

Octa Calendrier

The annual calendar is the third complication to be integrated within the Octa automatic winding calibre, defined as the first automatic winding movement to ensure a minimum power-reserve of 120 hours (five days) enabling extremely precise time measurement even when not worn. The originality of each of the Octa complications is imposed by an identical mainplate for all models within the Octa collection. The mechanism must adapt to the milling and drilling required for other complications and must also be inserted within a thickness of just 1 millimetre. Once again, François-Paul Journe has achieved the feat of integrating within this five-day automatic calibre a complication as significant as an annual retrograde calendar, while maintaining the dimensions of the mechanism at 30 mm in diameter and 5.7 mm thick.

The calendar which displays the day and month through two separated windows advances instantaneously and is self-adjusting for the months of 29, 30 and 31 days. The Octa annual calendar automatically moves from month to month. It only needs to be advanced manually at the end of February, three years out of four. For non leap-years, the calendar must be moved from February 28th to 29th by a single turn of the crown and the calendar automatically moves from February 29th to March 1st.

The annual calendar is driven by an internally geared large transmission wheel which surrounds the mechanism. This activates the main lever every 24 hours. The main lever reaches across the movement to advance the date-wheel and its hand day by day. The date-wheel in turn drives the month wheel through a rack. The days, on a regular seven-day cycle, are moved forward by the transmission wheel.

The automatic advance of the date from the end of short months to the beginning of the next month is programmed by a cam mounted on the month-wheel. The five recesses around the cam's circumference, representing the four months of 30 days and February, act on the main lever that advances the date twice. At the end of April, June, September and November, the date-hand thus jumps from the 30th to the 1st. As it climbs out of the recess for February, which is deeper, the main lever moves the date three times, from February 29 to March 1. It is only at the end of a February with 28 days, in three years out of four, that the date needs to be advanced manually.

The date-hand rides up its scale on the curve of a snail cam mounted on the date-wheel. On the last day of the month, the date lever drops to the bottom of the cam, to bring the date-hand flying back to the start of its scale.

The date-hand itself is mounted on the pinion between two racks, one of which incorporates a blade-spring. The racks hold the date-hand precisely to the numeral on its scale, while controlling its return when the lever falls down the cam.