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PREFACE

Time has been generous to Ulysse Nardin. Since 1846 the company has been the recipient of 4300 awards, including 18 highly coveted gold medals. Despite the temptation to rest on our laurels, to do so would be a betrayal of over 150 years of unmatched ingenuity.

Challenge has always been part of the Ulysse Nardin philosophy. When a group of friends and I acquired this cornerstone of the Swiss watch industry back in 1983, we were determined to live up to the glories of the Ulysse Nardin name. To achieve this goal, we faced the task of preserving a tradition of the finest craftsmanship while augmenting these achievements with today's technology.

A key figure in the evolution of the company is Dr. Ludwig Oechslin, whom I met in Switzerland over 20 years ago. This remarkable individual, who combines lofty scholarship with a practical passion for watch making, has the ability to transform radical ideas into the most innovative mechanisms. Taking this many steps further than

the hobby it had once been for Ludwig, he helped Ulysse Nardin to stride back into the horological hall of fame with the revolutionary Astrolabium Galileo Galilei.

This spirit of innovation was taken two steps further with the Planetarium Copernicus and the Tellurium Johannes Kepler. More than just mechanical watch making, this "Trilogy of Time" is rooted in the realm of physical and philosophical research.

Ulysse Nardin's renewed status in its field is a direct consequence of the dedication of Dr. Ludwig Oechslin, our watchmakers and all those associated with the company. The members of our team have added a new chapter to a long and glorious history. Evidence of their virtuosity is to be found in patents accumulated over the past decades, the greatest number in the field of mechanical watch making. Some of these patents found their first application in the Perpetual Ludwig, created for the company's 150th anniversary. In a groundbreaking leap of originality, the date, day, month and year indications on the perpetual calendar can be set backward and forward with a single crown. Even the year 2100 will hold no fear for owners, who will be able to adjust the perpetual calendar instantly with the same crown.



To mark the beginning of the new millennium, Ulysse Nardin introduced the GMT± Perpetual, two unique and exclusive timepieces brought together in one watch.

The future of Ulysse Nardin is looking as golden as its past, due largely to the enduring support of our staff, agents and retailers. I thank each and every one of them with all my heart. Their faith, loyalty, talent and commitment are essential to us in our quest to redefine the boundaries of mechanical watch making and to keep Ulysse Nardin in its pre-eminent position for the next years.

Rolf W. Schnyder/President



CHRONOLOGY

1823

January 22nd - Birth of Ulysse Nardin in Le Locle, Switzerland. Initial training by his father, Léonard-Frédéric and William Dubois one of the leading precision watchmakers.

1846

The ULYSSE NARDIN company is founded.

1862

London International Exhibition - UN receives "The Prize Medal" in the category "Complicated watches, pocket chronometers". This award puts the company in the lead internationally.

1865

The company moves to its present premises at 3 rue du Jardin.

1876

February 20, death of Ulysse Nardin. 21-year old son Paul-David takes over control of the company.

1878

Paris Universal Exhibition - Paul-David Nardin obtains a Gold Medal for his pocket and marine chronometers.

1893

Chicago Universal Exhibition - Gold Medal.

1904

Marine chronometers are supplied to the Russian and the Japanese admiralities.

1906

Milan International Exhibition - First Prize and Gold Medal. Naval Observatory, Washington DC, USA - Nardin chronometers take the first seven places.

1915

Naval Observatory, Washington DC - first place among 60 marine chronometers. In the same trial the company takes three of the first five places among 217 deck watches entered.

1923

Observatory of Neuchâtel - International Chronometer Competition to mark the centenary of the death of Abraham-Louis Breguet, Ernest Nardin carries off the only First Prize.

1935

Introduction of new 24" split-seconds pocket chronograph beating tenths of a second.

1950

Observatory of Neuchâtel - UN breaks all records for chronometer performances since 1901.

1975

Observatory of Neuchâtel - last official publication concerning performance of chronometers covering the period from 1846 to 1975.

According to this report Ulysse Nardin obtained 4324 certificates of performance for mechanical marine chronometers out of a total of 4504 awarded.

At various International Exhibitions Ulysse Nardin and his successors obtained :

- 14 Grands Prix (First Prizes)
- the "Prize Medal" and the "Progress Medal"
- 10 Gold Medals
- 2 Prix d'Honneur
- 2 Silver Medals



1983

A group headed by Rolf W. Schnyder acquires the company.

1985

Launch of the watch Astrolabium Galileo Galilei. Named after the great physicist, astronomer and humanist.

1988

Launch of the wristwatch Planetarium Copernicus designed to commemorate the Polish astronomer. Astrolabium Galileo Galilei - entry into the Guinness Book of Records.

