



CHRISTOPHE CLARET

The Soprano by Christophe Claret Tourbillon minute repeater with four cathedral gongs

The Soprano features a musically accurate 4-note minute repeater striking Westminster Quarters on patented cathedral gongs, a 60-second tourbillon and Charles X style bridges, all on a spectacular dial-free view. The Soprano pays homage to the roots of Christophe Claret's manufacture, which has innovated in striking complications, tourbillons and sapphire components since its earliest years. Indeed, in 1997 Christophe Claret was the first to incorporate sapphire components – comprising plates and Charles X style bridges – in a wristwatch movement.

The Soprano is a timepiece of contrasts: traditional *haute horlogerie* with state-of-the-art manufacturing; English Parliament with French King; historic complications with contemporary design; aural indications with visual displays; noble gold with high-tech titanium, and metal components with sapphire elements.

The minute repeater is considered – with good reason – to be one of the most demanding and difficult horological complications to realize due to the marriage of technical complexity with artistic musical tonality. A minute repeater tells the time audibly with two notes created from two small hammers striking two gongs: one for the hours, one for the minutes and a combination of the two for the quarter hours. Even more complex is the Clarion repeater with three notes that can play a simple melody for the quarters.

However, the *nec plus ultra* of the minute repeater realm is the Westminster – so called for the distinctive tune played by the Big Ben clock at the Palace of Westminster, home of the British Parliament. Big Ben strikes a complex melody for the quarters with four hammers striking four notes on four bells. To provide an even fuller and richer sound than standard repeaters, the Christophe Claret Soprano features four cathedral gongs, each circling the perimeter of the movement twice (a normal gong goes around only once). And to further ensure that the rich sound reaches the listener's ears, the central case band is in grade 5 titanium, a metal known for its superior acoustic properties and used in musical instruments.

A few decades before Big Ben began chiming Westminster Quarters over London, the French king Charles X was making a significant impact on art, architecture and horology. One of the defining characteristics of pocket watches created during this period were stepped bridges, which became known as Charles X bridges. Having spent much of his early watchmaking career restoring beautiful timepieces from this epoch, Christophe Claret incorporated this historic design element into the Soprano.

In 1997, Christophe Claret was the very first to use sapphire bridges (even then Charles X style) and plates in wristwatch movements, and the Soprano makes liberal use of sapphire components to allow visual access into the mechanisms. From the smoked ring circumscribing the movement that discreetly hides yet subtly reveals the cathedral gongs, to the transparent mainspring barrel at the top of the open dial, and turning over to the clear repeater inertia governor cover visible through the sapphire display back.



CHRISTOPHE CLARET

“When I created Manufacture Claret over 20 years ago, the very first movement I developed was a minute repeater so the complication has always been very special to me.” Christophe Claret

Minute Repeater: The minute repeater, which strikes the time on demand (usually by activating a slide on the caseband), is an extremely difficult complication to realize because:

1. Technically, it is a very complex mechanism.
2. Musically, the notes have to ring clear, loud and harmoniously.

With decades of experience developing striking watches, Christophe Claret has not just mastered the mysterious art of minute repeaters, but has brought the genre into the 21st century. Working with a piano tuner, Claret developed a computer program called Analyser 2000 that records and analyses the notes for pitch, duration and loudness, and even the length of the silent pauses between notes. This enables the Christophe Claret manufacture to consistently create harmonious and musically accurate melodies with strong crystalline notes.

Each note is determined by the precise length and diameter of the gongs. The hammer has to strike forcefully for a loud sound, but immediately leave the gong so as not to deaden the ring.

“The melody chimed by the Soprano is as musically correct as possible.” Christophe Claret

Repeater operation: When the repeater slide is activated, the chimes sound the number of hours with C (Do), the deepest note; followed by the Westminster Quarters’ melody for the quarter hours (unless fewer than 15 minutes after the hour); and then the number of minutes after the last quarter hour.

Patented cathedral gongs: Each cathedral gong circles the movement twice so that one coil lies just above the other. Because the coils are so close together, they can touch each other as they vibrate, which can create a disconcerting buzz. Christophe Claret invented a system that effectively avoids this problem, which was awarded a patent.

