

# AL EFAH'S EOD/IEDD SOLUTIONS



Tools and equipment developed by EOD & IEDD trained Engineers.

Safety, Quality and reliability delivered at affordable pricing.

## AL EFAH TECHNOLOGIES PYT LTD

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## **PPE AND BLAST MITIGATION**





## **ADVANCE EOD SUIT HIGH PROTECTION PTS-01**





The PTS-01, a new EOD suit with helmet and visor, is designed for bomb disposal technicians, offering superior protection, modularity, and ease of use. Lighter and more practical, it accommodates personnel 170-190 cm tall, weighing 65-100 kg. The rip-stop woven meta-aramid fabric ensures durability, high tear resistance, and flame-retardant properties, protecting the wearer from overpressure, fragments, and impacts during explosions.



#### **Suit components**

- Protective helmet and visor
- Protective jacket
- Protective pants and boot covers
- Protective groin panel
- Protective gloves and hand protection
- Protective groin and chest plates
- Adjustable spine-protective structure integrated in the trousers
- Power supply cables and control panel
- Protective face mask (balaclava)
- Protective underwear



#### **Protective helmet and visor**

The protective helmet is made from lightweight, high-performance ballistic materials, featuring an adjustable ballistic visor and integrated ventilation for user comfort in hot environments. The flameretardant liner system provides impact resistance, with three thickness options. The flame-retardant chin strap adjusts to head circumference. The helmet includes a multi-LED lighting system, a power supply unit, and a modern communication system with a frontmounted camera. The ballistic visor, meeting NIJ0117.00 standards, resists scratching and fogging. The headgear and visor system consider the user's center of gravity to prevent neck and shoulder fatigue.

#### **Protective jacket**

The protective jacket ensures maximum comfort, covering the entire upper body, including the collar area. It features pockets for additional ballistic panels, equipment storage, and panic zippers for urgent egress.

#### **Protective pants**

The pants, with elastic waistbands for varied sizes, feature panic zippers for quick egress. Integrated adjustable spine protection guards against impacts. Tied to boot covers, the pants fully cover the user's foot area.

#### Groin protector

Designed for groin protection, it allows unrestricted movement and can be securely attached to pants using Velcro.

#### Protective gloves and hand protection

It is designed to provide protection to the user's hand area. It does not restrict the use of hands. It can easily be removed.

#### Protective groin and chest plates

Lightweight composite structures offer high protection, specifically designed for shrapnel and pressure protection in the groin and front chest. Easily attachable to the jacket pockets, they allow comfort during movement by sliding under each other when bending or crouching



#### Spine-protective back panel

Integrated with pans it is a flexible, adjustable, anti-sweat, waterproof and lightweight protective structure with high impact absorption properties, designed to protect the user's back against impacts.

#### **Backup power supply connection**

A backup power supply, situated in a jacket pocket, powers helmet systems through cables. The control panel, attachable with Velcros to arms, offers easy system control. It includes an illumination feature for night use and an ultralight touchpad displaying malfunction warnings and battery levels.

#### **Protective face mask (balaclava)**

A light, comfortable face mask, made from meta-aramid fiber knitted fabrics, protects the user's neck and face from flames. Each suit includes three pieces

#### **Protective underwear set (optional)**

Underwear set made of UHMWPE fiber knitted fabrics offers additional shrapnel protection for upper and lower body. High protection against small fragments with a cool, comfortable feel.

#### **Carrying bags**

The protective helmet and visor come in one carrying bag, while the remaining clothing is in another. Both bags are made of high-tensile strength, abrasion-resistant polyamide 6.6 fabrics.

- Total weight of the helmet and visor is  $5600 \pm 400$  gr.
- Adjustable ultra-high speed ventilation capability with turba mode.
- Fully integrated UV and white LEDs with adjustable intensity.
- Fully integrated camera with 140-degree wide angle and with a 1080P resolution. Recording on an SD card and video transmission via wifi.
- Integrated Telecom system with PTT and noise reduction at 95dB to 35dB.
- Magnetic ehin buckle for quick release.
- Enlarged visor with demister and anti-fog liners with vent position.

