

WirelessProfessional

Maintenance Plan



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WirelessProfessional

Wartungsplan

1 Introduction

EN 50172 requires that regular maintenance should be carried out on emergency luminaire systems. Maintenance on WirelessProfessional systems must be carried out at least once a year.

Important: The tasks should be carried out in the order listed in this maintenance plan.

Note: Unless otherwise stated in the respective section, these instructions refer to the maintenance of the WLTOUCH, WLCPC and the WLZent.

Note: In advance of the maintenance, find out from your sales partner whether a newer compatible software version is available for the system to be maintained.

2 Maintenance Procedure

2.1 Perform a Backup of the system

Backup the given state of the system as described in the WirelessProfessional Software manual before starting the maintenance.

2.2 Checking the system for unassociated devices

Check if there are any unassociated devices in the system. If so, the status message **1 device not associated / x devices not associated** is displayed in the **General** tab. In order to register devices, please follow the sequence plan.

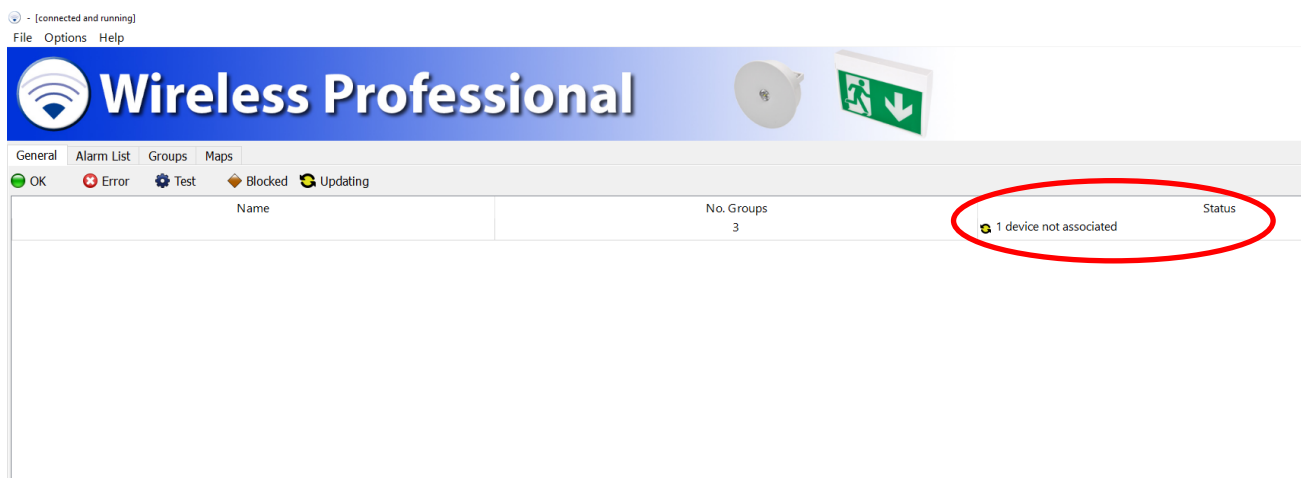


Figure 1: Unassociated devices

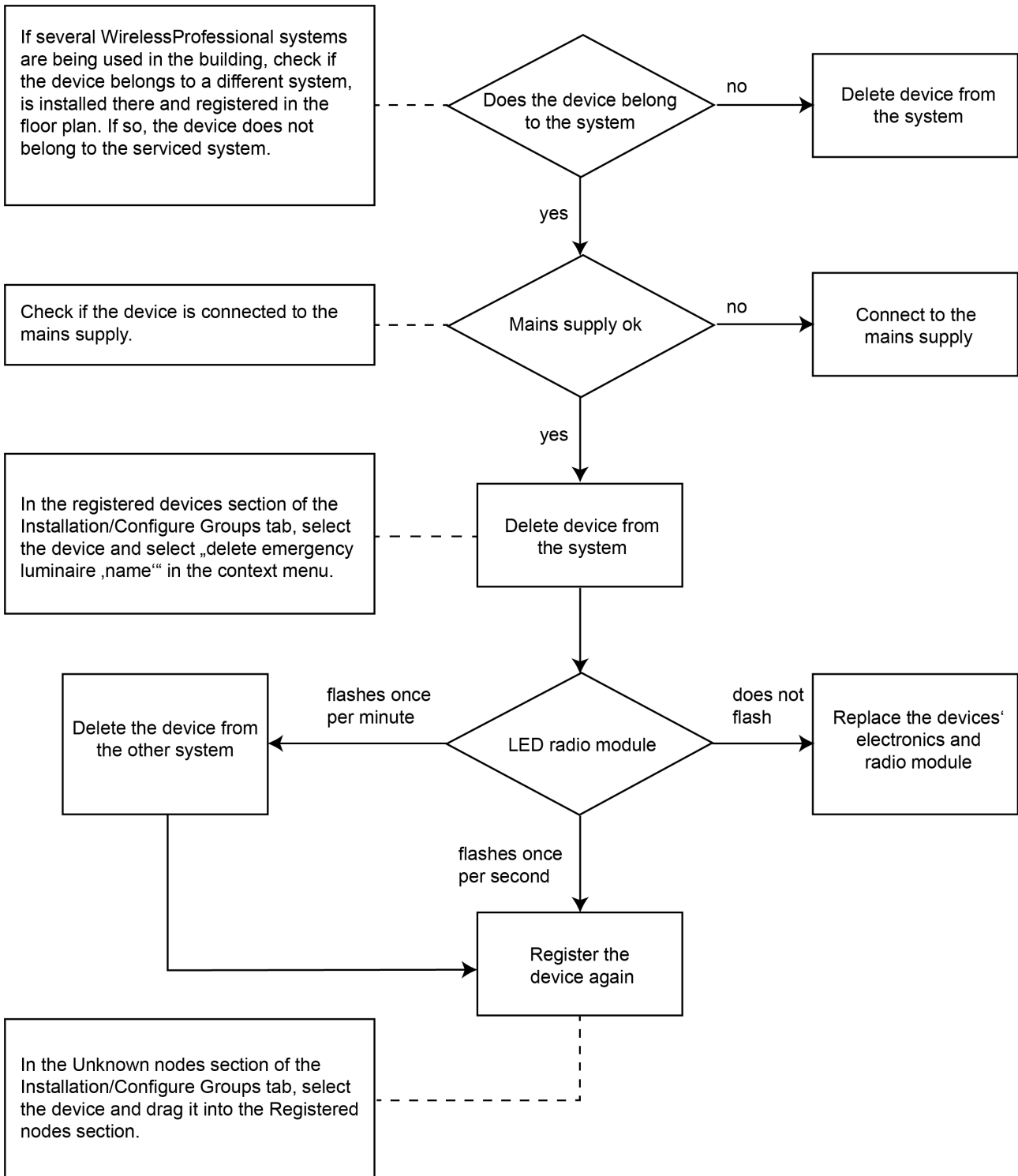


Figure 2: Sequence plan to register unregistered devices

2.3 Checking the IO-Box for unassociated devices

Open the maintenance page and check for unknown devices

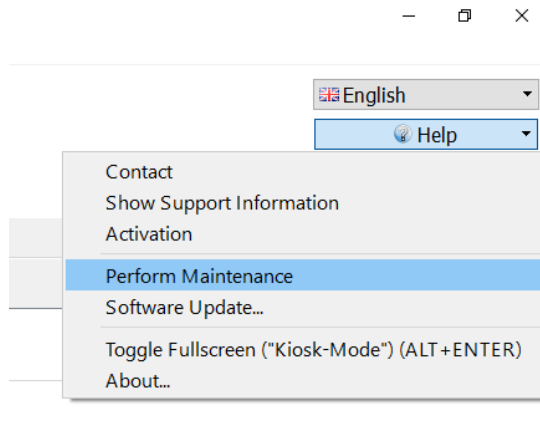


Figure 3: Open maintenance page

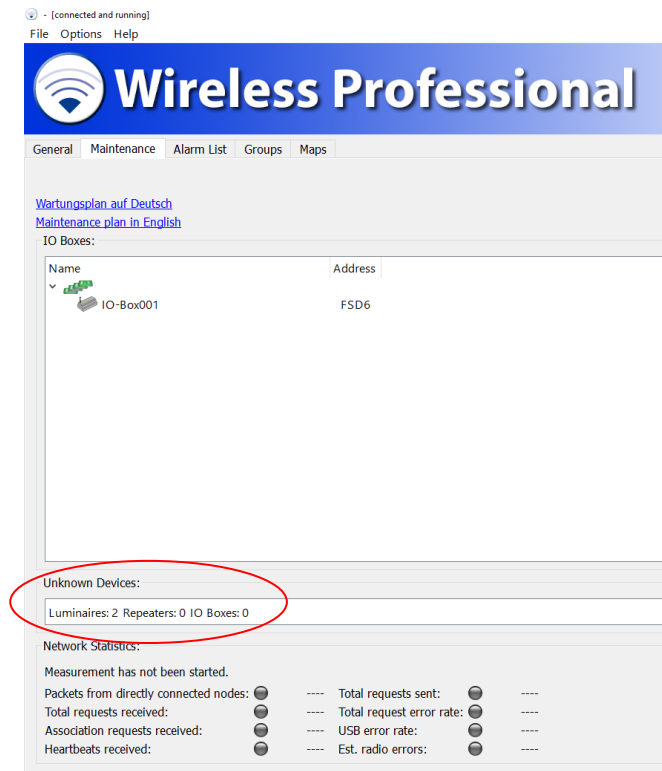


Figure 4: Unknown devices

If there are unknown devices this may have the following reasons:

- The system has been extended and new devices have not been registered yet
- Devices have been changed and the new devices have not been registered yet
- Within the radio range is another WirelessProfessional system which has not been set up completely

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2.4 Solving battery errors

Check if there are any battery errors in the system. A battery error occurs if a device's battery is not charged.

If there are any errors in the system, the status message **errors on x devices** is displayed in the **General** tab. If there are errors present, switch to the **Alarm List** tab (Figure 5: error). Clarify if there are any devices with the error message **Battery error**. Devices with the error message **Last test failed: Battery error** are not addressed in this part of the maintenance plan.

If there are any devices with the error message **battery error**, follow the sequence plan for error elimination in Figure 6: .

