

Solarwerk Solarmovement

J622.10

J622.50

JUNGHANS – THE GERMAN WATCH

Many congratulations on your purchase of a timepiece from Junghans.

What began in 1861 with the founding of the firm in Schramberg quickly developed into one of the most fascinating success stories of the German watchmaking industry. While since that time the demands made of watches may have changed, the Junghans philosophy has always remained the same. Innovative flair and the constant pursuit of precision right down to the smallest detail define how the company works and thinks. You can see and sense this in every watch that carries the Junghans name. For as diverse as the Junghans range may be, it pursues one single goal: to combine traditional craftsmanship with cutting-edge watch technology and exciting design. That makes every watch with the Junghans star unique.

We hope you will enjoy this very special time-keeping instrument.

Yours,
Uhrenfabrik Junghans GmbH & Co. KG

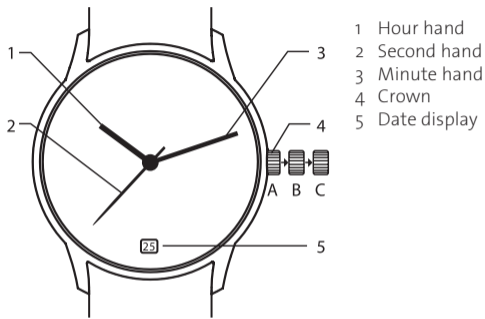
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1. Environmentally friendly solar technology

Technology that requires no battery! Light – whether sunlight or artificial – permeates the solar dial or the light transparent dial. This transforms the light into electrical energy, which is then stored in a long-lasting energy store. The energy store serves as an energy source for the solar wristwatch and enables the watch to function – even in complete darkness.

2. Solar wristwatch J622.10

2.1 Operating elements and functions



Setting the time

Pull the crown to position C. This stops the movement. To set the watch accurately to the second it helps to stop the movement when the second hand is over the 60. You can now position the minute hand on the minute marker and set the required time. Return the crown to position A to start the second hand.

Setting the date

Pull the crown into position B. Rotate the crown to the right to set the date. **Date alteration should not be performed between 20 PM and 2 AM, as in this period the date is switched automatically by the movement and damage may be caused to the switching mechanism.** If the month has less than 31 days, the date must be forwarded to the 1st of the following month by hand.

2.2 Charging control display

To ensure that your Junghans solar wristwatch is always ready for use you should ensure that it is not lacking energy. The watch checks the charging status of the energy store at regular intervals. If this reveals insufficient energy, the second hand begins to move in 2-second stages. In this case you should recharge the watch as soon as possible.

2.3 Charging times

Daily operation

The following table shows how long the watch needs to be exposed to the light each day in order to generate sufficient electricity for normal, daily operation, without discharging the battery.

Light source	Lux	Daily operation
Sunlight outdoors	approx. 50.000	2 mins.
Sunlight through a window	approx. 10.000	5 mins.
Daylight though a window on a cloudy day	approx. 5.000	8 mins.
Fluorescent lighting	approx. 500	1 hour

Please ensure that the watch is not exposed to temperatures over 50 degrees Celsius during the charging process.

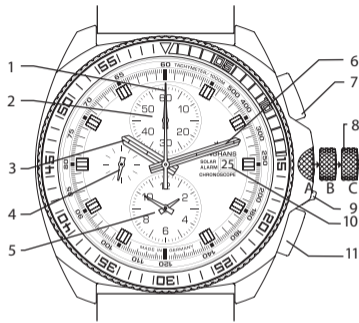
Following complete discharge

The following table shows you the charging times following complete discharge of the energy store. These charging times are dependent on the intensity of the light source. The guideline values stated in the table are for orientational use only. Please note that the design of the solar dial affects the charging time.

Light source	Lux	Charging time until the clock is started	Charging time until complete charging of the energy store
Sunlight outdoors	approx. 50.000	approx. 2 hours	approx. 1 day
Sunlight through a window	approx. 10.000	approx. 1 day	approx. 4 days
Daylight though a window on a cloudy day	approx. 5.000	approx. 2 days	approx. 8 days
Fluorescent lighting	approx. 500	–	–

Please ensure that the watch is not exposed to temperatures over 50 degrees Celsius during the charging process.

3. Solar alarm chronoscope J622.50

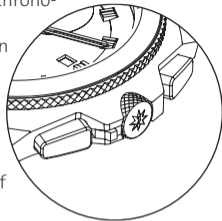


- 1 1/5 stop second
- 2 Stop minute
- 3 Hour hand
- 4 Second hand
- 5 Alarm time
- 6 Minute hand
- 7 Start-stop pusher
- 8 Crown
- 9 Security cover
- 10 Date display
- 11 Reset pusher

3.1 Crown lock

Please note: your Junghans solar alarm chronoscope is equipped with a crown lock.

