

MEMOIRE 1

THE BRILLIANCE OF SIMPLICITY

MAURICE LACROIX CREATES THE FIRST MECHANICAL WATCH WITH A MEMORY!

Can a mechanism remember? From now on, the answer is “yes”! Maurice Lacroix developed the first memory function for a mechanical watch. This completely new Grande Complication, which will find its initial application in the exclusive Mémoire 1 chronograph, is a new milestone in the history of the art of Swiss watchmaking.

This watch has only two hands – one for the minutes and one for the seconds – along with a disk to indicate the hours. And yet the Mémoire 1 is one of the most complicated watches ever developed!

The reason is that a revolutionary design sits inside this exclusive chronograph – the first memory function for a mechanical timepiece. An indication at 3 o'clock reveals the secret: By pressing the button integrated into the crown, the mode changes from “Time” to “Chrono”. The hands and the hours disk immediately change their positions. If their previous function was telling the current time, they are now available for the precise measurement of time intervals. When the button is pressed once again, they all return to their positions for telling time. Even when the chronograph is running, it is still possible to shift back and forth between the two modes without losing the information provided by one or the other function.

The memory function of the ML 128 manufacture movement, which makes possible this unique connection between the time and chronograph indications, is a major new Grande Complication that Maurice Lacroix developed to enrich the world of mechanical timekeeping. The mechanism and movement were completely designed and developed in the new “Atelier de Maurice Lacroix”. The result of this intensive process is a highly complex calibre made of 537 components – including nine switching hearts – for which Maurice Lacroix has already submitted numerous patent applications.

Maurice Lacroix is also pioneering new territory with the Mémoire 1 in the design of the case and dial as well as in movement decoration and the selection of the materials used. The development process for this watch, which will be presented officially at Baselworld 2008 for the first time, is still underway. You can follow its creation on a dedicated Internet site at www.memoire1.ch.

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L'Atelier de Maurice Lacroix

Maurice Lacroix has set itself a clear objective: creating extraordinary timepieces through consistent preservation of the long tradition of the Swiss watchmaking art and meeting its high standards as well as through its own innovations in the areas of complications, mechanisms and movements, contemporary design and a heightened passion for detail, perfection and quality.

These high demands led to the creation of the “Atelier de Maurice Lacroix”. In this creative cell for research and development, the experience, expertise and proficiency of designers, engineers, constructors and watchmakers were gathered together. And it is here that revolutionary ideas and concepts come about which are setting new benchmarks in the history of Maurice Lacroix and mechanical timekeeping. The Mémoire 1 demonstrates the potential of the “Atelier de Maurice Lacroix”, and further innovations will follow!

Zurich, April 2007

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THE FIRST WATCH WITH A MEMORY

Maurice Lacroix Presents a New Base Movement

The Mémoire 1 chronograph – with the first memory function in a mechanical watch – is the new innovative project that first saw light of day in the “Atelier de Maurice Lacroix”. In this creative cell for research and development, the experience, expertise and proficiency of designers, engineers, constructors and watchmakers were gathered together. All here work towards a single goal: first to cast aside the base movement of Mémoire 1 and then develop the unique functions and mechanisms for it. This is how revolutionary ideas and concepts are generated, setting new benchmarks in the history of watchmaking. In other words, the “Atelier de Maurice Lacroix” has become a sort of “Pantheon” of innovation.

The ML 128 calibre of Mémoire 1 is constructed using 537 components. Some of these form the base movement, because even the best and most sophisticated complications need to be “fed with energy”. This is why a completely new movement has been created, step by step.

Even though the technical features of this movement are imposing, the design and the transparency of it are not of less importance. Because it wasn't simply a matter of creating a new mechanical memory complication, the wearer had to be able to admire the workings and its constituent elements. This is why all the components and their positions in the heart of the watch have been conceived in both logical and aesthetic terms.

Thus the automatic winding system consists of an exocentric oscillating assembly, which permits to show the regulatory system to advantage. Thanks to its small dimensions, the rotor does not cover the surface entirely and therefore offers a view into the workings of the Mémoire 1 from the underside of the watch. So that it can perform the necessary rapid and efficient winding of the barrel, the rotor has been constructed in tungsten, which is a heavy material. But with an asymmetrical design and an unconventional shape, this rotor has been developed with the aim of achieving good, aesthetic integration in the special turret shape of the bridges of this movement.

