

# User manual - Octa UTC

A unique design based on an exclusive mechanism



Calibre Octa An Horological Ideal\_

While some may think the construction of the Octa calibre has less powerful ties to the history of horology than the constantforce device or resonance phenomenon, it in fact symbolizes an important historical horological ideal: giving timepieces the highest possible degree of precision and autonomy.

It is commonly observed that church clocks are set so high in towers to enhance their visibility, however this positioning is mostly because it often allows almost an entire month for the driving weights to drop the length of their cords. Over time, numerous systems have been invented to increase the running time of a timekeeper's device but only with limited success. Given the restricted dimensions of a wristwatch, the size of the mainspring was immediately limited. Watchmakers then discovered the trick of adding an extra wheel to the customary gear train in order to extend the length of its development. Unfortunately, using this system only led them to observe that the level of energy actually reaching the balance remained poor. To compensate, they fitted a smaller balance consuming less energy but this also resulted in lost stability. Therefore, it's not unusual to find watches that run for several days displaying an extremely unpredictable level of accuracy.

This historical challenge was a powerful source of motivation for me. I then imagined that the best and most obvious solution to lengthen the running time would be to increase the capacity of the spring development. Given its stability (1 metre long and 1 millimetre thick), the challenge was to integrate it on the same level as the gear train and escapement. Thanks to the low torque of this spring, I could achieve extremely fast automatic winding (one and a half hour on a Chappuis cyclotest for over 5 days running).

Once the challenge of autonomy was successfully met with this automatic winding calibre, I began the second challenge of managing to insert various complications into that same movement: power reserve with large date display, fly-back chronograph with large date display, retrograde annual calendar, UTC, etc... and doing so while maintaining an identical size for all models in the Octa collection. Three years of research and development were required before this one of a kind automatic calibre could be presented to the public.

François-Paul Journe

### Chronology

Octa UTC Coordinated Universal Time\_

Created in the 19th Century, GMT, Greenwich Mean Time, originally referred to mean solar time at the Royal Observatory in Greenwich, London. Already used by the British navy to calculate their longitude position from the Greenwich meridian, it was introduced in the United Kingdom by the Railway Clearing House in 1847. It was then legally adopted as official time throughout Great Britain in 1880, and then in the entire world for the major part of the 20th Century, before being replaced in 1972 by UTC, Universal Time Coordinate. GMT is usually used in the watchmaking world to designate watches with a second time zone. GMT is based on terrestrial rotation, while UTC on atomic international time therefore the two time measurements are close but not the same. Unlike GMT, UTC offers the current view of time zone division directly linked to the real rotation of the earth, and less variable.

F.P. Journe innovates once again with the presentation of the Octa UTC ®, patented system that faithfully takes us back to the modern standards of determining time zones in full hours. Mechanically it indicates the different time periods linked with the earth's geographical positions, indicating summer and winter hours.

On the dial, the main hours are indicated by the blue hands, and linked to the calendar indicating the main geographical time. The red gold hand indicates the time zones on 24 hours, represented by the earth's 24 time zones.

Octa Calibre
Optimized winding\_

Always taking into account the notes and observations concerning his watches, François-Paul Journe states: "I realized that one of my friend's Octa was never completely wound because he works on a computer and his hand doesn't move enough."

From this observation he created the new Octa caliber (1300.3) that uses the slightest movement to automatically wind the watch. With talent, the watchmaker turns the problem around, and creates a new off centered rotor heavier in 22K gold, that winds in only one direction with a self-locking ball bearing system. The ceramic balls allow the rotor to move in one direction and block it in the other. This way, every infinitesimal movement is maximally exploited for an optimized winding of the watch.

The new calibre retains the characteristics of the classic Octa with a five day power reserve (120h) and a variable inertia balance wheel for an optimum yield that offers each model of the Octa line an irreproachable stability. The Octa collection is conceived for all lifestyles, from the more peaceful to the most active! Characteristics

Mechanism of the Octa UTC EP Patented system



## Functions\_

## Crown:

**Position 0, clock wise:** Winding of the watch.

**Position 1 A, clock wise :** Setting of the time zone and the 24 hour (gold hand).

Position 1 B, anti clock wise: Setting the date.

**Position 2, anti clock wise:** Setting the current time (blue hands).

Important! Push the crown back in position **0** for the watch to work.

