



Mega 1000 J604.64

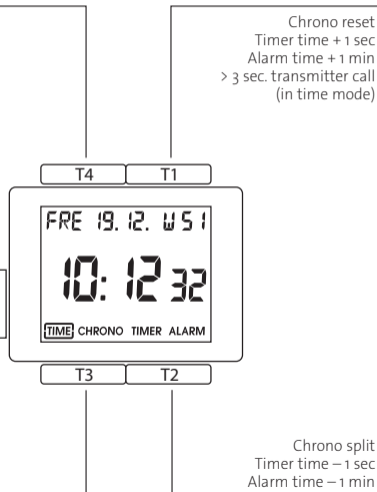
JUNGHANS - DIE DEUTSCHE UHR

ENGLISH

- Chrono start/stop
- Timer on/off
- Alarm on/off
- Time
 1. Time
 2. Time/day/date/year
 3. Time/day/date/
Calendar week
 4. Time/2. Time
 5. Time/
transmitter display/
Reception test

- Light
> 4 seconds
Key lock
(lock/unlock)

- MODE
- Time (1. Time)
 - Chrono
 - Timer
 - Alarm



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

Content	Page
1. Radio technology	42
2. Operational requirements	45
3. Automatic time synchronisation	46
4. Functions	47
4.1 Time display modes	47
4.2 Additional functions	49
5. Description of the functions and their operation	50
5.1 Stopwatch with split function (chrono)	50
5.2 Countdown timer	52
5.3 Alarm	53
6. Reception indicator	55
7. Manual Synchronisation (Calling the transmitter)	55
8. Time zone adjustment/ 12-24 hour display / home time	57
8.1 Time zone adjustment	57
8.2 12-24 hour display	59
8.3 Home time	60
9. Language selection (weekday indicator and date display)	61
9.1 Language selection	61
9.2 Date display	62
10. 2. Time	63
11. Restart / Starting up procedure	64
12. Manual start	65
12. Illumination	67
14. Button lock	68
15. Adjusting the contrast of the digital display	69
16. Impermeability	70
17. General information	70
18. Technical information	71

Operating instructions Mega 1000

Important notice concerning the display

Please take note that during the time synchronisation, the display will automatically switch itself off and remain switched off for the duration of the procedure. When carrying out a restart following a battery change, the indicator for the transmitter currently being searched for will flash and the signal controlled second indicator will be displayed. Precise information can be found in chapters 3, 7, and 11.

1. Radio technology

Cutting edge chronography.

5,000 years have now passed since the advent of chronography. Starting with sundials and water clocks, advancing to mechanical clocks in the 13th century and then followed by quartz watches, chronography has now culminated in the radio-controlled watches by Junghans.

Radio-controlled watches by Junghans are always accurate and never require adjustment if reception conditions are adequate. Junghans radio-controlled watches are perfectly accurate because they are linked to the most accurate clocks in the world by radio signals.

In Europe, this is the caesium clock of the German National Metrology Institute (Physikalisch-Technischen Bundesanstalt, PTB) in Braunschweig. In North America, this is the caesium clock of the U.S. Department of Commerce, the National Institute of Standards and Technology (NIST) in Boulder, Colorado.

In Japan this is the caesium clock of the National Institute for Information and Communication Technology, an association of the government office.



Your Junghans Mega 1000 radio-controlled watch is able to automatically receive the radio signals of the following time signal transmitter stations:

- DCF77 in Mainflingen (24km south-east of Frankfurt am Main) for **Europe**,
- WWVB in Fort Collins, Colorado (USA) for **North America**
- JJY40 on Mount Ohtakadoya (near Tokyo in north-east Japan) for **Japan**
- JJY60 on Mount Hagane (in south-west Japan) for **Japan**,
the **East coast of China** (Shanghai),
for **South Korea** and parts of **Taiwan**.

This means that within range of one of these 4 transmitter stations your Junghans Mega 1000 will display the exact time when reception conditions are adequate.