You have the possibility of blocking crown position C to prevent undesired adjustment of the hand position. To do this, slide the security cover (9) between the crown and the reset pusher (11) upwards until it clicks into place. Sliding the security cover (9) back down means that all functions of the crown are available again.



3.2 Operating elements and functions

Setting the time

Pull the crown to position C. This stops the movement. To set the watch accurately to the second it helps to stop the movement when the second hand (4) is over the 60. You can now position the minute hand (6) on the minute marker and set the required time. Return the crown to position A to start the second hand (4).

Setting the date

Pull the crown into position B. Rotate the crown to the right to set the date (10). **Date alteration should not be performed between 20 PM and 2 AM, as in this period the date is switched automatically by the movement and damage may be caused to the switching mechanism.**

If the month has less than 31 days, the date (10) must be forwarded to the 1st of the following month by hand.

3.3 Charging control display

To ensure that your Junghans alarm chronoscope is always ready for use you should ensure that it is not lacking energy. The watch checks the charging status of the energy store at regular intervals. If this reveals insufficient energy, the second hand (4) begins to move in 2-second stages. During this time the chronoscope and alarm function is deactivated. You should therefore recharge the watch as soon as possible.

If the watch is operated at low energy levels for a longer period of time or stored with empty energy levels, to ensure secure functioning please conduct a reset (3.7) before setting the alignment of the counters to the zero position (3.8).

3.4 Charging times

Daily operation

The following table shows how long the watch needs to be exposed to the light each day in order to generate sufficient electricity for normal, daily operation, without discharging the battery.

Light source	Lux	Daily operation
Sunlight outdoors	approx. 50.000	2 mins.
Sunlight through a window	approx. 10.000	4 mins.
Daylight through a window on a cloudy day	approx. 5.000	7 mins.
Fluorescent lighting	approx. 500	1 hour

Please ensure that the watch is not exposed to temperatures over 50 degrees Celsius during the charging process.

Following complete discharge

The following table shows you the charging times following complete discharge of the energy store. These charging times are dependent on the intensity of the light source. The guideline values stated in the table are for orientational use only. Please note that the design of the solar dial affects the charging time.

Light source	Lux	Charging time until the clock is started	Charging time until complete charging of the energy store
Sunlight outdoors	approx. 50.000	approx. 36 mins.	approx. 1 day
Sunlight through a window	approx. 10.000	approx. 3 hours	approx. 4 days
Daylight though a window on a cloudy day	approx. 5.000	approx. 8 hours	approx. 7 days
Fluorescent lighting	approx. 500	–	–

Please ensure that the watch is not exposed to temperatures over 50 degrees Celsius during the charging process.

3.5 Operating the chronoscope

Starting time measurement (max. stop time 60 minutes)

Begin the chronoscope function by pressing the start-stop pusher (7).

Stopping time measurement

Stop the chronoscope function by pressing the start-stop pusher (7) again.

Resetting

Press the reset pusher (11). The stop minute (2) and the 1/5 second counter (1) return to the zero position.

Addition time measurement

Stop times may be added by pressing the start-stop pusher (11) again after the initial measurement, in place of the reset pusher (7). The chronoscope hands will then recommence from the stopped position. Stop the chronoscope function by pressing the start-stop pusher (7) again. To return the chronoscope hands to the zero position, press the reset pusher (11).

Measuring split times

During the time measurement process it is possible to display a split time without stopping the stopwatch process. To do this, start measurement using the start-stop pusher (7). To read the split time operate the reset pusher (11). The time measurement continues in the background. Pressing the reset pusher (11) again results in the chronoscope counter advancing rapidly to catch up with the time that has elapsed. Stop the chronoscope function by pressing the start-stop pusher (7) again. To return the chronoscope hands to the zero position, press the reset pusher (11).

3.6 Alarm

To use the alarm function it is necessary for the alarm display (5) to also display the current time, i.e. please set the current time before setting the required alarm time. Pull the crown to position B. Now press the reset pusher (11) briefly for a single movement and longer for a continuous adjustment, until the current time is displayed in the alarm display (5). Move the crown back to position A.

To set the alarm time, move the crown back to position B. Use the reset pusher (11) to set the required alarm time (5). To start the alarm, push the crown back to position A. When the alarm time is reached an acoustic signal will sound for 20 seconds, or until a pusher (7 / 11) is operated. After the alarm has sounded it is no longer active, the current time is displayed until the next activation. If a further alarm is required, please set this as described above, via the reset pusher (11).

3.7 Resetting the calibre J622.50

Following complete discharge of the energy store it is advisable to conduct a reset. To do this, pull the crown to position C. Ensure that the crown is not locked. Operate the start-stop pusher (7) and the reset pusher (11) simultaneously for at least 2 seconds. Now push the crown back into position A. The reset is completed, now set the correct time and date (10).

