THE SOUND OF ETERNITY



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Twenty-five years after its foundation, Chopard Manufacture bears witness to its Artisans' savoir-faire and perfect mastery of watchmaking tradition and artistic crafts. Today, the workshops are once again demonstrating their genius and innovative ability through a trilogy of creations that are testimony to their unequalled expertise in striking watches as the L.U.C Full Strike Sapphire, the L.U.C Strike One and the L.U.C Full Strike Tourbillon chime the Sound of Eternity.



SOUNDWAVES FROM SAPPHIRE

Chopard's musical repeating watches have chimed (and charmed) with crystal clarity since 2016 thanks to some supremely elegant engineering and are now celebrating Chopard Manufacture's quarter-century with three spectacular editions.

→ In 2017, Chopard Co-President Karl-Friedrich Scheufele was honoured to receive the "Aiguille d'Or" award at the Grand Prix d'Horlogerie de Genève, for his first L.U.C Full Strike in ethical 18-carat rose gold. Not only was it deemed 'best in show' by the industry's finest representatives, but Chopard's debut minute repeater continues to be a supremely innovative striking watch in its own right.

This year, the 25th anniversary of Chopard Manufacture is being marked by a particularly sonorous trio of musical watches, all blessed with Chopard Manufacture's horological revelation of 2016: sapphire gongs painstakingly formed from the same block of sapphire as the glass protecting the dial.

As if this invention didn't amplify and augment the striking mechanism's tonality enough compared with traditional Haute Horlogerie's screwed-in alloy wire gong, Mr Scheufele invited the violinist and cellist Capuçon brothers to collaborate on further fine-tuning Chopard's chiming technology. This approach was then approved by the Applied Acoustics Laboratory of the Geneva engineering school HEPIA, headed by Professor Romain Boulandet, who created an analytical programme that goes beyond the purely measurable criteria of acoustics. Given sapphire crystal's absolute and eternal physical nature, this supergroup was able to definitively sublime the sound of Chopard Manufacture's 25th anniversary.



L.U.C FULL STRIKE SAPPHIRE CRYSTAL CLARITY

Ringing out Chopard Manufacture's 25-year anniversary is a minute repeater that seemingly chimes in thin air, thanks to an extraordinary ensemble of transparent sapphire.

→ The L.U.C Full Strike Sapphire could be the most outrageous creation to have emerged from Chopard's workshops. It dares to take a further step into our 'crystal age', upping the stakes for fully-mineral-cased wristwatches just when everyone assumed the envelope had been pushed to the limit. The bezel, caseband, crown, case-back and rear glass are all made of sapphire crystal. In combination with the Full Strike's revolutionary, monobloc dual-gong / glass construct, Chopard Manufacture has broken the glass ceiling, so to speak, becoming Switzerland's premier mineral-crystal disruptor.

And in fittingly 'transparent' fashion, Chopard is proud to disclose its ongoing commune with two virtuoso musicians and a professor since 2018, literally fine-tuning every L.U.C chiming timepiece with particular scrutiny – both artistic and academic (See overleaf). The L.U.C Full Strike Sapphire even bears the *Poinçon de Genève* quality hallmark, another first for a

non-metallic timepiece. But above and beyond its aesthetic and acoustic prowess, the choice of lab-created sapphire adds unexpected practicality to a seemingly delicate creation: robust scratchresistance; almost as hard as diamond, yet just as dazzling.

It may be inalterable and discreet in its physical nature, but having been finely tuned at the hands of HEPIA and Renaud and Gautier Capuçon, the joyous timbre of each crystal gong more than justifies the painstaking work behind all five masterpieces.



Chopard



A PURSUIT OF ACOUSTIC PERFECTION

A trio of virtuoso, chiming timepieces are ringing out Chopard Manufacture's 25th anniversary, having undergone an unprecedented process of outside-expert attunement – both musical and scientific.