Junghans radio-controlled wristwatches automatically synchronise themselves every day with the DCF77, WWVB, JJY40 and JJY60 time signal transmitters. If your Junghans Mega 1000 radio-controlled watch is unable to receive a signal due to interference (e.g. thunder storms, electronic devices, lighting dimmer switches) it will automatically attempt to receive a signal the following day at the same time.

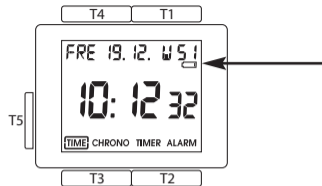
The time can also be synchronised manually by calling a transmitter e.g. from a place with better reception.

The most recent time information received is stored in an internal time memory. This time is then kept by a high-precision 32 kHz quartz oscillator until the next time your watch is synchronised.

The radio-controlled time synchronisation function of your Junghans Mega 1000 radio-controlled watch not only ensures total time accuracy, but also automatically switches (at night) from winter time to daylight saving time (Europe and North America) and vice-versa when reception is available.

The Junghans Mega 1000 time zone adjustment function enables you to set your watch to the relevant local time when travelling in countries in other time zones.

2. Operational requirements



Make sure that the battery has enough power to ensure the continuous operation of your watch.

The watch regularly checks whether sufficient battery power is available. If the battery is low on power (empty battery or low ambient temperature affecting battery performance) then a battery indicator appears in the LCD display. If the battery does not recover (e.g. due to higher ambient temperature) you should bring the watch to your specialist retailer or send it to the Junghans Service Center within a few weeks to have the battery replaced.

Battery type: CR 1620 – average service life: approx. 2 years

Please ensure that the battery is disposed of appropriately and in accordance with the legal regulations.

3. Automatic time synchronisation

The fully automatic time synchronisation takes place daily using the DCF77 (Europe) transmitter with CET (Central European Time) at both 2:00 und 3:00 hours, as well as CEST (Central European Summer Time) at 3:00 und 4:00 hours depending on the current local time. With the transmitter WWVB (North America) and JJY40 respectively JJY60 (Japan) at 2:00 and at 3:00 hours depending on the current local time.

The display switches itself off automatically when the automatic synchronisation commences. The display will remain switched off for the whole of the synchronisation period (maximum 9 minutes) or until the procedure is manually discontinued. The automatic time synchronisation procedure can be discontinued with the use of the T1 button. With the use of one of the buttons ranging from T2 to T5, it is possible to display the current time during the synchronising procedure by keeping the button depressed or, by pressing the T5 lighting button which will display the time for the duration of the illumination. Hereby, the current hour, minutes and seconds as well as weekday, day, month and year will be displayed.

For the USA's WWVB time signal transmitter the following specific feature applies:

After a successful transmitter call or restart, your Junghans Mega 1000 always reads in Pacific Standard Time. Due to the non-uniform changeover from summer to winter time and the differing time zones in the individual US states, you are given the opportunity to adjust winter time, summer time and time zone settings (see 8.1) manually. If, due to where you are, the time zone or summer / winter time that you have set differs from PST, it is nevertheless retained during any subsequent transmitter call or automatic synchronisation.

The date is also automatically adjusted by the time signal, and this function also takes 29 February into consideration during leap years.

If, within a 24-hour period, all attempts to receive a signal fail to correctly synchronise the watch, the reception indicator increases by 1 point (see chapter 6, "Description of the reception indicator mode"). The indicator increases by 1 point for every further day that a signal is not successfully received. On days when the watch has not been synchronised time is kept with the accuracy of a quartz watch using the internal time memory. The watch will be synchronised as soon as a signal is successfully received.

Recommendation: The best conditions for reception of the time signal at night exist when the watch is not being worn and is not placed near to electronic devices, mobile telephones or cordless telephones.

4. Functions

The Junghans Mega 1000 has a variety of functions that are shown in the display. The watch is operated using the five buttons above and below the display as well as on the side of the watch.