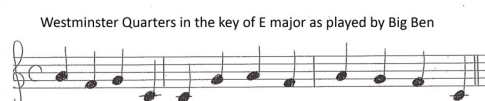
Westminster Quarters: Westminster Quarters, also known as Westminster Chimes, is a four-note tune originally written in 1793 for the bells of the St Mary the Great Church in Cambridge, England and was known as the Cambridge Chimes.

However, in 1859 the melody was chosen for the clock tower at the Palace of Westminster in London. A clock now more commonly known now as Big Ben, though the term originally referred to just the large hour bell. So well known did the four-note chimes become that they came to be called Westminster Chimes.

The melody is played when the watch strikes the quarter hours (each 15 minutes) as just a single deep note is played for the hours and another single (higher pitched) note for the minutes.



While the Westminster Quarters melody is usually played in the key of E major, the Christophe Claret Soprano chimes in the key of C major to provide longer resonating and happier-sounding notes.



Manufacture Claret is one of a very elite few manufactures with the skills, knowledge and capability to create four-note Westminster minute repeaters.



CHRISTOPHE CLARET

Transmission of Sound: The purpose of a minute repeater is to allow the time to be heard rather than read, which was a very useful feature before the invention of electric lamps (and mobile phones). To maximize the sound of the notes Christophe Claret has incorporated three features into the Soprano: Cathedral gongs, an open dial and a titanium caseband.

"One of the keys of developing an excellent minute repeater is ensuring that the sound can escape easily." Christophe Claret

Cathedral gongs: Standard repeater gongs (the bell) are usually made from a hardened steel wire that makes a one complete circle around the movement or dial. The Soprano is equipped with four cathedral gongs, each circling the movement twice to provide a fuller and richer sound.

No dial: To minimize barriers to sound – and to maximize visual appreciation of the finely finished movement and the operation of the striking mechanism – the Soprano has no dial which allows the beautiful melody out and showcases the tourbillon, repeater operation, mainspring barrel, winding mechanism and Charles X bridges.

Titanium caseband: The case of the Soprano is in three parts: upper and lower (bezel and caseback) sections in gold and a central titanium caseband. Titanium was selected for its superior sound transmission qualities. Where gold tends to deaden sound, titanium effectively transmits sound from the interior of the case to the exterior. The sound qualities of titanium are so good that the metal is often used for saddle bridges in high-quality guitars.

Tourbillon escapement: Christophe Claret has an affinity for the tourbillon escapement, for both its kinetic beauty and its superior chronometric performance. In fact, Claret is so dedicated to the tourbillon that it is the standard escapement for all of his *manufacture* movements. The 60-second tourbillon carriage of the Soprano is on full view through the open dial at 6 o'clock and is supported by a single arm stepped bridge in the characteristic style of Charles X.

Abraham-Louis Breguet invented the tourbillon escapement at the end of the 18th century, so it is only fitting that Claret has complemented the Soprano's tourbillon with a 'parachute' shock protection system – another Breguet invention.

Charles X: In 1824, Charles Philippe the Count of Artois succeeded his brother Louis XVIII to the throne of France and became King Charles X. While his rule lasted just six years – ending with the July Revolution of 1830 – Charles was a great patron of the arts and his influence was seen throughout France in architecture, art and horology. The watchmaking of this period was prolific, generally of very high quality and distinguished by a particular form of stepped bridge.

Sapphire components: Christophe Claret is a pioneer in making movement components from sapphire crystal and in 1997 was the first to develop a movement with sapphire plates and bridges (and even then his first sapphire bridges were in the Charles X style he admired from his restoration of historic timepieces). Since then, Manufacture Claret has been at the forefront in the use sapphire components that allow maximum appreciation of movement and mechanisms.

There is the obvious scratch resistant top crystal and display back as well as the more discreet smoked sapphire hour and minute ring around the open movement. But sapphire is also used to allow the viewer to delve even deeper. A transparent mainspring barrel under 12 o'clock allows both the barrel to be seen turning while being wound and the approximate power reserve to be deduced



CHRISTOPHE CLARET

by the state-of-wind of the visible mainspring. The repeater's inertia governor at 3 o'clock has a clear sapphire cover so it can be seen silently spinning as it regulates the speed of the chiming gongs.

