Sound and Creative Producer Christoph Franke – the man responsible for the perfect sound of all of the Berliner Philharmoniker’s recordings over the last eight years. Christoph Franke also supported the development of the world-famous orchestra’s “Digital Concert Hall” app, still the only one of its kind, from the first live transmission in 2009 to the present day.**

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# 3 Components

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## **Perfect sound – what does that mean for you?**

Christoph Franke: It's a simple question, but it's actually not that easy to answer. I would describe good sound as a successful balance of spatial experience, musical experience and emotional experience. These are the three components of good sound. First, I need to be able to truly feel the space I am in. Secondly,

the musical experience must surpass the purely physical or acoustic realm and take you into its very structure. Clarity is an essential aspect, to allow you to discern and follow structures of scores, individual voices and technical progressions. The third component is unfortunately more difficult to express. It comes down to conveying the emotion the music evokes through

this combination of space and structure. When all these aspects come together, that's perfect sound.

## **As an acoustician, how do you convey these emotions?**

First and foremost, we apply the rules of the craft, operating according to clearly defined parameters. Of course, the right technical foundations are crucial as well. Including high-tech microphones, a clean signal flow and a very precise microphone configuration to allow the creation of a spatial experience.



## **So space is a crucial factor – to what extent does the Berlin Philharmonie building influence your recordings?**

Space is a major influence. It is always surprising when you ask people the question: "What is good sound?". A lot of people

## Tradition meets innovation. Or how an idea became a place.

The seed of the idea for a “digital concert hall” was sown in the Taiwanese capital of Taipei. The orchestra’s performance was being transmitted simultaneously to a video screen outside the concert hall. At the end of the concert, the musicians stepped outside to rapturous applause from an assembled 20,000 music enthusiasts. “We were overwhelmed by the experience, that was what started it all.” Even now, reliving the moment still brings a sparkle to the eyes of Olaf Maninger, Principal Cellist with the Berliner Philharmoniker. “It made us realise the great distribution of our fans, an aspect that we hadn’t fully appreciated in the concert halls. We felt we had to do something to promote the wider dissemination of our artistic works”. That was in 2005. It then took three years “until both the technology and we ourselves were ready,” explains Robert Zimmermann, Managing Director of Berliner Phil Media. “In the first season alone, 2008-2009, we broadcast 35 concerts. This season, we’re looking at 46. Our subscriber base has risen from 4,000 in 2010 to the current figure of over 21,000. And the “Digital Concert Hall” is still the only one of its kind in the world. No other orchestra so consistently records all its creative work. This approach has also resulted in the compilation of a comprehensive music archive, already containing more than 300 recordings and continuously evolving. After each live broadcast, the concerts are reworked and are then available for infinite listening pleasure. The archive also features older recordings from the days of Herbert Karajan, as well as interviews with soloists, insights into the working lives of the orchestra’s musicians, introductions to selected works and music-themed videos, including the “Rhythm is it!” documentary featuring the Berliner Philharmoniker’s educational work.

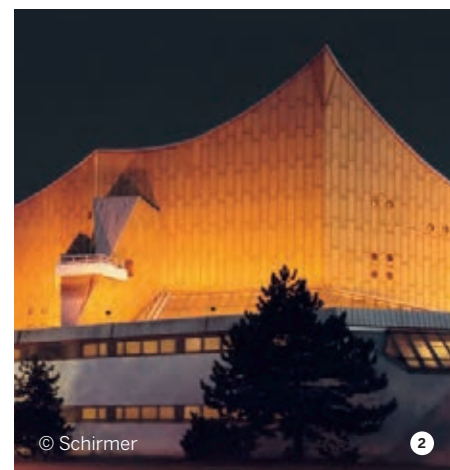
say clarity, being able to truly hear what is happening on the stage. While others say, “I love that “wow” factor, the powerful, resonating sound experience. The Philharmonie brings you both of these elements, with a slight emphasis on clarity. From any seat in the hall, you can hear each instrument amazingly well. The building’s geometry is also designed to support this feature. The Berlin Philharmonie broke away from the traditional “shoebox” layout, where the orchestra is at the very front of the hall, and became the first concert hall to position the orchestra centrally, occupying the middle of the space.

## WOW

### So architecture influences acoustics ...

Yes, it does. For instance, the walls are a special feature of the Philharmonie. They have been brought significantly closer together and this is what creates this amazing clarity. Our hearing is influenced above all by direct sound, the first sound to reach us from the stage. We then have the

sound reflected, with a slight time lag, from the side walls. Our brain processes these stimuli together as spatial information. The Philharmonie’s dimensions are ideal in this respect and support the perception of very vivid sound. An aspect we of course strive to incorporate in our recordings.



### When producing your recordings, do you also consider the end listener’s spatial environment?

We assume that, in most cases, our recordings will be played in a living room with average sound absorption. So with regard to this spatial information aspect, our aim is to ensure the listener can feel the Philharmonie space, but at the same time avoiding clashes with the spatial information generated by the actual living room. For example, if I play something through a loudspeaker, I have to factor in the reflection from my own four walls. As an experienced director of sound, these effects are something you automatically consider.



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**On the “Digital Concert Hall” website, it states that you aim to “convey an authentic concert hall experience”.**

**What do you mean by this?**

In the context of our recordings, authenticity involves imagining an “ideal seat” and using this as the basis for the creation of an artificial listening situation that makes the listener at home feel as if he or she is there in the concert hall. Of course, the sound experience is different if you are actually sitting in the Philharmonie, that’s obvious. The aim of our recordings is to make the media barrier – the sound is conveyed to you through speakers rather than experiencing it directly in the concert hall – as imperceptible as possible. So we need to make certain elements more powerful, while giving slightly lesser emphasis to others. It might sound paradoxical, but we produce an authentic recording by trying to acoustically convey an imaginary situation.

**How much adjustment of sound is involved in recordings? Could you quote a percentage?**

I can’t pin this down to an absolutely precise figure. Like most recording teams, we work with two “main microphones”, suspended in a location that we have found to be most effective over a period of years. This is somewhere around the first two rows of the Philharmonie, elevated around five metres above

the edge of the stage. These two main microphones capture the space in a location representing the optimal balance between direct sound and diffuse sound. They provide 90 to 95 percent of the sound. The remaining five, six, seven or eight per cent involves more elaborate arrangements, using a further 24 suspended microphones to remodel specific elements that the acoustic situation makes it impossible to capture perfectly.

26

microphones

**Can you give an example of the kind of situations where you use this remodelling process?**

The configuration of the orchestra imposes a number of constraints. For example, the set locations of soloists, choir and different instruments. If the sole purpose of the performance was to create a perfect recording, we would move the musicians around until we got the sound just right –and could probably work with just the two microphones. However, the stage is a fixed factor and we have to work with this constraint. So if we can’t hear the harp, all the way at the back on the left, clearly enough over the two microphones, I use

an extra microphone to try to very precisely bring out the sound. You could compare the process to a watercolour, where the artist applies a delicate pencil stroke to add definition to the contours.

**Was it decided from the start to record pictures as well as sound? After all, the main focus is the music ...**

Yes, we decided that right from the very start. The aim is to create a complete visual and audio experience. The “Digital Concert Hall” started life as a purely Internet product and you needed a computer to be able to listen to the recordings. We put a lot of thought into ways of transferring the images from computer to television. We drew up an instruction guide, but very quickly realised that it simply wasn’t practical. Because each television, stereo system or computer has different connectors. Technological progress then overtook us at breathtaking speed, and we suddenly entered a new era of Internet televisions and smartphones capable of playing HD content. Today, just under a third of our streams are accessed from a computer. All the rest goes to mobile phones or TVs.

**The “Digital Concert Hall” has taken digital reproduction capabilities to a whole new level. What does this mean for the actual real-life concert?**

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## **Does it enhance or detract from the appeal?**

There is no comparison between the live experience in the Philharmonie and the experience in front of a television or computer. Attending a concert feels completely different to sitting in front of your TV and following the cameras as they pan over the different instruments. We have also seen no evidence of any cannibalisation effect between the “Digital Concert Hall” and live concerts. Nobody has said, “That’s it, I don’t need to go concerts any more. I can listen to the Berliner Philharmoniker at home now”. There is room for both experiences, they each serve a purpose. Our aim in designing the “Digital Concert Hall” was to create a place – in addition to the main hall and chamber music hall – a third and virtual concert hall. And we have achieved this. I have even heard soloists say: “I’m performing in the Digital Concert Hall tonight.” Which of course is illogical, as they are actually performing in the Philharmonie. But it illustrates the separate identity assumed by this virtual venue.

# **sound**

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# **miracle**

## **Have the fast-paced advances in technology over the last few years changed our acoustic perception? The way we listen to things?**

I grew up in an age when it was important to have a cool hi-fi system in the living room. Everyone was engaged in a quest for perfect sound, and prepared to spend a lot of time and money in pursuit of this aim. Towards the end of the 1980s, for the first time ever, the arrival of digital technology gave acousticians the feeling that perfection was now actually feasible – in theory at least. However, this was then swept aside by the wave of digital data compression, being able to take your data with you and play it wherever you go. For a while, this new-found freedom made people forget the sometimes appalling compromises it involved in relation to sound quality. It was quite amazing to observe how, within the space of a few years, the goal of perfect sound was relegated to a secondary concern. What mattered was being able to listen to music anywhere.



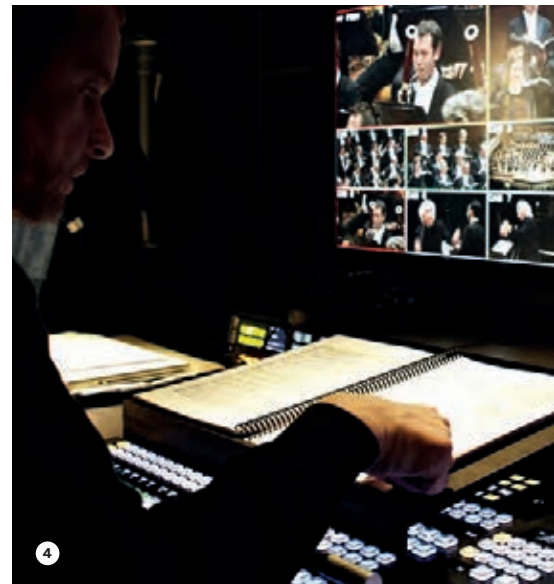
### The tide is now turning once again ...

That's right, over the last few years, sound has once again become increasingly important. This trend is supported by the new possibilities being opened up by technological progress. External transmission channels are no longer an issue we need to consider in our recordings and broadcasts.



Digital Concert Hall app

In the past, we never knew whether we would need to factor in a compressor somewhere along the line or whether the sound would be distorted by sound processors, often used in traditional radios to artificially push the music. Today, we know our broadcasts will reach their listeners exactly as we intended. This allows us to offer truly unique sound quality – and this is highly appreciated. In my view, this trend back towards perfect sound is a move back to the right path. •



© Monika Rittershaus





- 1 Director of Sound and Creative Producer Christoph Franke is responsible for the acoustic quality of each of the Berliner Philharmoniker's recordings.
- 2 Architect Hans Scharoun drew his inspiration from interactions of people, space and music, reflected in the Berliner Philharmonie's three interlinked pentagons.
- 3 The Philharmonie's digital recording studio is the acoustic control centre for live broadcasts for the "Digital Concert Hall".
- 4 The camera control room is a hive of activity during live broadcasts.
- 5 Acoustic democracy: the orchestra occupies a central location in the middle of the hall, ensuring that no audience member is more than 30 metres away from the stage.



