GIRARD-PERREGAUX

USER MANUAL

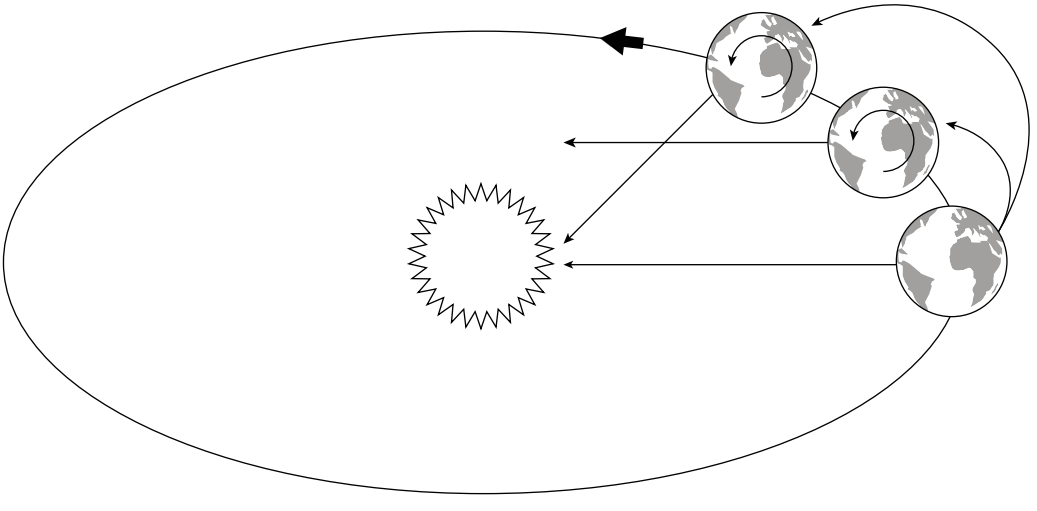
COSMOS

INSTRUCTIONS FOR USE

ASTRONOMY AS A TIME MEASUREMENT INSTRUMENT

The measurement of time finds its origins in the observation of astronomical phenomena such as the motions of celestial bodies in the sky. Most of the calendars have been developed according to the movements of the Sun as Man observed a regular alternation of diurnal and nocturnal periods of time. Thus, it is customary to measure a day according to the position of the Sun with respect to the Earth.

A sidereal day and a solar day must be differentiated in terms of duration. A sidereal day lasts 23 hours, 56 minutes and 4 seconds, which corresponds to a 360 degrees full rotation of the Earth on itself, independently of its revolution around the Sun. Meanwhile, a solar day has an average duration of 24 hours corresponding with the time interval passing between two culminations of the Sun on a given meridian. This positive difference of 3 minutes and 56 seconds is due to the revolution of the Earth around the Sun, leading to a rotation of more than 360 degrees of the former.

