

1. Introduction

p 33

The Manufacture Audemars Piguet
The 3126/3840 automatic Chronograph
Technical specifications of the movement

2. Description of watch

p 42

Views of the basic movement
View of the chronograph mechanism
Technical data of the movement
Watch indications (see figure)

3. Basic functions

p 46

Setting the time
Balance stop when adjusting hands
Winding the watch
Rapid date setting
Using the chronograph
Using the tachometer

4. Additional comments

p 53





The Manufacture Audemars Piguet

The Vallée de Joux: cradle of the watchmaker's art

n the heart of the Swiss Jura, around 50 kilometres north of Geneva, nestles a landscape which has retained its natural charm to this day: the Vallée de Joux. Around the mid-18th century, the harsh climate of this mountainous region and soil depletion drove the farming community settled there to seek other sources of income. With their high degree of manual dexterity, inexhaustible creativity and enormous determination, the inhabitants of the valley, known as Combiers, were naturally drawn to watchmaking.

Due to their high quality, the movements they produced acquired great popularity with the Geneva firms which used them to create complete watches.

From 1740 onwards, watchmaking developed into the principal industry of the Vallée de Joux. This region was thus transformed, as an 1881 chronicle put it, "into a land of milk and honey, in which poverty has rapidly disappeared".

Two names for a great adventure

n 1875, two young men passionate about Haute Horlogerie — Jules-Louis Audemars and Edward-August Piguet — decided to pool their skills to design and produce watches with complications

in the Vallée de Joux, the cradle of Haute Horlogerie. Determination, imagination and discipline led them to instant success. A branch in Geneva was their next move in about 1885 and new commercial links were forged at the 1889 Paris World Exposition, where they exhibited complication pocket watches. The Audemars Piguet factory continued to expand as the years went by. Its creations represented major milestones in the history of Haute Horlogerie, like the first minute repeater

wristwatch in 1892 and the smallest five-minute repeater movement ever made in 1915.

From 1918 onwards, the founders passed the reins of the business onto their sons, who in turn perfected their expertise in manufacturing men's and ladies' wristwatches as well as designing

new sophisticated, ultra-thin movements. Perseverance and initiative were the watchwords: while the Wall Street crash in 1929 was a bitter blow, the company directors were soon designing so-called skeleton watches before embarking on chronograph production.

But this new momentum was abruptly interrupted by the Second World War. Re-organisation was necessary in the aftermath of the conflict. The factory focused on creating top-of-the-range items in keeping with its

> tradition of innovation. A strategy that would prove its worth, especially since it was backed by outstanding creative daring.

> > Audemars Piquet continued to build on its now international reputation with creative designs. 1972 saw the launch of the Royal Oak, the first, immediately successful high-quality sports watch in steel, followed in 1986 by the first ultra-thin tourbillon wristwatch with automatic winding. The creative spirit of the Manufacture has not faltered since, offering aesthetically original timekeepers with outstanding movements. Thus it brought watches with complications back into fashion at the end of the 1980s, launching its extraordinary Tradition d'Excellence collection in 1999. All the signs of a bold spirit rooted firmly in tradition and auguring well for the future.

34 ______ 35

The 3126/3840 automatic Chronograph

The Manufacture Audemars Piguet introduces the calibre 3126/3840 - with a self-winding movement, digital date display and chronograph. It combines functionality with aesthetics and the highest level of refinement in the watchmaker's art.

Tradition and innovation

Audemars Piguet has always striven to safeguard and uphold its independence. This is why the company developed its own method of crafting watches, particularly with the design of Audemars Piguet calibres.

Every aspect bears the unmistakable AP signature – harmoniously arranged bridges, hand-finished and embellishments components – and presents elegant equilibrium, further enhanced by the angular balance cock. The 22 carat gold oscillating weight, inscribed with the emblems of the Audemars and Piguet families, ensures efficient winding.

The automatic Chronograph

Circumstances and events regularly cause us to measure a fixed amount of time between two actions. This makes the chronograph an indispensable instrument. It was invented by two watchmakers from the Vallée de Joux, Henri-Féréol Piguet and Adolphe Nicole, who devised and created the system.

The Audemars Piguet Chronograph is a wrist watch which rewinds automatically. The movements of the wearer's wrist generate the energy required for it to function.

This energy, harnessed by a 22-carat gold oscillating weight decorated with the Audemars and Piguet family crests, is transmitted to the mainspring by a geartrain.

As it gradually winds around the barrel-arbor, the spring accumulates energy that is then transmitted to the watch movement at a steady rate.

The maximum power reserve is reached after a period of time varying from several hours to some days, depending on the owner and the amount of physical activity.

To prevent overtensioning, the barrel spring is released at just the right moment by a sophisticated system.

The tachometer

In watchmaking, the tachometer is a graduated dial that allows you to determine the average speed taken to cover a given distance, generally 1,000 metres.

This speed is usually expressed in km/h and is read directly on the dial via the chronograph hand. Your watch allows you to read speeds from 60 to 300 km/h.

36

Technical specifications of the movement

Regulating organ

- Double balance bridge ①:

 Guarantees high precision positioning of the balance
 - Guarantees high precision positioning of the balance and greater degree of shock resistance, thus ensuring greater timekeeping precision.
- Balance with eight Giromax regulating weights 2:
 Variable inertia balance enabled by eightinertia blocks that regulate the movement of the watch without modifying the length of the balance-spring.
- Second stop lever for the time setting function ③:

 Pull the crown to the position for setting the time.

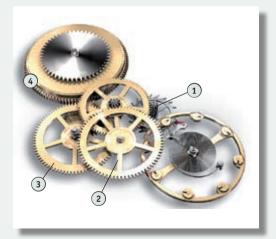
 This activates the second stop lever. This allows you to stop the second counter hand immediately and set the precise time.