→ While the L.U.C Full Strike watch was a major accomplishment in 2016 – gongs and glass machined from a single piece of sapphire without any discontinuity, glue, or welding – it did not spell the end of Chopard Manufacture's efforts in this field, by quite some distance. Karl-Friedrich Scheufele is continually attentive to the quality of his family Maison's complications. However, another passion would bring laserguided focus: his love of music.

A close friend of tenor José Carreras, Mr Scheufele is as much a horological perfectionist as the operatic company he keeps. Having overseen L.U.C's mastery of the Full Strike's complex mechanics, he soon appreciated this was just one issue at stake; the second, intangible and even-more complex challenge resides in sound quality. In order to fine-tune the acoustic richness of the Full Strike's single-piece gong/ sapphire crystal system, Mr Scheufele thus initiated a new approach.

The first seeds were sown in 2018 when Karl-Friedrich Scheufele attended a concert by violinist Renaud Capuçon at the Sommets Musicaux de Gstaad. The expressive manner in which Capuçon played helped Chopard's Co-President realise that a minute repeater watch should be thought of as a musical instrument and deliver something more: emotion.

Renaud Capuçon is not only one of the virtuosos of his time, but also a specialist in acoustics and sound, just like his brother, cellist Gautier Capuçon. The former plays on a period violin by Guarneri, dating from 1737, the latter on a cello by Matteo Goffriller, a luthier equally renowned in his field. These are instruments whose perfection and uniqueness have stood the test of time, combining technical skills, secret formulae, tricks of the trade and a good deal of mystery.







SCIENCE AND MUSIC, IN PERFECT HARMONY

In perfecting the sound of Chopard's latest L.U.C full-sapphire repeaters, Karl-Friedrich Scheufele conducted an extraordinary ensemble of outside collaborators: a violinist, a cellist... and a professor of acoustical engineering.

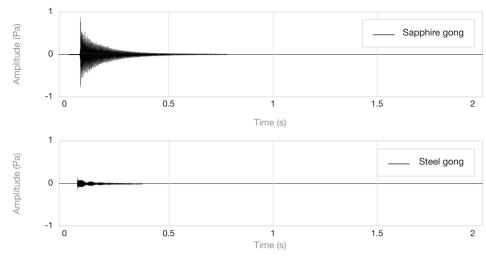
→ Along with the classical-musician brothers Renaud and Gautier Capuçon, the horological maestros of Chopard Manufacture have orchestrated the outside expertise of Professor Romain Boulandet, head of the Applied Acoustics Laboratory at the Geneva School of Landscape, Engineering and Architecture (HEPIA).

Together, they created an analytical programme that goes beyond the purely measurable criteria of acoustics (sound intensity, tonal richness, damping factor, etc.) to perfect what really matters: the sound as perceived by the listener. In other words, the difference between a tuning fork and a violin; a metallic, mechanical sound versus an 'animated' sound, driven by that other living vibration: passion.

The sapphire gongs of the L.U.C Full Strike and Strike One are unalterable, as they are not deformed, do not age and do not expand with heat. They always play the same F and C sharp, thus ensuring that the sound itself remains unchanging. While less so with full-sapphire, the surrounding case can 'colour' the sound, whether rose or white gold, platinum and even steel.

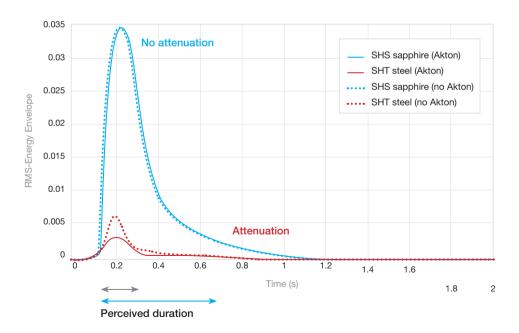
Benefitting from the Capuçons' unerring 'ear', HEPIA's overarching aim was thus to define and cement Chopard repeaters' purity of 'chime' as well as its perceived beauty. A perfect state of tune that will stand the test of time, devoid of the subjectivity, future maintenance and restoration operations dictated by the finicky metal alloys generally used for screwed-in minute-repeater gongs.





