TISSOT

SWISS WATCHES SINCE 1853*

T-TOUCH EXPERT

User's Manual

Acknowledgements

We would like to thank you for choosing a TISSOT watch, a Swiss brand among the most highly renowned in the world. Your T-TOUCH watch has the most recent technical innovations. It gives you a constant analogue time display and a variety of digital displays.

In addition, the following functions can be accessed simply by touching the glass: Weather, Altimeter, Chronograph, Compass, Alarm and Thermometer.

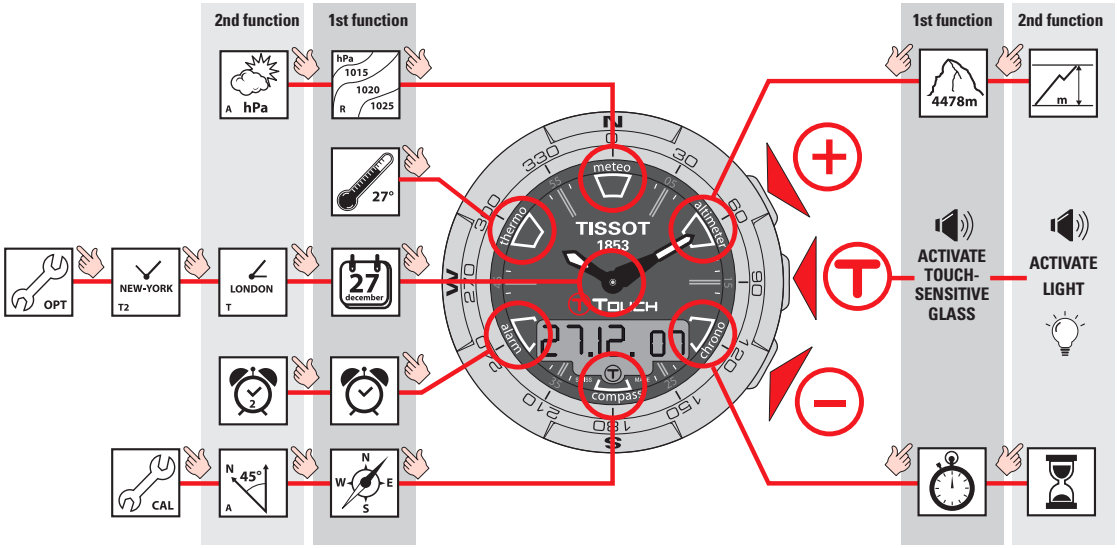
Official service centers adresses
www.tissot.ch

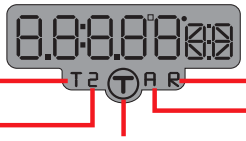
WARNING

TISSOT TACTILE WATCHES MUST ONLY BE SERVICED BY TISSOT'S AUTHORIZED **CUSTOMER SERVICE CENTERS,** WHICH ARE LOCATED IN **OVER 160 COUNTRIES**

Recommended service prices
support.tissot.ch

FUNCTIONS





10 bar — Water resistance: 10 bar (100 m / 330 ft)

Battery type: button-type lithium-manganese dioxide primary battery cell.

	Activate touch-sensitive glass / Activate light	
27 december	**CENTRE** – Date	4
LONDON T	**CENTRE** – Time 1	4
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GENERAL USER INFORMATION

Activating the touch-sensitive glass

When the glass is activated, the Ⓣ symbol will flash on the digital display.

If the glass is not touched, it will automatically deactivate after 15 seconds.

Exception: In compass and altitude difference meter mode, the glass will deactivate after 30 seconds

Activating the light

The display light will stay on for 5 seconds.

Select a function

Touch one of the 7 touch-sensitive areas of the glass to activate the corresponding function.

Setting mode

⊕ : move display and/or hand position forward

⊖ : move display and/or hand position backward

If no manipulation for 10 seconds, the setting mode is deactivated.

Display mode

Activate the glass

Date display = Default display

Time 1 display: **T**

Time 2 display: **T2**

Options Display

Return to **Date** display

SETTING > TIMES T & T2

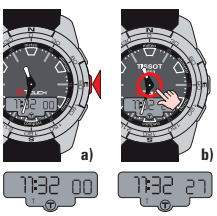
Pressing and holding ⊕ or ⊖ will move the hands forward or backward. After a full revolution, the minutes hand will stop and the hour hand advances/reverses in steps of one hour. Time T2 is set in steps of 15 minutes.

