Maintenance Plan



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Maintenance Plan

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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.

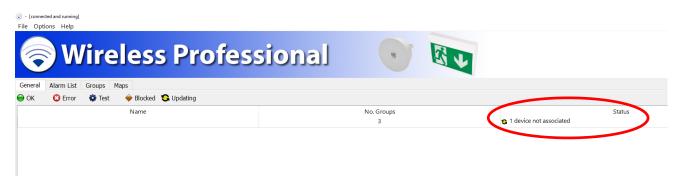


Figure 1: Unassociated devices

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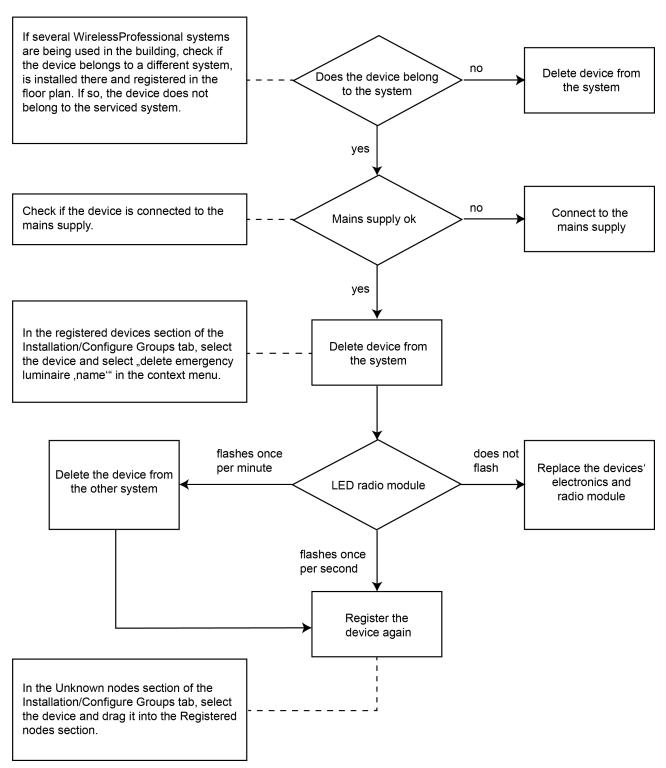


Figure 2: Sequence plan to register unregistered devices

2.3 Checking the IO-Box for unassociated devices

Open the maintenance page and check for unknown devices

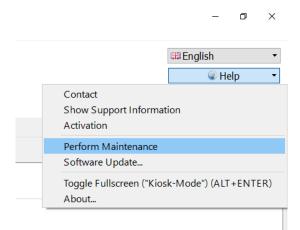


Figure 3: Open maintenance page

	 - [connected and running] File Options Help 	
	🔗 Wireless P	rofessional
(General Maintenance Alarm List Groups Maps	
	Wartungsplan auf Deutsch Maintenance plan in English I O Boxes:	
	Name Add	ess
	✓ ## ↓ IO-Box001 FSI	06
	Unknown Devices:	
$\left(\right)$	Luminaires: 2 Repeaters: 0 IO Boxes: 0	
	Network Statistics:	
	Measurement has not been started.	
		I requests sent: I request error rate:
	Association requests received: O	error rate: O
	Heartbeats received: General Content of the second	radio errors: 🔵

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 an other 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: .

[connected and running]					
File Options	5 Help				
Wireless Profe					
General A	larm List 🛛 (Groups Maps			
Name	Address	Device Type	Status		
×			Error on one device		
👻 🛷 EG			Error on one device		
	FWEC	KMU003	S battery error		

Figure 5: Battery error

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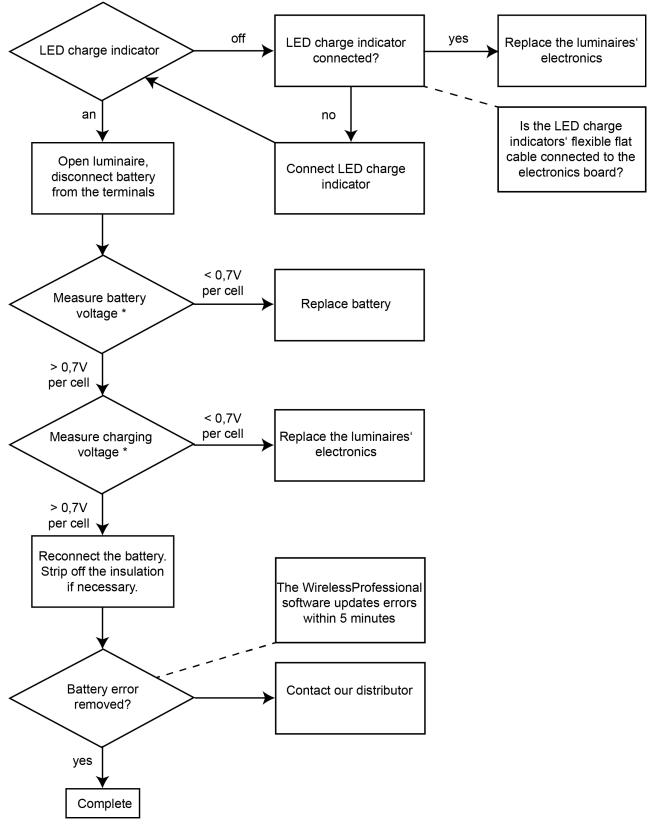


Figure 6: Sequence plan to eliminate battery errors

*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.