The pure decoration and the innovative PVD surface treatment in tantalum colour bring the image of Maurice Lacroix to the fore. The specialists have pushed harmony as far as it can go and even went so far as to construct the screws on the bridges in a shape resembling that of the turret, so that the overall view forms a harmonious whole.

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The rotor pivots on a ball bearing developed specifically for the requirements of this new calibre and works directly in the reverse, via the expedient of a “magic pawl” which optimizes all the wrist movements of the wearer. A bi-directional winding has been retained in order to allow maximum winding liveness and also guarantee maximum torque.

Wheels that turn backwards

The power supplied by the automatic mechanism is transmitted to a barrel which has a strong energy density and this allows a power reserve of more than four days. However, this movement works backwards! But why? A little more patience is required before the answer to this can be given...

Even if it is too soon to unveil the why, the how can be explained: the movement turns backwards from the barrel. This allows a spring to be compressed on the barrel arbor, which is exactly the same as in a traditional movement. However, this spring compresses from right to left instead of from left to right. The result is logical: the wheels which transfer the motor power to the regulator turn backwards.

Technology and aesthetics in perfect harmony

These wheels are endowed with the most modern profiles, which allow optimum performance to be achieved. It is the equivalent of transmitting the energy emitted by the barrel under optimum conditions. Furthermore, the special shape of the wheel arms, as well as their colour, also give a strong visual identification to Mémoire 1. Thus one can sense the philosophy that dominates this exceptional piece: logic married to technology and aesthetics. Finally, and as always for technical and aesthetic reasons, the stones which decorate the movement are white and transparent. Of course this is all part of the aesthetic philosophy of Mémoire 1, but it also makes it possible to visualize and control the intermeshing between pinions and crown wheels. Moreover, the watchmaker can clearly see the drop of oil placed in the hollow section of the stone in which the pinion pivots.

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After having transmitted through the wheels, the energy is passed on to the escapement. This has been developed especially for this new calibre carrying the signature of Maurice Lacroix because it has been totally adapted to the needs of its complication, the veil over which will shortly be lifted. The creators wanted to show it, to have it valued, as if to give all their importance to the heart of a watch that beats without a break and marks the passage of time.

As for the balance, this has been given a core of transparent sapphire and a felloe of gold, which underlines the depth of the movement yet gives an airy impression to the whole regulation system. Finally, this mechanism is equipped with a new precision adjustment, different from the traditional swan's neck design. This system, developed by Maurice Lacroix, will considerably simplify the work of the watchmaker when trying to obtain the best performance for the ML 128 calibre, which beats at 28,800 semi-oscillations per hour.

Furthermore, with an exceptional movement comes exceptional service. In order to be able to guarantee complete information for those wearing it, the movement of Mémoire 1 is supplied with a plate displaying service times, so the wearer can see when the next necessary service is due. Finally, this movement has an identity personalized by the signature of the watchmaker responsible for assembling the elements of this Grande Complication, which bears the signature of Maurice Lacroix.

This presentation of the base movement of Mémoire 1 is just the second step on our journey to discover this exceptional watch. More exciting details will follow – the next time providing you with more information concerning the other side of Mémoire 1: its complications...

Zurich, August 2007

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THE COMPLICATIONS OF THE MÉMOIRE 1 – THE SPIRIT OF THE WATCHMAKER’S INVENTIVE POWERS AT ITS HIGHEST LEVEL

The timepiece in the minds of those responsible for running affairs at Maurice Lacroix was intended to clearly distinguish itself from everything previously known and to unify in perfect manner the greatest innovation with state-of-the-art technology. This was not just a matter of landing a technical coup but rather creating a masterpiece whose place would be assured in the future reference annals of the art of watchmaking. Thus, the Mémoire 1 was created. The base movement of this watch is a sufficiently major feature alone; it has been perfected, however, through the watchmaking ingeniousness of its complications.

When the designers, watchmakers and engineers, who work together in the new “Atelier de Maurice Lacroix”, gathered around the table to think about a new form for a chronograph, the initial result was a wealth of the craziest ideas. However, it is precisely such impossible but decisive flashes of inspiration that lead to the creation of the most original, creative and exceptional concepts. And this is exactly how the idea behind the Mémoire 1 was born – surely one of the greatest innovations in the area of chronographs.

Even if it does not seem so at first glance, the Mémoire 1 really is a chronograph. Using the button integrated directly into the crown, you can switch between time and chronograph mode. The indication of the selected mode is taken over by a small hand near 3 o’clock. This operation is made possible thanks to an ingenious mechanism, which the creators christened ‘va et vient’ (‘come and go’) and for which Maurice Lacroix has already filed a patent.