4.1 Time display modes

The following five time display modes are available.

In these modes the watch cannot be adjusted using the T1 or T2 buttons. Only T3 (to switch between Time, Stopwatch, Countdown Timer and Alarm modes) and T4 (to select time display mode) are active so that the watch settings cannot be accidentally changed.



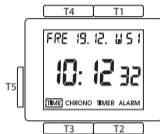
Time display mode 1:
Time



Time display mode 2:
Time / Day / Date / Year



Time display mode 3:
Time / Day / Date / Calendar week



Time display mode 4:
Time / 2nd time



Time display mode 5:
Time / Transmitter indicator / Reception indicator



4.2 Additional functions

The following functions can be selected one after the other using the T3 button.

- Stopwatch with split function and split-time memory (chrono)
- Countdown timer
- Alarm
- Time



The name of the mode that is currently in use is highlighted on the display with a border. The mode display bar at the bottom of the LCD changes when the mode is changed. The upper area of the LCD shows the function corresponding to the mode that is selected.

The display languages available include German, English and French. Setting the language is described in chapter 9.1

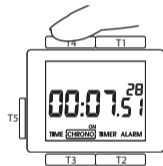
The selected time display mode does not change until another mode is selected by pressing the T3 button.

5. Description of the functions and their operation

5.1 Stopwatch with split function (chrono)



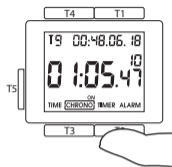
Press T3 until CHRONO mode is selected. The display shows hours, minutes, seconds, tenths of a second and hundredths of a second.



T4 is used to start and to stop the stopwatch. When the stopwatch is running the tag "ON" appears above the CHRONO menu item.



Pressing T1 resets the counter to 00:00:00.00 and erases any split times that have been saved. The stopwatch can only be reset if it is not running.



When the stopwatch is running, pressing T2 shows the split time. These are shown in the upper part of the display. Pressing T2 again shows additional split times. The last ten split times are always saved. The stopwatch continues to run when split times are being shown.



After pressing T4 to stop the stopwatch, the split times that were saved can be shown by pressing T2.

5.2 Countdown timer



Press T3 until TIMER mode is selected.



The timer is set using T1 (set+) and T2 (set-). Press the button briefly to adjust the time by the second. If you hold the button down the time changes quickly.



The countdown timer is started/stopped with the T4 button. When the countdown timer is running the tag "ON" appears above the TIMER menu item in the display.

When the countdown timer reaches 00:00:00 an acoustic signal sounds.

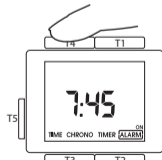
5.3 Alarm



Press T3 until ALARM mode is selected.



The alarm time is set using T1 (set+) and T2 (set-). When the buttons are pressed briefly the time changes by the minute, but if the button is held down the time changes quickly.

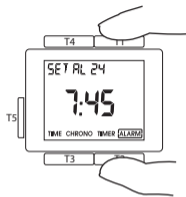


When the alarm time is adjusted the alarm is automatically activated. The tag "ON" appears in the display.

The alarm is activated or deactivated using the T4 button. When the alarm is active the tag "ON" appears above the ALARM menu item in the display. When the time that the alarm is set to is reached an acoustic signal sounds.

Your Mega 1000 provides you with the option of setting the alarm as a daily repeating alarm (24h alarm) or as a single alarm.

Proceed as follows to set the type of alarm:



Make sure that your Mega 1000 is in ALARM mode. If this is shown in the display, press button T1 (set+) and T2 (set-) at the same time to start adjusting the alarm mode. Now press the T1 (set+) or T2 (set-) button, to select the desired alarm mode. The selected alarm mode is displayed in the upper section of the display, SET AL 24 for the daily repeating alarm and SET AL – for the one-off single alarm.

After you have selected the desired alarm mode, press the T4 button to return to setting the alarm time.

