

# MOUNTING AND INSTRUCTION MANUAL

## Analogue clock AirPort24 radio telegram

*AP0. ....P0*



*AP0. ....M0*



## The functional principle of *AirPort24* radio-controlled slave clocks

*AirPort24* is a master and slave clock system that transmits time and date information wirelessly via radio (869.525 MHz). Range in buildings up to 250 m in a radius around the *Airport24* transmitter, up to 1,000 m in clear view, extendable with *Airport24* repeater.

### Commissioning (battery operation 1.5 V)

In the case of battery-operated *AirPort24* radio-controlled slave clocks, insert 2 freshly charged 1.5 V batteries with the correct polarity (baby cell alkaline LR14). The batteries must be inserted as close as possible to the intended final installation location to check whether there is sufficient radio reception. Please only use alkaline manganese batteries. When the batteries are inserted, the *AirPort24* receiver's clockwork reception system switches on. First the hour hand, then the minute and second hands automatically move to the start position "12:00:00". After approx. 3 seconds, the second hand begins to clock, the **green** LED in the clockwork flashes every second, for more information see the section "Reception phase".

### Commissioning (230 V mains operation)

In the case of mains-powered *AirPort24* radio-controlled slave clocks, please connect the 230V power supply to the mains adapter properly and professionally. **Do not insert batteries into the battery compartment!**

**The connection between the power supply unit and movement is interrupted on delivery. Once the 230 V supply has been established, the connection between the power supply unit and the movement must be established. To do this, plug the loose wire from the power supply unit output into the luster terminal of the movement cable, see page 6.**



**Safety note:** The 230 VAC mains connection may only be carried out by qualified and competent personnel (**electricians**). The applicable national safety regulations must be observed and complied with.

After power is applied, the *AirPort24* receiver's reception system switches on. First the hour hand, then the minute and second hands automatically move to the start position "12:00:00". After approx. 3 seconds, the second hand begins to clock, the **green** LED in the clockwork flashes every second.

## Reception phase

If the *AirPort24* slave clock receives the time telegrams from the *AirPort24* transmitter or the *AirPort24* repeater, this is indicated by the first flashing of the **green LED** and is an indicator of sufficient radio reception. Each further blinking of the **green LED indicates** that the time is being passed on from the *AirPort24 receiver board* to the clockwork electronics and is therefore **no** longer an indicator of sufficient radio reception. If the **red LED** flashes (see Fault on page 3), the *AirPort24* slave clock does not receive any time telegrams from the *AirPort24* transmitter/repeater. If the **green LED flashes**, the second hand moves away from the start position every second. Within approx. 3 minutes, the second, minute and hour hands will automatically adjust to the received time at high speed. The **green LED** goes out. If the **green LED** flashes and you want to know whether there is sufficient radio reception when changing location/position, remove one of the two batteries and insert it again after approx. 5 seconds. For 230 VAC mains-powered *AirPort24* radio slave clocks, disconnect the 230 VAC operating voltage for approx. 20 seconds and then reconnect it. The first flashing of the **green LED** then indicates sufficient radio reception. If the **red LED flashes**, see the following chapter "Fault".