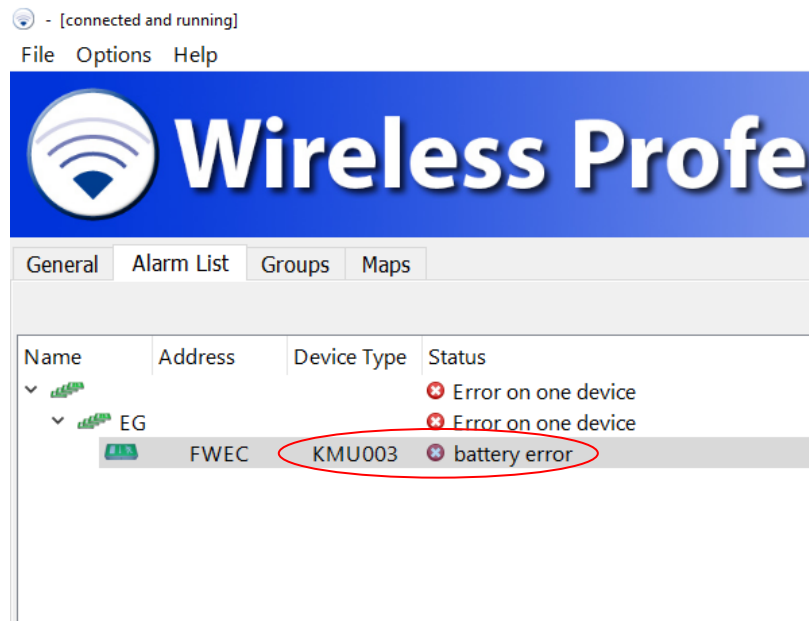


Figure 5: Battery error

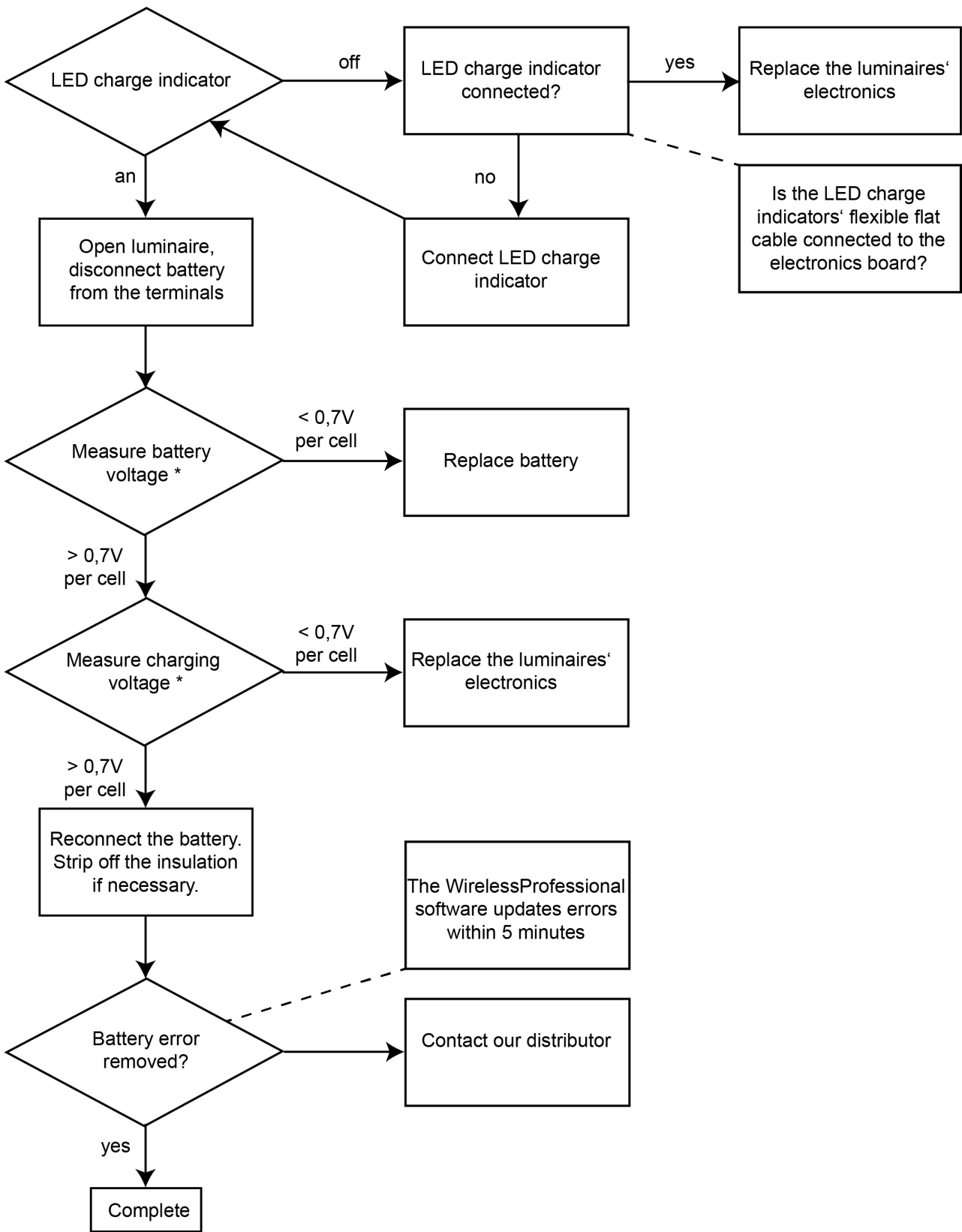


Figure 6: Sequence plan to eliminate battery errors

*only for devices with NiMH battery

2.5 Checking the IO Box

If there are IO Boxes in the WirelessProfessional system, their functionality needs to be checked. All the IO Boxes present in the system are displayed in the lower section of the **Maintenance** tab. If the **Maintenance** tab isn't displayed, open it by selecting the option **Perform maintenance** in the **Help** menu.

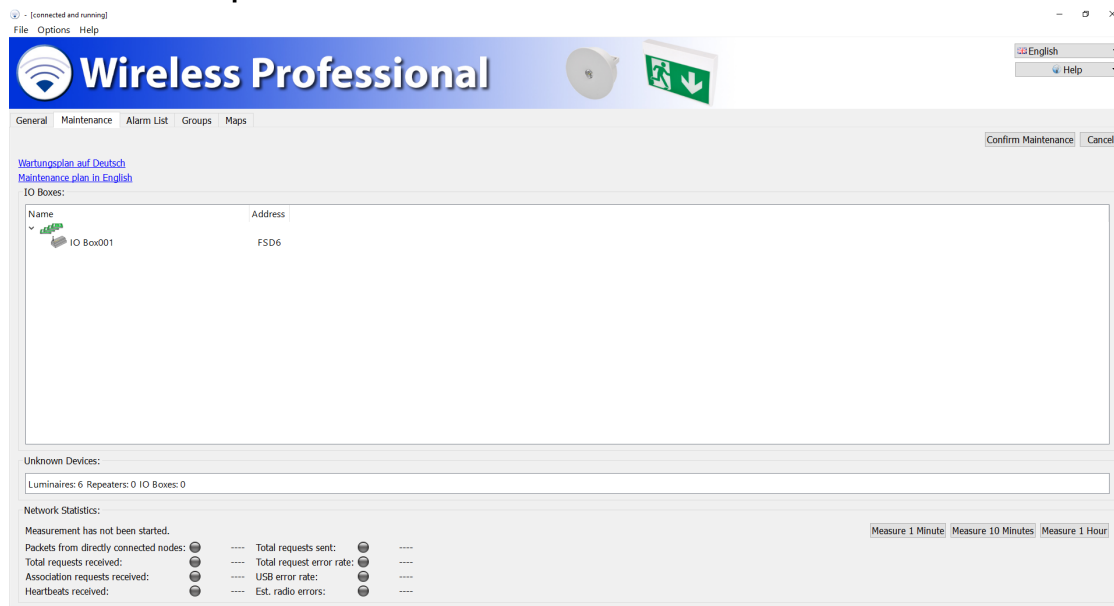


Figure 7: Maintenance

2.5.1 Checking the 24V DC voltage

Use a multimeter to check if the voltage at the 24 V DC output of the IO Box is 24 V DC.

If the voltage measured at the output is not 24 V DC: remove the conductors from the output terminals and remeasure the voltage at the terminals.

If the newly measured voltage is now 24 V DC at the output: check the conductors at the 24 V DC output for short circuits and eliminate them. If the newly measured voltage is not 24 V DC at the output: replace the IO Box.

2.5.2 Checking the relays

Check the function of the IO Box relays K1 – K3. In the **Maintenance** tab, click or touch twice on an IO Box entry in order to open the device details window. Select the **Configuration** tab in the device details window (Fig. 5). Touch or click on an output **T**-button in order to switch its relays. A sound should be audible when switching the relays. Using a continuity tester or a voltmeter, check if the relay contact switches correctly at the corresponding output. If it does not occur, the IO Box should be replaced.

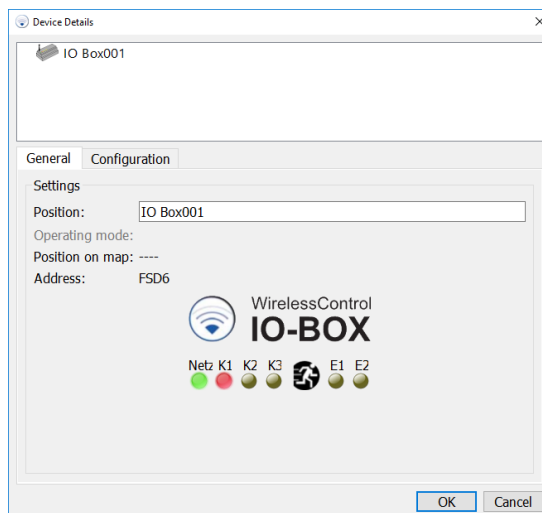


Figure 8: IO-Box device details window, configuration tab