© Monika Rittershaus

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**Sir Simon Rattle has been conducting the Berliner Philharmoniker since 2002. Following in the footsteps of other famous principal conductors such as Herbert von Karajan and Claudio Abbado.**

### **Live and always close to the action – that's the "Digital Concert Hall" app.**

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What can you do if you're a fan of the Berliner Philharmoniker but you don't actually live in Berlin? Help is at hand, in the form of the "Digital Concert Hall" app. It allows you to stream all the home performances of the world-famous orchestra, conducted by Sir Simon Rattle, live to your television at home, in HD quality and with excellent sound. "Our video stream is, of course, also compatible with tablet computers, smartphones or PCs. However, a top-end smart TV such as the Loewe Reference is undoubtedly a particularly fitting way to appreciate our outstanding sound and image quality," comments Olaf Maninger, Principal Cellist with the Berliner Philharmoniker and instigator of the "Digital Concert Hall". "The arrival of Internet TV, restoring the television's role as an essential focal point and control centre in every household, was a stroke of great fortune for us. An experience such as a concert is not something you want to watch on a computer. The visual and audio quality are best appreciated in the relaxed atmosphere of your living room." The "Digital Concert Hall" app is already installed on the home screen of the Loewe Reference, so all you need to do is register and then decide whether you would like a 7-day or a 30-day ticket or even an annual subscription.

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### **The sound miracle.**

"Lifelike and authentic. Sound precisely as our ears perceive it without technical assistance. The aim is to transport you, the listener, to the heart of the action – rather than standing on the sidelines." This is how Alfred Hassaoui, Loewe Audio Engineer, describes his view of perfect sound. He smiles, "It might sound like a very simple concept, but a whole lot of work goes on behind the scenes to achieve this effect." What particular challenge does designing television sound pose for an acoustician? "The ultimate aim is to achieve a perfect, authentic and lifelike reproduction of the original sound – despite today's increasingly flat screens. The integrated soundbar incorporates eight high-performance speakers and makes maximum use of the available volume to precisely replicate a very wide sound spectrum – with a power of 120 watts. A truly unique combination. We can say that the Loewe Reference really is a sound miracle. And thanks to its complete coverage of the extremely high dynamic range required notably for classical music, it is a real treat for music lovers."

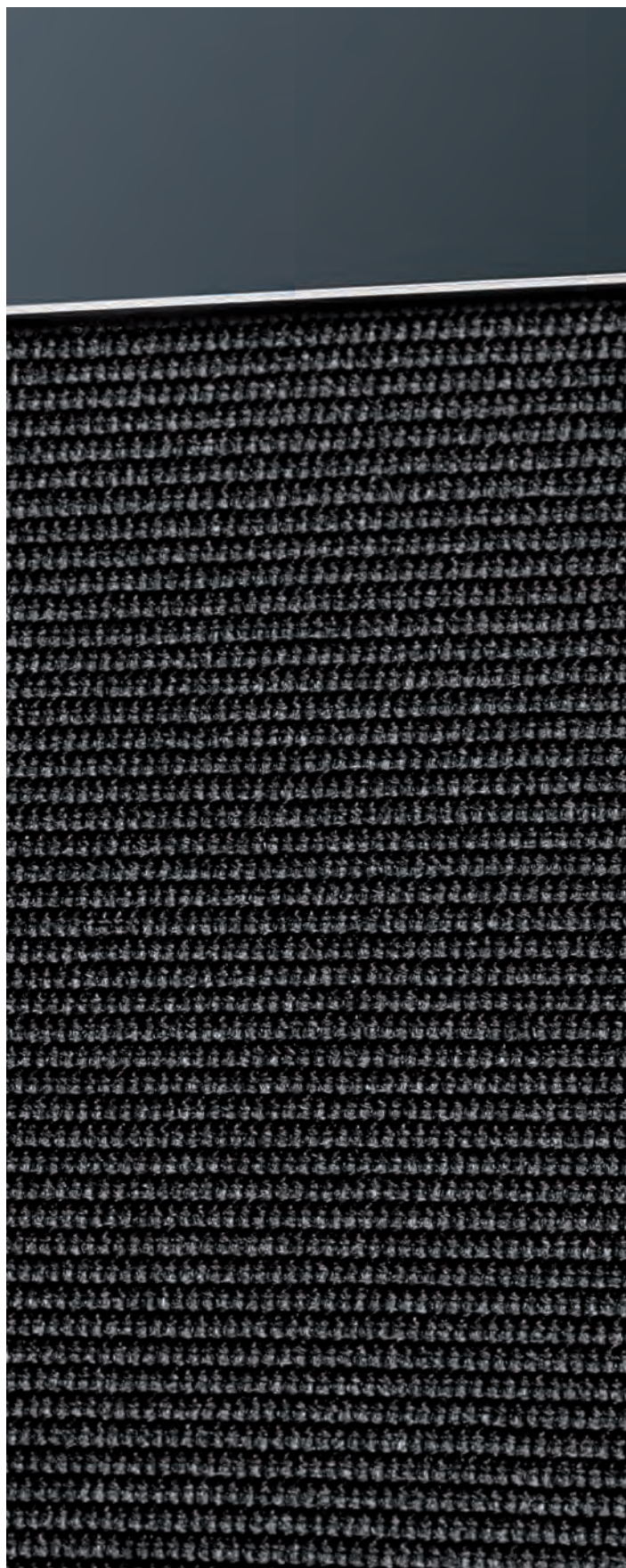


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Powerful dynamics,  
authentic effects ...

**... for memorable cinema experiences – and vibrant  
concerts: all in the comfort of your own home.**

Loewe has always regarded great sound as an essential complement to great picture quality. Back in 1933, Loewe's very first mass production television featured a dynamic speaker. Fast forward to the present day and the Loewe Reference offers a sound quality capable of rivalling many hi-fi and home cinema systems ... or even putting them in the shade. "Tangible bass, vivid middle, precise highs. And all within an exceptionally wide dynamic range," says Alfred Hassaoui, Audio Engineer, describing the traditional Loewe sound hallmarks. The Loewe Reference's features set particularly high standards. An integrated soundbar with eight speakers generates a rich 120 watts and crystal-clear sound. In combination with the specially designed bass reflex box and integrated 5.1 audio decoder with Dolby Digital and DTS, the result is an impressive home cinema ... and a perfect home concert hall. The Loewe Reference's additional Cinema Surround mode conveys amazingly authentic surround sound. At the touch of a button, it also allows you to switch between film and music mode. "Our algorithms calculate the optimal sound for each situation," explains Mr Hassaoui. "As powerful as possible while retaining a fine resolution – ideal for cinema buffs and music fans."



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## From the depths of the room ...

### ... a perfect sound experience: made to measure!

As well as its impressive solo performance, the Loewe Reference also shines at the heart of a harmonious ensemble. "Not least, thanks to the ability to progressively expand your Loewe sound system," explains Alfred Hassaoui. "For example, integrating a Loewe Subwoofer 800 to intensify the bass foundation. Until you can feel the vibrations all the way to your toes," adds Loewe's audio expert with a smile. For music connoisseurs, it's all about extending the spatial effect. "At a live concert, the sound also comes to you from the right and left," explains Mr Hassaoui. This stage effect can be achieved by adding two more Loewe Reference speakers, each with an output of 80 watts. Made from extremely torsion-resistant ceramic, the tweeters master frequencies of up to 40,000 Hz with ease. While the D'Appolito arrangement of the six speakers ensures an extremely transparent soundscape. Alfred Hassaoui continues: "Close your eyes in front of the Loewe Reference and you could almost be in a concert hall." Adding another two rear speakers then transforms your living room into an atmospheric cinema hall. "Listen to the plane landing behind you and then taxiing past on your right. The perfect home cinema experience!"

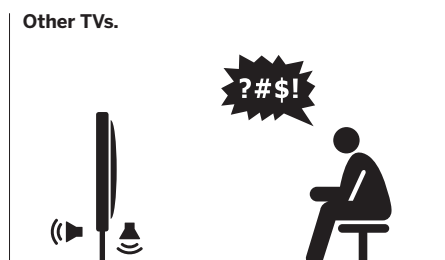
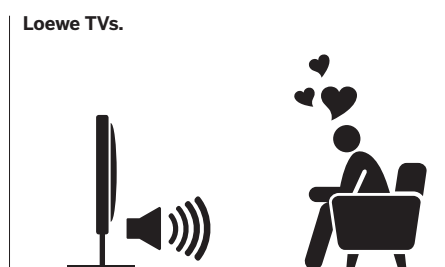
# 40,000 Hz

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## Front-firing speakers ...

### ... to project high-clarity, distortion-free dialogue.



"You can position your Loewe Reference anywhere in your room that you like, and turn it to face any angle" explains Audio Engineer Alfred Hassaoui, "and you'll enjoy breathtaking depth of sound and distortion-free dialogue". Other sets emit the sound from the rear and underneath, which explains the resulting rather diffuse perception of sound. "The Loewe Reference's integrated loudspeaker

fires the main sound towards the front," clarifies Mr Hassaoui. It might sound simple. It's actually unique.

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## A complete digital chain ...

### ... more dynamics, greater precision, less signal noise.

From the broadcaster ... over cable networks and satellite systems ... to your TV set: sound signals are digital all the way. However, after reaching your TV, the chain is often altered by analogue conversions occurring before amplification – in some cases, for cost reasons. Loewe bucks this trend. From the front end – the television receiver – to the back end – the loudspeaker: end-to-end digital sound processing and reproduction. Is this really necessary, Alfred Hassaoui? "You can hear the difference," explains Loewe's Audio Engineer. In the Loewe Reference, there are no losses in dynamics and precision – and no interference from signal noise. "Analogue conversion takes place at the last possible point," continues Mr. Hassaoui. "When the sound is projected from the loudspeaker." And with no distortion whatsoever, thanks to the special acoustic fabric covers: a treat for both your ears and your eyes!



**Alfred Hassaoui,**  
Loewe Audio Development.





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# A world of glass.

A factory tour with Berliner Glas owner  
Dr. Herbert Kubatz and the head of the Technical  
Glass department, Dr. Uwe Klingel.

**What is the purpose of the grey double-sided anti-reflective glass on the Loewe Reference display? We took a trip to Schwäbisch Hall to visit the manufacturer Berliner Glas and find out exactly how a contrast filter panel is made, what it does and why it makes the Loewe Reference so special.**





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**It splashes, fizzes and it's even a little dangerous.**

Which explains why the glass safety door of the large CNC machine remains firmly closed while the edges of the contrast filter panel are ground. "We use high-quality diamond tools for this process," explains Dr. Uwe Klingel, head of the "Technical Glass" department at Berliner Glas. "Ground glass edges are usually not very aesthetic, but if you grind them very finely they take on an attractive, slightly polished appearance." The finer the grinding required, the slower the rotation speed of the grinding head.



"It takes the machine around ten minutes to complete one contrast filter panel, a very long time," explains Dr. Klingel. "So, as you can imagine, it gets pretty warm in there. To counter this, the glass panel, held in place by a vacuum effect, is cooled constantly with water." Which explains all the splashing and fizzing sounds filling the air at the production site in Schwäbisch Hall, where the Loewe Reference's contrast filter panel is made. The factory also produces and processes a range of different types of technical

glass for specific applications, from laminated safety glass visors for fire-fighters' helmets to structured surfaces destined for use as touch-screens in medical environments or even for slot machines.

**Loewe is a German company with a rich heritage and its long relationship – spanning almost two decades – with another German heritage brand is no coincidence.**

Loewe places great importance on long-term partnerships, as an essential foundation for mutual trust and consistently top quality.

**Consequently, the process started with a few test runs, until both parties were satisfied and ready to embark upon the task of jointly defining the work steps and quality standards for the contrast filter panel.**

Owner Dr. Herbert Kubatz explains: "For each new project, the first step is a meeting with the designer. The designer briefs us on the requirements and we then carry out a feasibility study with our technical specialists to work out how we can achieve the desired results.