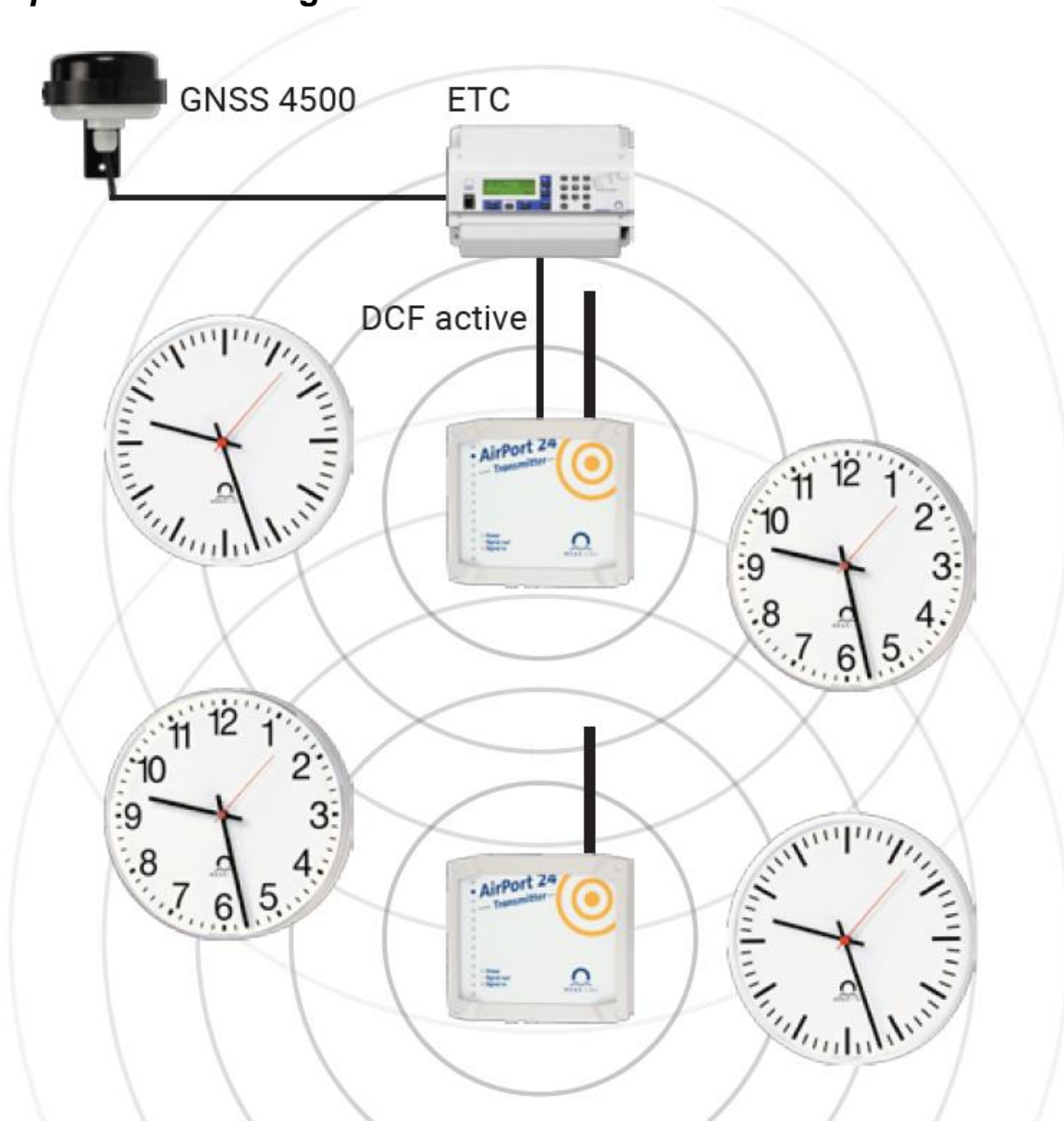
## Malfunction

If the **red LED** flashes and the hands do not move quickly to the start position "12:00:00" or do not clock away from the start position "12:00:00", the *AirPort24* radio-controlled slave clock is **outside** the reception range of an *AirPort24* transmitter/repeater or the *AirPort24* transmitter/repeater is not in operation. For operation/commissioning, see the operating and commissioning instructions for the *AirPort24* transmitter/repeater(s).

## Technical data

- 8-bit microcontroller @ 1Mhz
- Center frequency: 869.525 MHz
- Demodulation: FSK +/-25 kHz
- Bandwidth: 100 kHz
- Battery type Baby cell 1.5 V (LR 14), alkaline manganese, 2 pieces
- Changeover time (winter time/summer time) approx. 33 seconds
- Time comparison with the *AirPort24* transmitter/repeater at every 38th minute
- Quartz time base 32.768 kHz
- Operating voltage range (battery operation) 2.6...3.4 V

## Airport24 radio telegram



Time distribution by radio (869.525 Mhz)

## Notes, safety instructions

### ■ Safety

All-pole disconnection of stationary devices with 230 VAC mains supply voltage must be ensured on site by means of appropriate disconnecting devices!