2.6 Checking the date of the last duration test

EN 62034 requires a maximum time interval of one year between two duration tests. Check if a duration test has been carried out in the last 12 months by opening the inspection log in the **Alarm List** tab and checking if the entry "A automatic/manual capacity test was started" has been recorded at least once in the last 12 months.

If such a duration test has not been recorded in the inspection log in the last 12 months, then it must be carried out. Arrange an appropriate time with the building operator. The relevant regulations, building shutdown periods and battery recharging times should be taken into consideration here. The duration test can be started using the **Start Capacity Test** button in the **General** tab.

Once the duration test has been completed, eliminate any errors that may have occurred.

Please note: It is possible to set an automatic duration test in the WirelessProfessional system (refer to section 3.9 of the user manual **WirelessProfessional Setup and Operation**). The relevant regulations, building shutdown periods and battery recharging times should be taken into consideration. The building operator should also be consulted.

2.7 Checking the parameters of the wireless network

In the **Maintenance** tab, start a measurement for 10 minutes and check whether the color symbols of all measurement results are green after the measurement has been completed (**Fehler! Verweisquelle konnte nicht gefunden werden.**). The measured variables provide information about the current state of the wireless network of the WirelessProfessional system.

If the color symbols of one or more measurement results are red, contact our distributor.