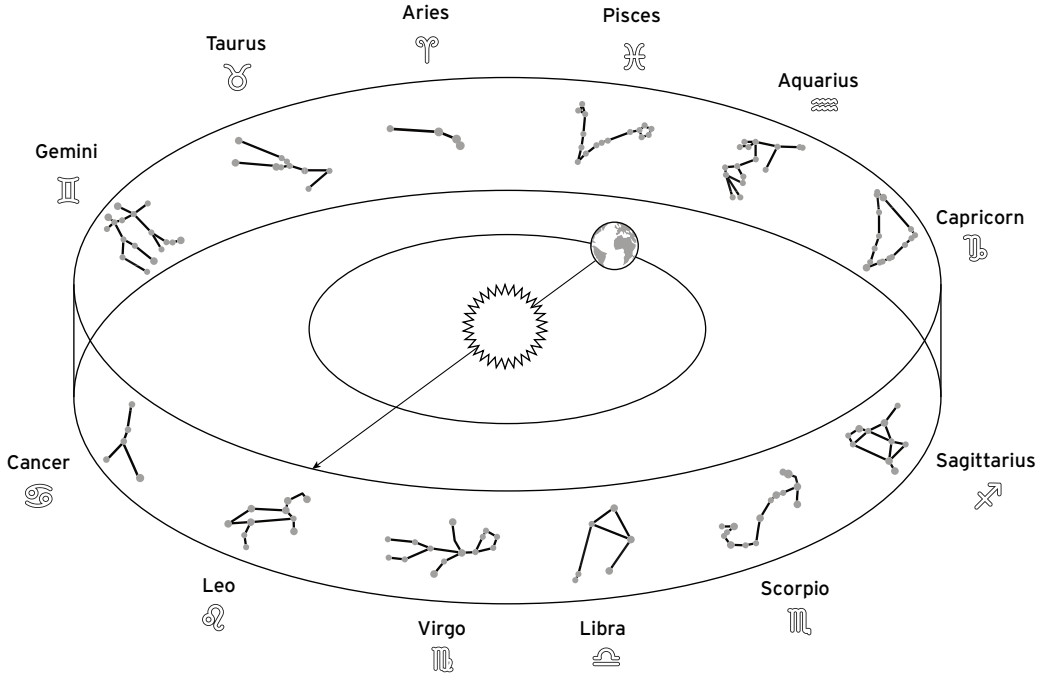


A CELESTIAL GLOBE INDICATING THE CONSTELLATIONS OF THE ZODIAC

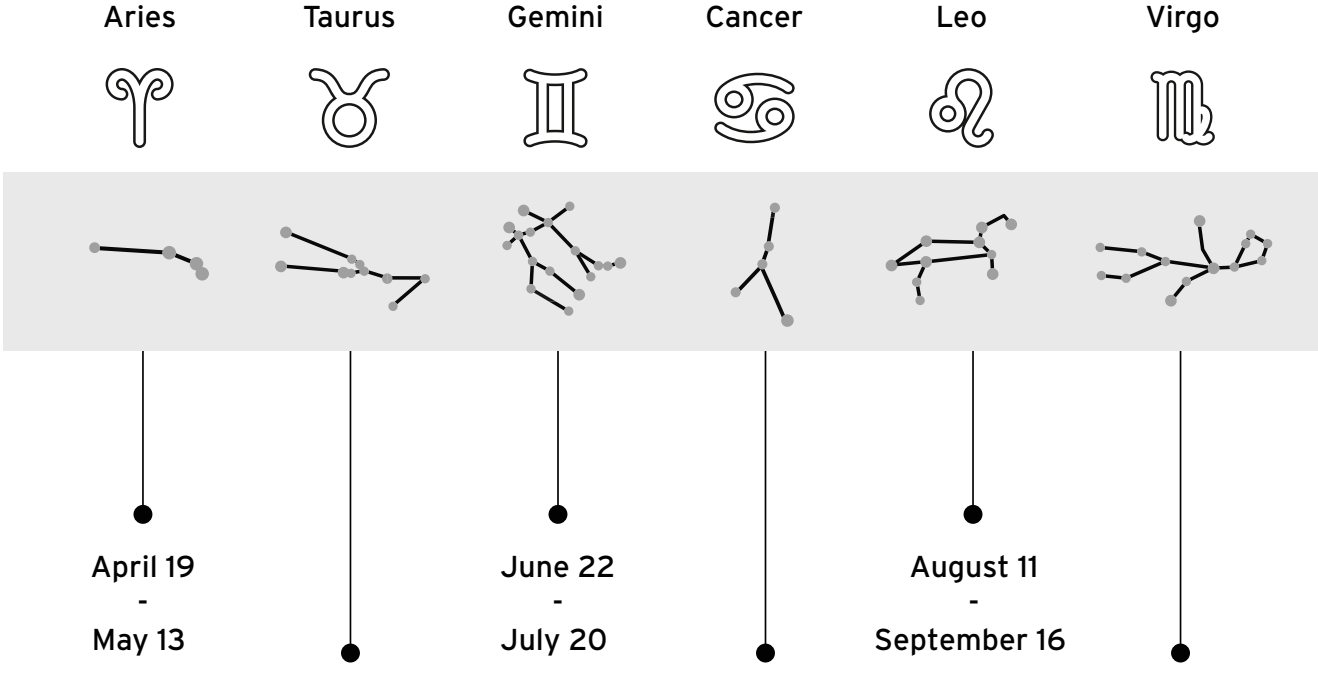
The celestial globe of Cosmos, whose mechanism is based on the duration of a sidereal day, is an astronomical globe indicating the constellations of the Zodiac. It is composed of 12 constellations which showcase their very own combination of stars. Their arrangement recalls the astrological signs known today and divided into 12 periods of time throughout the year.

The Zodiac differs between astronomy and astrology due to the phenomenon called "precession of the equinoxes". It corresponds to the gradual change of direction of the Earth rotation axis, resulting in a change of the stars position in the sky over the years. The astronomical calendar of the zodiac thus refers to the stars that are actually visible in the sky at a given time, unlike the astrological one that is invariant over time.

