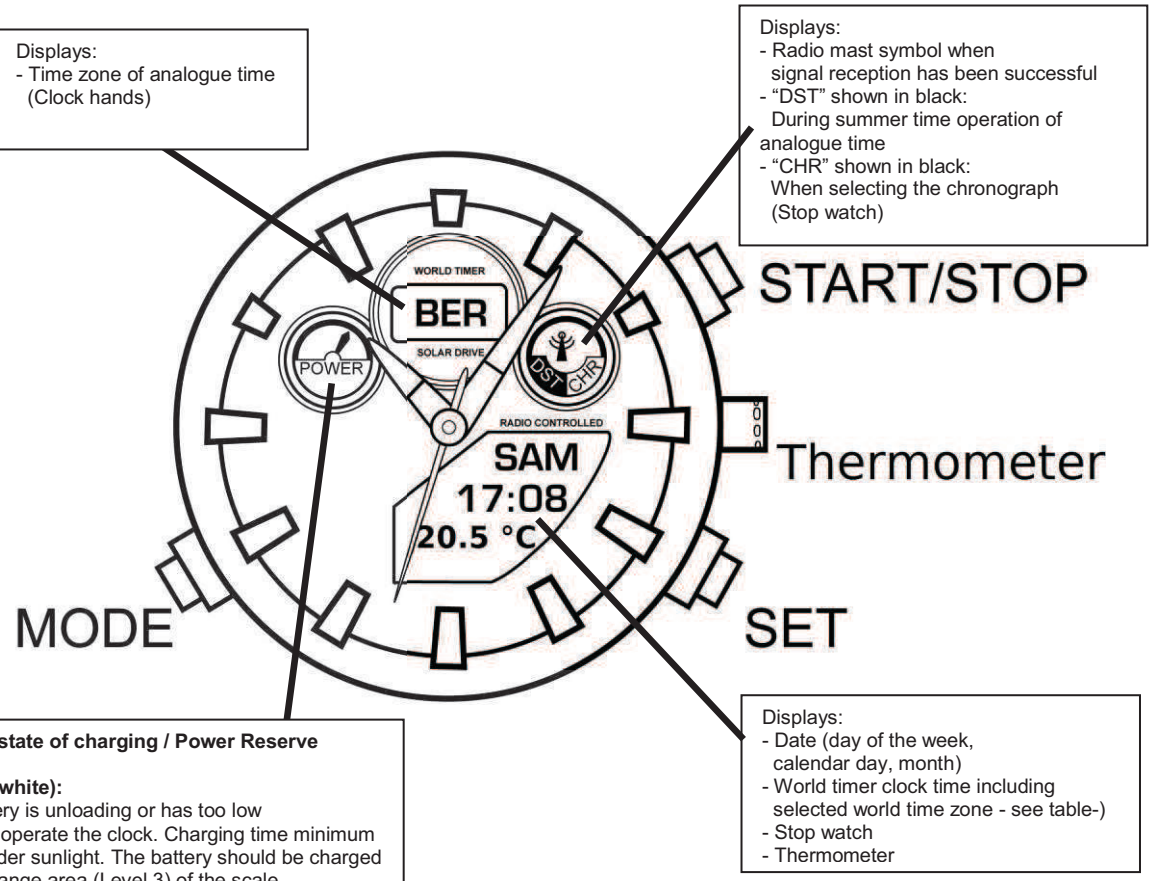
# Operating instructions, World Timer Chronograph, Solar Radio W346BT, Transmitter DCF 77 Mainflingen near Frankfurt / Main with thermometer

## Overview of displays:



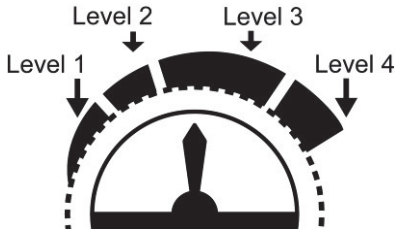

**Display of state of charging / Power Reserve**

**Level 1 (white):**
The battery is unloading or has too low power to operate the clock. Charging time minimum 8 hours under sunlight. The battery should be charged up to the orange area (Level 3) of the scale.
After charging the clock must be calibrated again (see Point 6).

