

User manual
Handbedienung
Mode d'emploi
Modalità d'uso
Bedienungsanleitung



Congratulations

Hamilton is happy that you have chosen a timepiece from our prestigious collection. Your Khaki Field Multi-Touch watch incorporates state-of-the-art technology. It offers permanent analog display of the time as well as varied digital display. In addition, the following functions are available by simply touching the glass: barometer, altimeter, chronograph, compass, alarm and thermometer.

Important notes



For the best reading of the temperature, remove the watch from your wrist and wait for approximately 15 to 30 minutes. For more information see the explanation of the thermometer on page 22.



For correct use of the altimeter, adjust it as often as possible. For more information see the explanation of the altimeter on page 20.



The barometer function indicates a trend. Hands superposed to the left of midday = bad weather, at midday = stable weather, to the right of midday = good weather. For more information, see the explanation of the barometer function on page 9.



Your watch is waterproof to 30 m. However, no function can be operated if the glass is in contact with a liquid.

General information on use

- Activate the glass by pressing
- When the glass is activated, a flashing bar will appear on the digital display
- Select a function by touching the corresponding area on the glass
- Brief presses on the pushers = step by step movement of the hands or incrementation (decrementation) on the digital display
- Long presses on the pushers = continuous movement or incrementation (decrementation)

- Incorrect operation of the pushers = different alarm from the normal beep
- No operation for 30 seconds = automatic deactivation of the glass
- No operation for 3 seconds in setting mode = exit setting mode

Use:



Adjustment:



Touching action
(without pressing)

))) Beep



Listening / Vision

2" Time for pressing on
the pushers
(e. g. 2 seconds)



Additional information

() Repetitive actions



Hand position display

Replacing the battery

Type: Renata CR 1632

Care and maintenance

We recommend that you clean your watch regularly using a soft cloth and lukewarm water. After bathing in salt water, rinse your watch with fresh water and leave it to dry completely. Avoid exposing your watch to excessive variations in temperature or humidity, to strong sunlight or strong magnetic fields.

SYNCHRONISATION⁽¹⁾



4

H 1"		Activation of the glass
		Selecting the "Units" mode
H 5"		Using pushers \oplus and \ominus , bring the 2 hands precisely to 12 o'clock
\oplus		Incrementation of the minute hand (3 steps = 1 minute)
\ominus		Incrementation of the hour hand (3 steps = 1 minute)
H		Validation of the setting

(1) Procedure allowing the digital display to be synchronised with the hands.

Note: it is not necessary to perform this synchronisation operation when the digital display and the hands show the same time.

DISPLAY MODE

h-m-s/date/units



5

H 1"		Activation of the glass
		Selecting the display mode
		Return to h-m-s mode ⁽³⁾

(1) The "h-m-s" and "date" modes remain active.

(2) The "units" mode is a temporary setting mode.

(3) This procedure is valid when the glass is activated for the ALTIMETER, CHRONO, COMPASS, ALARM, THERMOMETER and BAROMETER functions.

SETTING THE TIME



6

		Activation of the glass
		Selecting the "h-m-s" mode (eg. 8 h 34' 20")
		Activation of the setting ⁽¹⁾
	+ or - 1 minute	Incrementation or decrementation by one minute ⁽²⁾
		Validation of the setting, the seconds restart at zero
		Validation of the setting, the seconds continue normally

(1) Accuracy: -0.3 to +0.5 seconds / day.

(2) Pressing continuously on or allows continuous advance of the setting. After one complete revolution, the minute hand stops and the hour hand advances in one hour steps.

SETTING THE DATE⁽¹⁾



7

		Activation of the glass
		Selecting the "date" mode (eg. 5 July)
		Activation of the setting
	+ or - 1 day	Incrementation or decrementation by one day
		Validation of the setting

(1) The calendar is semi-perpetual, that is the number of days per month is predefined. For February it is necessary to reset the date when it is only 28 days.

SELECTING THE UNITS



8

1"		Activation of the glass
		Selecting the "Units" mode
2"		Activation of the setting
		Selecting "Celsius degree / metre" or "Fahrenheit degree / foot"
		Selecting "12" or "24" hours
		Validation of selections

BAROMETER

Indication of the meteorological tendencies ⁽¹⁾



9

1"		Activation of the glass
		Activation of the barometer function ⁽²⁾

(1) For more information, see the explanation of the barometer function on page 16.