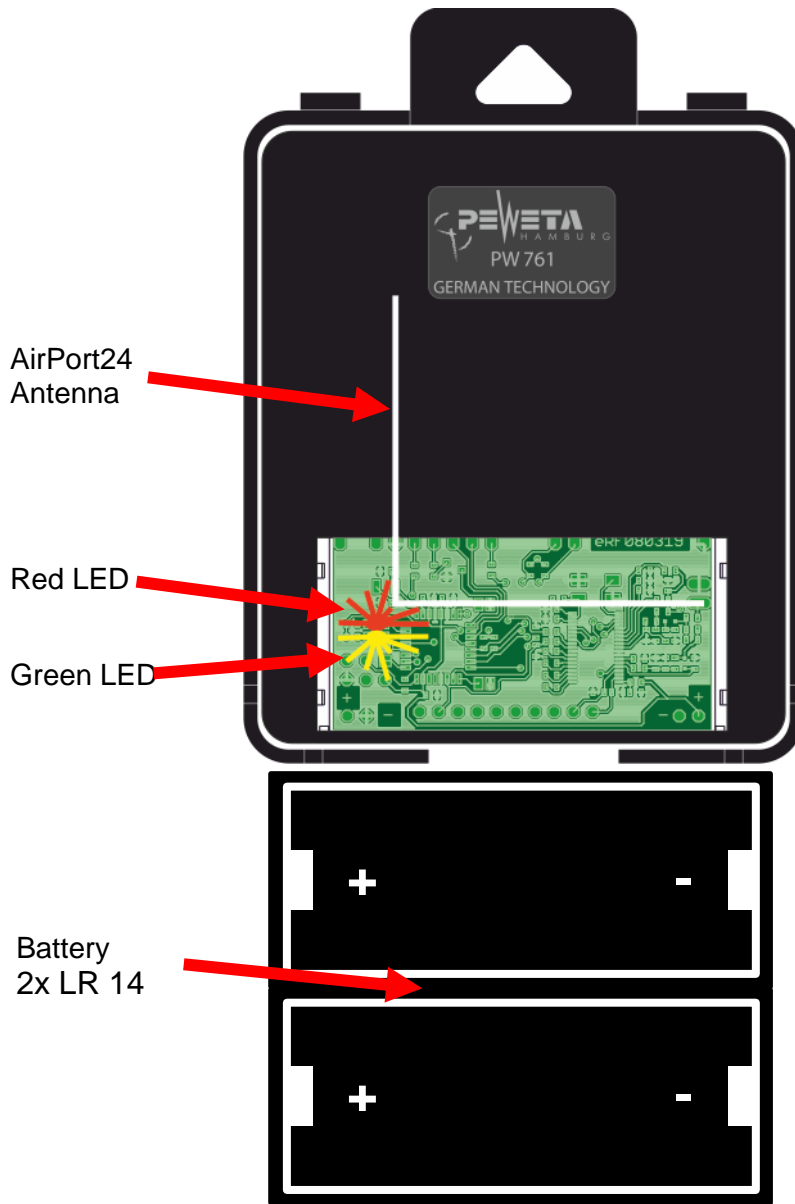
### ■ Maintenance and repair

Maintenance and repair work may only be carried out by qualified and competent personnel or by a specialist workshop or by Mobatime.

