

Press Release

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Oscillomax® in the real world: New Perpetual Calendar Ref. 5550P in a limited edition of 300 Patek Philippe Advanced Research timepieces

The last three development steps in Silinvar® technology based on silicon were translated into Patek Philippe Annual Calendar watches with the caliber 324 S IRM QA LU movement. These watches were presented in limited editions of 100 to 300 pieces as “Patek Philippe Advanced Research” models, and each edition sold out within months.

To fittingly present the Oscillomax® ensemble, Patek Philippe has now turned to the legendary self-winding caliber 240 with a perpetual calendar; it aptly expresses the superiority of “Patek Philippe Advanced Research” technology. It incorporates the following Silinvar® components: the patented Patek Philippe Spiromax® balance spring, the patented Pulsomax® escapement, and the patented GyromaxSi® balance. Patek Philippe has applied for a total of 17 patents in conjunction with the Oscillomax® subassembly as a whole and also filed patent applications for its individual components.

New technology for a legendary movement

To present the advantages of Silinvar® technology, Patek Philippe chose a movement with a history of over 30 years: the ultra-thin self-winding caliber 240. It is a choice that reflects the interaction of tradition and innovation. It also shows that even an ingeniously designed movement like the 240, a caliber that enjoys cult status among aficionados, still has plenty of potential. In the version with the perpetual calendar (Q) that advances the date, day of week, and the moon-phase display on a daily basis as well as the month and year, the movement must generate a considerable amount of energy. This is an ideal point of departure to demonstrate the energy efficiency of the neu Oscillomax® ensemble.

Caliber 240 Q Si: Two letters boost the power reserve from 48 to 70 hours

As always at Patek Philippe, the designation of the caliber 240 Q Si movement is self-explanatory. Q stands for *quantième perpétuel* (French for perpetual calendar) and Si stands for silicon technology. And this technology is responsible for a quantum leap in the classic movement. It accounts for a significant increase of energy efficiency attributable to the innovative Oscillomax® subsystem, particularly of the Pulsomax® escapement and of the GyromaxSi® balance. This gain is based on the perceptibly lower mass of Silinvar® parts compared to conventional components, on the optimized geometry of the lever and escape wheel, and on the much-improved aerodynamics and mass distribution of the GyromaxSi® balance, to mention just some of the key reasons. Less energy dissipated means greater efficiency as demonstrated by a power reserve increase of about 50% without having necessitated any modifications of the mainspring, the frequency, or the moment of inertia of the balance. The efficiency of the winding train has also been perceptibly improved. The special-edition “Patek Philippe Advanced Research” perpetual calendar has a power reserve of up to 70 hours. This allows the watch to be set aside for an entire weekend without affecting its rate. Its



owners will appreciate the fact that they can put the watch on again on Monday morning without having to update the perpetual calendar displays.

The third element of the Oscillomax[®] ensemble is the patented Spiromax[®] balance spring made of Silinvar[®]. Based on its superior material properties and its patented geometry with the Patek Philippe terminal curve, integrated collet and integrated stud attachment, it delivers a significant improvement of isochronism. It not only breathes symmetrically despite being flat, but is also antimagnetic, corrosion-resistant, and extremely insensitive to shocks. Additionally, with no trade-off in terms of isochronism, the Spiromax[®] balance spring is three times flatter than a Breguet spring, making it ideal for ultra-thin movements.

With the sum of all these characteristics of the individual Oscillomax[®] components, the caliber 240 Q Si features a considerably improved power reserve combined with exceptional rate accuracy. It goes without saying that the Ref. 5550P perpetual calendar of the “Patek Philippe Advanced Research” series is subject to the same strict criteria defined by the Patek Philippe Seal that specify a maximum daily rate deviation of -3 to +2 seconds per 24 hours for all mechanical watches with a diameter of more than 20 mm.

Revolutionary technology with a classic personality

In a limited edition of 300 watches, the Ref. 5550P perpetual calendar is a superb manifestation of how tradition and innovation go hand in hand within the scope of the “Patek Philippe Advanced Research” design concept. It brings to the fore unique functional advantages such as the extended power reserve, the high rate accuracy, true dependability, and convenient serviceability. The exterior elements are equally sophisticated. The Calatrava-style case with the curved lugs and the rounded bezel is crafted in-house from 950 platinum using traditional cold-forming techniques. As an exception, because the correction push piece for the moon-phase display is located between the lugs at 6 o'clock, the typical 0.02 ct. diamond that identifies Patek Philippe's exclusive platinum watches is positioned at 12 o'clock. The dial is timelessly contemporary and with many refined details suggests the avant-garde technology hidden beneath it: a cool silvery gray face with a vertical satin finish, a crisp railway track minute scale with applied luminous hour dots, straight obus hour markers in 18K rose gold, slender leaf-shaped hour and minute hands with Superluminova coatings, the PATEK PHILIPPE GENEVE signature, the ADVANCED RESEARCH inscription, and calendar scales in a modern sans-serif typography style. It is an eminently legible, classically elegant face with novel accents that will inform future generations of the horological quantum leap which took place in 2011.