**Level 2 (yellow):**
The battery is not charged enough. Under these conditions, some functions such as the transmitter signal are limited/not available. The battery has to be charged.

**Level 3 (orange):**
The battery is in a normal fully charged state and has a duration of 6 to 8 months. This charged state is recommended when used daily.

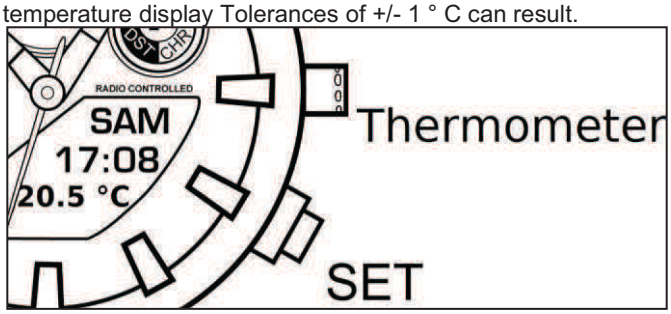
**Level 4 (red) – Test Level:**
The battery is above the normal charged state and is fully charged. The duration is approx. 8 months. This is a charging level that is usually not reached through normal solar radiation. It only represents the maximum reachable charged state of the battery. However, damage to the storage cell through overcharging is ruled out due to the integrated overcharging protection.




**Function of the temperature display**

The thermometer of your watch is on the 3-clock-postition where some watches have a crown. The apparent temperature device is through the openings in the cap. The temperature is automatically refreshed every 2 minutes, without the need of any further adjustment.
- For a manual update of the current temperature, press once the Button **START/STOP** on the 2-clock position while the display shows the temperature is displayed. The detected temperature is immediately displayed on the display.
- To switch the display between Celsius (° C) and Fahrenheit (° F) press button **SET** on the 4-clock position.

The detected temperature of the thermometer is subject to a number of factors and may differ from the actual ambient temperature! For example, the heat from direct sunshine on the watch case and the body temperature can lead to a different measurement. The most accurate measurement results are obtained when the watch is stored out of direct sunlight on a neutral surface temperature for 15 to 30 minutes from the arm. At the temperature display Tolerances of +/- 1 ° C can result.




ENG – W346BT 03/15

## Operating instructions, World Timer Chronograph, Solar Radio W346BT with thermometer, Transmitter DCF 77 Mainflingen near Frankfurt / Main

## Product properties:

- ***Solar Radio Clock Transmitter DCF 77, Mainflingen near Frankfurt/Main***
- **Radio controlled automatic time setting** and time conversion for **summer and winter time**
- With a **rechargeable storage cell** and **protection from over charging**
- **Display of state of charging / Power Reserve**
- **Language can be set for the day of the week (German "GER"/English "ENG"/French "FRE"/Spanish "SPA"/Italian "ITA"**
- **Perpetual calendar**
- **Thermometer function (description on P. 1)**
- **Transmitter signal** possible daily, automatically and also manually
- **worldwide manual time zone conversion, world time display of 38 cities**
- **Chronograph, stop watch 1/100 seconds**
- ***Power reserve,*** 1-8 months, depending on the state of charging 8 months if fully charged.
- ***Sleep Function,*** to save energy. It is activated when the clock has been in the dark for 3 days. The hands stop at 12. When it is brought into the light again, the stored time is displayed. If there has been a longer dark phase, the clock is activated again by pressing any button and the transmitter signal starts.