The alarm can be switched off by pressing any button.

Preferably the T5 button should be used for this in order to avoid accidentally altering the settings.

After the alarm has sounded it is no longer active and the "ON" tag disappears. If you want the alarm to sound again, set the desired time as described above and reactivate the alarm.

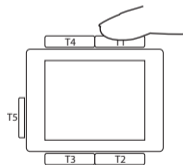
6. Reception indicator

The reception indicator shows whether the watch has been synchronised with the signals from the transmitter stations.

Make sure that one of the five time display modes is shown in the display and if this is not the case, press T3 until one of the time display modes is shown. Press T4 until the reception indicator is shown (time display mode 5: time, transmitter indicator and reception indicator).

If the reception indicator reads 0 then the watch was properly synchronised during the previous night. The numbers 1-9 show the number of days in which watch has not been automatically synchronised due to poor reception. The indicator returns to 0 the next time the signal is successfully received.

7. Manual Synchronisation (Calling the transmitter)



In the various time display modes, it is possible to carry out a manual synchronisation or so called transmitter call.

For this purpose press the T1 button for a period longer than 3 seconds. The display switches itself off automatically when the synchronisation commences. The display will remain switched off for the whole of the synchronisation period (maximum 14 minutes) or until the procedure is manually discontinued.

The manual time synchronisation procedure can be discontinued with the use of the T1 button. With the use of one of the buttons ranging from T2 to T5, it is possible to display the current time during the synchronising procedure by keeping the button depressed or, by pressing the T5 lighting button which will display the time for the duration of the illumination. Hereby, the current hour, minutes and seconds as well as weekday, day, month and year will be displayed. Please make sure that during reception the watch is held steady or put aside.

When the watch has received the time signal (after approximately 3 – 14 minutes), the display will automatically show the time received from the transmitter in the previous mode.

Your Junghans Mega 1000 first attempts to receive a signal from the transmitter station it last used to carry out a synchronisation. If the watch cannot receive a signal from this transmitter station then it attempts to receive a signal from the other transmitter stations. The transmitter station that the watch is currently trying to reach is shown in the display. If a manual synchronisation is carried out successfully, the reception indicator resets itself to 0. However, if the transmission call is unsuccessful the reception indicator does not change and the display returns to the time and mode that were active before the transmission call was carried out.

If you have selected a different time zone to the one received from the transmitter station then the manually selected time is verified. In this case only minutes and seconds are synchronised.

If a signal is received from a different transmitter station to the one last used for synchronisation then the time zone that is currently selected is retained and the minutes and seconds are synchronised.

The current local time is set using the time zone adjustment function (see chapter 8.1 – “time zone adjustment”).

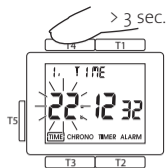
The following time zones are received from the transmitter stations:

Transmitter station	Time zone
DCF77 (Europe)	CET or CEST
WWVB (North America)	Pacific Time
JJY40 (Japan)	Local time Japan
JJY40 (Japan)	Local time Japan

8. Time zone adjustment/ 12-24 hour display / home time

8.1 Time zone adjustment

The Junghans Mega 1000 can receive time signals from the DCF77, WWVB, JJY40 and JJY60 transmitter stations. This means that the watch will reliably show daylight saving or winter time (except WWVB – see section 3) within the transmission zones. If you are travelling to a country in a different time zone, you can either set the watch to display the local time of that country as the 2nd time in the upper part of the display (see chapter 10 – “2nd time”) and/or set the main time display to show the local time.



Press T4 until time display is selected (time display mode 1). The display shows the time. T4 is used to adjust the time zone. When the time zone is adjusted the main time display changes to show the time in this time zone. Press T4 for more than 3 seconds.



The upper part of the display shows "1. TIME", the hour figure flashes and can be adjusted by the hour using T1 (set+) and T2 (set-). Where necessary the date is automatically adjusted at the same time.

