

# Installation Instructions for the Digital-Clock AMC-40xx

## Turning on the clock

Switch on the clock by means of the slide switch on the reverse side. All segments are now visible in the display for a short moment. The clock switches automatically to radio reception (standard setting) **for a maximum of 20 minutes**. Now the DCF-indicators are shown in the left digit of the upper line. Two points show information of the reception quality. The upper point should blink once per second. The lower point is switched on when 4 correct impulses have been received and switched off after missing impulses. This gives you the possibility to check how good the reception in particular areas is. The clock requires 3 minutes of proper reception to indicate time and date.

## How to proceed in case of radio interference

Sources of interference such as television, monitors, computers, metal walls or buildings with reinforced concrete walls may deteriorate or even prevent reception. Check the receiving quality by watching the two indication points. If the lower point is often invisible please change location. Put the clock on your window sill where you will have the best reception. **Avoid moving the clock during the reception process!**

**In case of enduring interference, there are four options to solve the problem:**

- 1) Install the clock somewhere else in the room in order to obtain best receiving results.
- 2) Change the clock to quartz-controlled mode. (see: Setting of the Operation Mode)
- 3) Keep the clock in the radio mode but set the current time manually for the present. At 2 and 3 a.m. for 20 minutes each, the clock will attempt synchronisation with radio operation. Sources of interference such as computers and neon lamps are disconnected at night enabling improved reception. Should these attempts however not be successful, the life of the battery will be reduced due to longer receiving hours at night.
- 4) An external antenna is optionally available. Connect this antenna to the clock and install the antenna cable at a place with a better reception quality. If the cable is not long enough, it can be extended up to max. 30 m. We recommend the cable: **I-Y(ST)Y 2x2x0.6**. Therefore please lay the shielding and free lead to the 0-volt phase of the cable and connect it to the antenna. The colour code of the antenna cable is as follows: White = +3V, green = data, brown = 0V. You will find the connection next to the on/off-switch via a 3-pole-connector.

## Setting of the Operation Mode

Before you change the operation mode, the hands of the Analog-Clockwork must be adjusted manually to 12 o'clock, otherwise the clock would indicate a wrong time. The hands can be adjusted with the little knurl on the backside of the clock. You can turn the knurl into both directions. The Operation mode can be chosen by pressing and holding one of the buttons during the switch-on phase. Keep the relevant button pressed, switch on the clock and wait appr. 2 seconds, then release the button.

**M** activates the quartz operation mode and deactivates the reception of the DCF-77 radio signal, whereas **S** activates the DCF-mode and switches to radio operation. **The last selected mode will be saved and automatically activated when the clock will be switched on again.**

## Manual Setting of Time and Date

In order to get to the time and date setting, turn on the clock and press the **M** button. Preferably proceed as shown in the example below. By actuating the **S** button for entering hour → minute → day → month → year you can make changes in the sequence as indicated. Press the **+** button for setting the chosen values. Save and terminate the settings by pressing the **M** button and the clock will show the changed settings.

### Setting example

Press '**M**' once and set the hour with '**+**' → press '**S**' once and set the minute with '**+**' → press '**S**' once and set the day with '**+**' → press '**S**' once and set the month with '**+**' → press '**S**' once and set the year with '**+**'

Now you have done all settings in this menu and by pressing the '**S**' button you would return to the beginning of the cycle, which means you would return to the hour setting. Therefore please press '**M**' to terminate all settings. The seconds will be set automatically to zero and will start counting from this point. The clock will return to normal operation mode and all your executed settings are stored.

## Setting of the timezones

The timezone for Germany, Austria, Switzerland, France and Benelux is already pre-set by our factory to +1 hour UT (Universal Time) and **only must be changed if the time deviates from this timezone** e.g. in Great Britain. Therefore you can set an '**Offset**' which adds or deducts time of the received radio-time (regarding UT). Then the possibility is given to use the clock as a UT-Clock or to use the clock in close-by timezones, which are still able to receive the DCF-77 signal from Frankfurt.

Press the button '**S**' during the normal operation mode and the display will now indicate '**Offset:**' in the upper line the hours (the first two digits) and the minutes (the last two digits) in the lower line. By pressing '**M**' for **+30 minutes** and '**+**' for **-30 minutes** the offset can be set between +/- 12 hours. By pressing '**S**' another time you will terminate and store the new settings. For operation in the above mentioned timezones '+0100' is pre-set.

**Please note: the clock will only change to the new settings after the next DC-Synchronisation.**

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## Setting of summer- / wintertime parameter

The summer- / wintertime settings are due to legal provisions, but can be changed in case of a possible change of these times. You get to the operation mode for summertime by pressing the '+' button during normal operation mode. Now the clock shows 'So:' for summertime and either 'On' (automatic change over for summer- / wintertime) or 'OF' (no automatic change over). You can change between 'On' and 'OF' with the button '+'. In the position 'OF' the clock returns to normal operation mode after pressing the button 'S'. If you change to position 'On' you can enter the data for the beginning and ending of the summertime after pressing the button 'S'. Or if you press 'S' a few times it will return to the standard settings. Therefore the button 'S' must be pressed as long as the normal operation mode will appear on the display again (4 times).

## Setting of beginning / end of summertime

Change over of the time takes place always on Sundays, so that only the two months and the equivalent Sundays must be set. First, summertime start-dates will be asked for. The clock displays the start month as number: the month is blinking and can be set with the button '+' between 1 and 12. You can change to the equivalent Sunday with the button 'S'. Again you can now choose with '+' between the numbers 1 to 4 and 'L'. The numbers 1 to 4 represent the different Sundays of the month and 'L' represents the last Sunday during one month. Please press the button 'S' in order to finish your entries. Now you can enter the data for the end of summertime exactly with the same method. After termination of all settings please press 'S' again in order to return the clock to normal operation mode. All settings are now stored. **For Germany the last Sunday in March is pre-set from our factory as the beginning of summertime and the last Sunday in October is pre-set as it's end.**

## Batteries

The clock has four AA batteries. In order to remove the cover of the battery compartment please press it slightly inward above the word 'press' and then draw it off downwards. If you replace batteries please replace them all together at once.

## External connection for DCF-radio receiver:

A DCF-Antenna can also be connected to the backside of the clock. Therefore please set the equivalent Dip-Switches as shown below:

### Setting of the Dip-Switches on the backside

DIP-Switch	ON	OFF
1,2,3	Language selection for weekdays, please see below schedule	
4	Date: TT.MM.JJJJ	Date: TT, month full written text
5	Upper line indicates the time	Upper line indicates the weekday
6	Lower line indicates the day parts	Lower line indicates the date
7,8	Please use internal DCF-Antenna	Please use external DCF-Antenna

### Language settings for displaying the weekdays by Dip-Switch 1, 2 und 3

DIP-Switch 1	DIP-Switch 2	DIP-Switch 3	Language
<b>Off</b>	<b>Off</b>	<b>Off</b>	<b>German</b>
On	Off	Off	English
Off	On	Off	Dutch
On	On	Off	French
Off	Off	On	Spanish
On	Off	On	Polish
Off	On	On	Turkish
On	On	On	Italian

Displays in **bold letters** are set ex-works.

### Day parts displayed in relation to the time

00:00 – 05:59	Night
06:00 – 08:59	Morning
09:00 – 10:59	Pre-noon
11:00 – 12:59	Noon
13:00 – 17:59	Afternoon
18:00 – 21:59	Evening
22:00 – 23:59	Night

If you have any question regarding installation, please do not hesitate to contact us: +49 (0)202-2641722. We will be happy to provide you with help.

