



# SOL-1

## Laser Warning Receiver System

### Laser Warning Receiver System SOL-1

is designed to detect and identify laser radiation of command vehicle by the enemy's weapon fire systems and technical devices equipped with the laser rangefinders, target designators or laser illuminators.

Use of the SOL-1 system allows to recognize the combat action of such means and let respectively for early implementation of countermeasures in the form of smoke cover of the activity area, move or to stop the vehicle and leave it by the crew.

#### System components

Systems consists of three basic elements:

- Set of sensor heads,
- Display box,
- Control block with RS-232 interface.

Sensing heads are positioned on the body of the vehicle in a way to distinguish the direction of laser radiation. Through the cooperation with the intercom BITcom systems, information from the laser sensors about radiation and its direction are passed on as the alert on the computer screens and intercom displays of Multifunctional Telephone KenTEL-1.

Each alarm is also generated in the form of audio signal which enables quick response of the crew at the signal of a threat, regardless of their job functions. Information about the threat from the corresponding sensor can be sent automatically by VHF/HF radio to higher command level and visualized by the BMS application on the digital map.

### FEATURES

- Laser spectral coverage 800-1700 nm detection.
- Automatic audio and visual alarm signaling.
- Ability to integrate with other warning sensors of the vehicle.
- High sensitivity.
- Integration with the vehicle intercom system.





### Technical data

The SOL-1 System detects the laser radiation in 800-1700 nm spectrum. This allows to detect all of the currently used laser radiation sources in the military applications, such as:

- Laser range finders with direct reception,
- Laser rangefinders with sub-noise reception,
- Laser pointers and target designators built on semiconductor lasers [850-950 nm], on neodymium glass Nd: YAG [1060-1064 nm], on erbium glass [1540 nm], Nd: YAG with Raman shift [1540 nm].

In addition to the laser detection, SOL-1 integrates alarms signals originating from the following sensors:

- Radiological contamination (RAD),
- Chemical contamination (CHEM),
- Radiolocating illumination (R-LOK),
- Carbon dioxide (CO),
- Smoke (DYM).

The System can be used for the same purpose to protect other than vehicle objects e.g. air, surface and floating, mobile or fixed points such as bridges, headquarters, warehouses, etc.



The System was developed in cooperation with the Institute of Optoelectronics of the Military University of Technology.