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# JUNGHANS

## Junghans Solar

Junghans. Zeit bewegt uns.

  
**JUNGHANS**  
GERMANY. SEIT 1861

## 1. Starting your wristwatch

For rapid charging, you should hold your wristwatch in bright light (e. g. sunlight or neon light).

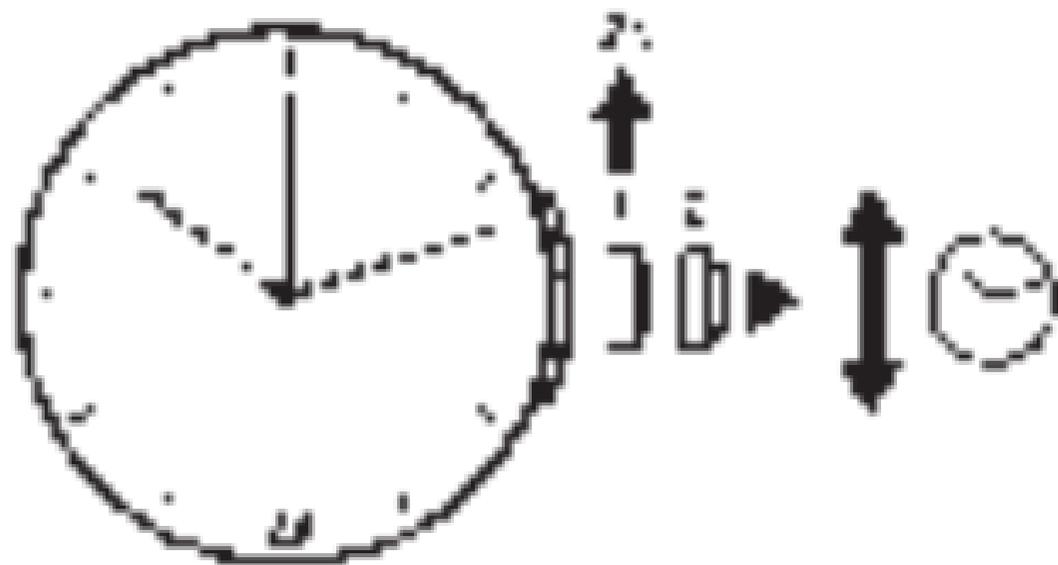
The time required to charge your wristwatch depends on the intensity of the light source. As a guide, the following tables contain approximate charging times. Please note that, to avoid damage, your watch must not be exposed to temperatures below  $-5^{\circ}\text{C}$  or above  $+50^{\circ}\text{C}$ .

**Important:** Never hold your solar wristwatch too near to light sources which give off heat! Do not leave your watch in direct sunlight for long periods of time. Temperatures above  $50^{\circ}\text{C}$  may cause damage.

- Charging times may vary slightly from watch to watch. We recommend charging your solar wristwatch a little each day to avoid the energy store running down completely.
- Normal daylight is sufficient for continuous operation of your solar wristwatch. Avoid covering the dial completely with your sleeve, as otherwise no light can reach it.
- When the energy store is fully charged, your solar wristwatch will run for at least 2 months even in darkness.
- If you do not wear your solar wristwatch, you should keep it in a light place to ensure that it is always ready for use.

## 2. Instruction for use

### 2.1. Solar wristwatches with second hand and date



#### 2.1.1. Setting the time

- Carefully pull out the crown fully. The second hand stops moving.
- Set the correct time by turning the crown.

To ensure that the date display changes at midnight and not at 12 noon, please observe the following points when setting your watch:

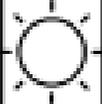
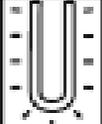
- Set the date display to yesterday's date.
- Then move the hands forward until today's date is displayed.
- Then set the correct time, bearing in mind whether it is between AM 00:00 h and 12:00 h or between PM 12:00 and 24:00 h.
- Press the crown back in.

#### 2.1.2. Setting the date

- Carefully pull out the crown half-way.
- Set the date by turning the crown clockwise.
- Please do not attempt to set the date display between 9 p.m. (21.00 h) and 1 a.m. (01.00 h), as this may cause damage to the display.
- Press the crown back in.

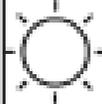
### 2.1.3. Charging times for solar wristwatches with date and second hand

\*Take care to protect your watch against direct sunlight when you are not wearing it, as the temperature inside the watch may rise above the permitted maximum (50° C).