Activate glass

Time **T** or **T2** display (example: T)

Setting mode

⊕ : forward 1 min.
⊖ : back 1 min.
(hands and display)



Validate setting
a) The seconds restart at zero
b) The seconds continue

SETTING > DATE

The calendar is perpetual, i.e. the number of days per month is predefined. In continuous setting, the days scroll past slowly at first, and then quicker. After a full month, the calendar scrolls in months, and then likewise in years.

Activate glass

Date display

Setting mode

⊕ : forward one day
⊖ : back one day

Validate setting

READING > OPTIONS

Activate glass

Options display (see page 4)

Switch to sub-menus: **Units** display

Beep display

Automatic switch to **standby** mode after 5 seconds
Beep every second

Climate zone display

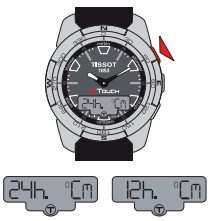
Back to **units** display

At any time: exit sub-menu – back to date display

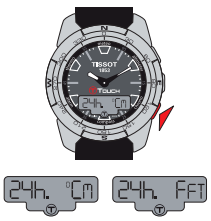
SETTING > UNITS

Units display

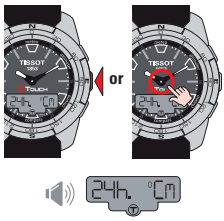
Setting mode



Select mode **12/24** hours – in 12 hour mode, the letter **A** (AM) or **P** (PM) appears between minutes and seconds when setting the time



Select Mode "**°C / m**" or "**°F / ft**"



Validate setting.
Selecting 12 hour mode displays the date in the format 12.27.2007 (month, day, year), and 24 hour mode in the format 27.12.2007 (day, month, year).

SETTING > BEEP

Beep display

Setting mode

Activated = on ,
Deactivated = off

Validate setting

Deactivating the sound silences adjustment beeps but not the alarms.

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SETTING > STANDBY

Standby mode is a battery economy mode. All the functions are deactivated, with only the time & date counters updated. This mode economises the battery when the watch is not being worn.

Automatic switch to **standby** mode after 10 seconds
Beep every second

a) The watch is in **standby**

Back to **time & date** mode

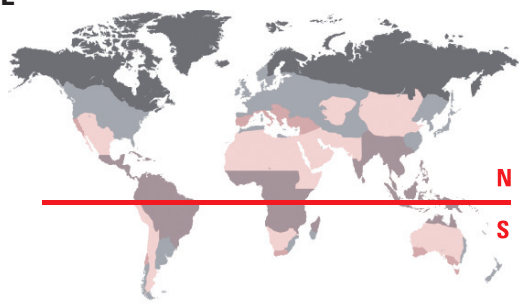
b) ⊕ / ⊖: stop the count,
the watch does not switch to **standby** mode

Back to **time & date** mode

SETTING > HEMISPHERE AND CLIMATE ZONE

To get the best from the altimeter function, it is possible to adjust the hemisphere and climate zone to your geographic location. Select your climate zone according to the simplified Koeppen climate classification (see illustration on right).

If the watch is not set ("No Set"), the standard atmosphere model is used: set temperature at sea level = 15°C, mean pressure at sea level: 1013.25 hPa



Polar Temperate Arid Tropical Mediterranean

Climate zone display

Setting mode

Select **hemisphere:**
North = North,
South = South
not set = not set

Set the local climate:
T = temperate;
M = Mediterranean;
A = arid;
tr = tropical;
P = polar

Validate setting

SETTING > SYNCHRONISATION

✓ Synchronised

✗ Desynchronised

The watch needs to be synchronised if the watch hands do not display the same time as the digital display, or if they are not correctly superimposed when accessing the functions.

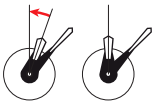
The watch is desynchronised when its electric motor's mechanism is disturbed due to heavy impacts for example.

N.B.: The glass must be active to access the synchronisation mode.