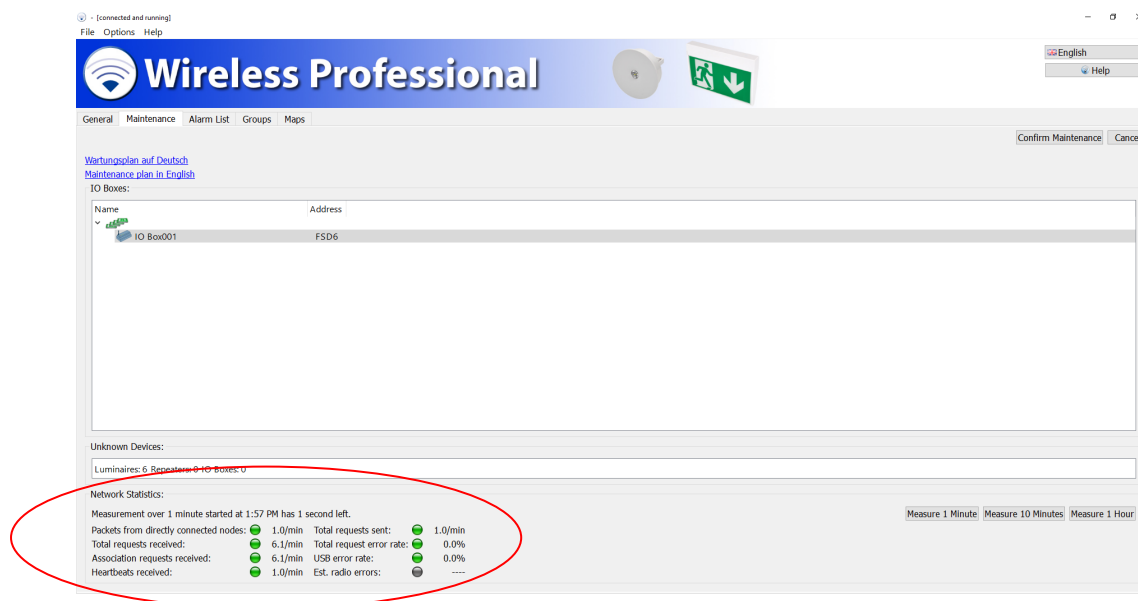


Figure 9: Network information tab, installer user level

2.8 Email delivery test

Note: Requires login as a house technician

If the automatic email delivery function is configured in the WirelessProfessional system, this has to be checked during maintenance. Click on or touch the button **Send Test-Mail** in the **Email** tab and confirm if the sent email is received by the recipient.

If the test email is not received by the recipient please check,

- if the computer is connected to the mail server (e.g. via a local network). If the computer is connected with a network cable, check if the cable is properly connected and intact. If the computer is connected via Wi-Fi, check if the connection is established and working.
- if the recipients' email account is functional, by sending an email from a different email account to the recipients' email account.
- if the connection port to the SMTP server (selected in the **Email** tab) is blocked by the network's firewall. Ask the network administrator if the port is blocked by the firewall.

Note: If you have problems setting up the e-mail function, please contact your administrator or distributor.

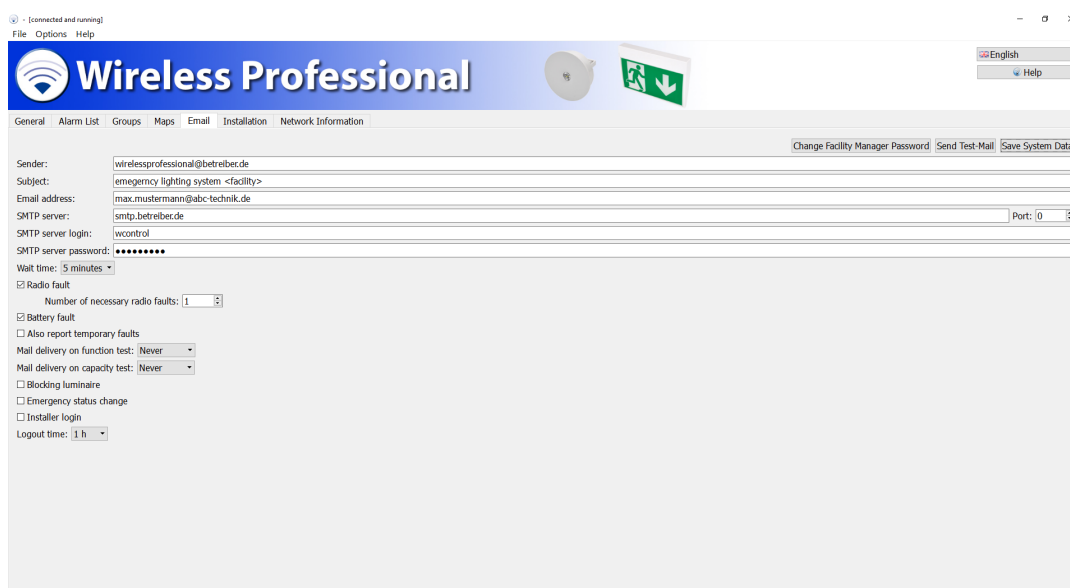


Figure 10: E-Mail

If you need support in setting up the E-Mail configuration, please contact RP-Technik GmbH.

2.9 PC status check

2.9.1 Optical check

Check the WirelessProfessional system for any externally visible damage. If necessary, remove the PC from the wall bracket for the WLTOUCH.

| WLTOUCH | WLCPC | WLZENT |
|---|---|--|
| <ul style="list-style-type: none">• Is the screen damaged (e.g. crack/fissure in the screen)?• Is the PC housing damaged (e.g. cracks or deformations)?• Are the PC's vent openings exposed?• Water marks on the PC housing?• Wall housing damaged?• Housing inside free from dust, deposits etc.?• PC free of dust etc.? | <ul style="list-style-type: none">• Is the PC housing damaged (e.g. cracks or deformations)?• Is the IP-address stated on the label? | <ul style="list-style-type: none">• Is the screen damaged (e.g. crack/fissure in the screen)?• Water marks on the PC housing?• Wall housing damaged?• Housing inside free from dust, deposits etc.?• PC free of dust etc.? |

2.9.2 Checking the computer's battery (WLTOUCH only)

Disconnect the computer from the mains power supply and run the computer on the built-in battery for 30 minutes. If the computer automatically switches itself off within the 30 minutes test time, please contact your distributor.

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2.10 Performing a data backup (WLTOUCH only)

Save the folder C:\WirelessProfessional on an external data storage device (USB stick, external hard drive).

Check if there is a current month backup file on the SD memory card.

Path: D:\WL-Backup

- Is the SD card accessible via Windows Explorer?
- Is the seal of the SD card existing and undamaged?

Note: Backing up the data of WLZENT is described in chapter 15 of the WLZENT manual.

2.11 Replacement of the SD-Card (WLZent only)

The WLZent performs an automatic data backup on a SD card in the background during operation. In order to guarantee data security, the SD card should be replaced after 2-3 years. The replacement of the SD card is described in section 15.3. of the WLZent manual.

2.12 Replacement of the SD-Card and check of the RTC battery (WLCPC only)

In order to guarantee data security, the SD card should be replaced after 2-3 years.