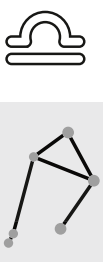
The current zodiacal constellation is the one that is placed behind the sun when it is 12 o'clock solar time, referred to as "the sun passage through the constellation". Invisible to the naked eye because of the solar light diffusion in the atmosphere, the constellation is revealed by the celestial globe of Cosmos.



ZODIAC CONSTELLATIONS SETTING TABLE

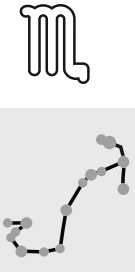


Libra



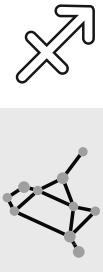
October 31
-
November 20

Scorpio



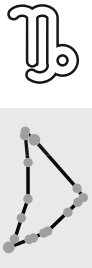
November 21
-
December 18

Sagittarius



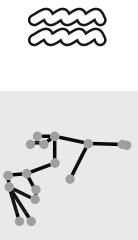
December 19
-
January 20

Capricorn



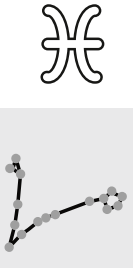
January 21
-
February 16

Aquarius



February 17
-
March 11

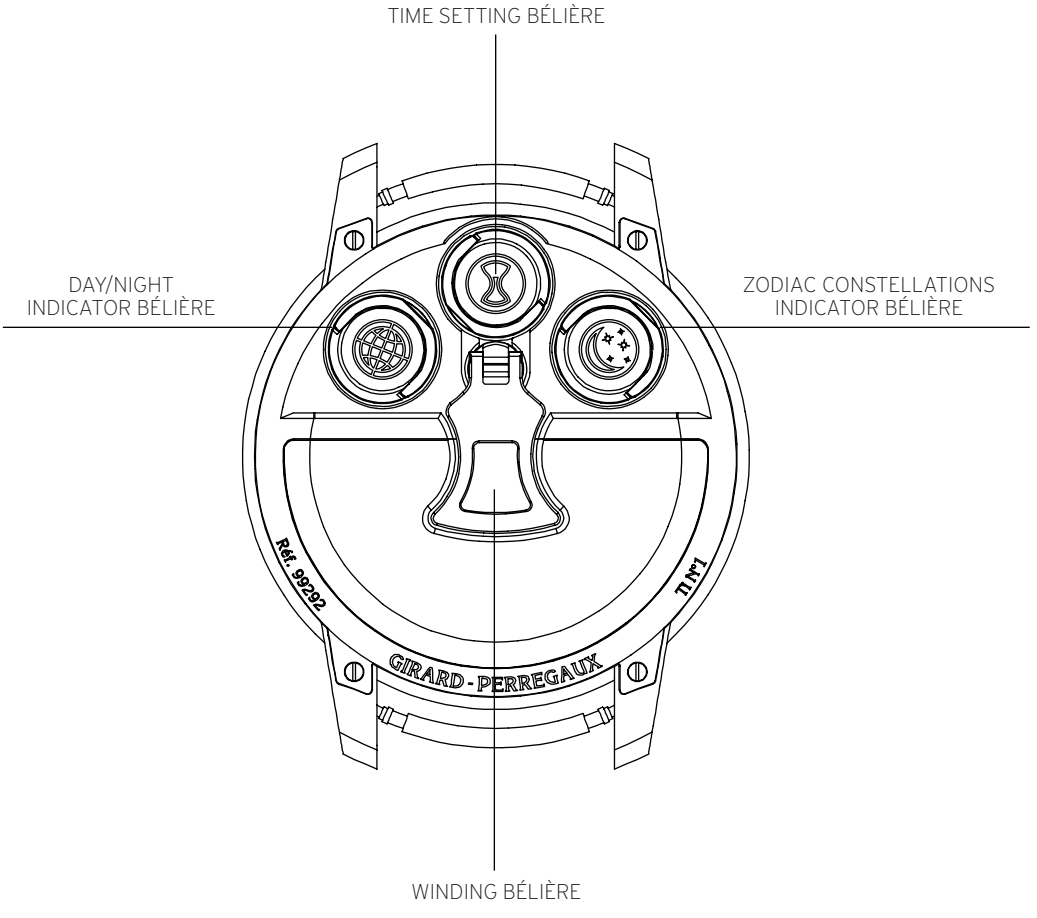
Pisces



March 12
-
April 18

SETTING MECHANISM

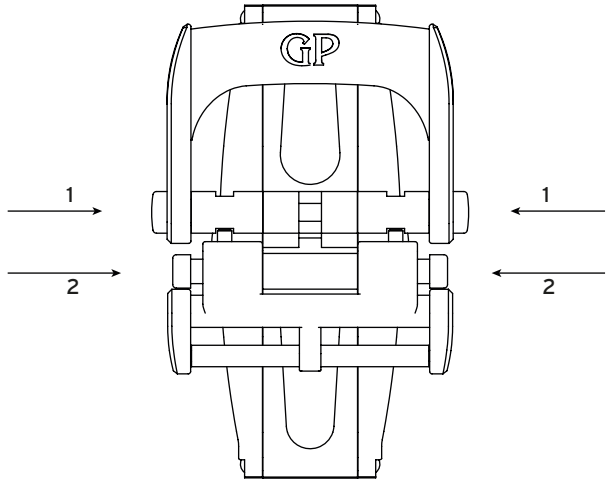
The setting mechanism features an exclusive system developed by Girard-Perregaux's R&D department. Instead of relying on a traditional crown on the case side, the setting system is based on four rotating bows, called "bélières", placed at the back of the timepiece.



Warning: The winding, the setting of the time, the day/night indicator and the zodiac constellations indicator are unidirectional. To wind your watch and set the functions, pull the bélières up, make sure to turn them clockwise and push them down to their original position once the setting is finished.

TRIPLE FOLDING BUCKLE OPENING

In order to provide an easy access to the setting mechanism, the triple folding buckle is removable thanks to an opening system. First, open the triple folding buckle by pressing on both push-buttons number 1, then, open the security system by pressing on both push-buttons number 2.



Warning: After finishing the setting, make sure to secure the buckle again by replacing, from above, the unleashed part in its original position.

WINDING

The winding bélière is placed at the back of the watch at the bottom center.

Manual-winding:
Your watch requires regular winding to work normally. To wind, pull the bélière up and turn it clockwise 11 times for a full winding. Once the watch is wound up, push the bélière down to its original position.