3.8 Setting the counters to the zero position

If one or more of the chronoscope counters are not in the correct position (e. g. following complete discharge of the energy store), these should be set: pull the crown into position C.

Alarm hands

Ensure that the crown is not locked. Now operate the reset pusher (11) to adjust the alarm hands (5). Operate the reset pusher (11) briefly for a single step and longer for continuous setting, until the alarm hands (5) display the current time. If the adjustment is activated with the alarm activated but not triggered, the alarm hands (5) will first move to the current time.

Stop minute hand

To adjust the stop minute hand (2) operate the start-stop pusher (7) for 2 seconds. The hand (2) rotates one full rotation and stops at the start position. Now operate the reset pusher (11) to adjust the stop minute hand (2), a short push for minute steps, a longer push for continuous adjustment.

Stop minute hand

To adjust the stop minute hand (2) operate the start-stop pusher (7) for 2 seconds. The hand (2) rotates one full rotation and stops at the start position. Now operate the reset pusher (11) to adjust the stop minute hand (2), a short push for minute steps, a longer push for continuous adjustment.

To adjust the stop minute hand (2) operate the start-stop pusher (7) again for 2 seconds. The hand (1) rotates one full rotation and stops at the start position.

1/5 Stop second hand

Now operate the reset pusher (11) to adjust the stop second hand (1), a short push for minute steps, a longer push for continuous adjustment.

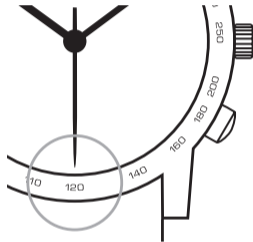
Following correct adjustment of all hands, press the crown back into position A and lock the crown with the security cover (9) to avoid unintentional adjustment of the hand position.

4. Information for watches with tachymeter scale

Reading the tachymeter scale

The scale is based on a stretch of one kilometre. At the beginning of the stretch the stopwatch function is activated and the time lapsed stopped after one kilometre. The second hand displays the average speed travelled on the scale.

An example: you are travelling along the motorway as a PASSENGER in a car. The reflector posts have a spacing of 50 m. You begin the stopwatch operation at the first reflector post and end the process on the twenty first. You have consequently travelled one kilometre. The second hand now shows you the average speed. If you require 30 seconds for one kilometre, your average speed is 120 km/h.



5. Operational readiness J622

To maintain your solar wristwatch in an operational condition you should keep it in as bright a place as possible. Please note that the solar dial should not be covered by clothing for long periods as this can reduce the operational capability of your watch. If the energy store is discharged, hold your watch in bright light to recharge it rapidly. The charging time of your solar wristwatch is dependent on the intensity of the light source and the design of the solar dial. The guideline values stated in the tables (page 32 + page 37) serve as an aid here.

Important:

Do not hold your wristwatch too close to heat-generating light sources! Do not leave your watch in direct sunlight for long periods! Temperatures above 50° C may result in damage to the watch!

6. Technical data

Calibre J622.10

Quartz solar watch

Dark power reserve up to 4 months

Operating temperature 0° to + 50° C

Calibre J622.50

Quartz solar alarm chronoscope with 1/5 stop second and alarm

Dark power reserve up to 6 months

Stop time 60 minutes

Operating temperature 0° to + 50° C

Subject to technical alterations.

Declaration of conformity

Uhrenfabrik Junghans GmbH & Co. KG hereby declares that this wristwatch conforms to the fundamental requirements and other relevant specifications of Directive 1999/5/EC.

A corresponding declaration of conformity can be requested at info@junghans.de.

7. General information

External influences can affect the watch's waterproof qualities, which may let in moisture. We therefore recommend that you have your watch regularly inspected by your Junghans specialist. Other servicing tasks or wrist strap repairs should also be done by your Junghans specialist. Your watch is fitted with a quality wrist strap that has undergone multiple inspections in our factory. If, however, you decide to change the strap, please fit a new one of the same quality, preferably an original Junghans wrist strap. Watch and wrist strap can be cleaned with a dry or slightly moistened cloth.

NB: Do not use chemical cleaners (e.g. benzine or paint thinners). These may harm the surface.

8. Impermeability

Marking	Instructions for use				
	 Washing, rain, splashes	 Shower	 Bath	 Swimming	 Diving without equipment
No mark	No	No	No	No	No
3 ATM	Yes	No	No	No	No
5 ATM	Yes	No	Yes	No	No
10 ATM	Yes	Yes	Yes	Yes	No

The designation "3–10 ATM" only applies to brand new watches. External influences can affect water resistance. Please have your watch checked regularly.

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