### Cleaning

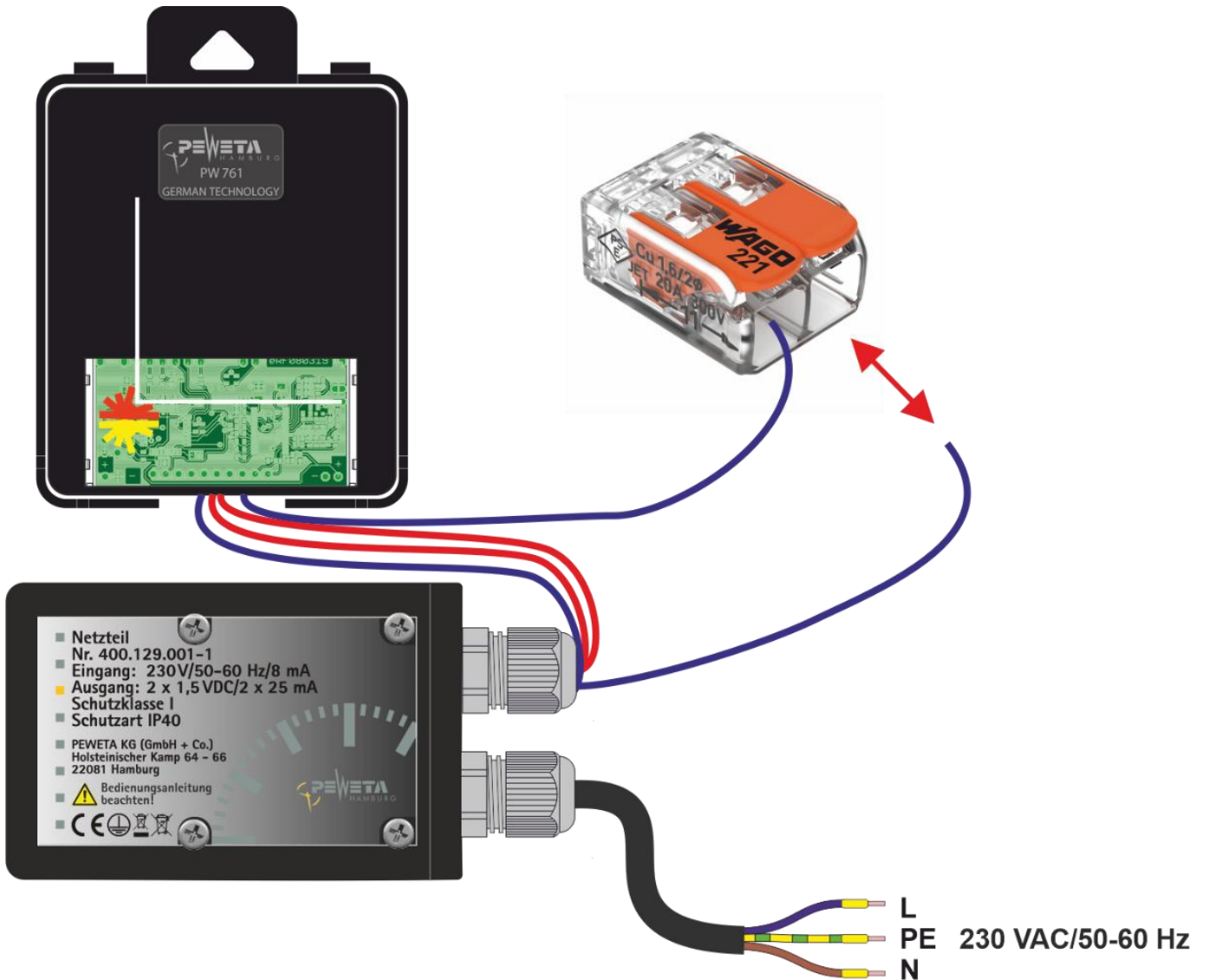
For cleaning, please use a dry, clean, soft cloth. Do not use any chemical cleaning agents.

## AirPort24 movement with Battery

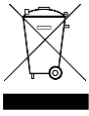


## Connect the power supply unit to the movement

The power supply unit has power reserve accumulators and is disconnected from the movement when delivered. For commissioning, the connection must be established as shown in the following illustration:



## Disposal of old appliances



### Device

At the end of its lifecycle, do not dispose of your device in the regular household rubbish. Return your device to your supplier who will dispose of it correctly.



### Packaging

Your device is packaged to protect it from damages during transport. Packaging is made of materials that can be disposed of in an environmentally friendly manner and properly recycled.

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