Light source			Ambient conditions		Light intensity in klx	Charging time of empty energy store until the second hand moves in 2-sec. steps	Charging time until the second hand moves normally	Charging time until energy store is fully charged
Daylight	Cloudless sunshine*		40	appr. 10 min.	appr. 16 min.	appr. 10 h		
Daylight	Cloudy		10	appr. 15 min.	appr. 25 min.	appr. 15 h		
Neon light	40 watts 40 cm distance		5	appr. 30 min.	appr. 50 min.	appr. 24 h		
Light bulb	40 watts 40 cm distance		1	appr. 2 h	appr. 3,5 h	appr. 100 h		

### 2.1.4. Charging times for solar wristwatches with printed/coloured solar cells, date and second hand

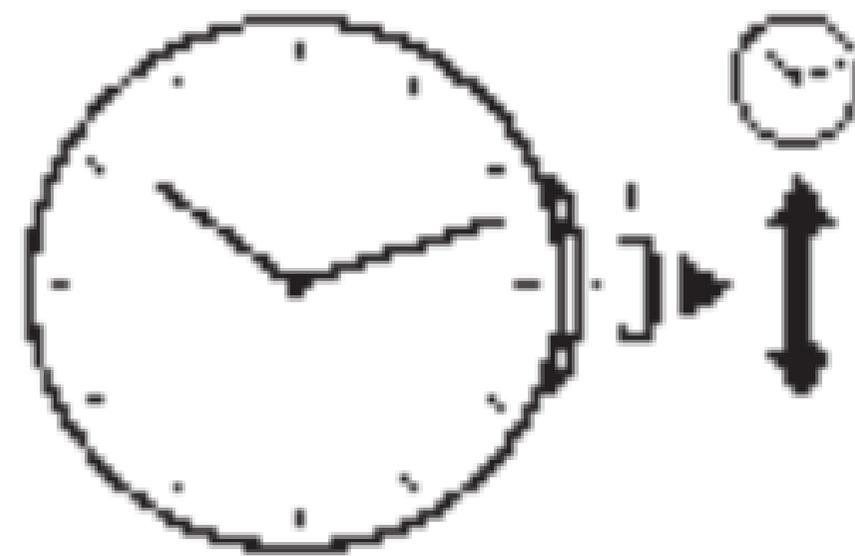
\*Take care to protect your watch against direct sunlight when you are not wearing it, as the temperature inside the watch may rise above the permitted maximum (50° C).

Light source			Ambient conditions		Light intensity in klx	Charging time of empty energy store until the second hand moves in 2-sec. steps	Charging time until the second hand moves normally	Charging time until energy store is fully charged
Daylight	Cloudless sunshine*		40	appr. 20 min.	appr. 20 min.	appr. 20 h		
Daylight	Cloudy		10	appr. 30 min.	appr. 50 min.	appr. 30 h		
Neon light	40 Watt 40 cm Abstand		5	appr. 1 h	appr. 1,5 h	appr. 48 h		
Light bulb	40 Watt 40 cm Abstand		1	appr. 4 h	appr. 7 h	appr. 200 h		

### 2.1.5. Chare level indication for solar wristwatch with second hand and date

- If your solar wristwatch is running out of energy, the following charge level indication will commence.
  - The second hand begins to move at intervals of two seconds.
- Your solar wristwatch will nevertheless continue to run for approx. 2 weeks and still show the exact time.

### 2.2. Solar wristwatches without second hand and date

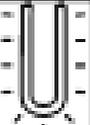
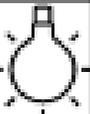


#### 2.2.1. Setting the time

- Carefully pull out the crown fully.
- Set the correct time by turning the crown.
- Press the crown back in.

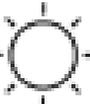
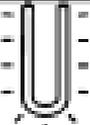
### 2.2.2. Charging times for solar wristwatches without date and second hand

\*Take care to protect your watch against direct sunlight when you are not wearing it, as the temperature inside the watch may rise above the permitted maximum (50° C).