When fully wound, your watch has a power reserve of minimum 57 hours.

Warning: Do not force the bélière once the resistance increases as this could damage the movement.

SETTING THE TIME

The time setting bélière is placed at the back of the watch at the top center.

Pull the bélière up and turn it clockwise. Once the time is set, push the bélière down to its original position.

SETTING THE DAY/NIGHT INDICATOR

The day/night indicator bélière is placed at the back of the watch on the left-hand side.

Pull the bélière up and turn it clockwise to align the mark "12" of the graduated ring with the location where it is 12 o'clock. The terrestrial globe acts as a day/night indicator as the day appears on the dial side and the night on the case-back. Once the day/night indicator is set, push the bélière down to its original position.

SETTING THE ZODIAC CONSTELLATIONS INDICATOR

The Zodiac constellations setting bélière is placed at the back of the watch on the right-hand side.

Warning: Before making any setting, set the time at 12 o'clock. For a better accuracy, set the time at 12 o'clock solar time as it coincides with the time when the Earth and the Sun are aligned with the current constellation. To do so, convert the local time into the solar time by taking into consideration your time zone, your location, the equation of time and the current season (summer/winter time).

Pull the bélière up and turn it clockwise until the current constellation is positioned at noon. Match the current date with the Zodiac constellations setting table on the previous pages and align the globe with the middle of the constellation.

Once the zodiac constellations indicator is set, push the bélière down to its original position and adjust the time setting.

FUNCTIONS

a | Hours
b | Minutes
c | Day/night indicator
d | Tourbillon
e | Zodiac constellations indicator

GIRARD-PERREGAUX GP09320
HAND-WOUND MECHANICAL MOVEMENT

Diameter:	37.85 mm ($16^{3/5}$''')
Frequency:	21,600 Vib/h – (3 Hz)
Jewels:	52
Power reserve:	minimum 57 hours
Functions:	tourbillon, hours, minutes, day/night indicator, zodiac constellations indicator

CASE

Diameter:	47.00 mm
Crystal:	sapphire anti-reflective 'box'
Case-back:	sapphire crystal
Water resistance:	30 meters (3 ATM)

MDE-1025