The revolutionary escapement can be admired through the sapphire-crystal snap back. Over the Oscillomax[®] subsystem, the back features a loupe that magnifies the innovative components. It affords close-up views of the purple-blue shimmer of the Silinvar[®] material, the unusual shapes of the escape wheel teeth and pallets of the Pulsomax[®] escapement, and the radically new geometry of the GyromaxSi[®] balance with the attractive contrast between Silinvar[®] and 24K yellow gold. In compliance with the Patek Philippe Seal, these components are embedded in a movement lavishly finished by hand to the highest standards of watchmaking artistry, featuring manually executed decorations, gently rounded and polished chamfers as well as gold-filled engravings.

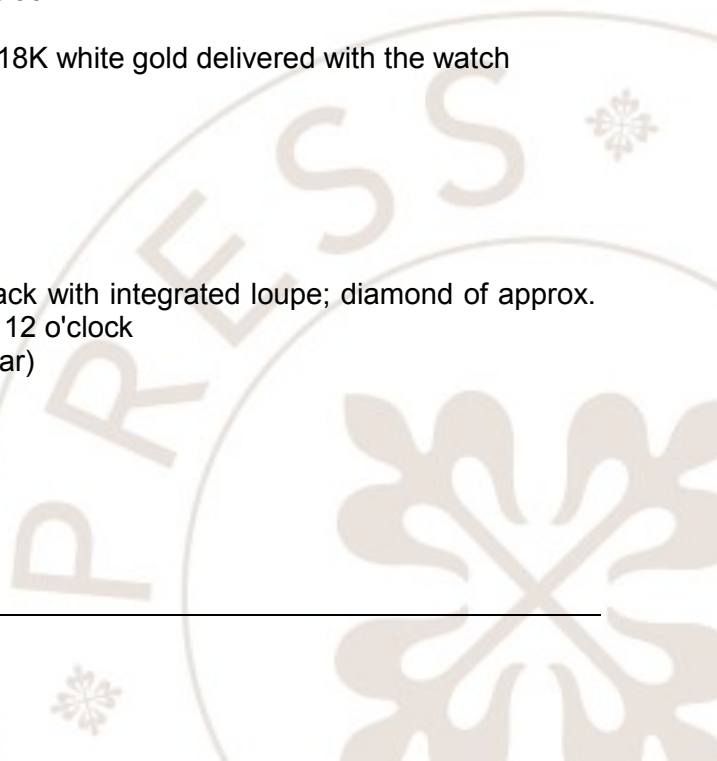
The traditional finishing touch: the hand-stitched brown alligator strap fashioned from the finest parts of the hide with large square scales is comfortably and reliably secured with a 950 platinum fold-over clasp.



Technical data

Patek Philippe Advanced Research Perpetual Calendar Ref. 5550P

Movement:	Caliber 240 Q Si Ultra-thin self-winding mechanical movement. Perpetual calendar with analog displays for the day of the week, date, month, and leap-year cycle. Moon phases and 24-hour display.
Diameter:	27.50 mm
Height:	3.88 mm
Number of parts:	281
Number of jewels:	25
Power reserve:	Max. 70 hours
Winding rotor:	Minirotor in 22K gold, unidirectional winding
Frequency:	21,600 semi-oscillations per hour (3 Hz)
Oscillomax [®] :	Balance: GyromaxSi [®] (in Silinvar [®] and 24K gold) Balance spring: Spiromax [®] (in Silinvar [®]) Escapement: Pulsomax [®] (lever and escape wheel in Silinvar [®])
Displays:	Hours and minutes from the center Day of week and 24-hour dial at 9 o'clock Month and leap-year cycle at 3 o'clock Analog date and moon-phase aperture at 6 o'clock
Functions:	Two-position crown: – Pulled out: To set the time – Pushed in: To wind the watch
Corrector push pieces:	Day at 9 o'clock Date between 11 and 12 o'clock Month between 12 and 1 o'clock Moon phase at 6 o'clock Setting stylus in ebony and 18K white gold delivered with the watch
Hallmark:	Patek Philippe Seal
Features	
Case:	950 platinum Snap-on sapphire-crystal back with integrated loupe; diamond of approx. 0.02 ct. between the lugs at 12 o'clock Water resistant to 30 m (3 bar)





- Case dimensions: Diameter: 37.20 mm
Height: 8.80 mm
Overall height incl. loupe: 10.10 mm
Width between lugs: 19 mm
- Dial: Silvery gray, vertical satin finish, "Advanced Research" inscription
12 obus hour markers in 18K rose gold with luminous coating
Hour and minute hands: Leaf-shaped, in 18K rose gold, with luminous coating
Hands for 24-hour display, leap-year cycle, date, day of week, and month:
Leaf-shaped, in 18K rose gold
- Strap: Hand-stitched alligator leather with large square scales, shiny chocolate brown, platinum foldover clasp

