

MOBILE EXPLOSIVE DEVICE NEUTRALISER : Specification

S.no	Specification	Trial Directive
1	<p>Operation :</p> <p>High Voltage Energetic (HVE), counter-IED system that creates high-energy, electro-static discharge pulses to effectively disrupt electrically initiated explosive threats, even when buried beneath the ground. Electrical pulses are efficiently delivered directly into the ground, enabling a very high probability of IED disruption at various doctrinal travel speeds</p>	
2	<p>Dimension :</p> <ul style="list-style-type: none"> • Length: 8 m (from forward edge of prime mover to the end of the emitter arms) • Height: 1.8 m • Width: 1.6 m • Clearance path width: ~1.5 m (disrupts if any circuitry of IED system is between emitter arms) • Articulation: 2 m to the side of the vehicle 	
3	<p>Power</p> <ul style="list-style-type: none"> • Generator: 3.5kW; diesel • Input voltage: 240V (AC); 28V (DC) 	
4	<p>System working :</p> <p>Operations</p> <ul style="list-style-type: none"> • Vehicle interface: agnostic mounting • Controller: in-cab by-wire or remote • Operational speed: 3-30 kph • Pulse rate: 1-10 per second • Environment: operates in ambient temperatures of -17 to 57°C and varying precipitation • Disruption Distance: successfully disrupts IED systems along command wires up to 200 m away from the primary charge • Depth: successfully disrupts surface-laid wires and wires buried minimum 4 cm under earth. 	<p>Targets</p> <ul style="list-style-type: none"> • Successfully tested against 10 to 34-gauge steel and copper wire (insulated and uninsulated) • Successfully tested against command wire insulated with rubber conduit and in shallow water • Successfully tested against open and closed trigger switches • Successfully tested against range of military, commercial, and homemade electrical blasting caps
5	<p>Remote ops : System is integrated onto a remotely controlled ATV platform like Polaris .</p>	
6	<p>Testing Area protocol :</p> <p>Testing Area</p> <ul style="list-style-type: none"> • ~300x300m flat sand/ loose soil (intermittent tall grass) training area with unimproved route traversing length • Ability to dig in subsurface targets • Ability to detonate small blasting caps • Surrounding terrain should be passable by the vehicle with pre-initiator system for offroute application 	

S.no	IED TYPE using blasting cap/detonator	Speed	Compliance
1	Pressure IED using blasting cap with steel 20 Gauge Insulated wire positioned at depth of 4cm at direct contact	15- 20 km	
2	Pressure IED using blasting cap with copper 30 gauge Insulated wire positioned at depth of 4cm at direct contact close to the pressure plate	15 -20km	
3	Command wire IED using detonator with copper 20 gauge insulated wire on surface with 50 meter distance in tall grass	15-20km	
4	Command wire IED using copper 12 gauge not insulated wire of 100meter at 3cm depth	5- 20km	
5	Command wire IED using steel 20 gauge insulated wire of 200m at 3cm depth	5-20km	
6	Command wire IED using Copper 20 gauge insulated wire of 300m at 4cm depth	5-20km	
7	Radio controlled IED using copper 20 gauge insulated wire depth of 3cm at contact distance of 20m		
8	Radio controlled IED using copper/steel 20 gauge insulated wire surface laden with contact distance of 3m in tall grass environment	5-15km	