#### **Ballistic performance of the EOD suit:**

- Helmet V50 value for 17 grain FSP is min. 640 m/s
- Helmet -V50 value for 44 grain FSP is min. 550 m/s
- Visor V50 value for 17 grain FSP is min. 780 m/s
- Jacket front and collar front V50 value for 44 grain FSP is min. 530 m/s
- Plate areas on the jacket V50 value for 44 grain FSP is min. 1100 m/s
- Plate areas on the jacket V50 value for 207 grain FSP is min. 750 m/s
- Back and sleeves V50 value for 17 grain FSP is min. 560 m/s
- Groin V50 value for 17 grain FSP is min. 600 m/s
  - Hand protection V50 value for 17 grain FSP is min. 560 m/s



## **EOD Suit High Protection PCS-2**



Our Bomb Suits deliver solutions for EOD and IEDD operators during Reconnaissance, IED Manipulation and Render safe procedures. PCS-2 provides a balance of high level protection with ergonomic considerations. The helmet incorporates air circulation a quick release mechanism allows egress out of the suit very easy and quick. It not only protects the human body from fragments, but also reduces blast over pressure generated in an explosion. With the ECS-03 cooling system, it reduces fatigue during hot weather.

#### **Key features**

- Comfortable yet with  $V_{50}$  protection at chest is above 2000 m/s
- Ventilating system prevent the visor from fogging.
- Weaken the shock overpressure.
- Removable enhanced plates.
- Tested with grain 17 fragment simulator for  $V_{50}$  as per NATO.



Bullet proof	$V_{50}$	744 m/sec
Mask	Thickness	22.4mm
	Weight	1032g
	Material	Organic transparent composite
Bulletproof	V <sub>50</sub>	780 m/sec
Helmet	Size	361×273×262mm
	Protective Area	0.25m <sup>2</sup>
	Weight	4104g
	Material	Kevlar composites laminated
Front of	V <sub>50</sub>	654m/s
smock (Main	Size	580×520mm
body of smock)	Weight	1486 g
,	Material	34-layer woven fabric (Aramid fiber)
Blast plate	V <sub>50</sub>	>2022m/s
+The front of smock	Throat Plate Dimension	270×160×19.7mm
	Throat Plate Weight	1313 g
	Abdominal Plate Dimension	330×260×19.4mm
	Abdominal Plate Weight	2058 g
Arm (Right	V <sub>50</sub>	531m/s
Arm, Left	Size	500×520 mm
Arm)	Weight	1486 g
	Material	25-layer woven fabric (Aramid fiber
Back of thigh	V <sub>50</sub>	492m/s
and calf (Left and Right	Size	530×270mm
Thigh, Left	Weight	529g
and Right Shin)	Material	21-layer woven fabric (Aramid fiber)
Front of shin	V <sub>50</sub>	593m/s
(Left and Right Outer)	Size	460×270mm
	Weight	632 g
	Material	30-layer woven fabric (Aramid fiber)
Suit Total Weight		32.7 kg
Power supply	12V battery	
Cooling fan	200 liters/min, adjustable speed	



## **EOD Suit High Protection PCS-1**



EOD suit is the personal protection equipment high velocity fragments, blast overpressure, high temperature and flame generated by an explosion.

- Comfortable when standing or squatting
- Material: UHMWPE\ aramid \Permanent flame retardant, anti-static and bulletproof transparent material.
- Ventilating system prevent the visor from fogging.
- Performance: weaken the shock overpressure, helmet is tested to  $V_{50}$  exceed 720m/s, main parts are over 1600m/s.
- Removable enhanced plates
- Front pocket for carrying work tools
- Shoulder handles help to wear, quick-release system.
- Visor can be adjusted easily suits for all kinds of operation.



