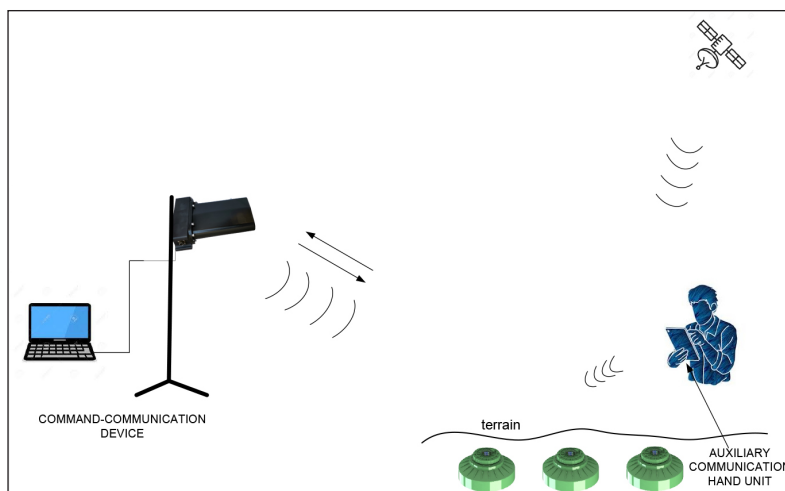


# MINEFIELD MANAGEMENT EQUIPMENT



Minefield management equipment consists command-communication device and auxiliary communication hand unit for locating and saving data of position the placed mines and for demining.



## • TURN OFF

This command changes the mine status into a passive in which the firing function is disabled, while communication with the control device is still enabled.

While the mine is in passive status:

- the electrical initiator is short-circuited,
- the power supply of the executive circuit is disconnected
- double break of the initial chain was performed (by mechanical barrier and by displacing the detonator primer)
- signals from vibration and magnetic sensors are not processed.

## •TURN ON

This command changes the mine status into an active in which mine firing function is enabled. During active status, mine communication with the control device is enabled.

While the mine is in active status:

- the electrical initiator is not short-circuited
- the power supply of the executive circuit is connected
- the initial chain is connected
- vibration and magnetic sensor signals are processed
- executive elements are charged.

## • DEMINING

This command changes the mine status into a status in which it is safe and it is possible to move the mine or/and replace the batteries. After command DEMINING, changing the mine status is disabled.

While the mine is in this status:

- the electrical initiator is short-circuited,
- the power supply of the executive circuit is disconnected
- double break of the initial chain is performed ((by mechanical barrier and by displacing the detonator primer)
- signals from vibration and magnetic sensors are not processed.



## Command-communication unit

The command-communication device consists of a computer and a command- communication unit with an antenna. Communication with the mine is done noncontact and it is possible to check and change the status of the mine, as well as check and change the time until self-passivation. The range of the device is till 200 m.

### Remote commands:

#### • STATUS

By the STATUS remote command, we get a report if the mine is in the passive or in the active status, what time is set and how much time is left to the self-passivation.

#### • SETTING THE TIME TO SELF-PASSIVIATION

The default time until self-passivation of the fuze is 96 hours. The time until self-passivation can be extended by remote control if necessary, up to 30 days in steps of 1h. After the expiration of the set time until self-passivation, the fuze performs self-passivation, which prevents ignition.

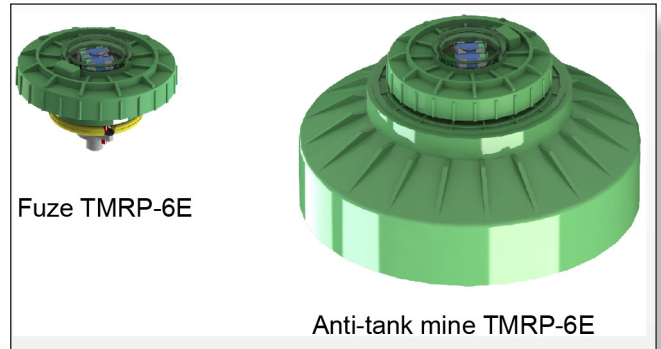
## Auxiliary communication hand unit

Unit has the following functions:

- checking the status of the mine
- marking and saving the GPS location of the mine after placing mine in the minefield
- navigating to the mine location, during demining, and giving command for the sound signalisation from the mine for easier locating.

## System working description

During the mining, the GPS location of each mine is saved. After placing the mine and the batteries (2x3.6V), the blocking time ( $15 \pm 1$  minutes) begins to count down, and upon its expiration the mine status changes into the active, unless otherwise commanded by the Command communication device. The crossing over of a combat vehicle above the body of the mine causes the mine firing. The decision to fire is made when both, vibration and magnetic channel of the fuze, are activated. After 96 hours, unless a different time is given for passivation, the mine goes into a passive status. The removal of mines from the minefield (demining) can be started after giving remote command DEMINING with Commandcommunication unit and after checking that status of the mine. Locating is done by an auxiliary communication hand unit.



A significant advantage of this system is the compliance of the characteristics with the international convention on the use of mines, which enables safe demining. After demining and replacing the batteries, the mine has the possibility of reuse. Some of the parameters can be changed on customer request. All production processes are carried out with use of high quality standards for development, production and testing of weapons and military equipment, in accordance with the highest international quality standards SRPS ISO 9001/2015, MILSTD-1316, STANAG-4187, MIL-STD-331and MIL-STD-810.