Before changing the SD-Card perform a full data backup.

2.12.1.1 Wireless Professional Version 2.1.1 and older

Connect an external PC to the WLCPC using Win SPC or another FTP program and save the folder /root/Wireless Professional as described in the WLCPC manual.

Then restart the WLCPC. If the system boots normally, the built-in SD card is in a functional state.

Shut down the WLCPC and remove the SD card. Insert the SD card into a suitable card reader which is connected to a PC. Create an image of the SD card using the Roadkil's Disk Image program. Remove the SD card from the card reader and insert a new, empty SD card into the card reader. Copy the previously created card image to the new SD card with the Win32 Disk program. Insert the SC card into the WLCPC and restart the system.

If the Wireless Professional Software starts with the error message about an invalid system date, the RTC battery is empty. The RTC battery is permanently installed and cannot be changed. The WLCPC must be replaced.

Download sources for the software:

Roadkil's Disk image: <https://www.roadkil.net/program.php?ProgramID=12>

Win32 Disk imager <https://sourceforge.net/projects/win32diskimager/>

2.12.1.2 Wireless Professional Version from Version 2.3 on

Wireless Professional Software Version 2.3. uses a USB-Stick to backup the Data. The procedure is described the WLCPC manual.

The WLCPC must be shut down after the backup. The SD card can be exchanged for an SD card with Wireless Professional image. The WLCPC is restarted. After booting, data is restored from the backup data on the backup stick or directly from the old SD card, as described in the WLCPC manual.

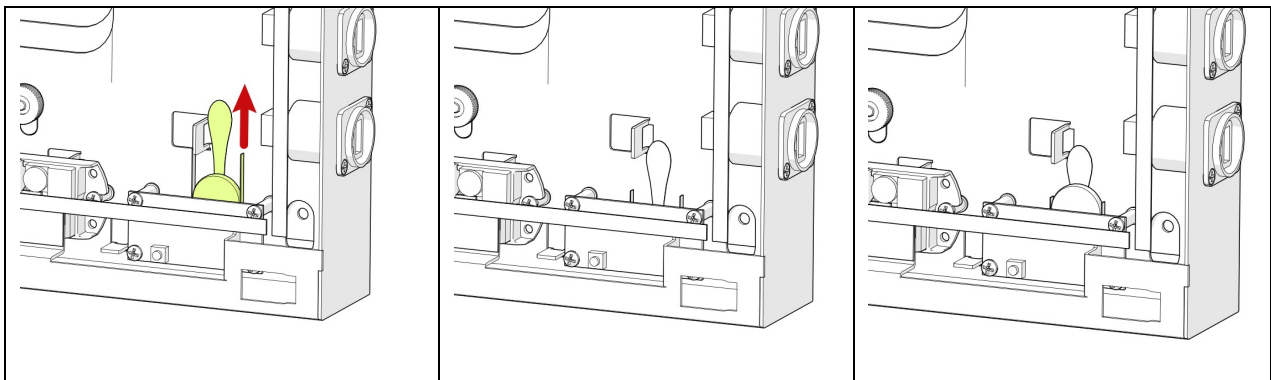
2.12.2 Checking the RTC battery

If the Wireless Professional software starts with the error message about an invalid system date, the RTC battery is empty. Replacing the battery is explained in the next chapter.

2.13 Replacement of the RTC battery (WLZent only)

2.13.1 For WLZent

If the capacity of the RTC battery is exhausted, the Wireless Professional software will no longer start properly. To change the battery, open the WLZent housing and pull the battery out of the bracket using the plastic tab (see illustration). Slide the empty tab back into the bracket. Now insert a new type CR2032 battery into the clip with the negative pole facing forward.



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2.13.2 For WLCP

There are two hardware versions of the WLCP. In hardware version 1, the RTC battery is permanently installed and must be dismantled and replaced with the circuit board, hardware version 2 has an RTC circuit board with a replaceable battery installed.

2.13.2.1 WLCP Hardwareversion 1

Replacement of the battery circuit board

Material and tools:



1x CPC

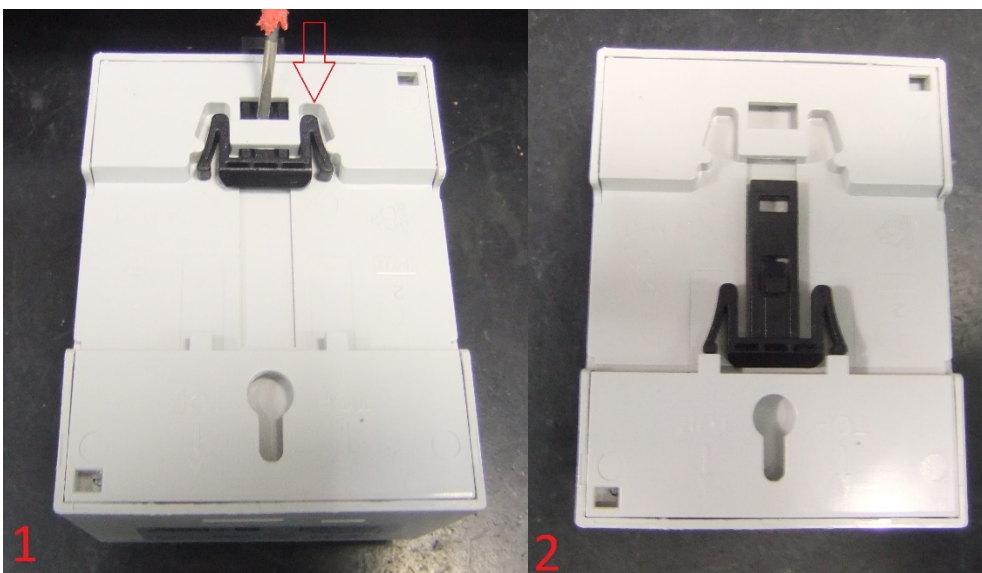
1x knife

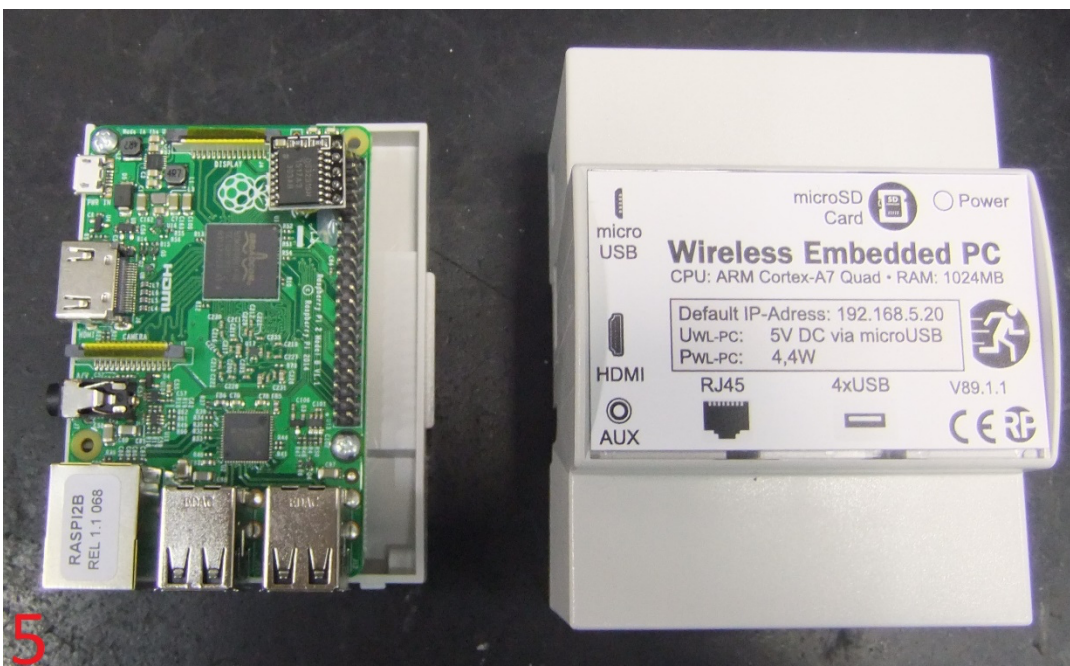
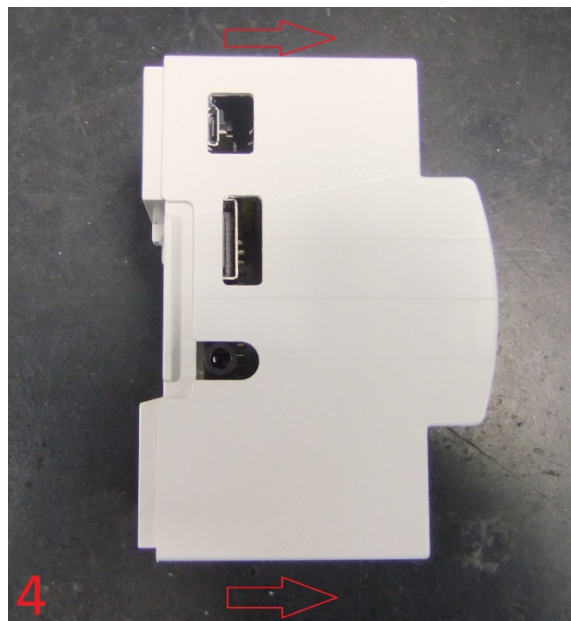
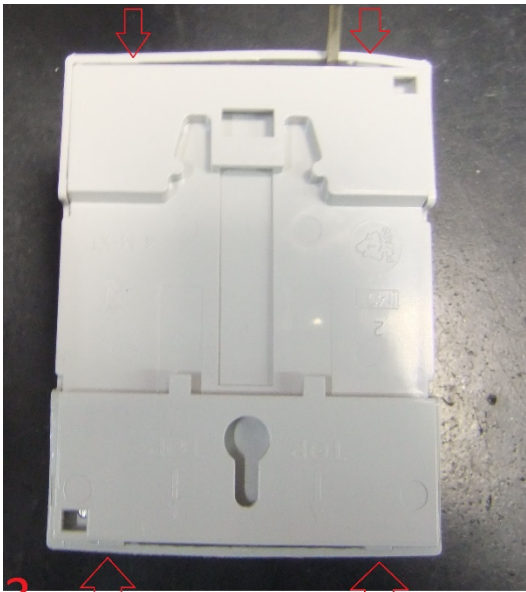
1x new battery circuit board

1x slotted screwdriver

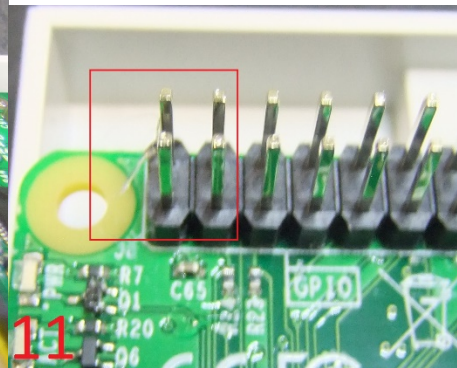
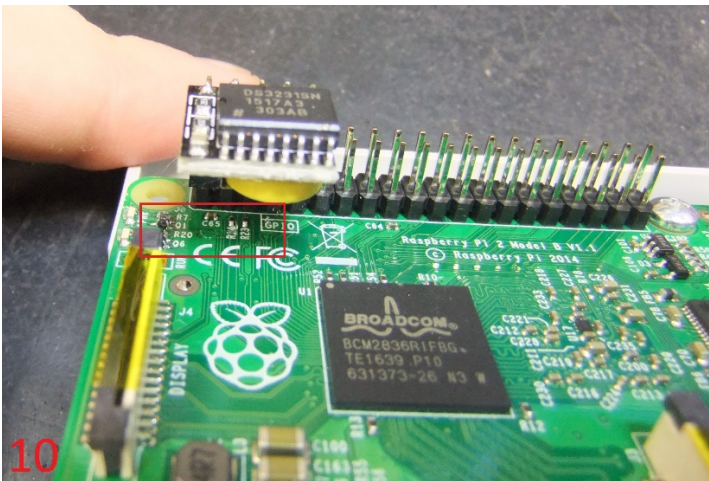
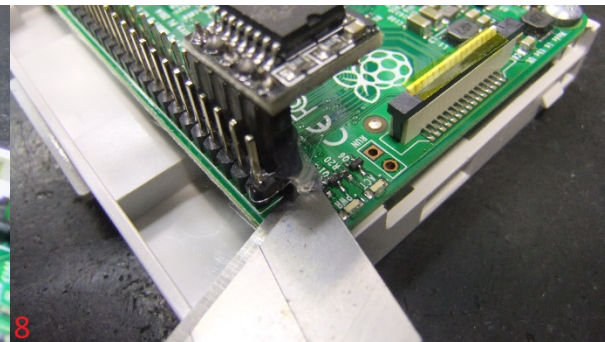
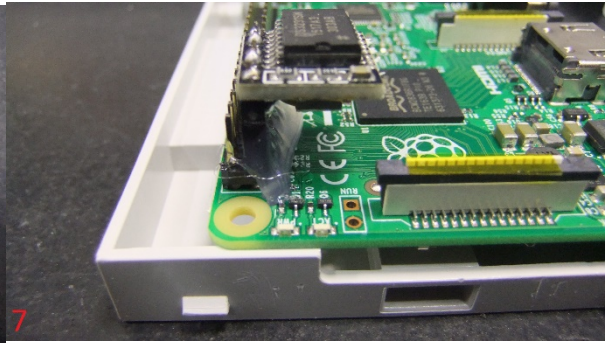
1. Dismantling the housing

- I. Release the safety splint by gently pressing from above (1) and pulling downwards (2)
- II. The CPC housing is clamped, the two halves of the housing must be levered out carefully at the four marked points with a slotted screwdriver (3)
- III. Remove the SD card, then pull off the housing cover. (4) (5)