### **Specifications**

Pedinoanono	
EOD helmet	Full protection
	Adjustable transparent visor
	Ventilating system
	Communication system(optional)
	illuminating system(optional)
Protection suit	Jacket and Trousers
	chest and groin enhanced plates
	Spine protection device
	Groin protection short trousers
	Quick-release device
	Hands & feet protection, knee pad
	Trousers widened article
Weight	Total weight 35kg
	Protection suit 25.5kg (with enhanced plates)
	EOD helmet 3.5kg
	Accessories 6kg
V50	Helmet ≥720m/s
	Visor≥850m/s
	Transparent window ≥750m/s
	Surface ≥600m/s
	Plates ≥1600m/s
Shock Wave Performance	Tested with Hybrid dummy, shows ultra-strong performance
Color	Dark blue /camouflage (customization as requirement )
t	



## **Body Cooling System ECS-3**

ECS-3 Body Cooling System is an autonomous ice reservoir chilled water circulation cooling system. The system is designed primarily for the EOD operators. During the EOD/IEDD and mining operations, the protective suits, worn for personal protection, prevents the body from cooling itself naturally. The ECS-3 is designed to be worn as a tube sewn under garment, over which an EOD, Firefighting or any other protective suit is worn.

#### Item Parameter

Cooling Rate	480W @ 350mL/min.
Operation	Adjustable flow rates
Interconnections	Auto shut off CPC connections
Endurance	60 min - Auto adjust flow rate. 45 min - @ 375ml/min continuous.
Flow rates	Between 70 to 400 ml/min
Suit Weight	With liquid Filled – 0.9 to 1.1 kg
Tubing material	PVC
Garment	Full torso, arms, head and lower body coverage Snug fit design for maximum contact for optimal cooling Diffused manifold for evenly distributed cooling Continuously stitched medical grade PVC tubing CPC interconnectors for shirt/pant, shirt/hood coupling.
Fabric	Fire resistant
Ice bottle	2 liters capacity
Interconnection	1/8" flow CPC connectors.
Total Weight	3.3 Kg
Pouch	Cardura/Nylon with insulation
Battery	6.4 VDC/ 5AH Re-chargeable Li-ION



#### **Key features**

ECS-3 is capable of removing up to 400 watts of heat (1365 BTU/hour or 344 KCAL/hour) as measured in human physiological tests under laboratory conditions in an ambient temperature of 37.8°C (95°F). Cooling Endurance in field lasts approximately 45 to 60 minutes under moderate work rates and ambient temperatures around 35°C (95°F).

#### **Standard accessories**

- Spare bottle.
- Battery Charger.
- Carry bag.
- Maintenance kit. Includes filter and cable ties.





## **Hardwired Comm System EHW-13**



EHW-13 is a programmable, micro-controller based, single-channel intercom station for use as bomb suite wired communication system. When used with mono headset, EHW-13 allows full-duplex single channel voice communications. The system can be tailored made to adoptable with most international EOD suits.

#### **Features**

- Call function that allows the user to send or receive audio signals to other devices i.e. spool, Integrated power Supply & helmet.
- Digital Volume Control.
- Volume control for the operator (Helmet)
- Display for volume control and battery status & recharging progress.
- Un-switched mic output at line level, via the auxiliary inputs connector.
- Remote mic switches via either the carbon mic connector or via the auxiliary inputs connector.
- Battery charging function within the system. Audio recording and play back

#### **Package includes**

- ✓ Command Post Control Station with Head Set
- ✓ Digital recorder
- ✓ Tangle-free rewind able Spool.
- ✓ Batteries and mains/car charger
- ✓ Patch cord as per EOD suit
- ✓ User Manual & Carrying Case



#### **Specifications**

Item	Specifications
Weight	1.2 Kg
Power Supply	12 VDC nominal
Environmental	Storage: -40°C to 90°C; up to 95% humidity, non-condensing Operational: -10°C to 50°C; up to 95% humidity, non-condensing.
Operating time	22 hours





## **PKS-01 Ballistic Shield**



The PKS-01 EOD shield is crafted for use in explosive disposal operations, serving as a temporary shelter and facilitating special operations where the hatch can be opened for protected access. Specifically tailored for EOD and demining tasks, the shield features two ground-placed support bars for vertical stability. It includes a central window and an internally operated ballistic hatch, ensuring the safety of operators during operations.