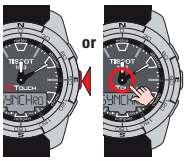
Units display

Synchronisation setting mode

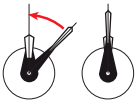
The hands should be perfectly superimposed in the 12 o'clock position



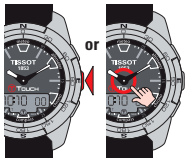
Position the hour hand at 12 o'clock



Validate setting



Position the minutes hand at 12 o'clock



Validate setting
Return to **Time T** mode

WEATHER

In weather mode, the hands are superimposed to indicate the weather trend.

Activate glass

Relative pressure display **in hPa**

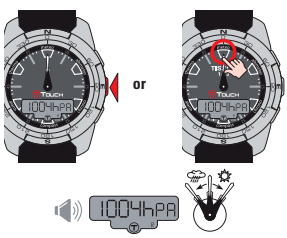
Absolute pressure display **in hPa**

SETTING > RELATIVE PRESSURE PRESETTING

Setting this pressure changes the altitude displayed. The possible relative pressure is deliberately limited between 950 hPa and 1100 hPa.

Setting mode

⊕ : up one hectopascal
⊖ : down one hectopascal

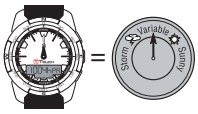


Validate setting

GLOSSARY > WEATHER

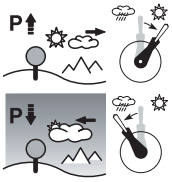
Description of function

In weather mode, the hands are superimposed to indicate the weather trend.

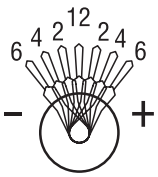


Explanations

Weather changes are related to variations in atmospheric pressure. When atmospheric pressure increases the sky clears. The area is then referred to as a "high pressure" area or "anticyclone" (A). When atmospheric pressure decreases the sky clouds over. The area is then referred to as a "low pressure" area or "depression" (D). The T-TOUCH measures these pressure variations and indicates the weather trend with the hands, which can adopt the following 7 positions according to the weather developments:

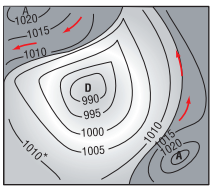


- 6': Big pressure drop, rapid deterioration
- 4': Moderate pressure drop, probable deterioration
- 2': Small pressure drop, probable slight deterioration
- 12 o'clock: No notable weather change
- + 2': Slight pressure rise, probable slight improvement
- + 4': Moderate pressure rise, probable improvement
- + 6': Big pressure rise, rapid improvement



The T-TOUCH program takes account of atmospheric pressure variation over the last 6 hours to calculate the trend to indicate. Furthermore, the pressure variation caused by a rapid change in altitude is detected by the watch and compensated for automatically. So it only has a minimal impact on the barometric trend.

The T-TOUCH digital display indicates the absolute and relative atmospheric pressure values in hectoPascals [hPa]. Absolute atmospheric pressure is the actual pressure at the time and place of measurement, and cannot be altered. Relative pressure is a value relative to sea level, based on local absolute atmospheric pressure . Barometers and weather charts show relative pressure values.



The relative pressure value depends on the climate zone set, and can be preset on the watch. The relative pressure presetting is in line with the altitude.

Characteristics of function

Measurement range:	absolute pressure: 300 hPa to 1100 hPa
	relative pressure: 950 hPa to 1100 hPa
Accuracy:	absolute pressure: ± 3 hPa
	relative pressure: varies with altimeter
Resolution:	1 hPa
Unit conversion:	1 hectoPascal [hPa] = 1 millibar [mb]

ALTIMETER

The altitude is displayed on the digital screen for 4 hours continuously. After 4 hours, the altimeter mode is deactivated, and the date is displayed.