## Pusher:

Setting the time zone disk. Each press on the pusher sets the disk on one time zone ahead.



## Initial setting\_

With the crown in position **2**, turn anti clock wise to position the hours and minutes blue hands at midnight (date jump).

Push the crown back in to position **1** and turn clock wise to position the 24 hours gold hand also at midnight.



Initial settings\_

## Correcting pusher :

Press the correcting pusher placed at 4h00 with the help of the specific tool included with the watch, in order to align your region on the globe on the 0.

Illustration example: Geneva







Main countries implementing summer time\_

### Northern Hemisphere:

Albany, Andorra, Armenia, Austria, Azerbaijan, Belgium, Bosnia Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Egypt, England, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iraq, Ireland, Israel, Italy, Jordan, Kosovo, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Mexico, Moldavia, Monaco, Mongolia, Montenegro, Morocco, Netherlands, Norway, Palestine, Poland, Portugal, Romania, Russia, Saint Marin, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, Ukraine, United States.

The period starts from the second Sunday in March at 2h00 in the morning (2:00am) and lasts to the first Sunday of November. + 1h00 in summer.

### Southern Hemisphere:

Australia, Brazil, Chile, Namibia, New Zealand, Paraguay, Uruguay.

The change also takes place in certain parts of the Southern Hemisphere but at different dates, taking in account the inversion of seasons related to the Northern Hemisphere. The period ranges between the first Sunday of September to the first Sunday in April. + 1h00 in summer.







Movement_       Calibre 1300.3 Unidirectional automatic winding Movement in 18K rose gold.         Dimensions of the movement_       Overall diameter : 30.80 mm Casing-up diameter : 30.40 mm Overall height : 5.70 mm Height of winding stem : 3.00 mm Diameter of stem thread : \$0.90 mm         Balance_       Four adjustable inertia weights Anachron free-sprung flat balance spring Mobile stud holder Free sprung Nivatonic laser soldered balance spring Pinned GE stud Frequency: 21'600 v/h, (3Hz) Inertia: 10.10 mg*cm² Angle of lift : 52° Amplitude: 12h dial up :> 280° 90h dial up :> 220°         Main Caracteristics_       Three position crown Correction of 24h time zones in position 1, clockwise Correction of 12th time zones in position 1, clockwise Correction of the in position 2 Instant jump calendar Initial time zone setting by secured correction pusher at 4h00					
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Escapement_	Escapement 15 tooth		
Indications_	Off centre hours, minutes and time zones 24 time zones disk at 7h30 - summer/winter daylight saving time Small second at 4h30 Large date Power reserve at 9h00		
Autonomy_	160 ± 10 h.		
Decoration_	Circular Côtes on 18K gold bridges Partly circular graining on 18K gold baseplate Polished screw heads with chamfered slots Chamfered and circular grained wheels Steel components hand polished and chamfered		
Case_	Platinum or 18K Red Gold Diameter: Height: 1	40 mm 0.6 mm	
Number of parts_	Jewels Movement without dial: Cased up with strap:	40 301 342	
Winding Speed_	274 anti clock-wise rotations per 24 hours		

### Maintenance\_

Your wristwatch should be serviced once every four years to maintain its precision.

#### Important\_

Keep the original warranty card supplied with your wristwatch carefully. Your authorized **F.P.JOURNE** retailer will need this identity card for any after sales servicing. For all maintenance or repair, your wristwatch must be entrusted only to an appointed **F.P.JOURNE** agent.

### Warranty\_

Your F.P.Journe - Invenit et Fecit watch is covered by a warranty against any manufacturing flaws for a period of 2 years as of the date of purchase appearing on the back of the warranty card or certificate. The warranty is valid only on presentation of the original card or certificate, duly filled out by the authorised retailer (serial number, date of purchase, retailer's stamp). The warranty does not cover normal wear or damage resulting from abnormal use of the watch, accidents or alterations.

### Warranty extension\_

If your **F.P.Journe - Invenit et Fecit** watch was purchased at an **F.P.Journe Boutique**, your watch is automatically covered for a period of **3 years** as of the date of purchase appearing on the back of the warranty card or certificate. If your watch was purchased at an **authorized retailer**, we kindly invite you to register on https://customerservice.fpjourne.com/en/guarantee during the 30 days following the initial date of purchase to benefit from an additional year of warranty.