1989

Production of the first minute-repeating wristwatch with automatons, the San Marco, and the split-seconds chronograph "Berlin".

1992

Completion of the "Trilogy of Time" with the Tellurium Johannes Kepler, tribute to the German astronomer.

1993

Launch of the Automaton San Marco "Hourstriker" model and the "Cloisonné" Boat collection.

1994

Introduction of GMT± intended for frequent travelers.

1996

150th anniversary - introduction of the wristwatch Marine Chronometer 1846 and the revolutionary Perpetual Ludwig named after its creator Dr. Ludwig Oechslin.

1998

Launch of the single-button chronograph "Pulsometer".

1999

Introduction of the GMT± Perpetual.

2000

"Chronos", the German watch magazine awards Ulysse Nardin the Watch of the Year 2000 "Innovation Prize" for the GMT± Perpetual.

2001

Launch of the Freak - 7-day Carrousel-Tourbillon. Poetry in watch making without hands or crown.

2002

Launch of the Genghis Khan - the first ever Westminster Carillon Tourbillon Jaquemarts Minute Repeater. Innovation Prize - Watch of the Year 2002 for the Freak.

2003

Launch of the Sonata - heavenly sound, genuinely mechanical. Innovation Prize - Watch of the Year 2003 for the Genghis Khan.

Opening of the In-House Mouvement Design and Mouvement Component Production Center in La Chaux-de-Fonds.

2004

Launch of the Minute Repeater Circus. Innovation Prize - Watch of the Year 2004 for the Sonata.

2005

Launch of the Freak 28'800 V/h Diamond Heart - new patented Dual Ulysse Escapement made out of Diamond by means of an innovative process.

Launch of the Royal Blue Tourbillon.



THE FREAK

28'800 V/H: POETRY IN MECHANICAL WATCHMAKING

The Freak is the brainchild of Dr. Ludwig Oechslin, as interpreted and conceived by Ulysse Nardin's research and production team.

In contrast to mystery clocks of the past, the Freak is an open secret - all parts pivot and move in total transparency.

The Freak 28'800 V/h is a 7-day Carrousel Tourbillon, without hands, dial or crown. We call it the Freak 28'800 V/h because everything in this movement is so radically different that the concept of the movement and the case had to be rethought.





THE 7-DAY CARROUSEL TOURBILLON, AN INVENTION OF DR. LUDWIG OECHSLIN

No hands, no dial - this watch does not need them. The Freak 28'800 V/h indicates the time by the rotation of the movement. The arrow decorating the main spring barrel indicates the hour while the upper bridge, fitted with the balance wheel assembly and its revolutionary Dual Ulysse Escapement, revolves once every hour indicating the minutes. During its 60 minute rotation, the upper bridge lays bare the mechanics of time. The center axis pivots in the

sapphire crystal of the watch case. This is a spectacular sight, accentuated by the finishing skills of Ulysse Nardin's watchmakers in Le Locle.

In other Tourbillons, the balance wheel assembly moves once every minute in a cage. In the Freak 28'800 V/h, the whole movement, including the balance wheel assembly, rotates once an hour inside the watch case.

THE 28'800 V/H OSCILLATOR

The 4 Hz frequency and the 7 mg*mm moment of inertia provide the FREAK 28'800 V/h an accuracy comparable to the mechanical Chronometers.

The Balance wheel represents a new Ulysse Nardin design and concept. It bears 4 inertia adjusting screws which are hidden within the rim, thus avoiding the creation of air turbulence. The spiral length is not adjustable, the frequency is found by adjusting the inertia of the balance.

THE DUAL ULYSSE ESCAPEMENT

The Dual Direct Escapement which was developed for the first generation Freak opened a new field of discovery and potential improvement in the vast domain of the escapement. The Dual Ulysse represents the next step in that development, bringing several novelties and incorporates the advantages brought by its predecessor.

The Dual Ulysse Escapement has 2 wheels, allowing natural force transmission: the force and the move have the same direction, alternatively clockwise with the first wheel and counter-clockwise with the second.

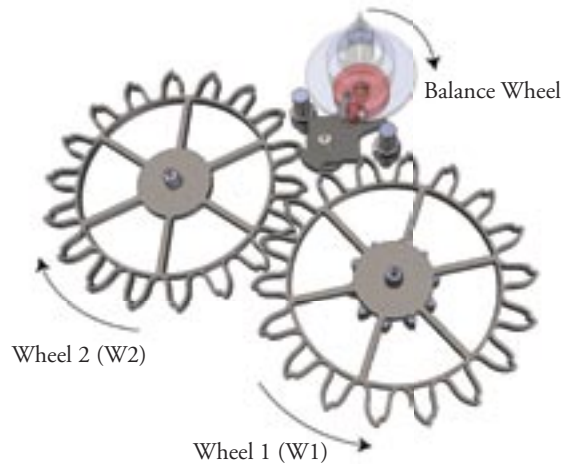
The wheels have 18 active teeth, which guarantee ideal energy transmission to the oscillator. No lubrication is required as this transmission is done through a "gear like" mechanism.

