

Underground detective

Features

The LKZ locator set consists of a LKN transmitter and LKD detector. It allows for location, identification and tracking of the route of objects buried in the ground. It allows to trace:

- power cords and cables, control cables, telecommunications cables,
- underground elements of lightning protection systems, cathodic protection systems,
- water and sewage systems,
- fuel transmission systems (pipelines, gas pipelines)
- heating systems and pre-insulated pipes.

The sets of LKZ series are an invaluable support in earthworks carried out for various industries, including energy, installation, construction, railway, telecommunications, water and sanitary, heating, geodetic and many others.

LKN-2500 transmitter injects a locating signal into an underground object. **LKD-2500 detector** placed along the object traces this signal along the object. The information about position of the traced object is displayed on the **Sonel LKZ Mobile app** which is connected with the detector. Determination of the object's route is possible based on observation of compass readings and the level of the detected signal.

The system has the ability to trace cables and record routes via the mobile application. Such files can be exported and shared with other users – including those who do not have the LKN-2500 / LKD-2500 device.

The system is capable of operating in passive mode (without the use of the LKN-2500 transmitter) and active mode (with the use of the LKN-2500 transmitter). The active mode allows to introduce the signal in three different methods:

- galvanic injects tracing signal into the object directly, through crocodile clips and test leads,
- clamp injects tracing signal into the object through an inductive clamp,
- inductive injects tracing signal into the object inductively, using the instrument's internal antenna.

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LKZ-2500

includes transmitter, detector, control panel and long handle



transmitter









LKZ-2500 Start

includes transmitter, detector and long handle











LKZ-2500 Lite

includes transmitter, detector and short handle











LKD-2500

includes detector and short handle













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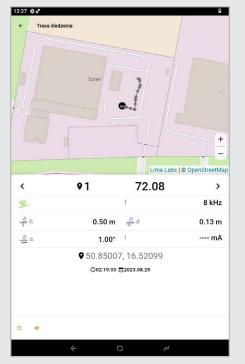


LKN-2500 transmitter

- Operation in direct galvanic or inductive connection mode – internal transmitting antenna
- · Compatible with transmitting clamps
- Rugged housing

LKD-2500 detector

- Active mode
 - » work with LKN-2500 transmitter at the frequencies of 8 kHz, 32 kHz (Signal mode)
- Passive mode work at the frequencies of:
 - » 50 Hz, 60 Hz (Power mode)
 - » 2...65 kHz (Radio mode)



Sonel LKZ Mobile

The application works with Sonel LKD-2500 detector. It enables tracing of objects, recording of routes in the memory of the mobile device along with GPS positions of waypoints and additional readings.



The application additionally enables:

- · live positioning preview,
- measuring the distance to a specific waypoint,
- export of routes to other mobile devices,
- reading routes from the mobile device's memory,
- · preview of all recorded parameters,
- · merging routes,
- adding notes to routes and measurement points.