**solution-oriented**

It's not always an easy task. In practice, it often involves finding a compromise that everyone is happy with. We don't sell products, we sell solutions. In other words, we strive to deliver precisely what the customer wants. And Loewe wanted an extremely high-quality contrast filter panel that was equally impressive in terms of both design and function, and capable of protecting the sensitive panel."

**Grinding the edges is the first of three work steps carried out in Schwäbisch Hall.**

In the second step, the glass panels are printed and subjected to a final quality inspection, before being securely packed and transported to Kronach for assembly in the televisions. "We handle all aspects of the optical finish for the contrast filter panel," explains Dr. Klingel. The technical process to transform the grey architectural glass to the double-sided anti-reflective base material is carried out upstream of this stage.

**When were contrast filter panels first used in televisions?**

Dr. Kubatz: "It all started somewhere around the 1980s, when the curvature of CRT screens began to be perceived as an issue. Manufacturers experimented with different processes, initially developing cylindrical panels to restrict the curvature to a vertical axis."



Loewe places great importance on long-term partnerships, as an essential foundation for mutual trust and consistently top quality.

Back then, contrast filter glass was known as tinted glass and was a very trendy feature in German living rooms. Coffee tables, lamps and doors in different shades of brown and grey were in great demand. The special feature of the contrast panel is the fact that the glass is a solid colour. What is the reasoning behind this? Dr. Klingel explains: "The contrast is the ratio between the light value and the dark value. As the tinted panel is, by definition, darker, this means that the contrast is stronger too, making black even richer. This increases the light/dark ratio and the end result is enhanced picture quality." The double-sided optical anti-reflection process is the most complex and expensive work step. To reduce reflection as far as possible, a series of nanometre-thick layers of different metal oxides is applied. "We all know how expensive it is to have an anti-reflection coating applied to spectacles, so imagine the situation for a 55 inch or even an 85 inch glass panel. But the effort really pays off." As an illustration, Dr. Klingel shows us



different pieces of glass, ranging from a sample with no anti-reflective coating to one with an anti-reflective treatment on one side and another on both sides.

completely anti-reflective screen. The viewer also sees reflections projected to the front from the reverse of the glass, which explains why both sides need to be anti-reflective.

## crystal-clear

And you don't need to be a professional to observe how distracting reflections are – or to appreciate the effect of a

**The dyed and newly anti-reflective contrast filter panels are then cut and subjected to a final inspection before being delivered to Schwäbisch Hall for the printing step, which takes place after processing of the edges.**

Dr. Klingel: "We use a screen printing process to apply a border designed to conceal the metal

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frame of the LCD panel. The border is an important design feature, it adds an aesthetic finishing touch to the panel." Anyone interested in seeing the large screen printing machine in action will need to don a white lab coat before entering the area. The first impression is a smell of dye, applied through a previously exposed fine-meshed screen. Following this, the glass is then dried.



Although the entire process is fully automatic, the printing operation is supervised continuously by at least three specialist workers, who monitor the precision of the result, refill dyes and clean the screen. Up to 400 panels can be printed per shift.

**The atmosphere in the final step of quality control is one of quiet concentration. Once again, the aim is utmost precision, to ensure that not even the tiniest contamination slips through. The surface quality must be perfect.**

"White light is the most effective way of identifying any bubbles and occlusions in the glass,

while scratches show up clearest against a black background," explains Dr. Klingel. "So we check each individual panel in front of white light followed by black light. Glass is an extremely sensitive material, and although we wash every panel after each work step to remove any pollutants or debris, you are never immune from errors. Loewe's stringent quality standards make this final check a vital part of the process."

**Glass is a very versatile material. It is stable and yet flexible, gas-tight, transparent, resistant to high temperatures, does not interact with other materials ... and what's more, it looks good.**

Dr. Kubatz: "Glass is a precious and durable material and these properties alone make it an ideal choice for a protective panel. A top-end television is not a disposable item, it will still be with you in ten years' time." •

**precious  
and  
durable**





1 Dr. Uwe Klingel explains the function of the contrast filter panel: "The grey colouring increases contrast values". 2 Up to 400 contrast filter panels can be printed per shift. 3 It takes ten minutes to grind the edges of the glass using a diamond tool. 4 An inspection is carried out after each work step; printing must be precise to one sixteenth of a millimetre.



## Berliner Glas – a company with a long history.

Berliner Glas was founded in 1952, in the middle of Germany's "economic miracle" period. Business in the glass wholesale market, however, proved somewhat sluggish, prompting Herbert Kubatz senior to consider potential avenues for diversification. He came up with the idea of producing slides. An intuitive decision that paid off, with demand rising steadily as German consumers began to travel and take photographs. Just two years later, 200 employees were producing one billion of these little glass plates each year. This anecdote of a successful quest for the right market niche characterises the Berliner Glas group's development through to the present day. The company has continuously expanded and updated its product portfolio in response to demand or market conditions. "In our industry, it is important to be responsive and keep your eyes open," confirms owner Dr. Herbert Kubatz, "a fact my father recognised right from the start". In addition to the company's headquarters in Berlin, it operates a further five sites in Schwäbisch Hall, Syrgenstein, Switzerland, China and California. The former glass wholesaler is today an international group with over 1,100 employees, generating an annual turnover of 152 million euros. Its traditional activity of technical glass currently accounts for 10 percent of its turnover, with the rest now generated by phototonics – using optical components, devices and systems to transfer, store and process information.



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Defined shapes  
and strong emotions.

**Less is so much more: the Loewe Reference  
creates a lasting impression.**

When it comes to design, for once Loewe does not offer more than other television manufacturers. It deliberately offers less. "Our design language has a clear focus – a minimalist approach, reflected in clear, geometric lines. That's our hallmark." Compromise is simply not an option for Loewe Designer Edmund English: "Good design stands out thanks to its uniqueness. It either works or it doesn't. Concessions dilute the shape, and shape is how we appeal to people on an emotional level."



Modern or traditional, understated elegance or bold effects? Naturally, Mr English and his team have no idea what living environment awaits the Loewe Reference. However, they have deliberately set out to create a design that will integrate harmoniously in any setting – making a lasting impression without being overly dominant. This visual appeal holds true from every angle, including the back. "The Loewe Reference is designed to make its own individual contribution to its surroundings," explains Mr. English: "Creating a coherent and balanced effect." Loewe's approach to design steers clear of a glaring emphasis on technical features. When you switch off the Loewe Reference, it transforms into a piece of furniture in its own right. "We seek to continuously ring the changes to add that element of surprise," continues Edmund English. "So as well as the colour options of Aluminium Silver, Aluminium Black or High-Gloss White, the Loewe Reference also comes in the very warm new shade of Dark Gold. Careful selection of materials can endow a technical appliance with great emotional appeal." The contrast filter panel also adds to the effect. After all, we have been using glass in our homes for hundreds of years. "We design clearly understandable objects," says Edmund English, "in a very special way".

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## Surface and frame.

### Overall aesthetic appeal.

The Loewe Reference's spectacular contrast filter panel is a multi-talented component. As well as protecting the sensitive panel and making the screen easier to clean, the grey double-sided anti-reflective glass increases the contrast values – resulting in a significant improvement in picture quality. However, one of the benefits of the contrast filter panel is far more obvious on first sight: "It enhances the overall aesthetics," says Loewe Designer Edmund Englich. "It makes everything seem clearer, more expansive, more timelessly modern." A meticulously printed dark frame completely conceals the underlying panel when the television is switched off. "The screen is transformed into a monochrome black surface." Giving further emphasis to a narrow aluminium border. "The distance between the glass and the frame creates an optical break," explains Mr Englich. "It makes a statement. We give shape to the technology."



Edmund Englich,  
Loewe Design.



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## Fabrics and colour.

### A natural approach for an individual look.

There is more to the work of a designer than simply sitting in an office and drawing sketches on paper. Stimulation and inspiration are important elements of the creative process. Loewe's designers spend a lot of time travelling, attending international industry design conferences and visiting interior design trade fairs. Edmund Englich comments: "Our job is to seek out emerging developments before they actually materialise as trends." One specific example is his team's identification of the importance of natural colours and materials – illustrated in the interchangeable fabric covers on the Loewe Reference and the new housing colour of Dark Gold. "Fabric offers perfect acoustic properties," explains Mr. Englich, "but it is also a wonderful material that masks the technical components and turns the Loewe Reference into an item of furniture in its own right." Not forgetting, of course, the new colour ... Mr. Englich reflects, "Dark Gold is really something special: it's metallic, warm and precious." The colour is applied in several layers in a manual process and then ground off. This creates the distinctive patina, a unique effect that can vary slightly from one product to the next. Making each Loewe Reference system one of a kind. "We wanted to move away from sterile mass production towards greater individuality and a more natural look." Mr. Englich casts a satisfied glance around him: "And I think we've done pretty well in that respect."

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# 4

housing colours

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Just the way  
you like it.  
And precisely  
as you want it.

### Flexibility you can see. And adjust.

Surely it is absurd to claim that the design of the back of a television set is just as important as the front? Loewe Designer Edmund Englich shakes his head emphatically: "The overall effect has to be right. And a carefully designed back is an important part of this. Loewe has held true to this principle for more than 30 years." Intelligent cable management is another aspect. There are lots of good reasons for this: for example, to allow you to position your television precisely where you wish in your room. From free-standing to table and unit configurations or in pride of place on the wall. Not only does the Loewe Reference fit seamlessly into your living environment, it also adjusts to your preferred angle and wishes: thanks to a motorised rotating floor stand – and the new, strictly limited, 85 inch size.

# 55" 85"

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Y

b

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our

est

icture.





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“I want  
to see their  
souls.”

An interview  
with photographic artist  
Werner Pawlok.

**From cities to authors, flowers, landscapes and faces – Werner Pawlok refuses to be categorised by object or genre. The Stuttgart-based photographer’s quest for fresh subjects is inspired by his feelings and interests. He uses photographs to gain insights into the topics that move him – from his favourite authors, featured in scaled-down black and white, to the city of Havana, using his camera to capture its poetically morbid decline. We visit the Stuttgart studio of the internationally renowned artist, who photographed Jimi Hendrix at the age of 14, has kissed Salvador Dalí’s hand and even exhibited alongside names such as Andy Warhol, Gerhard Richter and Robert Mapplethorpe.**

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### **When is a place interesting enough to make you take out your camera?**

It happens pretty spontaneously. I go into a room and a scene either unfolds in my mind – or it doesn't. All the Havana photos transpired like short films for me: I see people dancing in empty rooms or playing cards. And only then do I realise that I'm actually using my camera.

### **So places become film locations?**

Precisely. In Cuba, I really felt as if I was in a road movie. Not least, because I was travelling with a little team, a driver, an interpreter and me. That was it. I didn't need lots of equipment, just my camera. I didn't use any additional lighting and I didn't go back again in the hope of capturing the perfect light conditions ... What's more, I didn't change anything in the rooms, they are exactly the way I found them. I walked into the room, felt the atmosphere and shot my photos. There is a documentary aspect to it in some respects, as well as contrasts to this approach.

Werner Pawlok's studio is situated in the middle of Stuttgart's Heusteigviertel district. An interesting place that would definitely inspire anyone to take out their camera – even if they're not a photographer. Not least the sight of all the works hanging on or leaning against the walls. Stepping through the door, a few stairs down, you immediately find yourself surrounded by the 61-year-old photographer's creations. Starting with a blurred New York street scene that

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Pawlok photographed "quick and dirty" on his mobile phone from a moving car. Oh yes, New York! More about that later. "I took these pictures with my first camera mobile phone," reminisces Pawlok, "then the images sat on a hard disk for years. Until I came up with the idea of enlarging them and printing them on canvas."