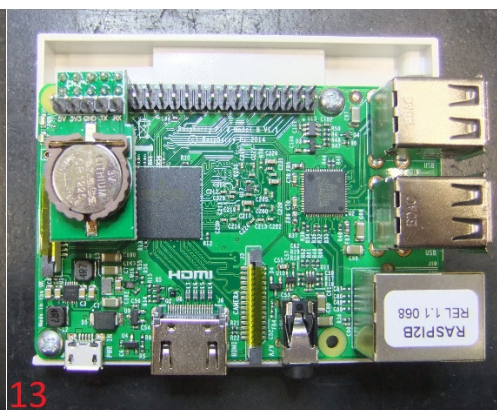
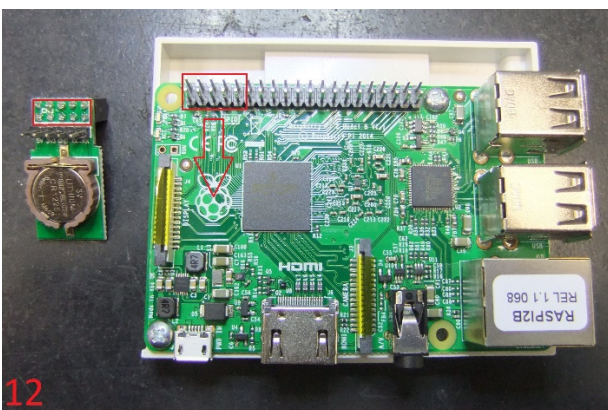


2. Remove the old battery board
 - I. The original battery board is fixed with hot glue and must be removed. (6) (7)
 - II. Carefully pry the rank with a knife. (8) (9) (10)
 - i. CAUTION: There are components under the glue. Ensure that these are not torn off. (10)
 - III. After removing the circuit board, the pins must be cleaned from any adhesive residue. (11)



3. Mounting the new battery board

- I. The new battery board is plugged onto the pin strip as shown in (12). (13)
- II. Re-fixing the board with hot glue can be done, but is not mandatory.

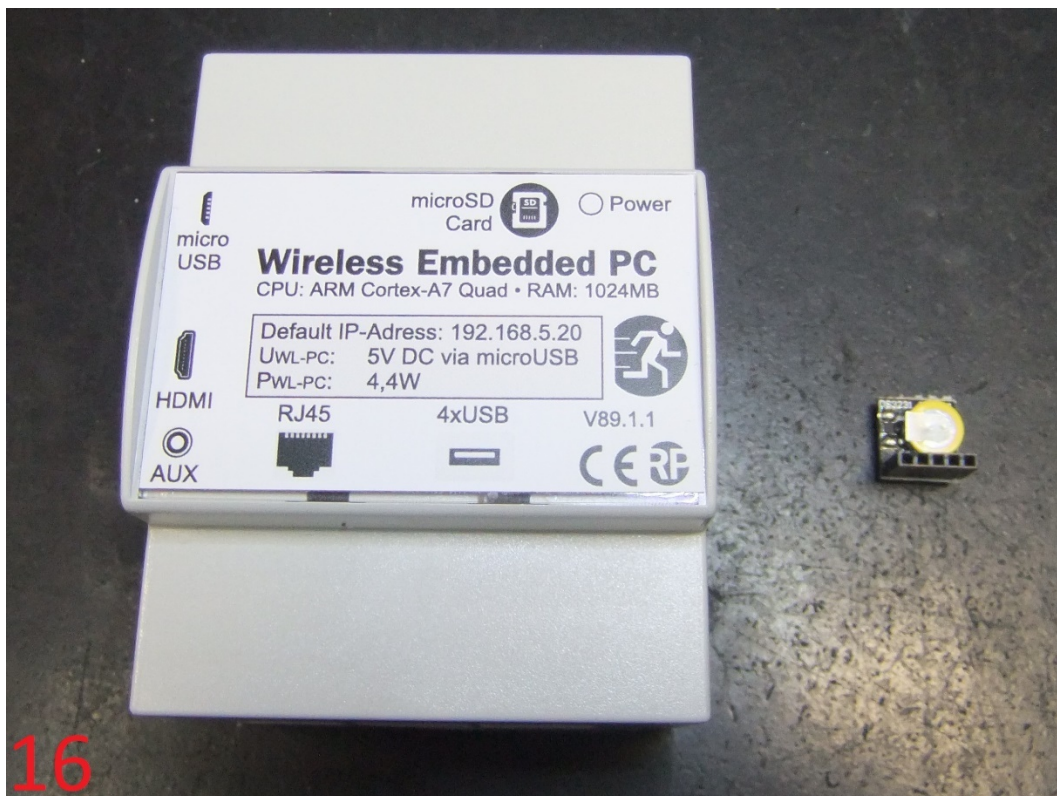


4. Assembly housing

- I. Attach the two halves of the housing according to the cut-outs for connections (14) and close with slight pressure.
- II. Fasten safety splint. (15)



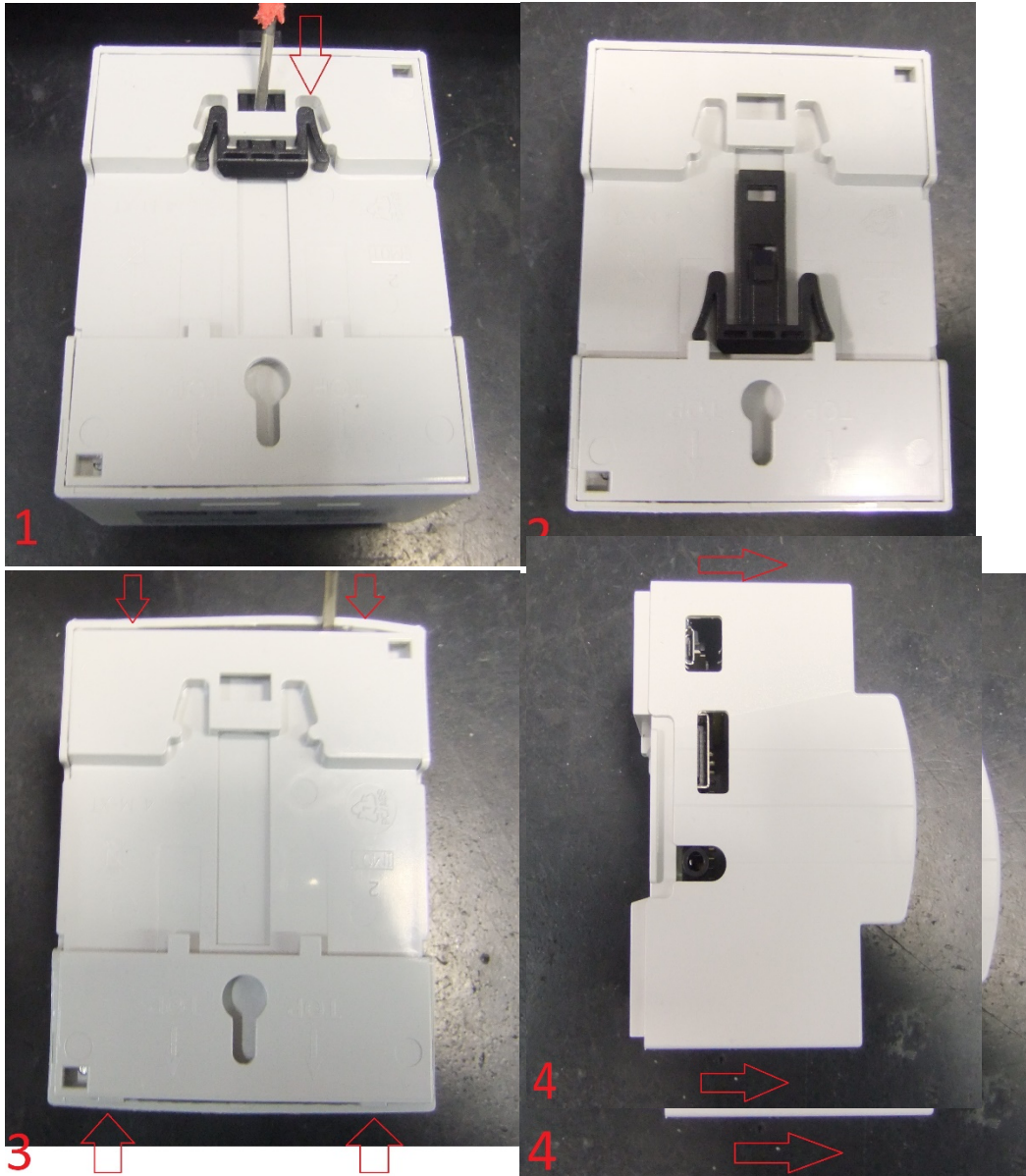
5. Done (16)