To reset the main time to your home time (see chapter 8.3 "home time"), press T2 for more than 3 seconds when in one of the 5 display modes. The main time display then shows the selected home time again. If the home time has not been set manually then the time zone of the transmission station that was last used for synchronisation is shown.

8.2 12-24 hour display



Press T4 once the desired time zone has been set. You can now choose between the 12-hour time display (am/pm) and the 24-hour time display.



The upper part of the display shows the display mode that is currently selected and this can be changed using T1 (set+) and T2 (set-).

8.3 Home time



Once the desired 12-24 hour time display mode has been set, press T4 to adjust the home time setting.



This setting enables you to set the home time. This should correspond to the time zone where you spend most of your time and can be adjusted using T1 (set+) and T2 (set-).

Press T4 to return to the normal time display mode.

9. Language selection (weekday indicator and date display)

The language of the weekday indicator of your Junghans Mega 1000 has been set to German at the factory. The language can be set to English or French in the time/date display modes (time display mode 2 or 3).

9.1 Language selection

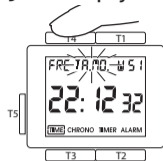


To change the weekday indicator to another language press T4 until the time/date mode is selected (time display mode 2 or 3). The display shows the time and date. Press T4 for longer than 3 seconds to change the language.



The letter in the upper part of the display flashes and shows the selected language (D for German, F for French, E for English). This can be changed using T1 (set+) or T2 (set-).

9.2 Date display



The date can be displayed either in day-month format or in month-day format. Press T4 to set the date format.



The date format flashes in the upper part of the display (TA.MO. or MO.TA – German, DA.MO or MO.DA. – English and JO.MO or MOJO – French) This can be changed using T1 (set+) or T2 (set-).

Press T4 to return to the normal display mode.

10. 2nd Time

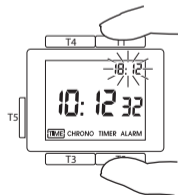
The 2nd time function enables you to show an additional time in the display that is independent of the main time (e.g. when you want to see your home time whilst holidaying in another time zone).

Make sure that one of the five time display modes is shown in the display and if this is not the case, press T3 until one of the time display modes is shown.



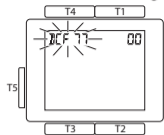
Press T4 until the time display mode "2nd TIME" is selected.

Then press T4 for more than 3 seconds.



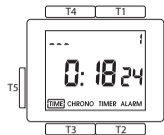
The 2nd time display flashes and can be adjusted in 15-minute steps using T1 (set+) and T2 (set-). Afterwards, press the T4 button to return to the normal display.

11. Restart / Starting up procedure



After changing the battery, a restart is automatically carried out. After the battery has been inserted the indicator for the transmitter currently being searched for will flash and the signal controlled second indicator will be displayed. All other displays will remain switched off for the duration of the synchronisation. The watch will start with the reception. After a few minutes, the watch, after successfully receiving a signal, will automatically set itself to the correct time zone of the selected transmitter.

- If signals from DCF77 have been successfully received, German local time will be displayed. The transmitter indicator then shows DCF77, the date will be shown with the weekday in German in day-month format and the time will be displayed in 24-hour format.
- If signals from WWVB have been successfully received, the current Pacific Time will be displayed. The transmitter indicator then shows WWVB, the date will be shown with the weekday in English in month-day format and the time will be displayed in 12-hour format.
- If signals from JY40 or JY60 have been successfully received, Japanese local time will be displayed. The transmitter indicator then shows JY40 or JY60, the date will be shown with the weekday in English in day-month format and the time will be displayed in 24-hour format.

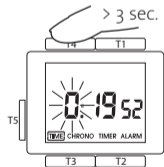


If the watch does not successfully receive a signal for a long period of time then the reception process is stopped to save battery power. However, the watch still makes an attempt to receive a time signal every 6 hours. The transmitter indicator then reads "---" and the reception indicator shows "1". The watch continues to show the unsynchronised time in the display.