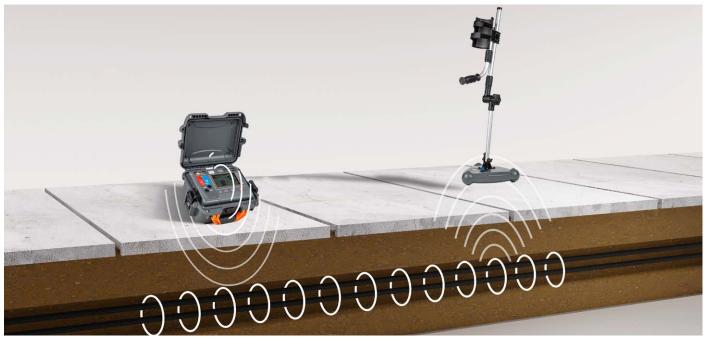


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Technical specifications

LKN	1-2500	transm	ittor
LNI	1-2300	uansiii	ıueı

Ingress protection Power supply Rechargeable battery Li-lon 7.2 V 9.8 Ah Operating time when powered by a battery and 16 h Transmission power Transmission power Galvanic method max. 8.6 W Induction method max. 8.4 VA Dimensions 318 x 257 x 152 mm Weight 3.4 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 32 x 2°C LkD-2500 detector 4 m Depth measurement accuracy 6 m Power mode 10% m.v. Signal mode (8 kHz) from 5% m.v. Signal mode (8 kHz) from 5% m.v. Ingress protection IP65 Power supply Li-lon 3.6 V 6.7 Ah Operating time when powered by a battery Li-lon 3.6 V 6.7 Ah Operating time when powered by a battery max. 13 h Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature 20+60°C Reference temperature	LKN-2500 transmitter	
Rechargeable battery LHon 7.2 V 9.8 Ah Operating time when powered by a battery max. 16 h Transmission power Galvanic method max. 3.6 W Induction method max. 84 VA Dimensions 318 x 257 x 152 mm Weight 3.4 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 6 m LKD-2500 detector 6 m Maximum depth of the analysed object 6 m Depth measurement accuracy 5 m.v. Power mode 10% m.v. Radio mode 10% m.v. Signal mode (8 kHz) from 5% m.v. Signal mode (32 kHz) from 2.5% m.v. Ingress protection IP65 Power supply Rechargeable battery LHon 3.6 V 6.7 Ah Operating time when powered by a battery max. 13 h Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Storage	Ingress protection	IP67
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Reference temperature 23 ± 2°C LKD-2500 detector 6 m Maximum depth of the analysed object 6 m Depth measurement accuracy 10% m.v. Power mode 10% m.v. Radio mode 10% m.v. Signal mode (8 kHz) from 5% m.v. Signal mode (32 kHz) from 2.5% m.v. Ingress protection IP65 Power supply Li-lon 3.6 V 6.7 Ah Operating time when powered by a battery max. 13 h Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Operating temperature	-10+50°C
LKD-2500 detector Maximum depth of the analysed object 6 m Depth measurement accuracy	Storage temperature	-20+60°C
Maximum depth of the analysed object 6 m Depth measurement accuracy 10% m.v. Power mode 10% m.v. Radio mode 10% m.v. Signal mode (8 kHz) from 5% m.v. Signal mode (32 kHz) from 2.5% m.v. Ingress protection IP65 Power supply Li-lon 3.6 V 6.7 Ah Operating time when powered by a battery max. 13 h Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Reference temperature	23 ± 2°C
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Signal mode (32 kHz)from 2.5% m.v.Ingress protectionIP65Power supplyLi-lon 3.6 V 6.7 AhRechargeable batteryLi-lon 3.6 V 6.7 AhOperating time when powered by a batterymax. 13 hDimensions290 x 275 x 100 mmWeight1.2 kgOperating temperature-10+50°CStorage temperature-20+60°CReference temperature23 ± 2°C	Radio mode	10% m.v.
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Power supplyRechargeable batteryLi-lon 3.6 V 6.7 AhOperating time when powered by a batterymax. 13 hDimensions290 x 275 x 100 mmWeight1.2 kgOperating temperature-10+50°CStorage temperature-20+60°CReference temperature23 ± 2°C	Signal mode (32 kHz)	from 2.5% m.v.
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Operating time when powered by a battery Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Power supply	
Dimensions 290 x 275 x 100 mm Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Rechargeable battery	Li-lon 3.6 V 6.7 Ah
Weight 1.2 kg Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Operating time when powered by a battery	max. 13 h
Operating temperature -10+50°C Storage temperature -20+60°C Reference temperature 23 ± 2°C	Dimensions	290 x 275 x 100 mm
Storage temperature -20+60°C Reference temperature 23 ± 2°C	Weight	1.2 kg
Reference temperature 23 ± 2°C	Operating temperature	-10+50°C
у том	Storage temperature	-20+60°C
Relative humidity 2090%	Reference temperature	23 ± 2°C
	Relative humidity	2090%



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Standard accessories

Standard acce	ssories				
		LKZ-2500	LKZ-2500 Start	LKZ-2500 Lite	LKD-2500
		WMGBLKZ2500	WMGBLKZ2500START	WMGBLKZ2500LITE	WMGBLKD2500
	LKN-2500 transmitter WMGBLKN2500	1	1	1	
	LKD-2500 detector WMGBLKD2500	1	1	1	1
	Control panel WAPOZTAB08	1			
	Test lead 5 m 1 kV (banana plugs) red / blue WAPRZ005REBB / WAPRZ005BUBB	2/1	2/1	2/1	
	Crocodile clip 1 kV 20 A red / blue WAKRORE20K02 / WAKROBU20K02	3/1	3/1	3/1	
	Ground probe 30 cm WASONG30	2	2	2	
	Battery charger Z-7 WAZASZ7	1	1	1	
1	Battery charger Z-32 WAZASZ32	1	1	1	1
	Carrying case L-10 WAFUTL10			1	1
	Carrying case XL-1 WAFUTXL1	1	1		
T.	Shoulder harness, design 1 WAPOZSZE7	1	1		
Þ	Short handle WAPOZUCH14			1	1
<u>#</u>	Long handle WAPOZUCH15	1	1		
pol .	Holder for control panel WAPOZUCH16	1	1		
	Declaration of verification	1	1	1	1

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Option	nal acce	essories

Optional acces	ssories ————————————————————————————————————				
-		LKZ-2500	LKZ-2500 Start	LKZ-2500 Lite	LKD-2500
		WMGBLKZ2500	WMGBLKZ2500START	WMGBLKZ2500LITE	WMGBLKD2500
	LKN-2500 transmitter WMGBLKN2500				√
	Control panel WAPOZTAB08		√	√	√
	N-1 transmitting clamp (fi 52 mm) WACEGN1BB	√	√	√	
92	N-4 transmitting clamp (fi 110 mm) WACEGN4	√	√	√	
92	N-5 transmitting clamp (fi 125 mm) WACEGN5	√	√	√	
B	Transmission wire, 50 m WAPRZPN50	√	√	√	
B	Transmission wire, 80 m WAPRZPN80	√	√	√	
	Carrying case XL-1 WAFUTXL1			√	√
T	Shoulder harness, design 1 WAPOZSZE7			√	√
Ų	Short handle WAPOZUCH14	√	√		
سطيق	Long handle WAPOZUCH15			√	√
pol .	Holder for control panel WAPOZUCH16			√	√

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