**12 – 15**  
seconds

### **The photos from the "Cuba – expired" series currently showing in the LUMAS Gallery appear graphic and composed. How much of a chance element was involved in the shots?**

A local producer researched a few locations, but for the most part I just drove around and found interesting places.

### **How should we imagine the scene? Did you simply ring the bell and say: "Hello, I'm a photographer, can I take a look around your house?"**

Precisely. It was very straightforward – the Cubans were all very friendly and open. I always try to seek out places that are not so easy to get into. I want to track things down – once again, the element of chance is important here.

### **There are no people in the scenes depicted in the Cuba photos ...**

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That was a deliberate decision. My focus for this project wasn't the relationship between residents and dwelling. All I was interested in was the rooms.

### **How do you decide which angle you want to show a room from?**

It tends to be intuitive. I look at a room and very quickly know where I want to position my camera. I simply know which angle is the right one. Well, I'm a photographer – and have been for forty years now – otherwise, I should give up (he laughs).

### **You are self-taught and learned the craft on your own ...**

That's a good thing.



### **Why do you say that?**

The good thing about it is that I stood out. There is nothing worse than photographers who want to be just like other photographers. Either it works or I pack it in. Even at the age of 21 I realised that.

We come across an "actually" in many biographies. And Pawlok is no exception: "I actually wanted to be a painter. I started drawing when I was nine years old and tried to create a very realistic portrayal of the world. I enjoyed it – until someone gave me a camera. I knew straight away that this was what I wanted to do!" So he

1 An archive of days gone by: piles of works spanning the last four decades fill the Stuttgart studio – some on hard disk, others on canvas. 2 Even landscapes have a soul: powerful natural shots on the Ariberg mountain range in Austria. 3 Morbid charm: Werner Pawlok spent several weeks in Havana shooting the “Cuba – expired” photo series. 4 Colourful, alienating, fascinating: Pawlok’s view of Wall Street in New York City. 5 Pawlok’s photos – available to admire and purchase: in the LUMAS Gallery in Berlin (Ku’damm). 6 For his “views – faces of literature” work, Pawlok photographed 25 famous authors, including T. C. Boyle featured here. 7 8 9 Faces, animals, beautiful places: inspiration is all around for Pawlok. The artist refuses to be defined by a genre. 10 Blue in all nuances: In his sea paintings the Frankfurt photographer Wolfgang Uhlrig explores the infinite breadth of the horizon.



began experimenting. As a young man, he travelled from concert to concert photographing his heroes: from The Who to Pink Floyd and Jimi Hendrix. At the age of 23, he opened his first photo studio in Esslingen. Three years later, in 1979, he founded the first photo gallery in southern Germany – in an old furniture hall. Pawlok smiles: I very quickly realised that running a gallery was not my vocation. But I did get to know lots of great photographers”. He combined this work with photography projects for industry and advertising. “I have always worked on two aspects in parallel: on the one hand, my freelance projects and, on the other hand, I worked to earn money. It was a very straightforward deal for me.” What about the painting? “It’s something that has never left me over these 40 years ...”

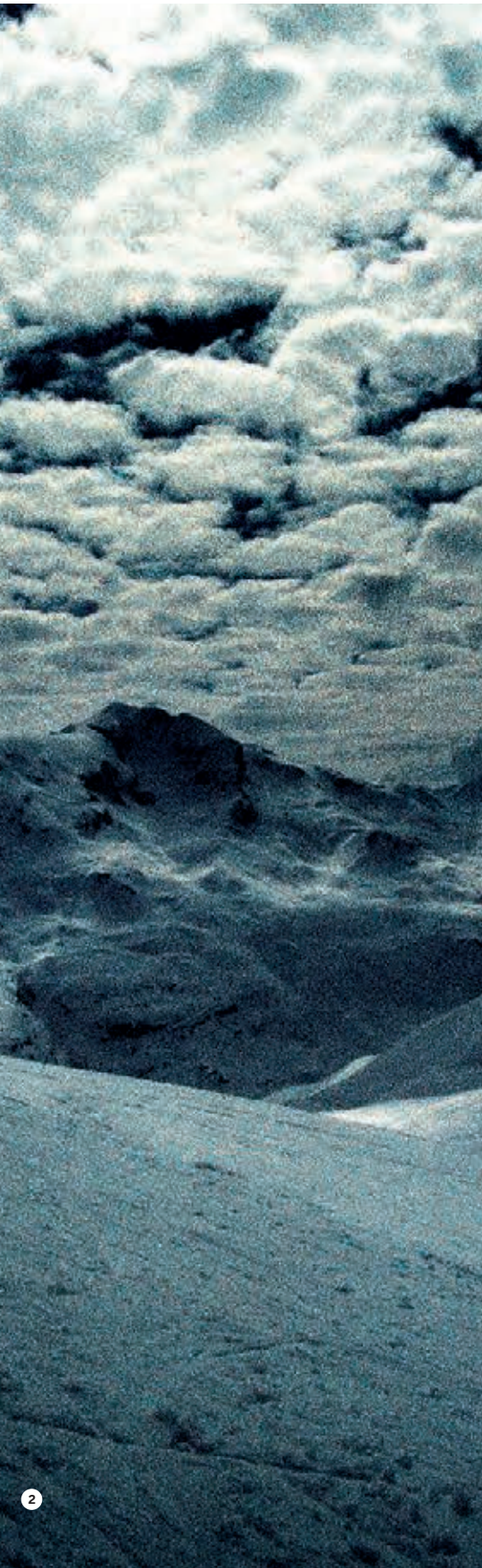
### **You embraced the risk ...**

Yes, I decided to take a less-travelled path. It was important to me not to simply follow on from the work of artists or other photographers. I wanted to take a more naive approach and find my own vision. If you do something that someone has already done, you’ll never find out whether your own artistic vision is any good.

### **How would you describe your vision?**

Can you actually describe it? I’ll try. At the beginning it feels like a kind of inner unrest. At least, that’s how it always starts with me – after that it takes a lot of drive to actually turn it into reality. Hmm, but what is my vision? It sounds rather mundane, but it’s the things I like, the things I’m interested in.





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**What attitude do you approach your projects with?**

I want to follow my own inspiration. My photos need to be authentic. I don't set out to produce work that will appeal to as many people as possible. That holds true for the Cuba project too. The fact that this series was so well received – you might dream of this, but it is not the actual goal. That came about more by chance. Life is shaped by chance.

**In the late 1970s, you met the surrealist Salvador Dalí and his wife Gala.**

**Was that chance too?**

And how. That's a crazy story. I was travelling through Spain on my way to Morocco when I picked up a hitch-hiker. The hitch-hiker knew Dalí, as he had curated an exhibition for him, and he said: "Come along if you like."

## energy

So we drove to Dalí's house in Cadaqués. We found him sitting on a kind of throne in the garden wearing a silvery robe and holding a staff in his hand. The hitch-hiker knelt down in front of him and kissed his hand. So I did the

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same. And Dalí didn't say a word the whole time.

**A surreal situation ... What meaning does art have for you?**

Art has always played an important role in my life. Art is a special energy, something that never leaves you. I like looking around exhibitions. Mainly paintings. I'm quite cautious when it comes to photographs, as I don't want to allow myself to be influenced.



LUMAS app

It can even happen without you being consciously aware of it. Your mind retains images and events and all of a sudden you find yourself doing something you've seen somewhere along the way.

**You started out with analogue and now work purely with digital. How did you find the transition?**

It was exciting. Right at the beginning, back in the development phase, I cooperated very closely with companies such as Kodak. I was one of the first people to try out digital cameras at workshops. So in this respect,

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there was no abrupt transition for me. I'm always interested in new things. When I stop being interested, then I'm dead.

"Follow me". Pawlok suddenly interrupts the interview, crosses the studio and stops in front of a red photograph. "The photo series on Dantes' 'Commedia' came about in 1993. And because I was irritated by poor lighting in galleries I built a special light box to illuminate the photo from behind – following the basic principle of a television. I like new ideas and I enjoy experimenting – with both materials and implementation. For me, anything else feels like standing still." So it's hardly surprising that Pawlok is also one of the first artists whose work you can now view on your home television screen using the LUMAS app (see next page). Or as Pawlok says: "Sometimes I find a picture on the wall too boring."

**Have you ever experienced a kind of "photographic crisis" where you think to yourself "why should I create more photos?"**

Yes, constantly.

**What happens then?**

Something new and interesting comes along and I carry on. I really hate it when shelves and archives fill up with photographs and I ask myself: should I keep producing more? But you start to filter things and take time to consider: is this new idea really good?

**So you review your ideas?**

I don't actually need to review things in that respect. When the right energy strikes, I simply

have to do it. I travelled to Zurich twenty-five times to photograph authors. You need to be very motivated and really want to do a project like this.

**You have photographed authors, cities, flowers and created a photographic interpretation of Dantes' Divine Comedy – a very diverse portfolio. Where do you find your inspiration?**

It's usually pretty simple. For example, for the author project, I simply wanted to see the faces behind the stories. I thought to myself: you've read the books, but you don't actually know what the authors look like. And that started me thinking about how I could bring this idea to life. I try to take a relatively structured approach.

## "stars and paints"

"Stars and paints" was Pawlok's first major freelance project in which he photographed the people who had inspired and influenced him: Pedro Almodóvar, Jane Birkin, Juliette Binoche and Pierre Cardin. Creating, over the course of the 1990s, over one hundred large-format Polaroid shots. Over ten years later, he embarked upon a series of portraits of authors, meeting Martin Walser, T. C. Boyle, Henning Mankell, Jonathan Franzen, Richard Ford, Salman Rushdie, Ken Follett and Siri Hustvedt.

Pawlok opted for Polaroid shots once again for his "views – faces of literature" project.

**So you had a clear vision of how you wanted to photograph the authors?**

Yes, I need that. I am the kind of person who always needs to refocus. I'm interested in so many things that there's a risk of getting caught up in a whole plethora of pursuits. My main aim was to portray the authors in an identical manner. I considered the question: "what do I want?" I wanted to see their souls, I wanted to look beyond their eyes to the person within. So I went in very close and focused on their eyes. The face became the background for the eyes, if you like.

**And? Did you manage to see their souls?**

You never quite know that. But that's what makes portraits and photography as a whole so fascinating. It is all about recognising and capturing a single moment. For me, photography is a kind of meditation. •





### Crystal-clear sharpness.

Crystal-clear sharpness, precise detail and perfect contrasts – there's no doubt about it, Ultra High Definition photos are fun. Unfortunately, until now there was only a very limited amount of content available in genuine Ultra HD. "So we're even more delighted to finally be able to offer a practical application to allow you to reap all the benefits of Ultra HD – in the form of the new LUMAS TV app," says Loewe Product Manager Jan Bollow enthusiastically. "The high resolution and resulting depth of focus truly showcase the colour intensity of today's digital photographs."







Reference

LOEWE





## High-resolution art: with the LUMAS app.

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The new Lumas Gallery app takes art into the digital dimension – and opens up flexible new horizons. It allows you to enjoy selected works of art by internationally renowned artists – including the Cuba series by photographer Werner Pawlok – in high-resolution Ultra HD quality on your television screen. The LUMAS TV app is already installed on the home screen of the new Loewe Reference, allowing you to start choosing pictures straight away – using the convenience of the Loewe remote control from the comfort of your sofa. Choose artists directly in categories such “Landscapes” or “People” or simply scroll through the “Highlights”. You can also call up information about each artist and his or her work.