(2) The two hands indicate a tendency while the digital display gives the absolute pressure in hectoPascal (1 hectoPascal = 1 millibar). After 30 seconds, the digital display returns to "h-m-s" mode.





CHRONO

Precise measurement of a specific duration



H 1"		Activation of the glass
		Activation of the chronograph ⁽¹⁾
		Starting the chronograph
		Stopping the chronograph (eg. 10" and 34/100)
		Resetting the chronograph ⁽²⁾

(1) Resolution: 1/100 of a second
Measuring range: 9 h 59' 59" and 99/100.

(2) After 30 seconds, the hands display the time again but the digital display remains in CHRONO mode.
After 10 h, the digital display returns to "h-m-s" mode".

CHRONO (SPLIT)

Precise measurement of a specific duration with intermediate time



H 1"		Activation of the glass
		Activation of the chronograph
		Starting the chronograph
		Displaying the intermediate time (eg. 48" and 15/100)
		Restarting the chronograph, taking into account the running time
		Stopping the chronograph (eg. 2' 54" and 88/100)
		Resetting the chronograph





COMPASS

Compass. Indication of the geographical North

12

		Activation of the glass
		Activation of the compass function ⁽¹⁾
		Activation of the adjustment of the magnetic deviation ⁽²⁾
	+ or - 1 degree	Setting the magnetic deviation to the east (+) or west (-)
		Validation of the setting (eg. 2° East)

(1) The minute hand points to the North. A more accurate reading is obtained by holding the watch horizontally. The digital display gives the set magnetic deviation. After 30 seconds, the digital display returns to "h-m-s" mode.

(2) For more information, see the explanation of the magnetic deviation on page 20.

ALARM



13

		Activation of the glass
		Activation of the alarm function (eg. 12h19')
		Activation of the alarm Deactivation of the alarm
		Setting the time
	+ or - 1 minute	Incrementation or decrementation by one minute
		Validation of the setting ⁽¹⁾

(1) When the programmed time is reached, the alarm can be stopped by pressing one of the pushers.





ALTIMETER

Indication of altitude in relation to sea level

14

		Activation of the glass
		Activation of the altimeter function ⁽¹⁾
		Adjusting the altitude ⁽²⁾
	+ or - 1 step	Incrementation or decrementation (1 m or 3 ft)
		Validation of the setting

(1) The altitude is displayed in metres or feet depending on the units selection (see "Selecting the units" on page 8). After 30 seconds, the hands show the time again but the digital display remains in ALTIMETER mode. After 10 h, the digital display returns to "h-m-s" mode

(2) The adjustment shows the altimeter setting at the value of the actual altitude. For more information, see the explanation of the altimeter on page 20.



THERMOMETER

Indication of the temperature ⁽¹⁾

15

		Activation of the glass
		Activation of the THERMOMETER function ⁽²⁾

(1) To obtain the best reading, it is necessary to remove the watch from your wrist and wait for approximately 15 to 30 minutes. For more information, see the explanation of the THERMOMETER on page 22.

(2) The temperature is displayed in degrees Celsius or in degrees Fahrenheit depending on the units selected (see "selecting the units" on page 8). After 30 seconds, the hands display the time again but the digital display remains in THERMOMETER mode.

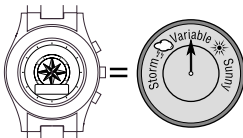


BAROMETER

Barometer function, indication of the meteorological trend

Description of the function

In this mode, your watch is transformed into a BAROMETER. The hands superpose to indicate the meteorological trend.



Explanations

Changes in weather are linked to variations in atmospheric pressure.

The watch measures these variations in pressure and indicates the meteorological trend.

When atmospheric pressure increases, the sky clears. The hands move to the right.

This is called a "high pressure" zone or "anticyclone" (A).

When atmospheric pressure decreases, the sky clouds over. The hands move to the left.

The is called a "low pressure" zone or "depression" (D).