The impulse is given to an alternator which passes it further to the balance shaft. This alternator is a gear which turns alternatively in one direction, and then the opposite direction.

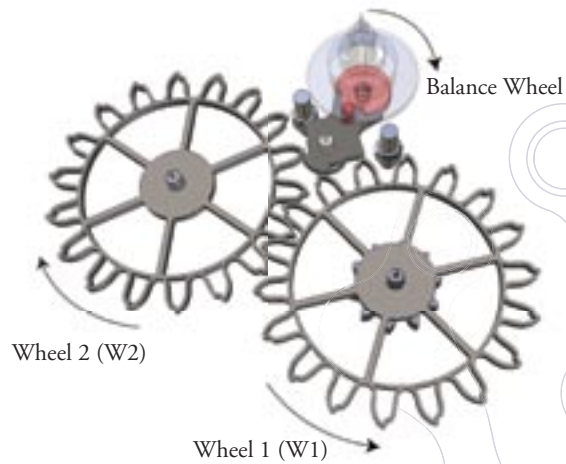
The innovative principle of the Dual Ulysse Escapement permits a dramatic reduction of the "angle of lift" from the usual 50-52 degrees (Swiss Anchor and Dual Direct) down to 27 degrees. The "angle of lift" is the arc run by the balance between its first contact with the escapement and its last contact. The shorter the arc, the lower the disturbance of the natural oscillation of the balance.

The Freak 28'800 V/h is produced in white and rose gold. It is a tribute to the inventive thinking of Dr. Ludwig Oechslin and Ulysse Nardin's ability to convert Dr. Ludwig Oechslin's concepts into extraordinary timepieces

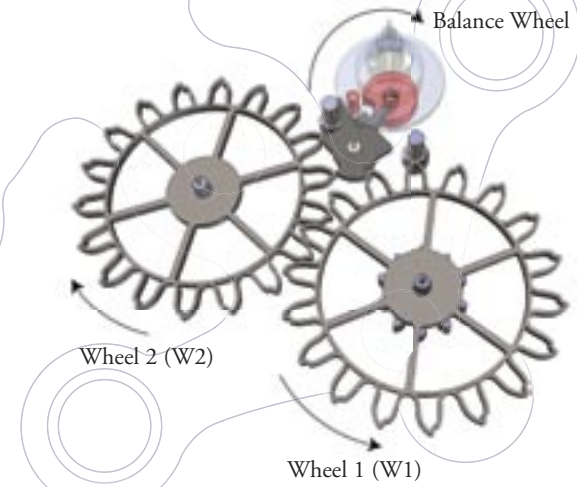
A.
The balance wheel swings back and releases W1.



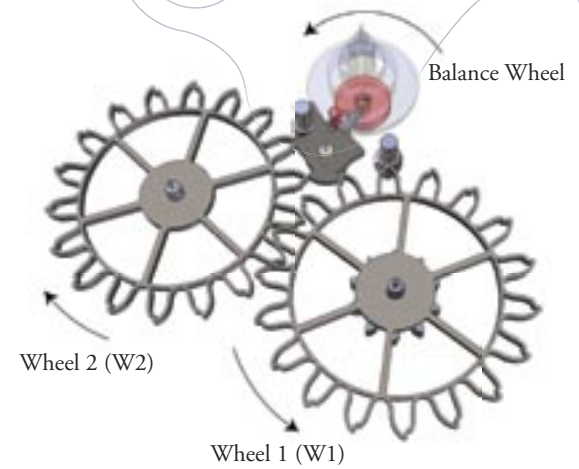
B.
W1 is released, driving W2 which provides its impulse to the balance wheel.



C.
The balance wheel runs its free oscillation. W2 is blocked - stopping W1 also.



D.
The balance wheel swings back, releasing W2. W1 is on the point of giving its impulse to the balance wheel.





MAIN SPRING AND WINDING MECHANISM

The main spring is located underneath the movement and spans across the entire case diameter. A ball-bearing containing 196 balls maintains the barrel in a very stable position, minimizing friction. The main spring's extra large size provides the Freak 28'800V/h with a power reserve of one week.

WINDING THE FREAK 28'800 V/H

The Freak 28'800 V/h is very simple to wind. Turning the case-back counter-clockwise winds the main spring. One complete turn will give the Freak 28'800 V/h 12 hours power reserve. Fourteen turns will give the Freak 28'800 V/h 7 days of power reserve. Winding does not require much force - the case-back turns easily.

