



THE SOUND MAKER

Jaeger-LeCoultre's history is intimately tied to its peaceful and unspoiled surroundings in the Vallée de Joux, where the sounds of nature still prevail: the sighing of wind in the trees, the song of birds, the rushing of mountain streams – and in winter, the sound of silence as a deep blanket of snow settles over the landscape.

The long, harsh winters have contributed to the development of two sounds that are special signatures of the valley. Due to the cold, the spruce forests grow slowly here, producing a wood with exceptional resonance qualities, which has been sought after by luthiers for centuries. The icy winters meant countless hours spent indoors, allowing the valley's early watchmakers the time needed to develop and build complicated chiming watches.

In 2020, Jaeger-LeCoultre celebrates THE SOUND MAKER, paying homage to its valley and its great legacy of chiming timepieces, expressing a century and a half of accumulated expertise in fresh new ways.

THE SOUND OF TIME

For more than 600 years, the passing hours have been marked by sound, with people all over Europe organising their daily routines according to the chimes of the turret clocks on village churches and town halls. Indeed, the word clock itself is derived from "cloche", the Old French word for bell (which can in turn be traced back to the Latin "clocca" – the sound of a chime).

It is often said that minute repeaters – tiny versions of those historic clocks – were invented in the era before electric light so that people could tell the time in the dark. It is a charming story, if not entirely true. The real impetus for the miniaturisation of chiming timepieces came from the early watchmakers' fervent desire to innovate, and from their wealthy clients' wish to possess these wearable symbols of status and connoisseurship.

In this, the Manufacture's founder Antoine LeCoultre played a key role, not just as a watchmaker, but as the inventor of machines that could measure and cut components more accurately and on a smaller scale than ever before. As a result, the Vallée de Joux became celebrated for producing both chiming watches and music boxes of ever-greater complexity, smaller size and more beautiful sound.



A DISTINGUISHED HISTORY

Considered by watchmakers to be the most challenging – and rewarding – of all horological complications to master, a minute repeater is not only a timepiece but also a miniaturised musical instrument. To make such a watch requires an ear for music as well as extreme dexterity.

Since producing its first minute repeater in 1870, Jaeger-LeCoultre has developed more than 200 chiming watch calibres, producing some 100 minute repeaters before the year 1900. It has mastered all forms, from relatively simple alarms to the most complex of all, the grand sonnerie and Westminster chimes. Until the mid-20th century, while making repeater and sonnerie watches under its own name, La Grande Maison also supplied chiming movements to many of the most exalted names in watchmaking.

Although the structure of chiming watch mechanisms has remained essentially unchanged since the early 19th century, Jaeger-LeCoultre has constantly worked to improve both the mechanical efficiency of its movements and the clarity and beauty of the sound being produced. Its early innovations included cathedral gongs (1870) and a triple-hammer mechanism (1880). In 1895, the Maison invented the silent strike governor, thus eliminating the background buzz characteristic of traditional lever type regulators. Today, versions of that invention are used in almost all chiming watches. In 1900, Jaeger-LeCoultre produced the first ultra-thin minute repeater.

In the mid 20th century, as society changed and people increasingly sought watches with practical functions – whether for urban life or sporting activity – Jaeger-LeCoultre drew on its mastery of chiming mechanisms to develop alarm watches. While the hammer-and-gong mechanism of repeater watches is also used in the Memovox calibre, the extremely rapid strikes create a continuous single-pitch buzz, rather than a delicate bell-like chime.

Introduced in 1950, the Memovox – with its characteristic “school bell” sound – has remained the reference in alarm watches for 70 years. Over time, additional, practical functions have been offered, including a world time display and a car-parking reminder, and in 1959, the Maison introduced the world’s first diving watch with an alarm. Since 2000, the Memovox has reappeared in various forms, including in a perpetual calendar watch, a Master Compressor model and a series of diving-watch tribute pieces.

MARRYING TECHNOLOGY AND TRADITION

Since the mid-1990s, when La Grande Maison revisited its noble legacy of minute repeaters, its engineers and designers have worked to redefine the benchmark for acoustic quality, harnessing technology to serve and safeguard horology’s most treasured traditions.



Capitalising on the superior sound transmission qualities of synthetic sapphire crystal, Jaeger-LeCoultre's patented 'crystal gongs' (introduced in 2005) are soldered directly to the dial crystal of the watch. The square-profile gongs introduced two years later provide a flat striking surface for the hammers, ensuring that the strikes are more consistent and more powerful. The articulated trebuchet hammers (introduced in 2009) use a similar mechanical principle to the medieval counterweight catapults that they are named after, to improve the speed and force of the hammer strike. A silent-interval reduction function, introduced in 2014's Master Ultra Thin Minute Repeater Flying Tourbillon, 11th opus of the Hybris Mechanica Collection, ensures that even when the quarter-hours are not struck, there is no time delay corresponding to those missing quarters before the minutes are struck.

In 2019, in Calibre 950, Jaeger-LeCoultre introduced a new 'duplex' gong design. Rather than lying in flat coils, the gongs make a circle before bending upwards then diverging to form two semi-circles around the top of the movement. In this way, by using the maximum space available within the case, acoustic resonance is significantly increased.

While constantly working to improve the mechanics of the strike-works, Jaeger-LeCoultre's engineers have also met the challenge of combining repeaters with other complications, most recently uniting a perpetual calendar, the multi-axis Gyrotourbillon and a Westminster chiming mechanism (Calibre 184); combining a perpetual calendar with the new "duplex" gong system and automatic winding (Calibre 950); and bringing together a sidereal calendar and orbital flying tourbillon in this year's new-generation Master Grande Tradition Grande Complication, (Calibre 945).

For 150 years, chiming watches have been a particular forte of Jaeger-LeCoultre, complementing its expertise in the other classic complications. This year, the new generation of striking watches takes the spotlight, honouring the Manufacture's great patrimony, while reaffirming the spirit of innovation that has always driven La Grande Maison.

Jaeger-LeCoultre: HOME OF FINE WATCHMAKING SINCE 1833

Located in the calm, serene setting of the Vallée de Joux, our Home offers a unique sense of belonging. It is here, inspired by the exceptional landscapes of the Jura Mountains, guided by an unquenchable inner fire, that La Grande Maison gets its soul. With all crafts under one roof within the Manufacture, watchmakers, engineers, designers, artisans work together to give birth to fine watchmaking creations. Driven by a compelling energy and a spirit of collective invention that daily inspires the commitment of each and every member of our family, we cultivate our understated sophistication and technical creativity. This same spirit has powered the creation of more than 1200 calibres since 1833 and made Jaeger-LeCoultre the Watchmaker's Watchmaker.