The change in pressure is measured and displayed using the hands which can assume the following 7 positions depending on the meteorological trend:

-6' : Major drop in pressure, rapid deterioration

-4' : Moderate drop in pressure, probable deterioration

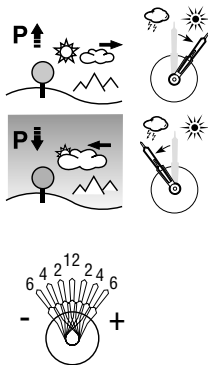
-2' : Minor drop in pressure, probable slight deterioration

12h: No notable meteorological change

+2' : Minor increase in pressure, probable slight improvement

+4' : Moderate increase in pressure, probable improvement

+6' : Major increase in pressure, rapid improvement

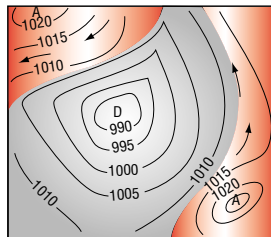


The digital display gives the value of absolute atmospheric pressure in hectoPascals [hPa].

Barometers and meteorological maps indicate the value of pressure respect to the sea level.

-1010-: Pressure in hPa

Stable weather	Barometer Relative atm pressure	Khaki Field Multi-Touch Absolute atm pressure
Sea level	1013.25 hPa	1013.25 hPa
1000 m	1013.25 hPa	- 900 hPa
2000 m	1013.25 hPa	- 780 Pa



(D) : Depression (A) : Anticyclone

Miscellaneous information

The program on your watch takes into consideration variations in atmospheric pressure over the previous 8 hours to calculate the trend to be displayed, ensuring greater reliability and precision than a "mechanical" barometer which only displays an instantaneous trend.

Furthermore, the variation in pressure caused by a rapid change in altitude is detected by the program and compensated for automatically. It therefore has no influence on the barometric trend.

Unit conversion: 1 hectoPascal [hPa] = 1 millibar [mb]

Technical data

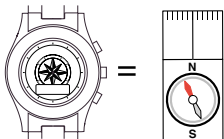
Measuring range:	300 hPa to 1100 hPa
Accuracy:	± 3 hPa
Resolution:	1 hPa

COMPASS

Compass, indication of geographical North

Description of the function

In COMPASS mode, your watch indicates the geographical north pole, taking the magnetic deviation into consideration.



Explanations

The vertical lines (meridians) on a globe converge toward the geographical north pole (N_g) and indicate its direction.

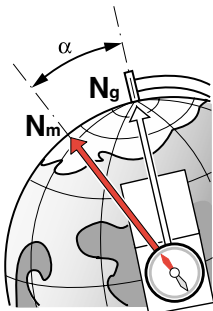
The pointer on a conventional compass indicates the direction of the magnetic north pole (N_m).

The angle (α) between these two directions is called the magnetic deviation. The value of the magnetic deviation therefore depends on your position on the globe.

Furthermore, the magnetic north pole is constantly changing. The value of the magnetic deviation therefore also depends on the date.

When the correct value (depending on place and date) of the magnetic deviation is set (see the adjustment procedure on page 12), the minute hand on your watch displays the direction of the geographical North (N_g).

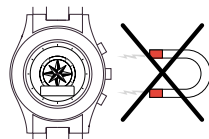
The values and dates of the magnetic deviation are displayed on topographical maps or can be calculated using special software.



Miscellaneous information

If you set the magnetic deviation to 0, your Khaki Field Multi-touch will display the magnetic North (N_m).

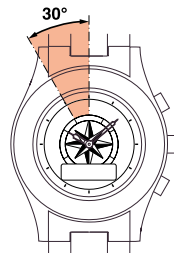
The COMPASS function, as any other compass, must not be used near a metal or magnetic object.



Thanks to its rotating glass, the watch can be oriented in the same direction as a map. This glass is graded with the following values:

- 30° between a cardinal point (N,E,W,S) and the closest points.

It is very important that you hold the watch as horizontal as possible to obtain a true indication of North.



Technical data

Accuracy: $\pm 8^\circ$

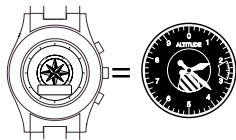
Resolution: 1°

ALTIMETER

Indication of altitude in relation to sea level

Description of the function

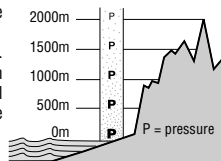
In ALTIMETER mode, your watch is transformed into a barometric altimeter and displays the altitude in relation to the average sea level.



Explanations

As this instrument is barometric, it calculates the altitude according to atmospheric pressure.

As altitude increases, pressure decreases and vice versa. Therefore, the altimeter measures the difference in pressure and displays the altitude. It is therefore an ideal instrument for measuring ascents. (e. g. when hiking in the mountains).