Technical data

THE SOPRANO: TWO LIMITED EDITIONS OF EIGHT PIECES EACH

CALIBRE TRD98:

Dimensions: 27.6 x 46.4 x 8.45 mm

Number of parts: 450

Number of jewels: 39

Power reserve: 72 hours (approx.)

Barrel: Single mainspring barrel in transparent sapphire crystal

Tourbillon:

- Escapement: Swiss lever type
- Oscillation frequency of the balance: 3 Hz (21,600 vph)
- Tourbillon rotation 60 seconds
- Flying tourbillon
- Charles X style stepped bridge
- Parachute shock protection

Functions:

- Hours and minutes
- 4-note minute repeater playing Westminster Quarters
- Mechanical, hand-wound movement
- Transparent mainspring barrel acts as movement state-of-wind indicator: when the movement is fully wound the spring is centered in the barrel

Distinctive features:

- Four visible hammers, four patented cathedral gongs
- Repeater mechanism features silent inertia governor
- Tourbillon regulator with parachute shock absorber
- Charles X style stepped bridges



CHRISTOPHE CLARET

Technical data continued

Exterior:

Case:

- Round
- Dimensions: 45mm x 56.80mm x 15.32mm
- Water resistance: 3 ATM / 30 m / 100 ft

Material:

- 5N red gold and anthracite PVD titanium / Anthracite PVD and black spinal hands. Limited edition of 8 pieces
- White gold and anthracite PVD titanium / Black PVD and ruby or blue spinal hands. Limited edition of 8 pieces

Slide:

Repeater mechanism is activated by a slide on the left side of the caseband

Crown:

Red gold and titanium (red gold case) or white gold and titanium (white gold case)

Strap:

Black hand-sewn alligator leather with black stitching (red gold case), red or blue stitching (white gold case)

Buckle:

Red gold and titanium (red gold case) or white gold and titanium (white gold case)

Limited edition:

Each of the two versions is issued in a limited edition of eight pieces

Suggested retail price:

From 468'000 Swiss francs exclusive of VAT



CHRISTOPHE CLARET

Profile Christophe Claret

Born in Lyon, France in 1962, Christophe Claret was 14 years old when a chance visit to a watchmaker-restorer inspired him to pursue a career in horology. Five years later, Christophe precociously graduated from the Geneva Watchmaking School after which he trained for a further year under the guidance of master watchmaker Roger Dubuis, who passed on the secrets of restoration and complex horological mechanisms.

Upon returning to his native city, Christophe set up his first horological atelier and decided to specialize in restoring antique timepieces, perfecting his finishing techniques and crafting open-worked or 'skeleton' watches.

In 1987, Christophe attended Basel Watch Fair for the first time where Rolf Schnyder, who had just acquired Ulysse Nardin, placed a substantial order with him for minute-repeater movements with striking jacks (automatons). This project encouraged Christophe to found **Manufacture Claret** two years later.

Over the next decade, the name Christophe Claret became a benchmark in the field of grand complication movements, developing complex complications for prestigious brands such as Ulysse Nardin, Franck Muller, de Grisogono, Jean Dunand and Harry Winston.

In 1999, Christophe relocated Manufacture Claret to the historic Manoir du Soleil d'Or above Le Locle, the former residence of legendary watchmaker Urban Jürgensen. The manufacture has been extended regularly since then as demand for Christophe Claret creations has increased year on year.

While continuing to create exceptional movements for the most prestigious Swiss brands, Christophe Claret also developed timepieces bearing his own signature, one-of-a-kind creations commissioned by collectors seduced by superlative horology. This activity was extended to a wider audience in 2009 when Christophe Claret launched the DualTow to celebrate the 20th anniversary of his manufacture. This first piece led to further acclaimed creations including Adagio, 21 Blackjack, Baccara and Soprano.

Today, Manufacture Claret employs around one hundred of the most highly qualified experts in a multitude of fields and belongs to the exclusive circle of independent *haute horlogerie* brands with the capability to conceive, develop and produce timepieces entirely in-house.