

Operating Instructions

Please Keep Safe for Future Reference

Document Version / Status:	V3.0
Last Revision:	01/07/2019

Contents

1	Revision History	2
2	Symbols and What They Mean	3
3	Warnings	4
4	Safety Information	5
5	Device Description and Usage / Installation Instructions	7
6	Scope of Delivery	9
7	Controlling Elements and Connections	9
8	Commissioning	10
9	Function of the Device	10
10	Cleaning the Device	11
11	Troubleshooting	12
12	Service and Maintenance / Customer Service	12
13	Technical Data	13
14	Disposing of the Device	14
15	Contractual Warranty Terms and Product Liability	14
16	Open Source Software	15

1 Revision History

Date of this revision: 01.07.2019	Date of next revision
-----------------------------------	-----------------------

Revision Number / Date	Author	Summary of Changes	Changes Marked
V1.0 / 08/23/2018	Simon Huber	First draft	N
V2.0 / 14/03/2019	Simon Huber	Adding warning text	N
V3.0 / 01/07/2019	Simon Huber	Adding RF Exposure and OpenSource	N

2 Symbols and What They Mean

You may encounter the following symbols on the device and in these operating instructions. The meanings of these are provided below.

	These operating instructions contain important information and so must be read with care.
	Important warning. Failure to observe the warning: • Puts people and the environment at risk! • Can damage the device • May stop the device from functioning correctly
	Symbol according to WEEE Annex IV You must observe the requirements governing the sale, return, and environmentally sound disposal of electrical and electronic equipment.
	Do not dispose of Li-ion batteries via the municipal waste disposal facilities. Instead, separate them from other categories of waste and take them to the designated collection points.
	Useful information, important tips, etc.

3 Warnings

This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and**
- 2. This device must accept any interference received, including interference that may cause undesired operation.**

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- 1. l'appareil ne doit pas produire de brouillage;**
- 2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.**
- Increase the separation between the equipment and receiver.**
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- Consult the dealer or an experienced radio/TV technician for help.**

The user manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

4 Safety Information



In principle, the device is safe to operate provided that you observe the information in these operating instructions and on the device itself.

- The inside of the device contains hazardous electrical circuits that can be lethal if touched. The device is only to be opened and/or repaired by authorized personnel. Never open the device and never attempt to carry out any repairs yourself. Instead, please contact your Customer Service team. For the contact details, please see the "Service and Maintenance" section.
- The GPS25-4 device is intended for installation on an authorized Bosch Tool. Within the context of this end-use application, the requirements concerning
 - protection against operator contact,
 - fire protection,
 - air gaps and creepage distances,
 - and the general requirementsmust all be observed – while also taking account of the specific usage scenario and the associated recognized standards of good practice for ensuring safety and proper functioning.
- As a component of the Power Tool end-use application, the device is only safe if used in accordance with the installation and operating instructions provided in this technical manual.
- The module does not feature a supply circuit disconnect. A suitable disconnect switch must be integrated into the supply circuit when installing the device.
- Before switching on the device, you must make absolutely sure that the line voltage matches the device supply voltage. For the device specifications, please refer to the device rating plate or the technical data.
 - The device rating plate can be found on the device itself.
 - The technical data for the device can be found in the "Technical Data" section.
- Avoid prolonged exposure to high humidity and condensation. Protect the device against moisture and chemicals.

- Only use the spare parts and accessories included with delivery or spare parts and accessories that have been officially approved by us. Using non-approved spare parts and accessories can significantly impair the function of the device and compromise your safety.
- The device is no longer safe to operate if:
 - The housing has been damaged by excessive mechanical stress
 - Water has got inside the device
 - Smoke is emerging from inside the device
 - The supply cable is damaged

In the event of any of the faults described above, switch the device off immediately and disconnect it from the power supply. Contact your Customer Service team right away. For further details, see the "Service and Maintenance" section.

- Do not drop the device or allow it to fall!
- Users are not permitted to modify the product in any way. Any consequences resulting from product modifications will not be covered by Customer Service or by the contractual warranty terms.
- Your attention is expressly drawn to the fact that no product liability and warranty claims can be asserted if the device has not been operated in accordance with the information provided in these operating instructions and the information on the device, or if it has been used other than intended!
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.



- The device features a lithium battery.
- Attention! Risk of explosion if battery is incorrectly replaced

5 Device Description and Usage / Installation Instructions

- The GPS25-4 is a telematics unit that is solely intended for installation on a Bosch Power Tool. Therefore, please also observe the information in the "Safety Information" section.

Connecting the Device:

Only authorized specialist personnel are permitted to carry out installation work. For this, the Power Tool must be disconnected from the line voltage by pulling out the power plug. Before installing the unit, make sure that it is safe to do so by following the five electrical safety rules.