Protection	NIJ 3A
Size	50x110 cm/Customized
Material	PE / Aramid
Net weight	12 Kg
Thickness	19 mm
Color	Black
Visible window	Yes
Manipulator window	Yes



## **Bomb Suppression Bin PPE-401**



The Blast Container has been specifically developed for deployment in high-risk settings like post rooms, security offices, and other facilities that are susceptible to IED threats. The base plate is intended to be used in areas where the floor is constructed with no more than 6 inches of reinforced concrete.

#### **Specifications**

Internal dimensions	500mm
Wall thickness	16mm (nominal)
Approx Weight	48kgs
Charge Weight	17 y, oz
Pass Level PE4 (C4)	500gms



An anti-explosion container is a specialized piece of equipment designed to safely contain dangerous improvised explosive devices for a temporary period. Extensive testing has proven that this container is highly effective in preventing blast waves and fragments from the explosive detonation from spreading horizontally. As a result, it effectively safeguards both personnel and facilities by preventing explosions.



## **Bomb Suppression Bin PPE-402**



An anti-explosion container is a specialized piece of equipment designed to safely contain dangerous improvised explosive devices for a temporary period. Extensive testing has proven that this container is highly effective in preventing blast waves and fragments from the explosive detonation from spreading horizontally. As a result, it effectively safeguards both personnel and facilities by preventing explosions.

- Can bear 1.25KG TNT or equal (After blaster, outside of the basket is complete, no crack, no shedding blocks.)
- Four casters fixed at the bottom-Convenient to move.
- Inside net to fix the explosive article

#### **Specifications**

Material	Carbon steel (High-strength, impact-resistant, compliant to GB700-1988
Outside diameter	660 mm
Inside diameter	630 mm
Depth	654 mm
Height	747 mm
Bottom thick	15 mm
Cylindrical side thick	10 mm
Net Weight	270 kg



### Bomb blanket



Bomb Blankets minimize the risk of secondary fragments form a blast from the IEDs. These are effective on up to briefcase size suspected items. It not only is required by EOD operators but also can be placed at sensitive places and at checkpoint. Different Aramid materials are used and stitching techniques. A ballistic containment ring is first placed over the suspected device and covered by the blanket. To suppress a larger item, two or more blankets can be used.

- Available to meet different protection levels under NIJ and STANAG.
- Different sizing options of blanket and the ring
- Exterior Cover is Cordura or Fire resistant materials.
- Removable and washable outer cover.
- Reinforced carry/mount straps.
- Built in grommets upon request.
- Fitted with lifting straps.
- Both Blanket and ring fold into a carry bag.



#### **Specifications**

Model	AET-BB-AM	AET-BB-PE	
Ballistic Material	Aramid	UHMW-PE	
Levels of protection	V50 min 500m/s; 550m/s, 600m/s; 650m/s according to NATO STANAG 2920 or US Military MIL-STD-622 Level IIIA according to NIJ 0108.01		
Sizes (cm)	100x100cm, 120x120cm, 160x160cm, 140x190cm		
Safety Ring dimensions	Length: 2– 3.5 m  Width: 25 – 30 cm		
Color	Black, yellow, green, camouflage		
Outer cover	1000D codura, 1000D nylon		
Accessories	Carry bag		

#### **Protection levels**

Protection levels are either mentioned on American NIJ standard or provided as V50 velocities under the NATO standard STANAG 2920.



## **Explosion Containment Vessel**



This system is developed with high-strength, impact-resistant carbon steel plates. There is a net bag with stable explosives placed inside the explosive ball and a universal wheel at the bottom to facilitate transfer and transportation. It can effectively prevent the shock wave and debris from spreading after the explosion of the explosive in the tank,



**Specifications** 

	ECV-20	ECV-30
Anti-knock Capacity	2.0 kg TNT explosion equivalent	3.0 kg TNT explosion equivalent
Dimensions mm	850 x 1050 x 1170	820 x 1000 x 1120
Weight (kg)	520	600
Mechanical opening cover	Yes with manual switch	

#### **Trailer System**

A trailer system can be designed to make the vessel mobile and remove a suspect explosive device to a safe location. A towable two or four-wheeled trailer can be designed.