Browse photographs, graphics/illustrations, digital art, paintings and more in LUMAS' continuously evolving portfolio. When you find a picture that appeals to you, you can display it as a fixed image (for a maximum of 24 hours) or enjoy the endless pleasure of a slide show. The settings in the app allow you to determine the speed at which you move from picture to picture, as well as the choice of a specific sequence or shuffle mode.

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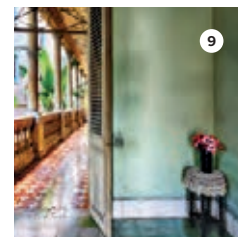
“ I like new ideas. So I'm excited by the idea of the television screen as another medium of artistic portrayal.

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**Werner Pawlok,  
LUMAS photographic artist.**







**LUMAS** 

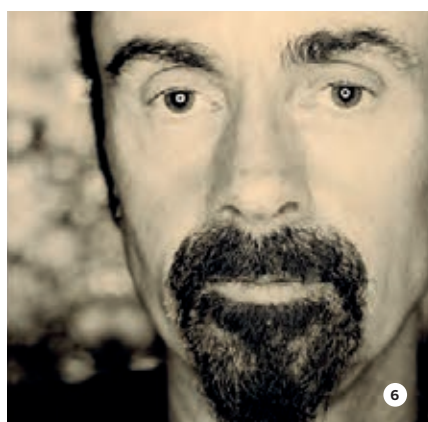
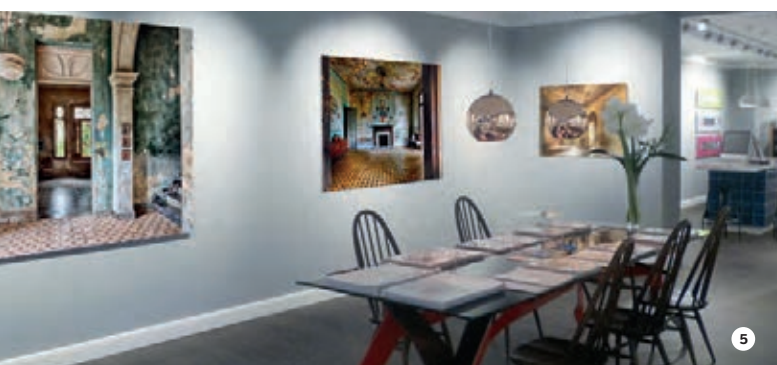


### Accessible art, or “the LUMAS principle”.

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From the first gallery, opened in 2004 in the Hackescher Markt area in the centre of Berlin, LUMAS now has 35 galleries around the world, in cities including Amsterdam, Brussels, London, Moscow, New York, Paris, Vienna and Zurich. The aim of the founders, Marc Ullrich and his wife Stefanie Harig, was to offer consumers modern photographic art originals – hand-signed, but as editions at affordable prices. Mr Ullrich explains: “Our average print run is 100 copies. In comparison with traditional galleries, where a run of 5 is regarded as high, this allows us to offer art at far more accessible prices. Reflecting our ethos that art is not elitist, it’s there for everyone.” The Gallery’s portfolio currently consists of 1,800 works by some 200 artists, including internationally renowned names such as Andreas Feininger, Edward Steichen, Man Ray, Michel Comte, Olaf Hajek, Olaf Martens, Robert Lebeck and Wolfgang Joop.

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P. 42 | Photo no. 2 | Arlberg | ©Werner Pawlok  
P. 44/45 | Photo no. 3 | House of Flora – Havana | ©Werner Pawlok | LUMAS.com  
P. 49 | Photo no. 4 | Wallstreet 1 | ©Werner Pawlok  
P. 49 | Photo no. 5 | LUMAS Gallery Berlin, Ku’damm | LUMAS.com  
P. 49 | Photo no. 6 | views to boyle | ©Werner Pawlok  
P. 49 | Photo no. 7 | Dante Läuterungsberg | ©Werner Pawlok  
P. 49 | Photo no. 8 | Toucan | ©Werner Pawlok  
P. 49 | Photo no. 9 | House of Magali – Havana (Detail) | ©Werner Pawlok | LUMAS.com  
P. 50 | Photo no. 10 | Sea #1 | ©Wolfgang Uhlig | LUMAS.com



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True stature ...

**... for sizeable demands:  
the Loewe Reference 85.**

There are so many options for improving the picture quality of a home entertainment system ... Loewe engineers are masters of their craft. A craft they elevate to an art form by never losing sight of an important fact: "The perfect picture is in the eye of the beholder", says Jan Bollow, Loewe Product Manager. "We orchestrate, in a manner of speaking, a unique overall effect." For example, as well as improving the intensity of dark scenes, the large contrast filter panel, the fruit of a complex production process, also serves as a design feature that integrates seamlessly into the living environment, creating an eye-catching effect even when the Loewe Reference is switched off. And for fans of that authentic cinema feeling, from autumn 2015, in addition to the 55 inch version, there will also be a Reference 85. Featuring a spectacular 216 cm screen diagonal, this model will be available as a strictly limited edition from selected Loewe dealers. A deluxe home cinema experience: "Once again, we completely realigned our technology to deliver brilliance, clarity and rich detail in this extra-large screen size," explains Jan Bollow. "For all those in search of amazing new viewing experiences."

**85 inches**  
216 cm

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Ultra High  
Definition ...

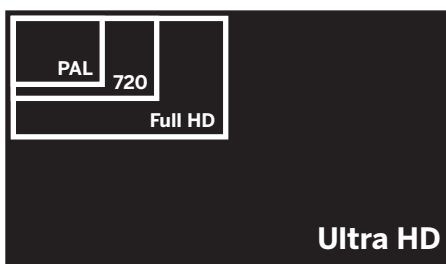
**... for the  
best picture.**

There are many competing claims and different measures used as indicators of picture quality. But its not the numbers that count, its the pictures you see and this is where Loewe really shines. "We don't develop our innovations to look good in a data table in the



More  
than  
simply  
numbers.

catalogue,” explains Jan Bollow, Product Manager with Loewe. “Our flat-screen TVs offer the customer a highly realistic viewing experience.” Seeing is believing? “Precisely,” confirms Jan Bollow. “For example, the new Loewe Reference’s Ultra High Definition display offers a resolution four times higher than a classic Full HD television. But innovations are only truly meaningful if you can actually use them!” Ultra HD photos and videos can be displayed in the crystal-clear quality they deserve, via HDMI, a USB stick, from your home network or – exclusively on Loewe TVs – using the new Lumas app. However, most current TV broadcast signals do not yet meet the new standard, an upscaling process is needed. “An algorithm is required for this,” says Jan Bollow. “And ours is particularly sophisticated.” The Loewe Ultra HD scaling algorithm converts the currently available 1,920 x 1,080 pixels to a rich 3,840 x 2,160 pixels. In a seamless process ensuring visibly enhanced details and clarity even for Full HD content. “At Loewe, we give meaning to the numbers,” smiles Jan Bollow.



**Four times the resolution in comparison to Full HD, multiplying the level of detail within the same area: that’s the promise of Ultra HD, with 3,840 x 2,160 pixels! The Loewe Reference fully exploits these new horizons.**

## Loewe Image+ Active ...

**... for a  
perfect finish.**

A smartphone allows you to edit photos with a touch of your finger. Creating striking exaggerated effects, over-saturated colours and extreme contrasts. That’s what you’re trying to achieve in that case ... but what about a TV picture? “You can use special eye-catching effects to make your product stand out on a wall of TV sets in an electrical store,” says Jan Bollow, Loewe Product Manager. “We avoid these kind of gimmicks. Each and every Loewe Reference leaves the factory perfectly calibrated.” And each time you switch the television set on, Loewe Image+ Active picture control guarantees natural sharp outlines, balanced contrast, intensive rendering of black and attractive colour values.



**Jan Bollow,  
Loewe Product Marketing.**

## Display adapts ...

**... to provide perfect  
brightness at all times.**

A feature most of us are familiar with from laptops: the display automatically adjusts to changes in the surrounding light conditions. The aim is to avoid strain on the user’s eyes and preserve battery life. Although it may not run on batteries, this automatic adjustment of the display brightness makes the Loewe Reference more energy efficient. And your eyes will be happy about it too! Another automatic feature further enhances viewing pleasure. VBD+ (Video-Compensated Backlight Dimming) ensures perfect illumination for every scene. For example, for a night-time scene in a crime thriller: the LED backlight dims to create a realistic black effect.

## Loewe 3D Active Shutter ...

**... for even  
more depth.**



From outer space to jungles or oceans ... Sometimes, you want to truly immerse yourself in the action unfolding on your screen. Loewe’s 3D Active Shutter technology brings 3D content alive with vibrant detail.









AFRICA  
MARTIN PARSONS

Your

best

operat





ion.





# Popcorn and the bathtub.

One day, many scenes:  
live on the Loewe film set.

**We could wax lyrical about navigation, information architecture, menu structure or interface design. But is there a single word that truly encapsulates the benefits of the new Loewe Reference's operating concept? "I would need two words," answers Software Engineer Stefan Schedel: "Freedom and Joy." To demonstrate what Loewe means by this, we produced a series of short films – themed around the everyday life of a family and including some behind the scenes glimpses into production at the Loewe factory. We visited the film set. Action!**

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## What a day!

The sun is shining. From the warm wooden decking of the roof terrace, there is a view of Alpine peaks and the glittering blue waters of Lake Starnberg. Nobody spares a glance. Inside the modern dwelling, there is a scene of intense activity. Here too, the design features of Loewe's film location, with its expansive concrete surfaces and acres of glass, go unnoticed. Nobody cares. Because the Danish director needs popcorn. "What a crazy problem," says Anders Ingvarstsen. But it's an important one: because this movie snack is set to play a starring role on the other side of the camera. A few minutes later, a car drives up. The popcorn express has arrived. Let the action begin.



In the kitchen, everything is ready. A pepper grinder and some basil add a homely touch, while a saucepan and a spoon serve as essential props. In the living room, the new Loewe Reference is looking every inch the star, showcased to perfection against the backdrop of the plain wall. In the garden (looking good even against the green), the limited edition 85-inch model is waiting in the wings for its big moment.

The story is very simple: the grandfather of the "Loewe family", specially cast for this series of films, is spending time with his grandson. They are watching a film on TV. Wow! This is better than the cinema! The picture and sound on granddad's Loewe Reference are amazing. All that's missing is some home-made popcorn. The grandfather goes off to the kitchen ... but there's no need to worry about missing any of the action. Thanks to a second television in the kitchen, an elegant Loewe Connect. What's more, there's no tiresome connection to an aerial, cable or satellite. The new Loewe Multiroom DR+ Streaming feature simply streams the live images from the Loewe Reference in the living room over the home network to the kitchen.

Something that would take just ten minutes or so in real life – and a simple push of a button in the case of the television – is a far more time-consuming affair in a film shoot. The make-up artist applies cream to "grandfather" George's hands, powders his face and sprays his hair. Anders then talks him through the scene: "You switch off the heat under the popcorn, remove the pan from the cooker, shake the popcorn into a bowl and pick it up. And then you glance at the television!" George is only too happy to dip into the bowl ... the popcorn is real. A little smile. Then off he goes, back to the living room. Not too difficult? Rolling cameras, precisely timed

sequences and a quest for perfect close-ups and frames add more than enough complexity. "Let's go", announces Anders calmly. "Action!" And finally "Cut!".

## film shoot

In one take, the angle of the pan tipping the popcorn into the bowl isn't right. "Towards the camera, please!". In another, George turns the cooker off a few seconds too late, and once he moves out of shot a fraction too soon. The TV channel then needs to be changed, the current programme, something about rubbish bins, is starting to get a bit irritating. Without further ado, it is flicked over to the quality broadcaster ARTE and a nature documentary. Somewhere after "Cut!" and "Cut!" and "Cut!" and "Cut!", Anders Ingvarstsen finally pronounces the welcome words: "That looked pretty good. Can I take a look?" Instead of popcorn, George is given a pretzel for sustenance: "After all, we're in Bavaria," he says happily.