RUNNING RINGS

The difference in longevity and quality of sound between a laboriously handadjusted gong made of steel-based alloy, compared to Chopard's revolutionary sapphire gong, as proven by HEPIA.



HEPIA TEST RESULTS

This figure demonstrates an interesting point, unlike steel gong technology, the sound of crystal gongs is not diminished when the watch is worn.

L.U.C STRIKE ONE MELODY WITH EVERY PASSING HOUR

Having disrupted the venerable craft of minute repeaters, Chopard Manufacture is expanding its revolutionary sapphire technology into whole new realms of musical watchmaking.

→ Joining an extraordinary line-up of limited editions celebrating Chopard Manufacture 25th anniversary, Karl-Friedrich Scheufele unveils the 25-piece L.U.C Strike One – a watch whose discreet sartorial codes belie the horological fireworks playing out beneath. Take a closer look at its hand-engraved, ruthenium dial at the end of every 59th minute, and you'll see the tiny, polished-steel hammer at 1 o'clock spring into life, chiming the hour crisply and sonorously. But on what, you might ask?

The answer lies in the experience accrued with the L.U.C's Full Strike – in-house-developed minute repeater. In creating it, Chopard patented a groundbreaking monobloc-sapphire system, whereby the gongs rung by the hammers are formed of the same crystal protecting the dial. The acoustics are literally crystal clear, endowed with an emotional depth endorsed by virtuoso musicians Renaud and Gautier Capuçon.

The new L.U.C Strike One pares things back to a single gong, circling the dial in parallel to the railway minutes track. It thus becomes the only hourly 'chime-in-passing' watch with a sapphire gong directly attached to the crystal.

In addition, for Chopard Manufacture's silver jubilee milestone, L.Û.C watchmakers have moved the pusher silencing the chime from 10 o'clock to be integrated with the crown, allowing the wearer to switch between striking modes more discreetly than ever. Just the thing for those tense boardroom meetings, or particularly light sleepers.



161949-5001

stop-seconds MOVEMENT L.U.C 96.32-L

65 hours

25 pieces

FUNCTIONS







L.U.C STRIKE ONE PEERLESS MUSICAL MECHANICS

A single chime on every passing hour, for 65 hours straight, might sound simple (not to mention beautifully melodic) but such simplicity takes savoir-faire and ingenuity that only Chopard's L.U.C collection could master in just 25 years.

→ Ticking, whirling and pivoting beneath the L.U.C Strike One's *guilloché*-engraved honeycomb dial (a reference to Louis-Ulysse Chopard's historic beehive motif) you'll find the newly refined L.U.C Calibre 96.32-L. As you'd expect from an anniversary model, it preserves the architecture that earned Chopard universal reverence from the outset, back in 1996 when Co-President Karl Friedrich-Scheufele's vision of reviving Louis-Ulysse's legacy bore fruit. Closer inspection, however, shows that the L.U.C engineers are far from resting on their laurels just yet.

The sapphire gong, whose hourly chime is amplified so brilliantly by its monobloc integration with the crystal dial dome, may dominate the headlines, but the underlying mechanics are everything, too. For a start, the L.U.C 96.32-L is thinner than its predecessor, the L.U.C 96.14-L. This in turn enables the case of the new L.U.C Strike One model to be less

than 10 mm thick at 9.6 mm, in keeping with L.U.C's dedication to understated elegance.

True to form, the L.U.C 96.32-L is self-wound via a micro-rotor in ethical 22-carat gold, charging Chopard's 'Twin technology' double-barrel system to ensure a 65-hour power reserve, even when chiming mode is 'on'. This stability demonstrates how adept L.U.C engineers have become in managing energy transference.

And then, the not-insignificant matter of Chronometer certification (unwaveringly precise within –4 and +6 seconds per day) plus everything that satisfies the ruthless standards of finishing demanded by the *Poinçon de Genève* hallmark.