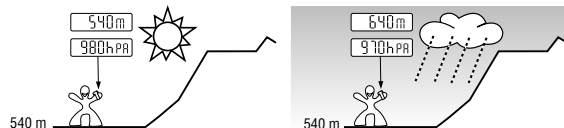


Warning!

As pressure is used to calculate the altitude, the altimeter is sensitive to variations in atmospheric pressure as the weather changes. It is not uncommon to see differences in altitude of 100 m in one night.

The value displayed may vary without your altitude actually changing.

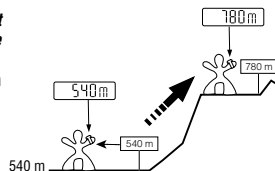
Change in weather = variation in pressure = modification of altitude displayed



Thus it is necessary to "calibrate" the altimeter as often as possible.

Note: "Calibrating" an altimeter means setting it to the actual altitude of a known point (see the setting procedure on page 14).

The values of actual altitudes can be found from various sources: signs, contour lines and benchmarks on maps.



Miscellaneous information

Your watch compensates for temperature.

The altitude displayed is therefore corrected automatically.

The altimeter makes a measurement every 10 seconds.

Your altimeter will not show the variations in altitude in an aircraft as the cabin is pressurised (constant pressure).

Unit conversion: 1 metre [m] = 3.281 feet [ft]

1 foot [ft] = 0.305 metres [m]

Average pressure, at sea level: 1013.25 hPa

Average variation in pressure and temperature depending on altitude:

Altitude [m] / [ft]	Pressure [hPa]	Temperature [°C]/[°F]
0	1013.25	20 / 68
111 / 364	1000	19.3 / 66.7
988 / 3242	900	13.6 / 56.4
1949 / 6395	800	7.3 / 45.2

Technical data

Measuring range: - 400 m to +9000 m - 1300 ft to +29500 ft

Resolution: 1 m 3 ft

THERMOMETER

Temperature display

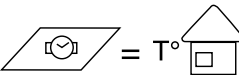
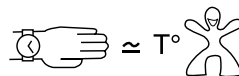
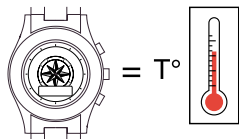
Description of the function

In this mode, your watch is transformed into a THERMOMETER and displays the ambient temperature.

Explanations

The temperature displayed is the temperature of the watch case. Its temperature is therefore influenced by your body temperature. Thus, the temperature displayed may be different from the ambient temperature.

To display the actual ambient temperature, the watch must be taken off for about 15 to 30 minutes so that it is no longer affected by your body temperature.



Miscellaneous information

The temperature may be displayed in degrees Celsius [°C] or degrees Fahrenheit [°F]. (see page 8 for the procedure for changing these units).

Conversion formulae: $TC = (TF - 32) \times \frac{5}{9}$
 $TF = TC \times \frac{9}{5} + 32$

Technical data

Measuring range:	-10°C to +60°C	15°F to 140°F
Accuracy:	± 1°C	± 1.8°F
Resolution:	0.4°C	0.7°F

Trouble shooting

? Trouble 💡 Cause 🛠️ Solution

- ? **The display alternates between "bat" and the time (EOL)**
- ? **The display goes out and the hands stop**
 - 💡 *The battery is discharged*
 - 🛠️ Ask an approved Hamilton dealer to change the battery
- ? **In meteo mode the display shows "hPa" but no value**
 - 💡 *The pressure sensor is faulty*
 - 🛠️ Ask an approved Hamilton dealer to repair the watch
- ? **In meteo mode the two hands are not exactly over noon**
 - 💡 *Normal operation of the watch (trend between -6 and +6 minutes)*
 - 🛠️ See the description of the barometer function on page 9
 - 🛠️ See the glossary, explanation of the barometer function on page 16
- ? **The two hands are not superposed when a function is selected**
- ? **The time indicated by the hands is different to that shown in the digital display**
 - 💡 *The hands are no longer synchronised*
 - 🛠️ Synchronise the hands, see page 4
- ? **The compass does not show geographical north**
 - 💡 *Magnetic deviation is incorrectly adjusted*
 - 🛠️ Adjust magnetic deviation, see page 12
 - 💡 *The compass is faulty*
 - 🛠️ Ask an approved Hamilton dealer to repair the watch
- ? **I adjusted the altitude yesterday and the value is not the same today**
 - 💡 *Normal operation of the watch (difference in pressure)*
 - 🛠️ See the description of the ALTIMETER function on page 14