In order to show the correct current time until a signal is received, the watch must be manually set to the current time (manual start). Your watch then operates like a normal quartz watch.

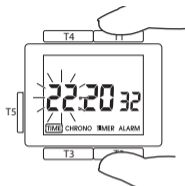
If you switch to set mode (see chapter 12 – "Manual start") while automatic signal reception is taking place then the automatic reception process is stopped.

12. Manual start

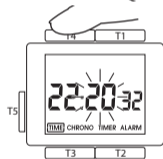


The watch can be manually started after an unsuccessful restart. To do this, press the T4 button to cancel the automatic reception process. Then press the T4 button again for more than 3 seconds to enter manual start mode.

When the watch is in manual start mode the settings that need to be adjusted (hour, minute, second, 12-24 hour display, language, date display mode, year, month and day) flash one after the other in the display.



When the hour is flashing it can be set to the correct value using T1 (set+) and T2 (set-).

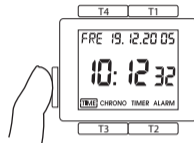


After setting the hour press T4 to set the minutes using T1 (set+) and T2 (set-). Press T4 again to select the seconds indicator, and then press T1 or T2 to reset the second counter to zero.

The watch must be synchronised manually with another time source (watch, clock etc.) Press T4 to move from one setting to the next. Proceed to set the value in the same manner as before. Once you have correctly adjusted all settings press T4 to confirm and the display will change back to time display mode.

13. Illumination

Your Junghans Mega 1000 is equipped with a display light. Press T5 to activate the light, which stays on for 4 seconds. After 4 seconds the light goes out in order to save battery power and reduce energy wastage when the light is activated accidentally.

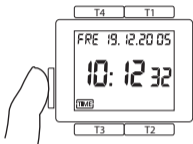


The light can then be reactivated by pressing T5 again.

14. Button lock

To prevent unintentional adjustment of the display, your Mega 1000 has a function that allows you to lock the operating buttons. This function is available in every time display mode (see chapter 4.1).

Proceed as follows to activate or deactivate the button lock:



> 4 sec.

Press the T5 button for more than 4 seconds. The CHRONO, TIMER and ALARM symbols disappear from the display. The button lock is now activated.

To deactivate, repeat the same procedure.



If a button is pressed when the button lock is active, the symbol "Lo" for Lock appears in the display.

15. Adjusting the contrast of the digital display

To ensure that the digital display is as clear as possible, your Mega 1000 has a function that allows you to manually change the contrast of the display. If the contrast needs to be adjusted, proceed as follows: First check whether your Mega 1000 is in one of the 5 time display modes. If this is not the case, press the T3 button until the current time is shown in the display. Now press the T1 and T2 buttons at the same time for more than 8 seconds. The tag "CON 2" appears in the display. The contrast can now be changed using the T1 (set+) and T2 (set-) buttons. To set the contrast to the maximum level, press the T1 button until "CON 15" is displayed. To set the contrast to the minimum level, press the T2 button until "CON 0" is displayed. After you have set the desired contrast level, press the T4 button to return to the normal display.

Note: The higher the setting, the greater the power consumption.

16. 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.

17. 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.

18. Technical information

Synchronisation time when there is perfect reception	approx. 3-10 minutes
Time zone adjustment range (UTC)	+12 hours, – 12 hours
Changing from CET to CEST and vice-versa	automatic
Synchronisation with the time signal transmitters	2am and 3am (UTC)
Operating temperature	0° to + 50° C

Free of charge and FTZ approve.

We reserve the right to make technical changes.

Declaration of Conformity

Uhrenfabrik Junghans GmbH & Co. KG herewith declares that this product conforms to the principle requirements and other relevant stipulations of Directive 1999/5/EC.

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

Uhrenfabrik Junghans GmbH & Co. KG
Postfach 100 · D-78701 Schramberg
www.junghans.de · info@junghans.de

42.712-0438 / 4271092 / 0712