Activate glass

Altitude display

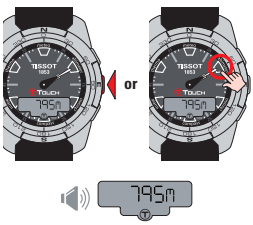
Altitude difference display

SETTING > ALTITUDE PRESETTING

Altitude display

Setting mode

⊕ : up 1 m or 3 ft
⊖ : down 1 m or 3 ft

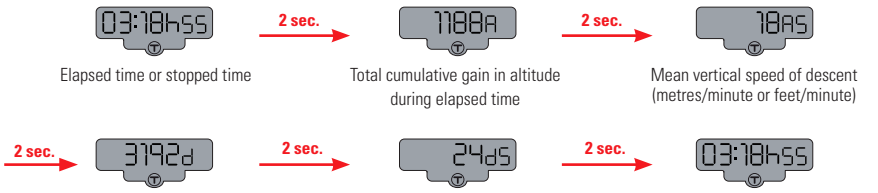


Validate setting

GLOSSARY > ALTIMETER

Altitude difference display

Sequentiallly every 2 seconds



Elapsed time or stopped time

Total cumulative gain in altitude during elapsed time

Mean vertical speed of descent (metres/minute or feet/minute)

Total cumulative loss in altitude during elapsed time

Mean vertical speed of descent (metres/minute or feet/minute)

Back: Elapsed time or stopped time

Start **Altitude difference meter**

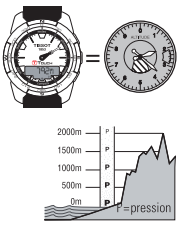
Stop **Altitude difference meter**

Reset **Altitude difference meter**

GLOSSARY > ALTIMETER

Description of function

In altimeter mode, your T-TOUCH becomes a barometric altimeter, displaying the altitude relative to mean sea level.



Explanations

This is a barometric instrument, which calculates the altitude as a function of absolute pressure (atmospheric). As the altitude rises, pressure drops, and vice versa. So the altimeter measures the difference between absolute pressure (atmospheric) and relative pressure (relative to sea level) to display the altitude. Your T-TOUCH is temperature compensated, and you can adjust your geographic location (hemisphere and climate zone). The altitude displayed is therefore corrected automatically.
This makes it the ideal instrument for measuring vertical movement with the altitude difference function (e.g. in mountain trekking). The altitude difference meter indicates the elapsed time, cumulative gains and losses in altitude and mean vertical speeds of ascent and descent.

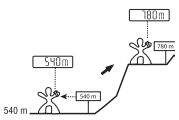
NB!

Due to the use of pressure to calculate altitude, the altimeter is sensitive to variations in atmospheric pressure in weather changes. It is not uncommon to observe altitude differences of 100 m in a night. So the value displayed may vary without the altitude having actually changed.

Weather change = pressure variation = displayed altitude change

We advise you to stop the altitude difference meter during rest times and then restart it, in order to obtain more accurate results.

Note 1: "Presetting" an altimeter means setting the actual altitude of a known point (see presetting procedure on page 8). The actual altitude values are indicated on various media: signposts, contour lines and spot heights on maps. The altitude "presetting" is in line with relative atmospheric pressure.



Note 2: In an airliner, since the cabin is pressurised, your altimeter will not indicate an accurate altitude.

Note 3: To optimise the accuracy of your altimeter, you are advised to select the climate zone, see page 6.

Characteristics of function

Measurement range	– 400 m to +9000 m	– 1333 ft to +30,000 ft
Altimeter resolution	1 m	3 ft
Unit conversion	1 metre [m] = 3.281 feet [ft]	1 foot [ft] = 0.305 metres [m]
Altitude difference meter max. measurement time	9 days 23 hours 59 minutes	
Maximum altitude difference	+/- 30,000 m	+/- 99,000 ft
Altitude difference meter resolution	1 m	3 ft
Maximum vertical speed	4999 m/min (appr. 300 km/h)	16,401 ft/min (appr. 187.5 mph)
Minimum vertical speed	5 m/min (appr. 0.3 km/h)	16.4 ft/min (appr. 0.2 mph)
Vertical speed resolution	1 m/min	3 ft/min
Minimum vertical movement	5 m	16 ft
Minimum time of movement	5 mins	

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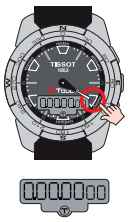
CHRONO

Resolution: 1/100 sec / Measurement range: 99 hrs 59'59'' and 99/100 sec

Activate glass



Chrono display

Start **chrono**

Stop **chrono**

Split (partial time)