2.13.2.2 WLCPC Hardwareversion 2

Hardware version 2 has an RTC circuit board with a replaceable battery. The battery can be easily changed here. Battery replacement is explained in the following steps

1. Dismantling the housing

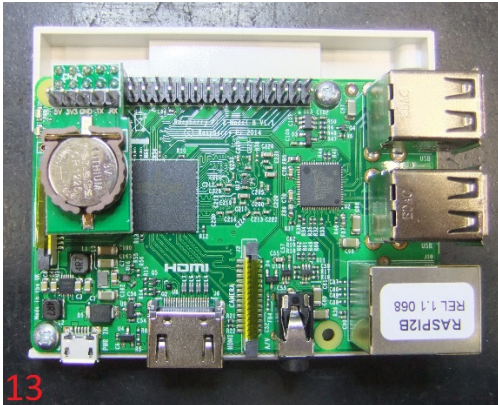


1.1 Loosen the safety splint by gently pressing from above (1) and pulling it downwards. (2)

1.2 The CPC housing is clamped, the two halves of the housing must be levered out carefully at the four marked points with a thin slotted screwdriver. (3)

1.3 Remove the SD card, then pull off the housing cover. (4)

1. Replace battery

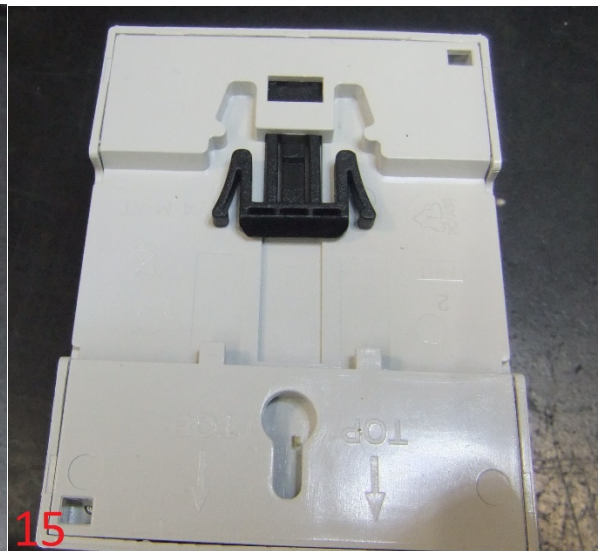


Remove the battery using a suitable tool and insert a new battery.

2. Assembly housing

2.1 Attach the two halves of the housing according to the cut-outs for connections (14) and close with slight pressure.

2.2 Fasten safety splint. (15)



3. Set date & time

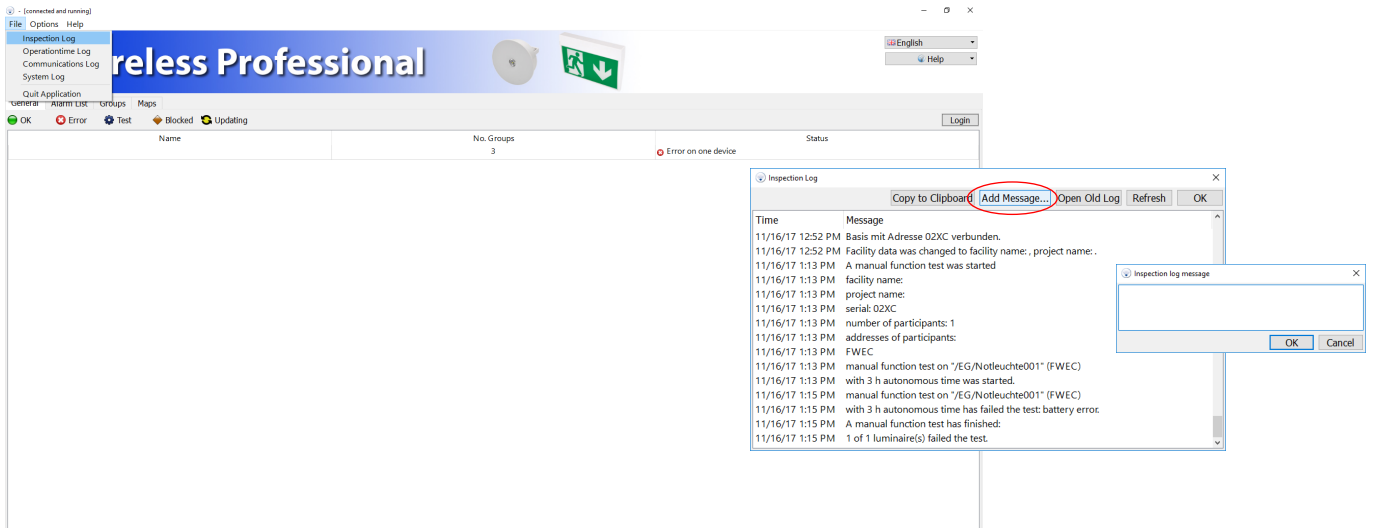
When the CPC is reassembled, it is put back into service. After the CPC has started up, establish a VNC connection to the CPC. The Wireless Professional Software should not be started because the date and time are wrong.

Start the terminal. Enter the command "sudo hwclock --systohc" and then the command "sudo hwclock -set --date="7/20/22 13:05:00" into the terminal, which sets the hardware clock to July 20, 2022 and 13:05. After the setting, a restart must be carried out so that the data is accepted from the hardware clock.

2.14 Documentation of the maintenance

Please enter the execution of the maintenance and the execution of the work in the test book.

Please enter a new message.



3 Revision history

| WirelessProfessional – Maintenance Plan | | |
|---|-----------------------------|---|
| Date | Software-Version / Revision | Comment / Important changes |
| 24.09.2015 | 1.0.0 | Creation |
| 13.11.2017 | 2.1 | Corrections and additions |
| 25.01.2021 | 2.3 | Changes for Software Version 2.3, Added instructions for WLZENT and WLPCP |
| 24.08.2022 | 2.3.2 | Instructions for replacement of RTC battery and SD Card added |

4 Contact information