Another scene is in full swing, this time in a bathtub and featuring a star who is just six years old. Leopold is standing, or more accurately sitting, in front of the camera for the first time. "He's a real pro," praises Anders. The





<

George is making popcorn – in his role as the young-at-heart grandfather of the “Loewe family”.

**All Loewe films are available online: [www.loewe.tv](http://www.loewe.tv) and [www.youtube.com/user/loewe](https://www.youtube.com/user/loewe)**



aim of the scene is to illustrate how difficult life could be without Loewe Smart tv2move, a clever app that streams the TV picture to a tablet computer. Like Leopold, you would need to use binoculars and an elaborate system of mirrors to try to catch a glimpse of your Loewe television from the bathtub. Not a serious suggestion of course – but a fun concept to shoot. Leopold and the crew are laughing a lot, with just the sound

man looking a little stressed from time to time.

Some scenes were also shot at the Loewe factory in Kronach, to reveal precisely what goes into the new Loewe Reference: from the passion of the employees who produce it to the painstaking attention to detail ... In the end, all summing up the key concepts: all the freedom in the world and a whole lot of joy. Or: “Designed for Life.” •

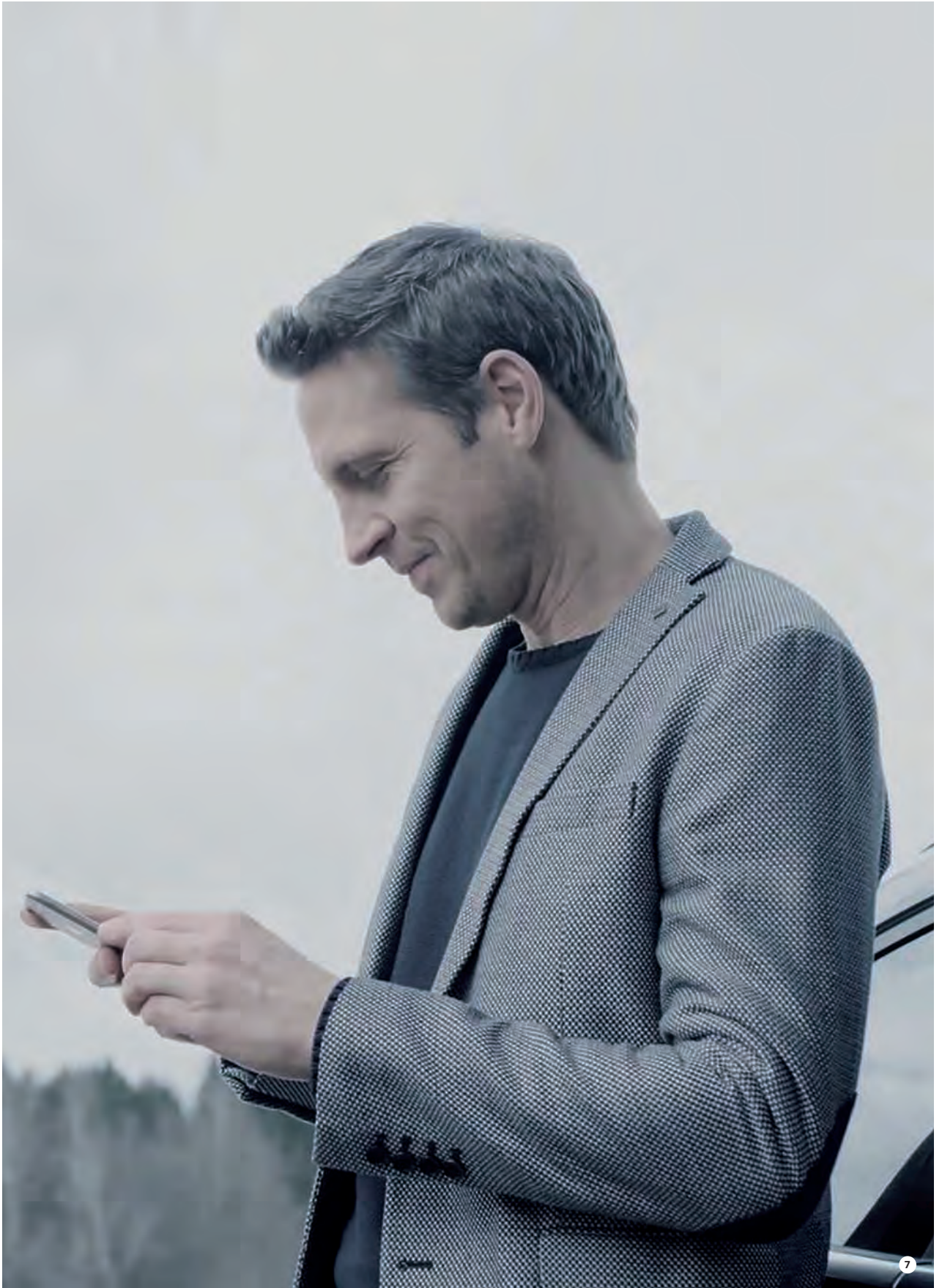


**Loewe Feature Upgrades allow you to easily enhance your Loewe Reference with new features as and when they are released.**





1 How's it looking: a quick glance at the preview monitor. This is used to check that the light and settings are right. 2 Sits comfortably in your hand: the Loewe apps play a starring role in the Loewe film. 3 Action! A taste of Hollywood ... no film set is complete without a clapper board. 4 Director Anders Ingvarlsen was usually right behind the camera in person. 5 The new Loewe Reference 85 – a true star. 6 The popcorn is ready, let the fun begin: the Loewe grandparents and their grandchildren on the couch. 7 Flexible viewing: the father of the "Loewe family" demonstrates how to use the Loewe Smart Assist app to record a film even when you're not at home.





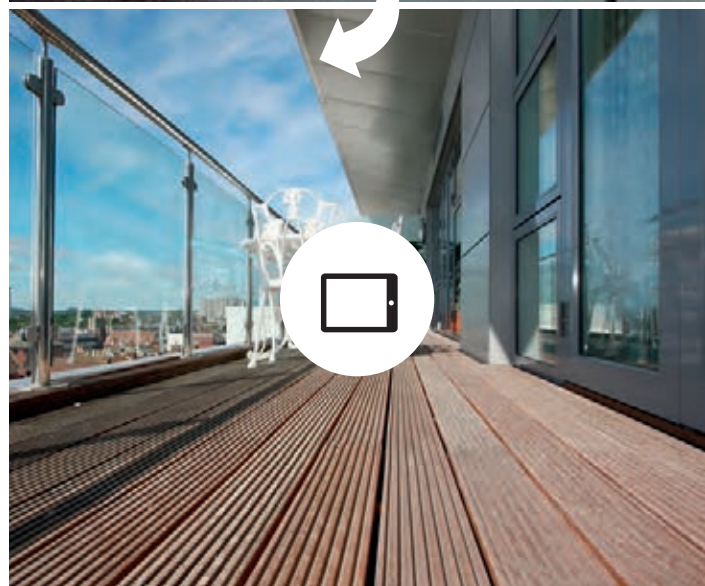
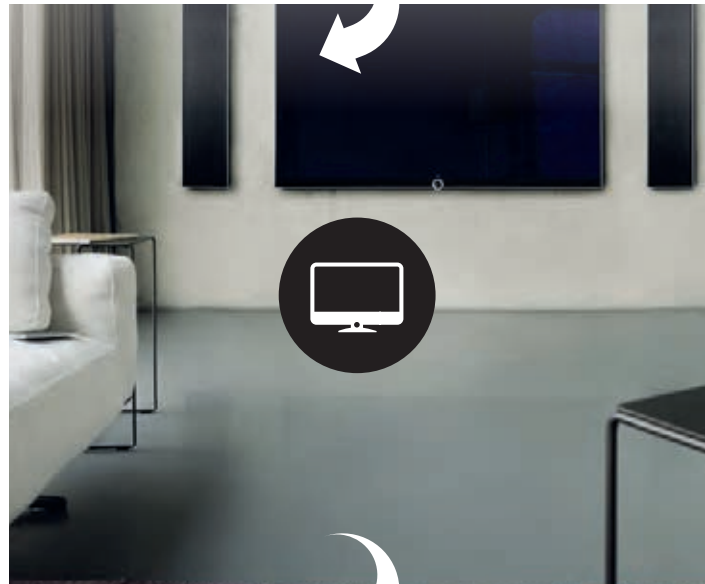
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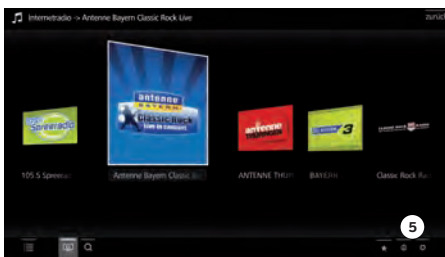
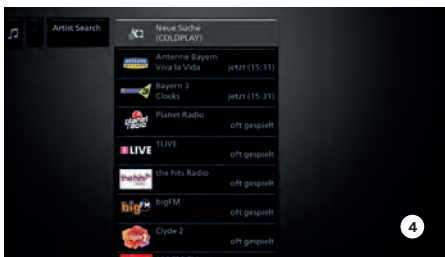
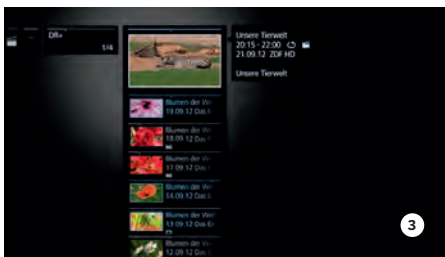
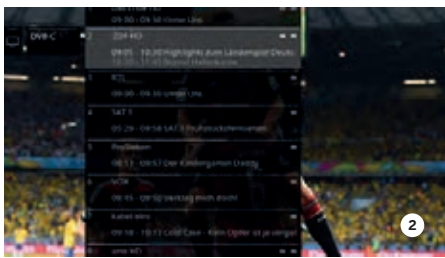
## Loewe Mobile Recording, Loewe Multi Recording ...

### ... a great new kind of freedom.

Ever since the invention of the remote control in the early 1950s, it has been a symbol for user-friendly operation. Press and click – all from the comfort of your armchair or sofa. Of course, there have been a few developments since then. Televisions like the Loewe Reference are now perfect and versatile home entertainment systems: impressively flat, smart, high resolution and offering resonant sound. “One thing that hasn’t changed in all these years,” says Stefan Schedel, a Software Developer with Loewe, “is the desire for the simplest and most intuitive operation.” Explaining Loewe’s quest to develop and improve the “remote control concept” at all levels ...

... one example being the new Loewe Mobile Recording feature. Opening up the flexibility to programme recordings easily on the integrated Loewe DR+ hard disk, even if you’re not at home – thanks to the new free Loewe Smart Assist app. Allowing you to enjoy your favourite programmes at a more convenient time. And what about Loewe Multi Recording, Mr Schedel? He smiles: “It has finally put an end to those constant arguments over the remote control!” Because Loewe DR+ now allows you to record two programmes at the same time – and in many cases, you can even watch a third channel in parallel. “We make optimal use of the two tuners in the Loewe Reference for this. They are designed to work independently on fully digitised signal processing. The only possible restrictions are the type of connection or legal provisions.” Last but not least, the Loewe IR Link feature. An unassuming name for such fabulous convenience: use your Loewe remote control to operate third-party devices with an RC5 code in locations concealed from view.