Start **chrono**

a) Flashing stop with partial time displayed, and chrono running in background

b) Restart the chrono counting the elapsed time

Reset

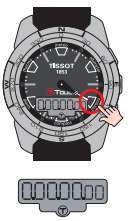
Stop **chrono**

Reset **chrono**

CHRONO > TIMER

Measurement range: 23 hrs 59'59''

Activate glass



Chrono display

Timer display

Start/Stop

Start or stop **timer**

Reload the last value on the **timer**

SETTING > CHRONO > TIMER

Timer display

Setting mode

⊕: forward
⊖: backward

Validate setting

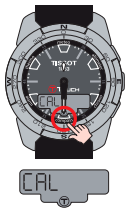
COMPASS

The minutes hand points to True North, factoring in the magnetic declination setting. In compass mode, the digital screen displays the angle between 12 o'clock and the minutes hand.

Activate glass

Compass display

Azimuth display



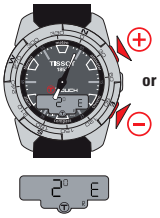
User compass calibration

Back to **compass** display

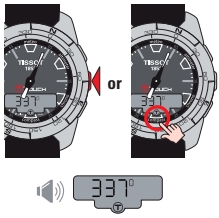
SETTING > COMPASS > MAGNETIC DECLINATION

Compass display

Setting mode and magnetic declination display



⊕ : +/- 1 degree East
⊖ : +/- 1 degree West



Validate setting

COMPASS > AZIMUTH

In compass mode, your T-TOUCH enables you to define and follow an azimuth. To do so, you need only set the azimuth value and align the watch using the arrows. The 6-12 o'clock axis will indicate the heading to take.

Azimuth display

a) Turn the 6-12 o'clock axis left to align 12 o'clock with the azimuth

b) Turn the 6-12 o'clock axis right to align 12 o'clock with the azimuth

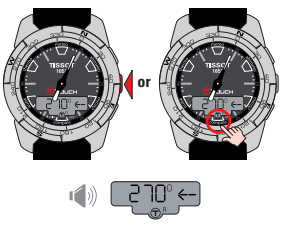
c) The 6-12 o'clock axis is aligned with the azimuth

SETTING > COMPASS > COMPASS CALIBRATION

Azimuth display

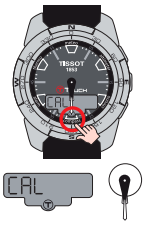
Setting mode

⊕ : increase azimuth by 1 degree
⊖ : decrease azimuth by 1 degree



Validate setting –
Back to azimuth display

SETTING > COMPASS > COMPASS CALIBRATION



Compass Calibration display

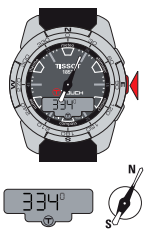
Activate **calibration** mode – glass deactivated during calibration

Turn the watch more than a complete revolution on a horizontal surface (e.g. a table) in an environment free from magnetic interference, at a rotation speed of around 30° per second.

Total time: 20 seconds maximum

a) Calibration successful – data stored

b) Calibration failed – repeat calibration

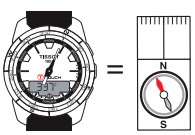


Back to **compass** display

GLOSSARY > COMPASS

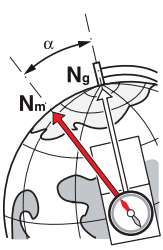
Compass

In compass mode, your T-TOUCH indicates the True North Pole, factoring in magnetic declination.



Compass explanations

The vertical lines (meridians) on the Earth converge at the True North Pole (Ng), indicating its direction. The hand of a conventional compass indicates the direction of the Magnetic North Pole (Nm). The angle (α) between these two directions Ng and Nm is known as magnetic declination. The magnetic declination value depends on your location on Earth. Furthermore, the Magnetic North Pole is constantly moving. So the magnetic declination value also depends on the date. If the correct magnetic declination value (for the location and date) is set (see the setting procedure on page 11), the minutes hand of your T-TOUCH will point to True North (Ng). If the magnetic declination is set to 0, your T-TOUCH will point to Magnetic north (Nm). The magnetic declination values and dates are indicated on topographic charts, or can be found using special software available on the Internet.



