

MP-08
«ANTIKYTHERA SUNMOON»
INSTRUCTION MANUAL



The Antikythera SunMoon is a solar and lunar calendar, as well as a representation of the sidereal position of the sun and the moon. The piece is completed by a flying tourbillon (without ball bearing) which rotates once every minute to indicate the seconds, with the hours and minutes shown by traditional hands at the centre of the movement on the dial side. Frequency 21,600 Vib/h (3 Hz). Power Reserve approximately 100 hours.



DESCRIPTION OF THE MOVEMENT AND ITS OPERATION

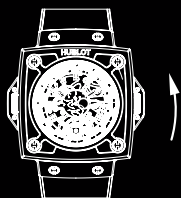
1. BASIC MOVEMENT

Hand wound mechanical movement equipped with a flying tourbillon (without ball bearing) rotating once every minute to indicate the seconds. Hours and minutes shown by traditional hands at the centre of the movement on the dial side.

- The power reserve is approximately 100 hrs.
- The operating frequency 21,600 Vib/h (3 Hz)
- The bridges and main plate are made from bevelled brass with a drawn edge, circular-grained recesses and a black ruthenium surface treatment.
- The wheels are circular-grained, bevelled and rhodium-plated.
- The steel is satin-finished and bevelled with a drawn edge.
- Number of components: 295
- Number of jewels: 37

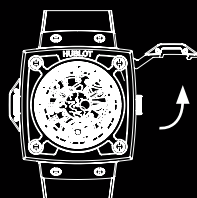
2. CROWNS

The movement features two winding crowns: One at 3 o'clock and one at 9 o'clock. The crown at 3 o'clock is for winding and time setting. Its first position (A) is used to wind the movement's mainspring, while the second position (B) allows the time to be set (hours and minutes) in both directions.

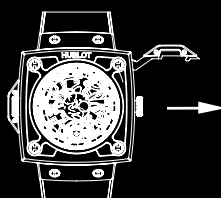


Position A

Winding possible without opening the crown guard



Crown guard open



Position B

Pull the crown to set the time

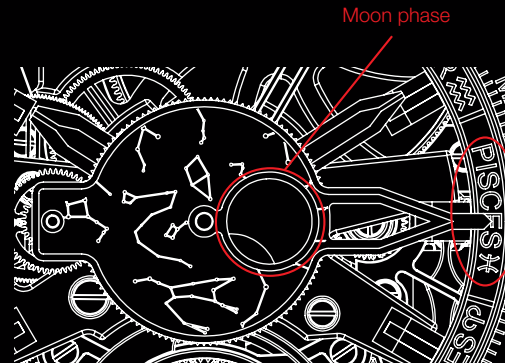
The second crown, located at 9 o'clock, has only one position and is used to scroll through the lunisolar calendar in both directions. In other words, it moves the hand, which has a sun-shaped end, to a chosen date on the outer concentric zone of the dial in which the 12 months of the year are indicated and the days of the month symbolised by two rows of indices, (the inner zone shows the odd dates and the outer zone the even dates) The SunMoon mechanism directly calculates the position of the other hand showing the lunar indications.

3. MOVEMENT INDICATIONS

Unlike the Antikythera Mechanism, there is no indication on the underside (back).

All of the indications are found on the dial side

At the front, pivoting at the centre of the movement, is the Moon hand which shows two indications:



a. The Moon phases are shown by this hand in a circular window, with the extended end of the Moon hand indicating in the first concentric circle the sidereal position of the Moon as viewed from the Earth (the wearer of the watch).

The sidereal position is determined by the constellation located directly behind the Moon as observed by the wearer on a specific date.

The constellations are not reduced to a simple zodiacal name, as is often the case on watches indicating the astrological sign of the zodiac. In this case, the indication is of an astronomical zodiac sign.

This is an important distinction, as in the first concentric circle the sectors indicating the sign of the zodiac are not of equal size. The time required for the Moon and Sun to pass through these constellations varies, since they have different shapes in the sky. For example, Virgo is represented in the zodiac by a woman lying on her side, while Cancer takes the form of a small, very square crab. To summarise, this indication shows the sector of the sky in which the Moon and Sun can be found on a specific date.

b. A hand, positioned coaxially in relation to the first indication on the Lunar calendar, features a Sun symbol at its end, and shows two indications:

- On the second concentric circle on the outside of the dial, the end of the hand shows the day of the month in the solar year, in other words, the date.
- The second indication shown by this hand is the sidereal position of the Sun as viewed from the Earth (by the wearer)

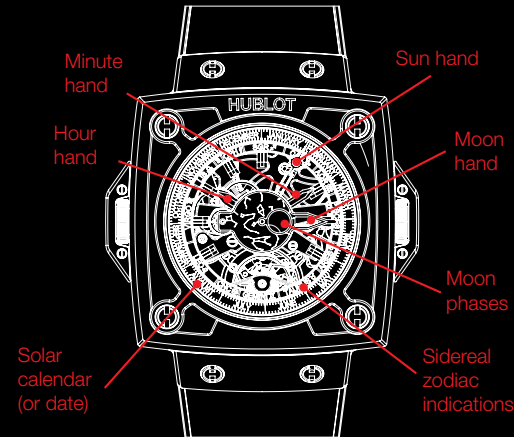
4. THESE TWO LUNISOLAR INDICATIONS ARE NOT INDEPENDENT.

The wearer moves the calendar hands using the crown located at 9 o'clock, choosing the day of the year to be indicated by the end of the Sun hand. The movement automatically calculates the other lunar indications.

5. WHAT IS THE PURPOSE OF THIS WATCH

As well as being able to read the time (hours and minutes), the wearer of this watch can ascertain, for a given day of the solar year, the name of the constellation behind the Sun and the time required for the Sun to pass through a constellation. For the same day, the wearer can find out the phase of the Moon, or more specifically the illuminated proportion of its surface, the name of the constellation behind the Moon and the time required for the Moon to pass through a constellation.

6. THE MECHANISM GIVES EXTREMELY PRECISE INDICATIONS



a. The Moon phase, or synodic month, in other words the period between two full moons, is 29.530589 days.

b. The position of the Moon in the zodiac in relation to the Earth (sidereal month) is one rotation every 27.321661 days. In addition, the mechanism takes into account the irregular nature of the Moon's movement, which is caused by its elliptical trajectory.

c. The Sun indicator hand completes one rotation every sidereal year, equivalent to 365.256363051 days.

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WARRANTY

The card at the end of your Hublot kit is an electronic warranty certificate, which contains your watch's identity code, and also grants you privileged access to the Hublotista area available on the Hublot website (www.hublot.com). The card must be activated electronically, or completed and the Hublot stamp applied.

Each Hublot watch bears an individual identification number, which proves its authenticity. Your Hublot watch is guaranteed against all manufacturing defects for a period of two years from the date of purchase, provided that the watch was purchased from an approved Hublot retailer. However, this warranty does not cover damage caused by inappropriate use or handling of the watch.

For any repair during the warranty period, please enclose with the watch the pre-activated warranty card signed by an approved Hublot retailer, an exhaustive list of which can be found on our website.

Should the watch require any kind of servicing, please contact an approved Hublot retailer or After-Sales service centre only, the contact details of which can be found on the Hublot website.

All repairs or servicing work carried out by third parties not authorised by Hublot will automatically invalidate your warranty; in which case any damage would be rectified at your expense.