**Clear, uncluttered and informative features – the new Loewe Assist Media operating system offers all this and more:**

- ① All video content at a glance. ② Rapid overview of channels.
- ③ Visibility of recorded programmes stored in the DR+ archive.
- ④ The new Loewe Internet Radio Artist Search: searches all Web radio stations for “Coldplay” or other favourites.
- ⑤ List of Internet radio stations.

## Loewe Assist Media 2015 ...

### ... a new kind of user friendliness.

Loewe's uncompromising approach encompasses both perfect aesthetics and ultimate functionality. This involves setting standards in user-friendly operation, as well as in the design of the TV housing and loudspeakers. Stefan Schedel explains: “To bring lasting satisfaction, an electronic device must be as easy as possible – and fun – to use.” In other words, you should be able to switch on, get started and understand how it works without having to decipher small print in instruction manuals. And enjoy the thrill of discovery again and again as you explore all the options at your fingertips!

“Our Loewe Assist Media 2015 operating system in the new Loewe Reference paves the way for even more intuitive navigation, helping you to easily find your way around the different features”, continues Stefan Schedel. “For example, a redesigned user interface, meaningful icons – and more elegant details”.

## intuitive

You can still store your favourites on the home screen at the touch of a button – from selected channels to specific programmes, archived recordings, photos and more. A useful new filter has now been added to help you navigate all this content – allowing you, for example, to immediately locate all your video-related favourites. Stefan Schedel smiles: “I just wish there was a feature like this for my desk in the office too!”

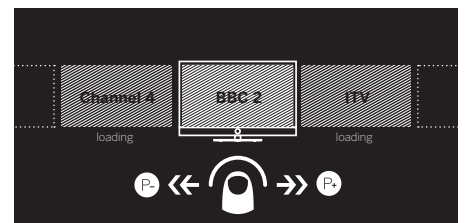


**Stefan Schedel,**  
**Loewe Software Development.**

## Loewe Instant Channel Zapping ...

### ... a new kind of speed.

It's a fact: the arrival of the remote control has made channel zapping part and parcel of our television experience. Some people switch channels during ad breaks, while others flick through programmes in search of surprises – or to find out more about our complex world. Every press of the button immerses you in a completely different experience! However, on most television sets, changing channel seems to take an unbearably long time. Help is at hand: Loewe Instant Channel Zapping – for a genuine ‘film editing’ like effect. We use our Dual Tuner technology to achieve this. While you are watching one channel, the second tuner is already automatically loading the next one. You then simply switch to this image when you change channels.



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## Loewe Artist Search ...

### ... a new kind of discovery.

From Karajan to Abba or the Beastie Boys: somewhere on the World Wide Web, somewhere between Bangladesh and Idaho ... someone is playing the artist you want to hear right now. But how can you track the station down? Ask your Loewe Reference! At the touch of a button, the Loewe Artist Search finds all the Internet radio stations currently playing your chosen artist. This clever feature also tells you which of the 30,000 stations feature this artist most frequently on their playlists.



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## Loewe Smart tv2move app ...

### ... a new kind of comfort zone.



From your kitchen to your patio: The Loewe Smart tv2move app<sup>1</sup> turns your tablet computer into a second

television. In Loewe quality naturally! Watch live TV, a programme from your archived recordings<sup>2</sup> or use the electronic programme guide to schedule a new recording ... all without leaving your deckchair on the patio. And it is now even easier: the Magazine Programme Guide<sup>3</sup> allows you to create channel lists according to the layout of your favourite TV listings magazine using the Smart TV2move app or directly using your Loewe TV.

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## Loewe Smart Assist app ...

### ... a new kind of freedom.



Smartphones have become our faithful companions in everyday life. They make sure we don't forget important dates (birthday reminders), help us stay on track (or not) with diet resolutions (calorie counter) and even guide us to different destinations (Sat-Nav). "The free Loewe Smart Assist app is now making your multifunctional smartphone even smarter," comments Loewe Software Developer, Stefan Schedel: "It transforms it into an intuitive remote control for the Loewe Reference – including a continuously updated 7-day deluxe programming guide. But that's not all: you can also manage the entire Loewe DR+ recording archive, from playing an archived programme to

scheduling a new recording, completely within the interface of the app. Thanks to Loewe Mobile Recording, you can even schedule recordings on holiday, for example, on a beach in Crete. Just tell your Loewe Reference back home that you'd like it to record "James Bond" and then relax in your lounge and get back to the serious business of sunbathing. How does the technical side of it work? "It doesn't really matter", smiles Stefan Schedel. "What's important to the user is the fact that it's child's play to operate."

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## Loewe Bluetooth ...

### ... a new kind of connectivity.

Your favourite music now has the showcase it deserves: thanks to the new Loewe Reference's Bluetooth connectivity. Use the Bluetooth Music Player to easily connect your Bluetooth-enabled smartphone or tablet computer and listen wherever you happen to be at that precise moment – using the very handy Loewe Smart Audio app, for example. Wirelessly and with a sound quality that only the Loewe Reference can offer. You can also operate the familiar computer keyboard using Bluetooth.



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<sup>1</sup> The Smart tv2move app is compatible with free-to-view channels. Available for iOS and Android.

<sup>2</sup> Where programme encryption allows.

<sup>3</sup> At the moment, this feature can be used to access German TV listings magazines.



LOEWE.



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## Loewe DR+ ...

... a new kind of location-time dimension.

What is the easiest way to explain the possibilities opened up by Loewe DR+ with its integrated 1-TB hard drive? Loewe software developer Stefan Schedel doesn't need to think for long: "I would say, it's a whole new freedom! Loewe DR+ frees you from the constraints of time and location. After all, your entertainment schedule should adapt to your needs. Not the other way round." It is actually surprising to find that hardly any other television manufacturer has integrated this level of recording convenience in a TV set.



---

### Pause.

You're engrossed in a nail-biting scene in a crime thriller and suddenly your neighbour rings the doorbell. What do you do? Just press the red pause button. The live programme will then stop, ready to resume again as soon as your neighbour leaves. Simply press the Play button.

---

### Record.

Scroll through the electronic programme guide on the TV screen, your smartphone or a tablet computer – and select what you would like the Loewe Reference to record for you. Save your recordings in your own customised folder structure and then dip in and out of your personal film archive as often as you please!

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### Access.

The Loewe DR+ archive on the Loewe Reference is there for everyone! Stored content can be played on any other current Loewe television in your home network – or even on a tablet computer, thanks to the Loewe Smart tv2move app...

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### Stream.

Sometimes it can be hard to stay awake in front of the TV ... Thanks to Loewe DR+ with the Follow-me feature, there is now a comfortable solution to this dilemma. Pause your Loewe Reference in the living room, go and brush your teeth and get tucked up in bed. Then press "Play" on your second current Loewe television set in the bedroom. And you won't have missed any of the debate on your talk show.

---

### Distribute.

Do you need to quickly tidy up the kitchen, but don't want to miss the thriller the rest of the family are watching in the living room? Thanks to Loewe Multiroom DR+ Streaming, you don't need to miss a thing. You can stream the live programme to an additional two Loewe televisions in other rooms. There's no need for an aerial, cable or satellite connection, the programme is simply streamed over your home network via WLAN.

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Loewe Reference.  
**Product details.**



**Wall Mount Slim / VESA Size 400**

Chrome Silver  
Flat mounting  
55: W 125.9 / H 76.6 / PD 6.1 / TD 7.5



**Wall Mount Reference 85 /  
Wall Mount 67**

Black  
Convenient mounting  
85: on request  
55: W 125.9 / H 76.6 / PD 6.1 / TD 10.0



**Wall Mount Isoflex 32-55<sup>1</sup>**

Aluminium  
Flexible solution, folds flat,  
can be pulled out, rotated and pivoted,  
intelligent cable management  
55: W 125.9 / H 76.6 / PD 6.1 / TD 11.3



**Table Stand Reference 55**

Aluminium  
Manually rotatable (+/- 20°)  
55: W 125.9 / H 83.6 / PD 6.1 / TD 34.7



**Table Stand Art 55**

Aluminium  
Manually rotatable (+/- 20°)  
55: W 125.9 / H 79.6 / PD 6.1 / TD 32.0



**Floor Stand Reference 85 MU /  
Floor Stand Reference 55 MU**

Aluminium  
Motor operated rotation (+/- 45°),  
intelligent cable management  
85: W 194.0 / H 165.3 / PD 8.9 / TD 70.1  
55: W 125.9 / H 121.4 / PD 6.1 / TD 59.0



**Screen Lift Plus<sup>1</sup>**

Brushed Aluminium  
Manually rotatable (+/- 90°),  
concealed cable routing  
55: W 125.9 / H 300.0 / PD 6.1 / TD 20.2



**Rack TS**

Different versions, sizes and two colours  
available to match Loewe TV, sound  
system and equipment:  
Rack 110.30 TS: W 109 x H 36 x D 43  
Rack 165.30 TS: W 162 x H 36 x D 43

Dimensions in cm: W = width, H = height, PD = product depth, TD = total depth, D = depth  
Contents: Assist 1 system remote control, incl. batteries. No set-up option included in delivery.  
Some products are depicted with optional accessories.

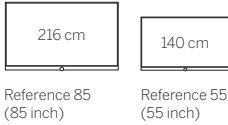
<sup>1</sup> Only in conjunction with VESA Size 400 adapter.  
<sup>2</sup> Technical features for Reference 55.  
For other models see pages 62 and 63.



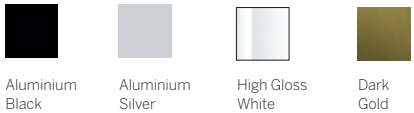
**Perfect poise.**

Select your preferred stand solution from the numerous options and create the perfect showcase for your new Loewe Reference, exactly where and how you want it – because thanks to its 360° design, this visual highlight makes a compelling impression even in free-standing mode. A motorised rotating stand even allows you to use your remote control to easily and conveniently adjust the TV angle to your viewing position.

TV housing  
**Screen diagonals**



TV housing  
**Colours**



**Colour Kits**



**Technical features<sup>2</sup>**

Ultra HD	3D	LED	2.0	Front Firing Speaker	5.1 Decoder
2.0 5.1	DVB T2	DVB C2	DVB S2	CI+	DMR
MEDIA www	TEXT HbbTV	Media Update	ITB		
Bluetooth	tv 2 move	HDMI	LAN	WLAN	USB
LOEWE	LOEWE				Instant Channel Zapping



**Technical information.****Image+ (Image)**

Resolution (in pixels)	Ultra HD (3840 x 2160)
Display technology	LCD with Direct-LED-Backlight
Screen diagonal (in cm/inch) / Response time (in ms)	216 / 85 / 6
Brightness (in cd/m <sup>2</sup> ) / Viewing angle (horizontal/vertical)	500 / 178 °
Contrast filter glass	●
Ultra HD Super Resolution Scaling / Image+ Active / 24 p motion picture display	● / ● / ●
3D technology / Active Glasses 3D	● / ○
Video auto-dimming (VBD+) / Interior auto-dimming (OPC) / Home Mode	● / ● / ●

**Digital+ (Television Standards)**

DVB-T2 / DVB-C2 / DVB-C / DVB-S2 / Multistandard (analogue) / Dual Channel	● / ● / ● / ● / ● / ●
MPEG / MPEG2 / MPEG4 (H.264) / HEVC (H.265) / integrated HDTV reception <sup>1</sup>	● / ● / ● / ● / ●
DVB radio / Unicable (acc. EN 50494)	● / ●

**Sound+ (Audio)**

Output in W (sine / music)	2 x 30 / 2 x 60
Acoustic speaker concept	Soundbar
Integrated 5.1 AV-Receiver / Digital Audio Link	● / ●
Dolby Digital / DTS	● / ●
Individual bass and treble control / Loudness	● / ●
Automatic Volume Control (AVC)	●
Audio out available: variable / fixed / Subwoofer	● / ● / ●