You may have little need for a musical reminder of every passing hour, but an hourly reminder of the sheer brilliance and passion ticking beneath your cuff will bring pleasure every time.





L.U.C FULL STRIKE TOURBILLON A TOUR DE FORCE

Watchmaking's top-two prestige complications meet beneath a single sapphire ceiling, marking a quarter-century of Chopard Manufacture with its most outrageous accomplishment yet.

→ There is *haute horlogerie*, and then there is Haute Horlogerie - the latter being familiar territory for Chopard's 'L.U.C' collection, all the more impressive for its 25-year vintage. Then again, in reviving the enterprising spirit of namesake Louis-Ulysse Chopard and his founding vision of 1860, Karl-Friedrich Scheufele would never have settled for less.

Here, you're looking at the culmination of Mr Scheufele's own unflagging, uncompromising vision, and there's no doubt Louis-Ulysse Chopard would approve: a 'tourbillon' ('vortex' in English) carriage suspended beneath a sapphire bridge, constantly animated dialside, in concert with the exposed 'Full Strike' chiming mechanism that earned Chopard the 'Aiguille d'Or' at the 2017 Grand Prix d'Horlogerie de Genève. Its dial, in ruthenium grey-coloured hand-guilloché rose gold, opens to reveal the two complications that make this 20-piece limited edition such a fitting tribute to Chopard

Manufacture's quarter-century of restless innovation. The first cut-out between 9 and 11 o'clock frames the two mirror-polished steel hammers whose strike chimes out, on demand, the hours, quarters, then remaining minutes on two sapphire gongs. Encircling the dial, these are machined as 'monocoque' from the same crystal that forms the dial's dome - resulting in a sonorous and literally crystal-clear chime.

The other window, at 6 o'clock, reveals the L.U.C Calibre 08.02-L's tourbillon, which rotates the oscillating balance once a minute to negate wear on the central axis and even-out gravitational compression on the balance spring. More importantly, if we're honest, it's all about the micro-mechanical spectacle – showcased all the better for the tourbillon's see-through sapphire bridge. If this spectacular example of Haute Horlogerie is a crystal ball in watch form, then the future of L.U.C looks bright indeed.

REF

50 hours

20 pieces





L.U.C FULL STRIKE TOURBILLON HAMMERS AND GONGS, HEAD OVER HEELS

A twinkling constellation of 568 components for Chopard's most stellar mechanical marvel yet – rendered as emotional as its mechanics are ingeniously intertwined.

→ The L.U.C Full Strike Tourbillon is no mere modification of the L.U.C Full Strike. Moving from a calibre comprising 533 components to one with 568 is not an addition, but a revolution. The decision to include a tourbillon regulator required a complete rethink of interactions and layouts.

With such a delicate complication, subject to as many parameters as the minute repeater, L.U.C's master watchmakers were treading a delicate line in seeking to ensure that the constantly whirling tourbillon would not in any way modify the acoustic qualities of the Full Strike's dual-tone, C# / F chime.

In a minute repeater mechanism, the energy required to activate the complex snail-cams and pinions that form the strikework's time-telling 'processor' is provided each time the arming lever is activated manually. Here however,

the energy comes from a separate, dedicated barrel wound directly by the crown. It enables the L.U.C Full Strike Tourbillon to chime a maximum of 12 times the most complex and energy-intensive audible indication of time: 12 hours and 59 minutes.

In a bid to preserve user-friendliness, should the barrel no longer have sufficient force to power the minute repeater, a safety mechanism blocks its release. A patented clutch-lever device ensures that the strikework gear train is blocked to avoid losing power reserve.

On top of all that, the L.U.C Full Strike Tourbillon's intricate micromechanical workings are finished to uncompromising *Poinçon de Genève* standards of gleam and glister.

Over the last 25 years, and indeed for the next 25, we've come to expect nothing less.





NOTES	NOTES



Chopard

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