## FREQUENCY JAMMER EJ-01MP



Utilizing advanced RF jamming technology, EJ-01MP is a frequency Scan DDS jamming system. It features a fully-integrated broadband jamming system and is equipped with a highly portable and lightweight device. This compact jammer plays a crucial role in challenging situations, where heavily loaded vehicles and backpack-type devices are required. Its versatility allows the operator to navigate through hills, muddy roads, steep mountains, and stairs, ensuring the safety of personnel and enhancing combat efficiency.



#### **Key Characteristics**

- 190W RF power in 5 channels.
- Frequency coverage from 20-3000MHz.
- Omnidirectional antenna has a range of >50m.
- With temperature and standing wave protection function.
- Modular construction for easy maintenance, repair and upgrade.
- The weight of the whole machine plus antenna < 20kg
- Designed with a robust case for durability
- Lightweight construction for easy portability
- Excellent mobility for versatile use
- RS485 programming possibility of DDS modules
- LCD display on wired remote control shows status of different parameters.

#### **General characteristics**

The jammer host is provided in a rugged casing with following characteristics:-

Net Weight Host	18 Kg
Dimension	490 x 370 x 190 mm
Proofing level	IP55
Operating Temperature	-20°C - 50°C
Humidity	5% - 90%
Cooling	Heat sink and air forced fans with intelligent cooling
Power supply	Built-in battery power supply, or external battery power supply
Power consumption	220V / 1.8A, total power consumption 387W
RF Power consumption*	190 W
System protection	85°C automatic disconnection protection, antenna standing wave protection
Wired Remote Control	ON/OFF, status with LED or screen.
system protection	temperature protection, standing wave protection

<sup>\*</sup> Tailoring for number of channels, power and frequency bands is possible to change.



#### **RF Characteristics**

Internal Modulation	Digital Jamming Technology Signal Source: DDS	
Type of modules	Programmable	
Jamming distance (depends on conditions like transmitter freq, power output, distance to receiver, and obstacles, etc)	50-150 meters @-75dBm depending on the environment signal strength	
Power in Frequency Bands with DDS control		
Frequency Bands	Wattage	
20 MHz to 130 MHz	30 Watts	
130 MHz to 500 MHz	50 Watts	
GSM 900 (925 MHz to 960 MHz)	50 Watts	
GSM 1800 (1805 MHz to 1880 MHz)	30 Watts	
3G (2110 MHz to 2170 MHz)	30 Watts	
Total	190 Watts	

#### **Battery**

Built-in power with Battery management system for battery protection and continuous use to more than 1.5 hours. It also supports connectable external storage battery power supply as an option.

Battery type	Lithium-Ion Battery
Voltage and power	Built-in battery 27V power supply; current 14A
Battery working time	1.5 hour
MTBF	Not less than 1,000 hours
Battery management system	Yes
Low battery warning	Available
Battery fast change	Available
Charger	External 5A



#### **Antenna Characteristics**

Antennas Weight: 3kg; Length: <650mm

Item	INDEX
Input Impedance	50Ω
VSWR	≤1.5
Gain	0 to 3dBi
Beam Width	H:360- 0; E:65- 0
Maximum Power Rating	150W
Polarization	Vertical Polarization
PIM	<-107dBm
Operating Temperature	-20 to +60 Celsius Degrees
Wind Velocity	60(m/s)
Hold Pole Diameter	φ40(mm)

#### **Remote controller functions**

With wire remote control box, each channel can be controlled separately, one-button start and stop, with battery power display. Wire remote control box with LCD display

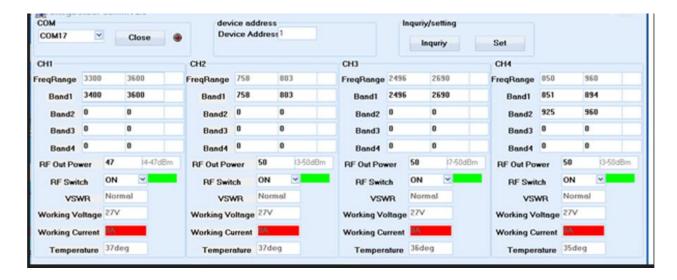
- System Standby, ON/OFF
- Each band working status
- Frequency
- Output Power Indication & Adjustment.
- **VSWR** Alarming status
- Voltage and current status.