The Freak 28'800 V/h can be wound frequently anytime. Mechanical movements perform best when the mainspring is fully wound.

The opening in the case back shows the main spring. When the spring is packed in the center with a few blades on the outside, the watch is fully wound. When the spring is packed on the exterior with few blades in the interior, the power reserve is nearing its end.

Note: If the bezel is inadvertently turned clockwise, much higher resistance will be felt, but no damage will result.





HOURS



MINUTES

TECHNICAL DESCRIPTION OF THE TIME DISPLAY

HOURS

The hour wheel arbor is carried by the blue barrel-drum. The wheel rolls in the fixed rack and drives the center-pinion. An arrow applied on the barrel indicates the hour. The barrel contains the main spring and makes one complete revolution in a 12 hour period.

MINUTES

The Carrousel Tourbillon movement is assembled onto the center-pinion. Its first wheel rolls on the fixed rack and gathers the necessary power to maintain the oscillation of the balance thanks to the Dual Ulysse Escapement. The bridge supporting the escapement rotates once in 60 minutes, and so serves as the minute hand.

SETTING THE FREAK 28'800 V/H

A lock situated at 6 o'clock between the horns of the case permits releasing and locking of the bezel. The bezel can be turned in either direction. Upon correctly setting the time, push the guard back into position. This will lock the bezel, preventing involuntary changes of the time.

If the Freak 28'800 V/h is out of power reserve, rewind it prior to setting the time.

The Freak 28'800 V/h is set by turning the bezel - including the sapphire crystal - clockwise or counter-clockwise.

Turning the bezel clockwise adjusts the time forward, and turning the bezel counter-clockwise adjusts the time back.

The minute indicator follows the bezel and the hour indicator follows the minute indicator at its own rate. One revolution of the bezel corresponds to sixty minutes.

Note: Turning the bezel backward or counter-clockwise, (1 revolution will add 1 hour of power reserve).

Turning the bezel forward or clockwise, will unwind the watch (1 revolution will subtract 1 hour of power reserve). The Freak 28'800 V/h cannot be damaged by turning the bezel, even if the bezel is turned a large number of times.

TECHNICAL DATA

Caliber	UN 200
Type	Mechanical movement
Size	13 3/4"
Diameter of movement	31 mm
Number of rubies	28
Oscillations	28'800/h (4Hz)
Power reserve	Approximately 1 week
Glass	Anti-reflective sapphire crystal
Display	Hours and minutes

PRECISION

Precision and average daily rate depend on the activity of the person wearing the instrument.

Magnetic fields (computers, mobile phones, etc) may influence the working of a watch.

The fine mechanism of the Freak is not suited to withstand extensive shocks and knocks caused by activities such as tennis, golf, etc...

Because a mechanical watch is a fine piece of miniature engineering, its precision will never match that of a quartz timepiece. Variations of 0 to 8 seconds in 24 hours are normal.

SHOCK AND WATER RESISTANCE

The Freak 28'800 V/h is an example of time-keeping art; it is not a sports watch.

Its construction was conceived to resist normal, everyday environmental stress. Normal movements, accidental splashes of water, and temperature changes will not affect the smooth running of the Freak 28'800 V/h.

However violent shocks or dropping the watch on a hard surface may damage the watch. Additionally, swimming or showering must be avoided as well when wearing the Freak 28'800 V/h.

GUARANTEE

Ulysse Nardin watches are thoroughly tested throughout the entire production process.

To avoid improper manipulations that may result in unsatisfactory performance of the watch, we recommend careful reading of the instruction manual.

Your timepiece is guaranteed for 2 years against any manufacturing defect, provided the guarantee card has been duly completed with the exact reference number, serial number of the timepiece, date of purchase, legible seal and signature of an authorized retailer.

The Ulysse Nardin international guarantee does not cover:

- Theft, loss, accident, fire and other natural damage
- Damages resulting from mishandling (shocks, crushing, direct contact with any chemical product, etc.)
- Defects resulting from repairs by unauthorized persons
- Straps, rubber bracelets, as well as glass or sapphire crystal



Ref. 020-88



CARING FOR MECHANICAL TIMEPIECES

MAINTENANCE

Like an automobile, mechanical watches require service at regular intervals. All mechanical watches should have their movements cleaned and oil replaced every 3-4 years. The life span of the instrument will primarily depend upon daily care, and the quality of the maintenance. We therefore suggest watch servicing only by officially authorized Ulysse Nardin service agents, or by the Ulysse Nardin factory.



Ref. 026-88





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