## Important, starting up the solar radio clock!

The clock usually runs without problems and no need for additional settings, unless it was exposed to intensive shaking or magnetic fields while being transported. Please proceed as described in point 6 (manual calibration/basic settings) if there are time differences.
The following should therefore be observed:

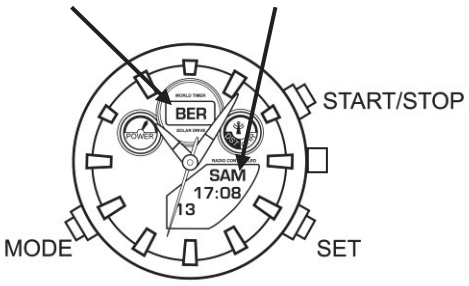
**1. Charge the storage cell**

Ensure that the chargeable storage cell is sufficiently charged. See Display of state of charging (on page 1).
**A place where there is light is required to store the clock.**
**The Power Reserve display should not be below the orange state of charging to guarantee full functioning of the clock.**
**Attention! If the storage cell has been completely uncharged for a longer period of time, there is a risk of damage (guarantee does not apply)!**

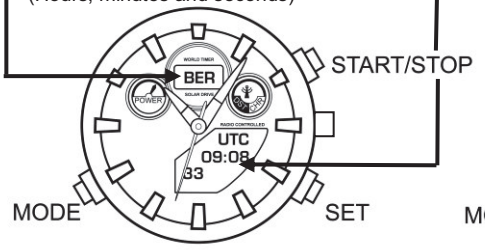
**2. Functioning through the Mode button:**

By pressing the **MODE** button, the following modes can be selected:

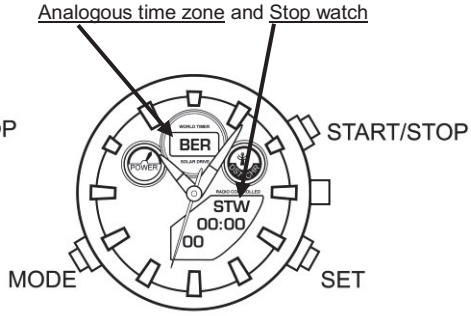
**Mode 1**
Analogous time zone and Digital Date




**Mode 2**
Analogous time zone,
digital world time zone and digital world time
(Hours, minutes and seconds)

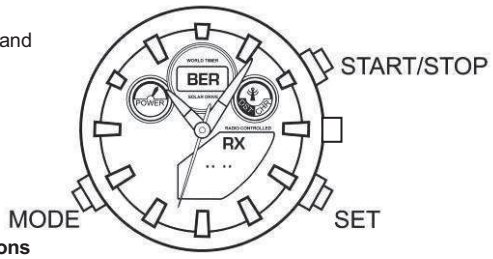



**Mode 3**
Analogous time zone and Stop watch




**3. Transmitter signal (manual/automatic) for analogue display (clock hands)**

If Mode 1 or Mode 2 are being displayed
press the **Start/Stop** button for about 3 seconds for the transmitter signal. The second hand stops, the transmitter signal
starts ("RX" and blinking dots appear in the lower right LCD Display),
this procedure lasts about 3 to 8 minutes. If the transmitter signal was successful, the antenna symbol appears in the upper right LCD field. (The automatic transmitter signal takes place every night between 3 a.m. and 4 a.m. It is not active in the manual mode,
when the stop watch is running, or the storage cell is not charged enough. The best reception is in closed rooms, usually on the window sill
or in the open air). **Please proceed according to point 7 of these operating instructions for manual activation/deactivation of summer time (DST).**




*the transmitter signal occurs*

**4. Changing digital world time (Digital World Time display in the lower right display)**

Proceed as follows to change the time zone of the digital world time display:
If Modus 2 is being displayed (lower right LCD Display shows any time zone), press **SET** for about 3 seconds. "T2" will now appear in the upper LCD Display. The world time zone in the lower right display is blinking. Now press **Start/Stop** to change the world time zone. Then press **MODE** to get to the next setting (DST/Summer Time)("ON"/"OFF"). Activate/deactivate after pressing **Start/Stop**
According to your setting, the symbol "DST" will appear in the lower right display. Now confirm with **SET.** The digital world time will be displayed with the settings just made.