File Options Help			
🔗 Wirele	ss Professional	* R V	⊴a English - ⊈ Help -
General Maintenance Alarm List Group Wartungsplan auf Deutsch Maintenance plan. In: English IO Boxes:	s Maps		Confirm Maintenance Cancel
Name V 0 Box001	Address FSD6		
Unknown Devices:			
Luminaires: 6 Repeaters: 0 IO Boxes: 0			
Network Statistics: Measurement has not been started. Packets from directly connected nodes: Total requests received: Association requests received: Heartbeats received:	Total requests sent: Total request error rate: USB error rate: Est, radio errors: 		Measure 1 Minute Measure 10 Minutes Measure 1 Hour

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.

Device Deta	ils		×
01 🧼	Box001		
General	Configuration		
Settings			
Position	IO Bo	x001	
Operatin	g mode:		
Position	on map:		
Address	FSD6		
		WirelessControl	
		Netz K1 K2 K3 🚱 🗎 E2	
			OK Cancel

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.

) - [connected and running] ile Options Help		- a >
🔗 Wirele:	ss Professional	G@English @ Help
General Maintenance Alarm List Groups	Maps	Confirm Maintenance Cance
Wartungsplan auf Deutsch Maintenance plan in English 10 Boxes:		Contrim Maintenance Canc
Name v 🐠	Address	
IO Box001	FSD6	
Unknown Devices:		
Luminaires: 6 Repeaterer 0-10 Boxes: 0		
Network Statistics:		
Association requests received:	1.0/min Total requests sent:	Measure 1 Minute Measure 10 Minutes Measure 1 Hou
Heartbeats received:	1.0/min Est. radio errors: 🕒	

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.

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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.

© - (connected and running) File Options Help	ireless Professional	8	- σ × GiEnglish - GiHelp •
General Alarm List	Groups Maps Email Installation Network Information		
			Change Facility Manager Password Send Test-Mail Save System Data
Sender:	wirelessprofessional@betreiber.de		
Subject:	emegerncy lighting system <facility></facility>		
Email address:	max.mustermann@abc-technik.de		
SMTP server:	smtp.betreiber.de		Port: 0 🗘
SMTP server login:	wcontrol		
SMTP server password	•••••		
Wait time: 5 minutes			
Radio fault			
	ssary radio faults: 1		
Battery fault Also report tempora	. for the		
Mail delivery on function			
Mail delivery on capacit			
Blocking luminaire			
Emergency status ch	ange		
Installer login			
Logout time: 1 h 🔹			

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
 Ist he screen damaged	 Is the PC housing damaged	 Ist he screen damaged
(e.g. crack/fissure in the screen)? Is the PC housing damaged	(e.g. cracks or	(e.g. crack/fissure in the screen)? Water marks on the PC housing? Wall housing damaged? Housing inside free from dust,
(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	deformations)? Is the IP-address stated on	deposits etc.?
etc.? PC free of dust etc.?	the label?	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 performes 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.

Connect an external PC to the WLCPC using Win SPC or another FTP program and save the folder /root/Wireless Professinal 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.

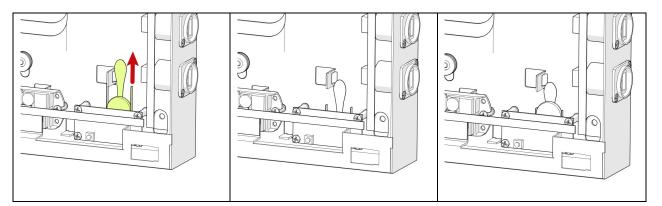
Download sources for the software:

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

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

2.13 Replacement of the RTC battery (WLZent only)

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.



2.14 Documentation of the maintenance

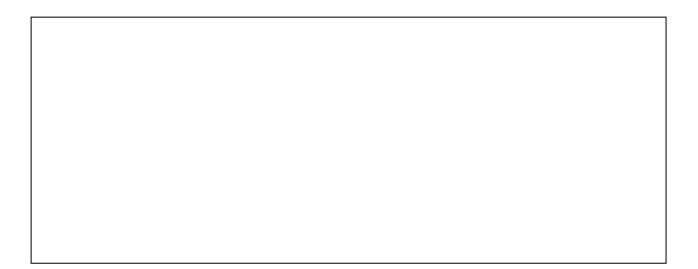
Please enter the execution of the maintenance and the execution of the work in the test book. Please enter a new message.

Communications Communication	· RU	- O × (UEEnglish • Gittep •
General Namm List Groups Maps OK Concernor The Rest Allocked Concernor Concerno		Login
Name	No. Groups 3 O Erro	Status or on one device
		Impettion Log X Copy to Clipboard Add Message 11/16/17 1252 PM Basis mit Adresse 02XC verbunden. N/16/17 1252 PM Basis mit Adresse 02XC verbunden. 11/16/17 1252 PM Facility data was changed to facility name. project name. ************************************

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 WLCPC	

4 Contact information



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