Starting, stopping, and resetting the chronograph function the same way on the Mémoire 1 as with the stopwatch functions on all other similar timepieces: Pressing a button near 2 o’clock starts and stops timekeeping; resetting the hands is done with the button at 4 o’clock. A heart-shaped metal component – one for each indication: hours, minutes and seconds – allows the chronograph hands to jump back to their initial positions at 12 o’clock. The Mémoire 1 is equipped not only with three but with more of these chronograph hearts.

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All or nothing

The principle of 'all or nothing' permits the release of the detent arm on most watches with minute repetition when the appropriate rack has been fully pressed. If the wearer completely presses the corresponding button, the watch movement counts the full hours, quarter hours and minutes. However, if the button is not pressed to the bottom, the function does not start. The Mémoire 1 is equipped with a similar system, which guarantees the perfect functioning of the mode change. This system is not only very interesting from a technical point of view, it also makes it much easier to tell the time because it ensures the precision of the indications of hours, minutes and seconds.

As soon as the selection mode with its 'va et vient' mechanism is pressed, a connecting mechanism, which is based on the principle of 'all or nothing', sets the three systems of the memory function in motion. These Mémoire systems are ingenious watchmaking devices that correspond to the indications – hours, minutes and seconds.

Not least, the Mémoire 1 has a date indication based on a newly developed mechanism, which unifies technology, design and readability perfectly. Contrary to traditional large date indications, the date on the Mémoire 1 is very discrete in order not to spoil the harmony of the dial while not compromising any of its easy readability.

The Mémoire 1 will certainly be recorded in annals for haute horlogerie as an incomparable Grande Complication. But also demanding esthetic requirements were a primary concern during the creation process of the Mémoire 1, whose movement consists of 537 individual parts. For this reason, not only the base movement and complications deviate from everything previously known in technical terms, but also the movement decoration and the features of this watch are in every regard innovative. More on this to come soon!

Zurich, September 2007

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MÉMOIRE 1 – EMOTION IN ITS PUREST STATE

At long last the veil has been lifted – and the Mémoire 1 can be admired in all its glory. It first saw the light of day in the “Atelier de Maurice Lacroix”, the creative research and development unit which draws its inspiration from the experience, knowledge and skills of designers, engineers, constructors and watchmakers. The Mémoire 1 features several world firsts – above all, it is the first timepiece with a mechanical memory function.

A first glance at the Mémoire 1 already triggers many different emotions: its impressive presence immediately places this watch in the category of exceptional timepieces known as Grandes Complications. The strong and unique visual appearance is its first distinguishing feature. A closer look reveals the subtle harmony of the pure and elegant design with its smooth transition from mirror-polished components to fine-brushed surfaces uniting the different levels of the case and dial. In a word, the Mémoire 1 incorporates that fantastic quality which typifies the most important creations of the watchmaking art – the fusion of elegant design and exceptional functions.

This has not come about by chance. The entire development process behind the Mémoire 1 focussed on an effort to unite eye-catching styling perfectly with simple readability and ease of use. The idea was to package up an innovative mechanism in such a way that the wearer can benefit from the technical advantages of his watch, so making its use a source of constantly renewed pleasure.

Despite its circular form which reflects the endeavour to achieve a pure and elegant impact, the white gold case of the Mémoire 1 comes in a unique and entirely new look. It is built up from several different levels and its screw-fitted bezel with a laterally mounted sapphire crystal with anti-reflective coating enables the movement of the seconds hand which is linked to the minutes ring to be admired. Another innovative feature is the mode selection button which is integrated in the crown at 3 o'clock.

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The dial also incorporates a number of innovations. Its different levels make the individual displays far more easily readable. A skeleton section with an aperture at 6 o'clock reveals the movement behind and the memory mechanism for the seconds. The date display is also special: with its uniquely inclined disc, this indication takes up a considerable amount of space, but does enable the date to be seen at first glance.

Another world first of the Mémoire 1 is the hours disc. This transparent disc is not made of sapphire, as might be supposed. After making detailed tests, the designers found that sapphire lacks the necessary density for this purpose and is therefore too weak for this particular application. So a different solution had to be found. Finally, a mineral-based material was chosen which is already successfully used today in pioneering industries such as the automobile branch or in mobile phones. A special treatment endows this material with great hardness and sufficient flexibility; Maurice Lacroix will therefore also be using it for other developments in future.