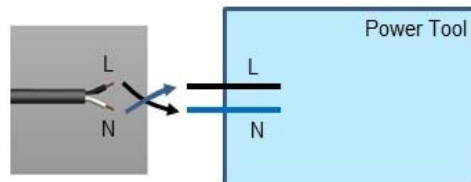
Install the device in the jackhammer grip as follows:

GPS25-4 with power cord 1614460102

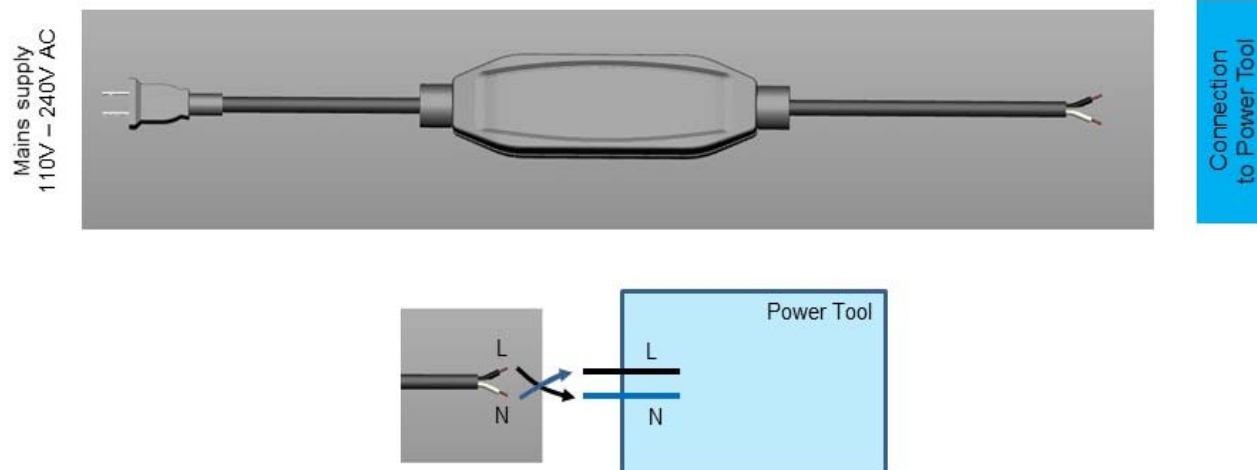
Mains supply
110V – 240V AC



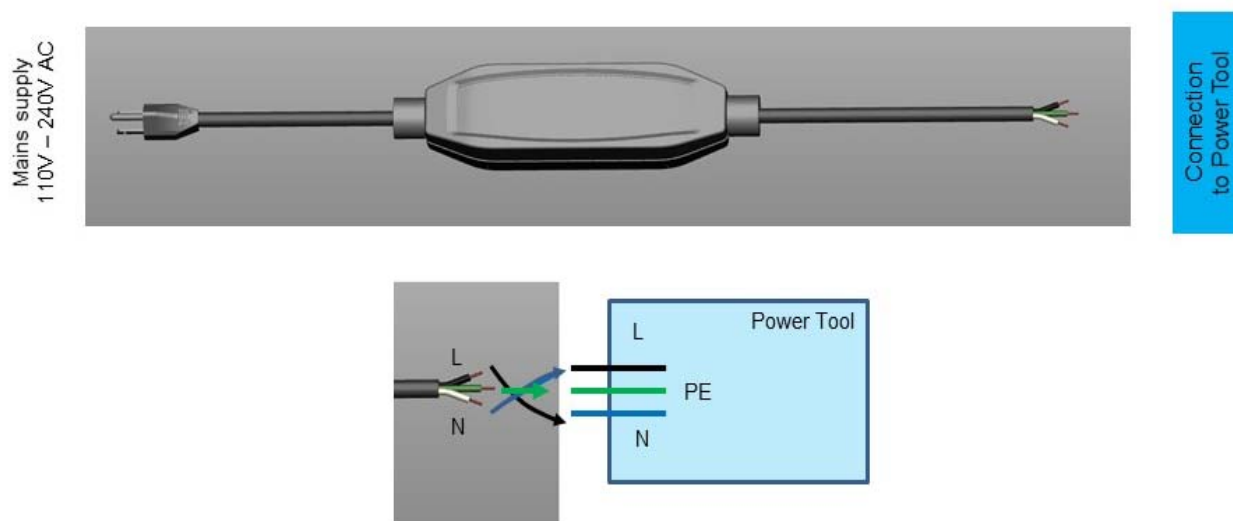
Connection
to Power Tool



GPS25-4 with power cord 1614460101



GPS25-4 with power cord 1614461033





To verify that the device is functioning correctly, you have the option of carrying out a visual check. For further details, see "Commissioning".