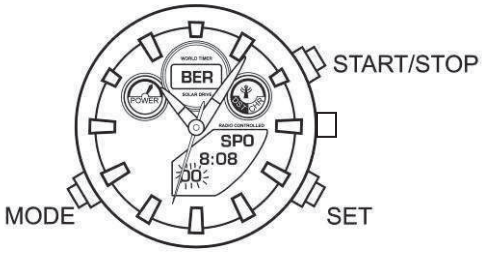
**5. Stop watch**

By pressing the **MODE** button, you reach the stop watch ("**STW"** appears in the lower right display and the symbol "CHR" (chronograph) is now shown in black in the upper right display), see Modus 3). Press **Start/Stop** to start and stop the stop watch. By pressing **SET** you set the stop watch back to zero.

**6. Manual calibration/basic setting of your clock**

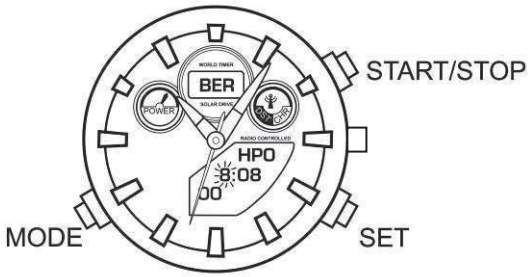
*It is possible that the second hand can lose synchronisation with digital time. This can happen due to electro magnetic sources or strong shaking or an erroneous/weak reception of the radio signal. In this case it is necessary to re-synchronise the clock hands with the digital display.*

(1)
Press **Start/Stop** and **SET** for about 5 seconds in Modus 1 for this purpose.
The upper LCD Display now shows "CAL," the lower display shows
SPO (second position) and a digital time. The seconds field is blinking. You must now adapt the displayed digital time to the analogue time shown. By pressing the **Start/Stop** button step by step, first let the second hand turn to 12 o'clock. When the second hand is exactly on 12, press **MODE** to confirm.

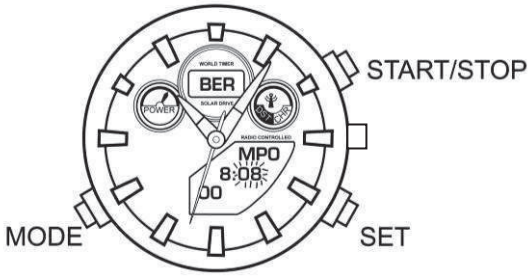


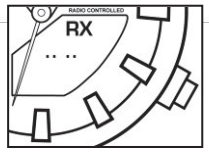
*Continuation of point 6. "Manual calibration/basic setting of your clock"*

(2)
The LCD Display now changes to "HPO" (Hour Position) and the digital hour blinks. Press **Start/Stop** to set the digital hour to the analogue hour. Now press **MODE** to confirm and to get to the next setting.




(3)
The LCD Display now shows MPO (Minute Position) and the digital minute blinks.
Press **Start/Stop** to set it the same as the analogue minute. You can then end calibration by quickly pressing **SET,** so that "RX" appears in the lower right LCD Display in the upper LCD Display. Signal searching now starts and the hands start turning after a short time (transmitter signal).
If reception is successful, the antenna symbol appears in the upper right LCD Display and the radio time is displayed.
If the transmitter signal is unsuccessful, the clock hands go back to the last received time and the antenna symbol is not visible. In this case, repeat manual calibration at another location, since the radio signal could not be received.




**7. Changing the analogue time zone (clock hands) and activating/deactivating summer time (DST)**
If Modus 1 is being displayed, press the **SET** button for about 3 seconds. You now change to the program mode "T1". The analogue time zone is now blinking in the upper display.
Press the **Start/Stop** button to change the time zone for analogue display. Press **MODE** to confirm the selected time zone and to set DST (Daylight Saving Time/Summer Time)("ON"/"OFF") in analogue time. "ON" or "OFF" will now appear in the upper display
. Press **Start/Stop** to deactivate/activate this function. The "DST" symbol is shown in black in the upper LCD field if summer time has been set.
Now finally confirm your settings by pressing the **SET** button. The clock will now set itself to the selected settings.
If you are in the reception area of the radio signal DCF77, the transmitter signal (Point 3) and manual calibration (Point 6) are possible in this modus with a subsequent radio signal search.