The hands are also particularly striking. The seconds hand is blued and mounted at its outer edge on the minutes ring, while the minutes hand has a white luminous coating with a blue radiance in the darkness. A skeleton hand at 3 o'clock shows the selected mode.

The Mémoire 1 is rounded off by the superb strap which is fully integral with the watch case by means of a hinge system. It is made of precious, matte-finished alligator leather and its buckle is in white gold.

The Mémoire 1 is the first watch to enable elapsed time to be memorized by an all-mechanical system, so elevating Maurice Lacroix to the exclusive circle of Haute Horlogerie or fine luxury watchmaking. But when the veil over its movement and appearance has now been lifted, the working principles of its complications remain part of the secret which surrounds this exceptional timepiece. Those last secrets will be disclosed at Baselworld 2008, the International Watch and Jewellery Fair in Basel.

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Movement: Maurice Lacroix manufacture movement, mechanical movement ML 128 with automatic, bi-directional winding system, hand-decorated with vertical or circular satinized sections and PVD surface refinement in tantalum colour; wheels gold-plated or with black PVD surface refinement; 48 jewels (25 transparent, 23 ruby-coloured); Maurice Lacroix precision adjustment with “*vis sans fin*” (endless screw) system; transparent Maurice Lacroix balance with white gold ring; KIF shock protection; Nivaflex M mainspring (exclusive to Maurice Lacroix); 28,800 a/h.

Functions: Chronograph with mechanical memory function, real time (time mode) and measured time interval (chrono mode) use the same indications (disc and hands); date indication with disc, indication of minutes and seconds with central hands, mode indication with hand at 3 o'clock.

Case: White gold 210 0/00 palladium; sapphire crystals with anti-reflective coating on inside, screwed caseback with sapphire crystal with anti-reflective coating (8 screws); water-resistant to 50m (5 atu), diameter 49 mm.

Dial: Black and silver-coloured; 4 parts assembled by hand, functions indicated on different levels, transparent, mineral-based hours disc with anti-reflective coating; minutes hand, hours disc and hours indication at 12 o'clock with white, luminous coating giving a blue radiance; applied and faceted index marks.

Watchband: Hand-sewn, matte alligator leather with buckle in white gold 210 0/00 palladium.

Zurich, November 2007

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MÉMOIRE 1 – EXCLUSIVE PREMIÈRE IN SHANGHAI

For the strictly limited Mémoire 1, Maurice Lacroix developed the first Mémoire function in a mechanical watch. This completely new Grande Complication sets a new benchmark in the history of the art of Swiss watchmaking. The Mémoire 1 has now been presented for the first time in Shanghai.

Shanghai is one of the fastest growing cities anywhere in the world. It is a city that has transformed itself into a modern, vibrant metropolis in a very short time. But it is also a city with an historic past that is still very much alive and which effects the everyday life of many of its residents. Practically nowhere else in the world is it possible to experience so clearly the contrast between traditions going back hundreds of years and constant progress along with future-oriented efficiency. Here in the heart of eastern China, parallel past, present and future worlds coexist in exciting, throbbing juxtaposition.

What place would therefore be more suited for the celebration of a mechanical timepiece that also combines history and tradition with exceptional innovation in an incomparable manner? The Mémoire 1 is, on the one hand, an expression of the art of Swiss watchmaking that has been refined and cultivated for centuries, and, on the other, part of the search for entirely new paths in terms of mechanics, design and material. For this reason, on November 21 Maurice Lacroix invited a small number of selected guests to Shanghai for a tour through the parallel worlds of this city followed by the first exclusive presentation of this strictly limited chronograph and its complicated functions.

The Mémoire 1 has only two hands – one for the minutes and one for the seconds – along with a disc to indicate the hours. And yet it is one of the most complicated watches ever developed! The reason is that a revolutionary design sits inside this chronograph – the first memory function for a mechanical timepiece. An indication at 3 o'clock reveals the secret: By pressing the button integrated into the crown, the mode changes from “Time” to “Chrono”. The hands and the hours disc immediately change their positions. If their previous function was telling the current time, they are now available for the precise measurement of time intervals. When the button is pressed once again, they all return to their positions for telling time. Even when the chronograph is running, it is still possible to shift back and forth between the two modes without losing the information provided by one or the other function.

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Zurich, November 2007