6 Scope of Delivery



After unpacking the device, immediately check that everything is present and in good condition. If an item is missing or damaged, please let us know right away. For details of your Customer Service team, please see the "Service and Maintenance" section.

Parts included with delivery:

- **1x telematics unit GPS25-4**

7 Controlling Elements and Connections

The device does not have any operating controls.

8 Commissioning

The device must **NEVER** be commissioned by the operator (end customer/non-specialist).

9 Function of the Device

The GPS25-4 device is a telematics unit that is intended for installation on a Bosch Power Tool. The unit functions independently without the need for a specific commissioning process.

Whenever the GPS25-4 is connected to the line voltage, the Li-ion battery starts recharging regardless of its current state of charge.

When the GPS25-4 is disconnected from the line supply, the Li-ion battery supplies the device with power.

The telematics unit automatically connects to an Internet application via a cellular connection in order to log various events. For this purpose, the telematics unit features – among other things – a GPS receiver, an acceleration sensor, and a temperature sensor.

10 Cleaning the Device



- It is essential to disconnect the device from the line supply before cleaning it. To do this, unplug the supply cable from the power receptacle. Do not immerse the device in water
- under any circumstances. Only use the cleaning agents
- approved by the manufacturer. For further details, see the information below.

The device does not require cleaning to function correctly. Periodic cleaning at regular intervals is not necessary.

11 Troubleshooting



- Only authorized specialists are permitted to carry out troubleshooting by identifying and remedying faults.

Fault description	Possible causes and remedy
Internet application is not receiving any data from device	No power being supplied to device - Line voltage supply leads defective/not connected - Battery not connected / Connection defective - Battery defective Remedy: - Check that leads are connected correctly - Replace device if defective

If your device cannot be successfully put into operation after using the fault scenarios described above to identify and subsequently remedy the fault, please send the device to your Customer Service team for repair. For details of your Customer Service team, please see the "Service and Maintenance" section.

12 Service and Maintenance / Customer Service

The GPS25-4 component does not normally require any maintenance or servicing. However, in the event of problems or if your device is defective, please contact our Customer Service department. The device, or any parts thereof, may only be examined and/or replaced by us.

Rosenberger

Rosenberger Hochfrequenztechnik GmbH & Co. KG
Hauptstraße 1
83413 Fridolfing
Germany

Phone: +49 8684 18-0

www.rosenberger.com

13 Technical Data

Model:	GPS25-4
FCC-ID:	TXTGPS25-4
IC:	909H-GPS254
Line voltage connection:	110-240V AC
Rated frequency:	50/60 Hz
Battery connector:	3.0V – 4.2V DC
Charging current at battery connector:	max. 500mA
Ambient conditions:	temperature: -20°C-60°C Humidity: max. 93+/- 3% Altitude: max. 3000m
Device battery:	Li-Ion, ABI-L-18650-1S1P-DR
Battery voltage:	3.6V
Battery capacity :	2500mAh
Cellular radio technology:	LTE Cat M1 / NB1
Band:	2 / 4 / 5 / 12
Output Power:	Class 3 (23dBm)
GPS sensitivity:	-148dBm

14 Disposing of the Device

	The device has been developed and manufactured using high-quality materials and components that can be recycled and reused. As stipulated by Directive WEEE2 2012/19/EU and the German Electrical and Electronic Equipment Act (ElektroG), the device must not be disposed of together with general/household garbage *.
 Li-ion	Do not dispose of Li-ion batteries via the municipal waste disposal facilities. Instead, separate them from other categories of waste and take them to the designated collection points.

Environmental protection information:

On reaching the end of its useful life, this product must not be disposed of with normal household garbage. Instead, it must be taken to a recycling collection point for electrical and electronic equipment. The materials can be recycled as per their labels. By reusing or recycling waste electrical equipment, you can make a significant contribution to the protection of our environment. Please contact your municipal authority for details of your responsible waste disposal center.

* EU Directive WEEE 2002/96/EC was implemented in German law by the Electrical and Electronic Equipment Act (ElektroG).

15 Contractual Warranty Terms and Product Liability

- The contractual warranty terms and any product liability claims – including during the statutory warranty period – will be rendered null and void if the device is not operated in accordance with the information provided in these operating instructions and on the device itself.
- The contractual warranty terms and any product liability claims – including during the statutory warranty period – will be rendered null and void if the device is opened or operated improperly.
- Due to their limited useful life, any parts that are particularly subject to wear are excluded from the statutory warranty. These include batteries, etc.

16 Open Source Software

The Firmware of this product contains Open-Source-Software, which are subjected to the Open Source license terms. The Open Source components can be changed during lifetime. An overview of the used Open Source components and license, if prescribed by law, can be downloaded from the following portal:

www.rosenberger.com/downloads/m2m

If applicable, the source code of the Open Source Software, depending on the license terms of the Open Source Software, is available on request.