**Assist+ (Operation)**

Assist Media user Interface / Home Screen (incl. favourites)	● / ●
Smart Assist app (Android/iOS) / Smart tv2move app (Android/iOS)	● / ● / ● / ●
Electronic Programme Guide (SI-data)	●
MediaText (HbbTV) / Video text (Level 2.5)	● / ●
Menu languages <sup>2</sup> / Context Related Help	● / ●
Parental Lock / Automatic turn-off / Timer	● / ● / ●
Instant Channel Zapping / Quick Start Mode	● / ●
Programme positions including AV and radio	6,000
Digital Link HD (CEC)	●
PIP (AV) <sup>3</sup> / Full PIP / Split screen TV: Video text	● / ● / ●
MediaUpdate (via USB / Internet)	● / ●

**Media+ (Multimedia functions)**

DR+ / storage capacity in GB / USB recording (with DR+: USB-Archive)	● / 1,000 / ●
DR+ Streaming server / client / Follow-Me	● / ● / ●
Multi Recording / Mobile Recording	● / ●
Photo player / Music player / Video player (via Home network and USB incl. Ultra HD)	● / ● / ●
Digital Media Renderer (incl. Ultra HD) / Bluetooth Music Player	● / ●
Internet apps (MediaNet) / Internet Browser / Internet Radio (incl. search function)	● / ● / ●

**Connectivity+ (Connectors)**

HDMI with HDCP	4 (1 x UHD, 1 x ARC)
LAN network connection / integrated WLAN	● / ●
Common Interface / CI Plus 1.3 certified <sup>4</sup>	2 / ●
Home Control Interface (RS232) / IR Link <sup>5</sup> / Motor control	● / ○ / ●
Digital Audio Link (DAL) <sup>6</sup> / Digital Audio-Out (cinch)	● / ●
Analogue Audio-Out (L/R) / Headphone (jack 3.5 mm) / Centre-In <sup>6</sup> (3.5 mm)	● / ● / ●
Micro-AV <sup>6</sup> (Component / Scart / VGA)	● / ● / ●
USB	3 (1 x 3.0)

**Environment**

EU energy efficiency class / Annual energy consumption (kWh) <sup>7</sup>	on request
Power consumption in stand-by mode / off (in W)	0.38 / 0
Power consumption "ON" <sup>8</sup> (in W) / Peak luminance ratio in %	on request
Mercury content in mg / contains lead <sup>9</sup>	0.0 / traces

**Miscellaneous**

Weight in kg	on request
Power switch / Mains voltages	● / 220 - 240 V, 50 / 60 Hz
VDE-safety standard (inspection seal)	●

● = included/installed ○ = upgradeable/optional

<sup>1</sup> Reception of digital channels may be limited by individual regulations from the respective broadcaster/provider. UK models are Freeview HD compliant.<sup>2</sup> D-GB-F-I-E-NL-CZ-GR-PL-H-FIN-SLO-SK-TR-S-DK-P-RUS-N<sup>3</sup> AV-PIP is only available in combination with DVB-T/C/S.<sup>4</sup> CI Plus is backwards compatible with CI.

Functionality is dependent on module availability from the supplier.

<sup>5</sup> Only in conjunction with a corresponding adapter, to be ordered separately.<sup>6</sup> Loewe System 5.1 Out, Stereo Out, Subwoofer Out, Centre In.



Ultra HD (3840 x 2160)  
 LCD with E-LED-Backlight  
 140 / 55 / 6  
 450 / 178°

- 
- / • / •
- / ○
- / • / •

- / • / • / • / • / •
- / • / • / • / •
- / •

2 x 30 / 2 x 60  
 Soundbar

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- / •
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6,000

- 
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- / 1,000 / •
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- / • / •
- / •
- / • / •

4 (1 x UHD, 1 x ARC)

- / •
- 2 / •
- / ○ / •
- / •
- / • / •
- / • / •

3 (1 x 3.0)

B / 207  
 0.38 / 0  
 149 / 68  
 0.0 / traces

37.8  
 • / 220 – 240 V, 50 / 60 Hz  
 •

<sup>7</sup> On the basis of four hours of operation per day, 365 days a year.  
 Actual energy consumption depends on the purpose for which the TV is used.  
<sup>8</sup> To EN 62087 : 2009.  
<sup>9</sup> Traces may occasionally be found in electronic components  
 (in compliance with the recast European RoHS directive).

Loewe sound systems.  
**Product details.**



**Reference Speaker**

Floor Stand: W 32.0 / H 97.5 /  
 PD 6.4 / TD 32.0  
 Wall Mount: W 20.0 / H 86.8 /  
 PD 6.4 / TD 7.2



**Stand Speaker**

W 9.0 / H 112.5 / PD 9.0 / BP 26.0



**Satellite Speaker on S-Stand**

W 6.2 / H 101.5 / PD 6.2 / BP 20.1



**Satellite Speaker  
 as shelf or rack solution**

W 6.2 / H 15.0 / PD 6.2  
 Delivery Content



**Satellite Speaker  
 with Wall Mount**

W 6.2 / H 15.0 / PD 7.2



**Satellite Speaker  
 with Ceiling Mount**

W 9.0 / H 20.4 / PD 9.0



**Subwoofer 800**

W 43.0 / H 34.5 / PD 43.0



**Subwoofer 525**

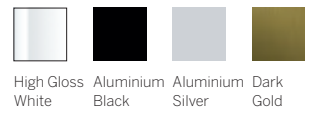
W 43.0 / H 24.4 / PD 34.0



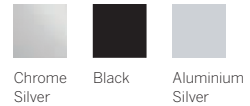
**Ceramic speaker.**

The Loewe Reference speakers further expand the already extensive sound spectrum. Made from extremely torsion-resistant ceramic, the tweeters guarantee particularly clear, dynamic sound. The D'Appolito configuration of the total of six speakers creates an exceptionally fine and transparent sound pattern. Together with a Loewe Subwoofer 800, the Loewe Reference speakers are the ideal solution for your personal home cinema system.

**Housing  
 Colours**



Reference Speaker	—	—	•	—
Stand Speaker	•	•	•	•
Satellite Speaker	•	•	•	•



Subwoofer 800	—	—	•
Subwoofer 525	•	•	—



Dimensions in cm: W = width, H = height, PD = product depth, TD = total depth, BP = diameter/dimensions of base plate



## Loewe sound systems. Technical information.

	Reference Speaker	Stand Speaker	Satellite Speaker
<b>General</b>			
Principle	3-way bass reflex (D'Appolito configuration)	3-way bass reflex (D'Appolito configuration)	1-way closed
Nominal/music power handling (sine/max.)	50 W / 80 W	75 W / 120 W	50 W / 50 W
Recommended amplifier power	10 – 150 W	10 – 150 W	10 – 75 W
Frequency range	80 Hz – 30 kHz (-6 dB)	65 Hz – 22 kHz (-6 dB)	160 Hz – 20 kHz (-6 dB)
Acoustic pressure at 1 W	86.5 dB (at a distance of 1 metre)	85 dB (at a distance of 1 metre)	85 dB (at a distance of 1 metre)
Impedance	4 – 8 ohms	4 – 8 ohms	8 ohms
Volume	4 litres	5 litres	0.3 litres
<b>Features</b>			
Speaker complement	2 x 155 mm woofers 2 x 155 mm passive membrane 2 x 60 mm ceramic tweeter/ mid-range speaker	2 woofers 2 full-range speakers 1 tweeter	2 full-range speakers
Speaker connections	Gold-plated terminal screws	Gold-plated terminal screws	Speaker terminals
<b>Accessories</b>			
Wall mount	●	—	○
Speaker cable	●	●	●
Loudspeaker grille	●	●	●
<b>Miscellaneous</b>			
Weight (approx.) in kg	4.4	11.5	0.7

	Subwoofer 800	Subwoofer 525
<b>General</b>		
Principle	Active subwoofer, passive radiator	1-way bass reflex, active
Nominal/music power (sine/max.)	300 W / 600 W (subwoofer channel)	150 W / 270 W (subwoofer channel)
Frequency range	28 Hz – 250 Hz	34 Hz – 250 Hz (-6 dB)
<b>Features</b>		
Power amps	Total output: 800 W 5 digital amplifiers (Class D) for connection with front and surround speakers: 100 W (sinus), 4 ohms each; 1 digital amplifier (Class D) for subwoofer channel: 300 W (sinus)	Total output: 525 W 5 digital amplifiers (Class D) for connection with front and surround speakers: 75 W, 4 ohms each; 1 digital amplifier (Class D) for subwoofer channel: 150 W (sinus)
Bass control	● -12 dB / +12 dB	● -12 dB / +12 dB
Phase switch	●	—
Low pass filter	50 Hz – 250 Hz	50 Hz – 250 Hz
Bass equaliser	●	●
Power switch	●	●
Stand-by switch	●	●
Signal recognition	—	●
Audio Link	●	●
Speaker complement	1 woofer, 10" 2 passive radiators, 10"	1 woofer, 8"
Connections	gold-plated terminal screws	gold-plated terminal screws
Cinch-connections	gold-plated	gold-plated
<b>Accessories</b>		
Digital Audio Link cable	●	●
Digital Audiolink / Audiolink converter	●	●
Cable management cover	●	●
Loudspeaker grille	●	—
<b>Miscellaneous</b>		
Weight (approx.) in kg	24.0	12.6

● = included/installed ○ = upgradeable/optional

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## Perfect Home Entertainment.

Since 1923.

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**Loewe invented television as we know it. This innovation has continued unabated over the years culminating in today's versatile, fully integrated smart entertainment systems.**

# 1923

At the 8th Berlin Radio Exhibition in 1931, "Radio AG D. S. Loewe" presented the world's first electronic film transmission. Manfred von Ardenne, Loewe's first Chief Engineer, had found the perfect replacement for inefficient mechanical picture transmission methods – the "Braun" cathode ray tube. Just eight years after its creation, in 1923, the Loewe brothers' company embarked upon a path that was to set the course for the brand's future.

## timeless

Over the years, Loewe has produced truly meaningful "Made in Germany" innovations, focusing exclusively on technologies bringing genuine user benefits. This helps to explain the enduring appeal of Loewe's classically minimalist designs, standing the test of time and maintaining their premium value. Updates keep the software continuously at the cutting edge too. All coming together to create the smartest possible entertainment systems: designed to integrate seamlessly in your life.

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## 1931

Loewe realizes the world's first electronic film transmission at the Berlin Radio Exhibition.



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## 1933

Loewe equips its first production television with a dynamic speaker.



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## 1951

Loewe builds its first high volume mass produced television – just in time to screen Germany's World Cup victory in 1954.



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## 1963

Loewe gives a whole new meaning to the idea of moving pictures – with the first portable television.



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## 1998

Loewe unveils its first flat-screen television: designed to integrate perfectly in customers' living environments.



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## 1967

Loewe livens things up: with the first colour television.



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## 2005

Loewe invents customised television design: with the Loewe Individual.



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## 1981

Loewe introduces Europe's first television with stereo sound.



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## 2015

Loewe Reference – Loewe does it again, setting new standards with perfect quality.



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## 1985

The Loewe Art 1 takes its place as a design icon in the museum of Modern Art in New York.





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Loewe Technologies GmbH  
Industriestrasse 11  
96317 Kronach  
Germany  
www.loewe.tv

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Loewe UK Ltd  
PO Box 220  
Eastbourne  
BN24 9GQ  
United Kingdom  
www.loewe.tv

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Find out more:



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Item no. 99 005 915 · Printed in Germany  
Editorial deadline 10 July 2015

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**LOEWE.**