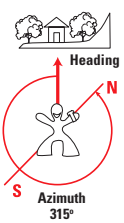
For Switzerland: http://www-geol.unine.ch/geomagnetisme/Representation.htm
For the whole world: http://www.ngdc.noaa.gov/seg/geomag/magfield.shtml

Azimuth explanations

In azimuth mode, you T-TOUCH indicates the azimuth (heading) that you need to turn to.

Azimuth explanations

The azimuth is the horizontal angle between the direction of an object and True North. The azimuth is measured from north in degrees from 0° to 359° (e.g.: East = 90°). In azimuth mode, the T-TOUCH emits a beep and visual signal when the 6-12 o'clock axis of the watch is aligned with the heading set. 12 o'clock represents the heading given by the azimuth relative to True North.

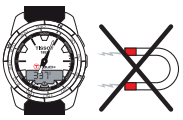


Note 1

For a correct indication of North, it is extremely important to hold the watch as level as possible.

Note 2

The compass function, like any other compass, should not be used near a metal or magnetic mass. In case of doubt, you can recalibrate your compass.



Note 3

The rotating bezel, graduated from 0° to 359°, provides another method for determining the azimuth.

Characteristics of function

Accuracy: ± 8°
Resolution: 2°

ALARM

The 2 alarms are associated with time T. An alarm lasts 30 seconds, without repeating. When the programmed time is reached, you can stop the alarm by pressing one of the push-buttons.

Activate glass

Alarm 1 display

Alarm 2 display

Stop alarm

Alarm rings

Stop alarm

SETTING > ALARM

Alarm 1 or 2 display

Activate or deactivate alarm

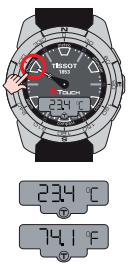
Setting mode

: time forward
: time backward

Validate setting

THERMOMETER

Activate glass

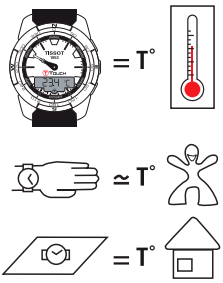


Thermometer display

GLOSSARY > THERMOMETER

Description of function

In thermometer mode, your T-TOUCH displays the ambient temperature.



Explanations

The temperature displayed corresponds to that of the watch case, so this temperature is influenced by your body temperature. That is why the temperature displayed may differ from the ambient temperature.
To display the actual ambient temperature, the watch needs to be taken off for 15 to 30 minutes, in order to be free from the influence of body temperature.

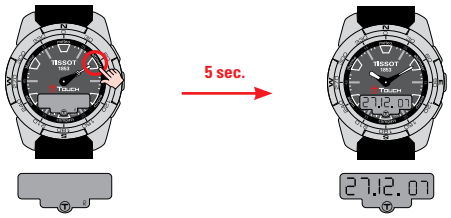
Characteristics of function

The temperature can be displayed in degrees Celsius [°C] or degrees Fahrenheit [°F]. (See procedure to follow for changing units on page 5).

Conversion formulae:	$T^0C = (T^0F - 32) \times 5/9$ $T^0F = T^0C \times 9/5 + 32$
Measurement range:	–5°C to +55°C / 23°F to 130°F
Accuracy:	± 1°C / ± 1.8°F
Resolution:	0.1°C/ 0.2°F

SENSOR FAULT

When a function is selected and the display is cleared, it is probably due to a failure of the selected function's sensor.



Error: the display is cleared

Back to date display

If this happens, please contact your retailer.

WARNINGS

Battery type: button-type lithium-manganese dioxide primary battery cell.

To activate the functions on your T-TOUCH a gentle press on the push-buttons or touch on the glass is all that is required. Excessive force may damage the watch.

The brightness of the digital display decreases when the hands are in motion.

In fast continuous setting mode, the display moves at a faster rate (e.g. for date function: months or years instead of days) than in non-continuous or normal speed setting mode (e.g. for date: days instead of months or years). To exit fast continuous setting mode, you need to release the push-pieces for 3 seconds to continue in normal speed setting mode.

The T-TOUCH is water-resistant to 10 bar (100 m / 330 ft) at 25°C / 77°F, but it is not an instrument suitable for sports diving. You must not use push-buttons when the watch is underwater. None of the functions can be activated if the glass is in contact with a liquid.

Additional information in the "International Warranty – Service centers" booklet