**8. Manual setting of analogue time and the date (<u>no radio operation</u>), differing from the programmed time zones**
If a time zone is required that is not shown in the programmed world times, please proceed according to this point.
You are in Modus 1. Any time zone has been set. Now press the **SET** button for about 3 seconds. The time zone is blinking in the upper display.
T1 appears in the lower right display. Now press **MODE** two times. The hour is now blinking in the lower right display. Make the changes by pressing the **Start/Stop** button. You can get to the next setting by pressing the **MODE** button. The order of settings is as follows:
<u>Clock time:</u> Hours->Minutes-> Calendar: Year->Month->Calendar day. After you have entered the settings you require, confirm with **SET.**
The clock will now set itself to the selected settings. Radio operation is not active after manual setting of analogue clock time.

**9. Setting the language**
Proceed as follows to change the language of the display of the day of the week:
You are in Modus 1. Now press the **SET** button for about 3 seconds. You now change to the program mode "T1". The analogue time zone will now blink in the upper display. Now press the **MODE** button **7x** (you skip the clock time and date in the lower right LCD Display by doing so), until the day of the week and the date appear in the lower right display and the language abbreviation blinks in the upper LCD display (see *product properties)*
. Now change the language by pressing the **Start/Stop** button between **"GER"** for German/**"FRE"** for French/**"SPA"** for Spanish/ **"ITA"** for Italian/**"ENG"** for English. Press **SET** to end the procedure now that you have selected the language you wish.
The day of the week will now be displayed in the desired language in the lower right LCD Display.

**10. World time: 38 cities**

| | | | | | |
|---|---|---|---|---|---|
| **SAM** | SAMOA | **AUC** | AUCKLAND | **ROM** | ROME |
| **HNL** | HONOLULU | **NOU** | NOUMEA | **MAD** | MADRID |
| **ANC** | ANCHORAGE | **UTC** | Coordinated Universal | **LON** | LONDON |
| **BER** | BERLIN | **AZO** | AZORES | **GUM** | GUAM |
| **CAI** | CAIRO | **LAX** | LOS ANGELES | **JNB** | JOHANNESBUR |
| **SAN** | SAN DIEGO | **MOS** | MOSCOW | **DEN** | DENVER |
| **DXB** | DUBAI | **CHI** | CHICAGO | **KHI** | KARACHI |
| **DAL** | DALLAS | **DEL** | DELHI | **MEX** | MEXICO |
| **DAC** | DHAKA | **NYC** | NEW YORK | **BKK** | BANGKOK |
| **CCS** | CARACAS | **HKG** | HONG KONG | **RIO** | RIO DE JANEIRO |
| **BJN** | BEIJING | **SAO** | SAO PAULO | **SIN** | SINGAPORE |
| **BUE** | BUENOS AIRES | **TYO** | TOKYO | **MID** | MID ATLANTIC |
| **SYD** | SYDNEY | **PAR** | PARIS | | |

**11. Declaration of conformity**
We hereby declare that this wristwatch complies with the fundamental requirements and further relevant regulations of Directive 1999/5/EC.

**12. Information regarding environmental protection**
Disposal of used devices. At the end of its service life, this product must not be disposed of with your normal waste, but instead must be returned to a recycling facility for electric devices. This is indicated by the symbol on the product or in the user manual. The materials are recyclable in accordance with their marking. By reuse, recycling or other forms of utilizing old devices you are assisting considerably in the preservation of the environment. Please contact your local authorities to retrieve the address of your nearest disposal facility. Disposal of packaging materials. Packaging materials are raw materials and can thus be recycled. In the interest of environmental protection, please recycle them properly. Your local authorities will gladly inform you.

**13. This product complies with the EMC Directives of the EU.**

ENG – 03/15



Trend News Europe GmbH, Eichholzer Str. 3c, D-21436 Marschacht