

Cable fault locator set **KP-500K**



Application

- Precise underground cables' fault location determination by the induction and acoustic methods.
- Tracking and underground line and communication cable depth determination.
- Tracking and power supply cables' depth determination under voltage frequency of 50Hz.

The set is designed to operate with the cable up to 10 km in length and location depth of 10 m. Fault location determination accuracy can be up to $\pm 0,3$ m, it depends on the fault nature (phase-to-sheath-fault, inter-phase closure, cable-core breakdown with or without grounding), user's proficiency and practical skills as well.

Equipment

Cable fault locator GP-500K	1 pcs.
Accessories included	
1 Connecting device	1 pcs.
2 Earth wire	1 pcs.
3 USB connector, type A, catalogue N 42-709-22, interface cable RS-485	1 pcs.
4 Interface cable RS-232	1 pcs.
5 Stowage bag for cable fault generator GP-500K	1 pcs.
Receiver PP-500A	1 pcs.
Accessories included	
1 Magnetic antenna MA-500	1 pcs.
2 Engaged frame NR-100	1 pcs.
3 Acoustic emission detector AD-500	1 pcs.
4 Charging device UZ-500	1 pcs.
5 Headphones TF-500	1 pcs.
6 Stowage bag for receiver	1 pcs.
Cable fault locator set KP-500K. Certification	1 pcs.

Additional equipment

Contact potential device AR-500 (A-frame)
Induction clamps KI-500

All benefits at a glance

- All-in-one: induction, acoustic and potential methods are implemented. The generator is used for the cable afterburning.
- Generator's large output power and receiver's high-speed response help search cable fault routes over ten kilometers; search depth is up to ten meters. Besides, accompanying screened interfering signals are implemented (pipelines, armored floor, etc.).
- Cables and communication lines' tracing length is more than 30km.
- Receiver's high selectivity provides electrical interference immunity, allowing working near coherent interference powerful sources.
- The quality and output signal's timing stability make it possible to provide the necessary selectivity, and, respectively, noise immunity.
- Low level of the generator's signal does not affect other electronic devices' operation.
- Generator's three operating frequencies are expanding sets' application area. The fault-being searched-type and service conditions determine operating frequency. No operating frequencies are multiples of the basic voltage pattern and its harmonics for noise immunity improvement.
- Reliable protection. All generators included into the sets are an effective protection against short circuit, overvoltage, wattless power (advantage for long lines with large private electric capacity) from overheating. Continuous operating in short- and open-circuit conditions is a standard operating procedure, where not only degrade, but even the output signal shape distort does not happen.
- Small dimensions and lightweight. Sets are twice smaller and lighter than their foreign counterparts.
- Our equipment achieves cost benefits. Sets are several times cheaper than their foreign counterparts' prices.
- The generator is equipped with the special case that is waterproof, impact-resistant, lightweight and convenient for carrying.
- High performance. Operating temperatures are from -30°C to $+40^{\circ}\text{C}$. They are confirmed not only by testing, but by running in the Extreme North, the Far East, Siberia, the most southern regions of Russia and CIS countries.
- The generator has microprocessor-based control, allowing using it in automated electric laboratories

Technical data of receiver PP-500A

Name	tracking by passive mode	search by induction method			search by acoustic method
Operating frequencies, Hz	50	480	1069	9796	-
3dB bandwidth, Hz	40...180	6±1			160...400
Response level, max, microvolt	40	20	20	40	40
Amplitude level assessment	by volume level and pointed indicator				
Additional modes	high intelligibility	noise illumination			-
Noise illumination, IM	-	from 0,25 to 256 Ohm			-
Dimensions, mm, max	162 x 73 x 173				
Weight, kg, max	1,4				

Technical data of cable fault locator GP-500K

Operating frequencies, Hz	480,0±0,5			1069,0±0,5			9796,0±0,5				
Output shape	sinusoid										
Harmonic distortion coefficient under operating frequencies, %, max	1										
Operating mode	Continuous or impulsive										
Generator's output resistance conditioning with pressure	Automatically or high touch										
Conditioning ranges, Ohm	0,5	1	2	4	8	16	32	64	128	256	
Output power when characteristic impedance termination is active, W, min	500										
Short circuit current when conditioning range = 0,5 Ohm, A	37,6±1,9										
Open circuit voltage when conditioning range = 256 Ohm, V	450±20										
Power supply from alternating current system with frequency of 50 Hz, W	from 187 to 242										
Power demand, W, max	800										
Dimensions, mm, max	420 x 150 x 375										
Weight, kg, max	20										

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