Light source	Ambient conditions		Light intensity in klx	Charging time of empty energy store until the second hand moves in 2-sec. steps	Charging time until the second hand moves normally	Charging time until energy store is fully charged
Daylight	Cloudless sunshine*		40	appr. 3 min.	appr. 5 min.	appr. 2,5 h
Daylight	Cloudy		10	appr. 10 min.	appr. 15 min.	appr. 10 h
Neon light	40 watts 40 cm distance		5	appr. 20 min.	appr. 30 min.	appr. 18 h
Light bulb	40 watts 40 cm distance		1	appr. 1,5 h	appr. 2,5 h	appr. 90 h

### 2.2.3. Charging times for solar wristwatches with printed/coloured solar cells, without date and second hand

\*Take care to protect your watch against direct sunlight when you are not wearing it, as the temperature inside the watch may rise above the permitted maximum (50° C).

Light source	Ambient conditions		Light intensity in klx	Charging time of empty energy store until the second hand moves in 2-sec. steps	Charging time until the second hand moves normally	Charging time until energy store is fully charged
Daylight	Cloudless sunshine*		40	appr. 6 min.	appr 10 min.	appr. 5 h
Daylight	Cloudy		10	appr. 20 min.	appr. 30 min.	appr. 20 h
Neon light	40 watts 40 cm distance		5	appr. 40 min.	appr. 1 h	appr. 36 h
Light bulb	40 watts 40 cm distance		1	appr. 3 h	appr. 5 h	appr. 180 h

#### **2.2.4. Charge level indication for solar wristwatches without second hand and date**

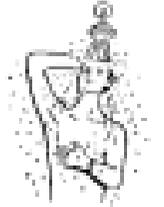
- If your solar wristwatch is running out of energy, the following charge level indication will commence.
- The minute hand begins to move in a 10-second rhythm (6 steps) per minute. Your solar wristwatch will nevertheless continue to run for approx. 2 Weeks and still show the exact time.

#### **3. Technical information that is interesting for you**

- Your wristwatch draws its energy from sunlight or artificial light. The integrated solar cell converts the light into electrical energy, which supplies the quartz movement.
- Even if you do not use your watch for a long period, it will still recharge itself when held in the light.

- The innovative energy store ensures that your solar wristwatch keeps running in half-light and even in darkness.
- The high-performance energy store which performs this function has an almost unlimited life at full output capacity.
- Do not under any circumstances replace the energy store with a conventional silver-oxide battery, as this may cause damage to your solar wristwatch.
- To ensure a long service life, you should take your solar wristwatch to a watch specialist every 3 years to have it tested for water resistance and the oil level in the wheel train.
- Please make sure that your solar wristwatch is not subjected to heavy blows or extreme temperatures. Otherwise, damage may be caused to the high-precision electronic circuit, the miniature stepping motor and the solar cell.

#### 4. Details on the water-resistance

Designation		Information on use				
Case back	Dial	 Washing, rain, splashes	 in the shower	 in the bath	 Swimming	 Diving without gear
No	No	No	No	No	No	No
waterresistant 3 bar	No	Yes	No	No	No	No
waterresistant 5 bar	No	Yes	No	Yes	No	No
waterresistant 10 bar	WR 100	Yes	Yes	Yes	Yes	No
waterresistant 20 bar	WR 200	Yes	Yes	Yes	Yes	Yes

Characteristics
<b>Without designation:</b> The watch is not water-resistant and must be protected.
<b>water-resistant 3 bar:</b> The watch is for everyday use, e. g. washing the car, splashes.
<b>water-resistant 5 bar:</b> This watch can be worn in the bath, washing the car.
<b>water-resistant 10 bar:</b> This watch can be worn in the bath, swimming, washing the car, in the shower, watersports.
<b>water-resistant 20 bar:</b> This watch can be worn when diving <u>without</u> gear, snorkelling, in the bath, swimming, washing the car, in the shower, watersports.

## **5. Important additional information for if your solar wristwatch stops.**

- Please check whether the crown (winder) has been pulled out. If so, press it back in, your solar wristwatch will then start running again.
- If your solar wristwatch does not run even with the crown pressed in: Your watch has not received enough light. Put it in a bright place (sunlight or neon light). It will then start up as soon as the energy store has been sufficiently charged. The time required for this varies according to the light intensity and the model of watch. A guide to charging times is given in the corresponding tables.
- If the date has not changed: Have you set your watch to the correct time of day? Please follow the procedure described in Section 2.1.1.