Gear train

A train produced according to AP quality standards fulfils the following criteria:

- Pinions are polished ①.
- All edges are de-burred and chamfered ②.
- The pivots and sweep of the pivots are burnished.
- The non-functional surfaces of the wheels are goldplated and adorned with a circular pattern, the arms are bevelled and the edges and surfaces are diamondtipped ③.
- Afterbeing gold-plated, the teeth of the wheel are milled to ensure a geometrically and functionally flawless surface (4).



Automatic winding

This calibre meets the following standards:

- Extremely low friction at the wheels and springs.
- Rapid winding in both directions ①.
- Barrel with large power reserve (approx. 55 hours) ②.
- ■22-carat gold rotor mounted on ceramic ball-bearings ③.



Date mechanism

The date display fulfils the following criteria:

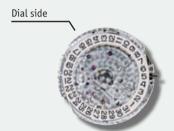
- Date jump at midnight via the date jumper train ①.
- Fast correction of date disc via the correction star ②.
- ■Integrated security mechanism that prevents blocking of the date disc during fast date correction at midnight ①.
- Date disc driven by rubies and bolts to reduce friction.



Views of the basic movement

Calibre 3126





View of the chronograph mechanism

Module 3840



Technical data of the movement

Total thickness: 7.16 mm

Total diameter: 29.94 mm (13 1/4 lines)

Fitting diameter: 26.00 mm

Frequency: 21'600 vibrations / hour (3 Hz)

Number of jewels: 59 rubies

Power reserve: approx. 55 hours

Automatic winding in both directions

22-carat gold rotor with ceramic ball-bearings

" KIF Elastor " shock protection system

Adjustable beat arm

Balance with adjustable moment of inertia

Number of parts: 365

Second stop when setting the time $% \left(1\right) =\left(1\right) \left(1\right$

(stops second hand)

42

Watch indications (see figure)

The chronograph **records** intervals of 1/6th of a second while counting the total number of minutes and hours.

- 1 Hour hand
- 2 Minute hand
- 3 Second hand
- 4 Chronograph hand
- 5 30-minute counter hand
- 6 12-hour counter hand
- 7 Date aperture
- Pushbutton of the chronograph function Push once: start
 Push again: stop
- Pushbutton to return to zero
- G Pushbutton protection

Your watch is fitted with a four-position crown:

- A Crown in "screwed down" position
- **B** Crown in position for winding movement manually
- C Crown in position for rapid date correction
- **D** Crown in position for setting the time

Caution: the crown must be unscrewed before setting the time, date or winding the movement. Once the adjustment has been made, carefully screw the crown back into position **A** to ensure water resistance.



Setting the time

Unscrew the crown and pull it to position **D**. You may now set the time forwards or backwards. Recommendation: make sure to set the time precisely by carefully moving the hands forward to the time desired.

Warning: Be careful not to confuse noon and midnight, due to the change of date.

Balance stop when adjusting hands

Automatic simultaneous stop of balance and second hand when winding crown is pulled out, allowing you to set the time to within the second.

Winding the watch

If the watch were to stop, 30 turns (clockwise) of the crown in position **B** suffice to wind the movement fully. The movements of the wearer's wrist will activate the automatic system and keep the watch running.

Rapid date setting

If the correct date is not displayed on the watch, pull the crown to position (rapid date correction) and turn clockwise until the desired date is displayed.

Carefully screw the crown back to position **A** to ensure water resistance.

Using the chronograph

Before using the pushbuttons, raise the pushbutton protections **G**.

Start

Press the pushbutton (E).

Stop

Press pushbutton (E) once again to stop the chronograph.

To read the time taken for an event, consult the following:

- the hour counter hand 6
- the minute counter hand 5
- the chronograph hand 4

Returning to zero

Press the pushbutton **F**.

Important: after using the pushbuttons, lower the pushbutton protections **G**.

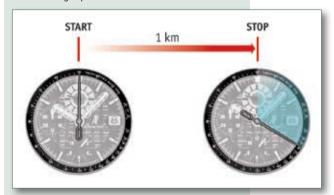
To continue timing an event

After the first stop, the chronograph can be restarted and stopped at will without first requiring you to return it to zero. This means you can obtain a total time by adding the second time to the first and so on. During all these operations, the watch continues to function normally.



Using the tachometer

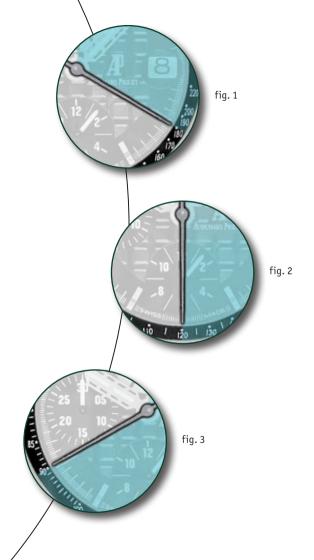
The tachometric scale associated with the chronograph function enables speed read-off. Engage the chronograph (START) and stop the chronograph **after** 1 kilometre (STOP). The value indicated by the chronograph hand on the tachometer scale corresponds to the average speed over 1 kilometre.



If the time lapse between (START) and (STOP) equals 20 seconds, the average speed – read on the tachometer scale – is 180 km/h (fig. 1).

If the lapse is 30 seconds, the average speed is 120 km/h (fig. 2).

If 40 seconds were needed to cover one kilometre, the average speed would be 90km/h (fig. 3).



Guarantee and care

All details concerning the guarantee and care instructions of your watch are provided in the certificate of origin and guarantee attached.