#### **Software functions**

In addition, the DDS digital module, fast frequency hopping broadband mode; is supported through RS485 software programming, query and setting of the parameters.



#### **Safety Feature**

- Power Amplifier Protectors:
- Over- Heat protection Thermal protector
- Over current protection
- High input Voltage and low Voltage protection
- VSWR protection: against antenna miss-match including open and short circuit

#### **Complete kit**

- 1x Manpack host
- 5x Omni antenna
- 1x Wire remote control box
- 1x DC charge adapter
- 1x AC power adapter



## FREQUENCY JAMMER EJ-02FT



The EJ-02FT is a fixed type jammer engineered to block HF, VHF, and UHF signals along with mobile phone bands. The jammer has a die case aluminum housing with force air cooling system for counter RCIED operation. It has very good sealing for the water ingress. Analogue signal interference is used for this system for the frequency bands.

#### **Key features**

- Aluminum-alloy casing with high protection has high resistance to dust, water and corroding.
- Heat sink designing combing with the fans to make system in a cooling status.
- Special technology to prevent interference between each frequency band.
- Only interfere downlink frequency of mobile system, without disturb normally working of Base Stations.
- Circuit protection to ensure system will not burn out in case of antenna short circuiting or disconnection.
- Working 24 hours/365 days continuously.



#### **General characteristics**

Net Weight of Jammer Host	20 Kg
Dimension	470mmx380mmx200mm
Proofing level	IP65
Operating Temperature	-15°C - +60°C
Humidity	70%
Digital technology to control frequency	No (factory settings)
Cooling	Heat sink and air forced fans
Power	220 VAC
Total Power consumption	550 W

#### **RF Characteristics**

Internal Modulation	VCO
RF Output Power	200 Watts
Power in Frequency Bands	
Frequency Bands	Wattage
20 MHz to 135 MHz	≥25
135 MHz to 500 MHz RC, UHF	≥50
GSM 900 (925 MHz to 960 MHz) +4G	≥50
GSM 1800 (1805 MHz to 1880 MHz)3G (2110 MHz to 2170 MHz)	≥55

#### **Antenna Characteristics**

Item	INDEX
Input Impedance	50Ω
VSWR	≤1.8
Gain	0 to 8 dBi
Polarization	Dual Polarization

#### **Safety Feature**

- Power Amplifier Protectors
- Over- Heat protection Thermal protector
- Over current protection
- High input Voltage and low Voltage protection
- VSWR protection: against antenna miss-match including open and short circuit



## FREQUENCY JAMMER EJ-03MP



The VBE-4 Backpack IED Jamming System is engineered to block HF, VHF, and UHF signals alongwith mobile phone bands. This cutting-edge technology employed in the jamming systems ensures optimal performance by effectively disrupting signals that could potentially activate IEDs. Due to the diverse nature of potential jamming targets and the presence of numerous uncertainties, we have implemented advanced and highly efficient signal modulation techniques. This modulation method significantly enhances the efficacy of jamming across each frequency band.

- Separate signal source for each frequency band.
- Slow start-up design to ensure stable operation of the device.
- Comprehensive self-protection overheat, overcurrent, high input voltage, low voltage, and VSWR protection.
- User-friendly Installation
- Remote monitoring is available through software, enabling convenient surveillance and control.
- A built-in battery and a spare battery give 2 hours of operations.



#### **General characteristics**

Net Weight of Jammer Host	18 Kg
Dimension	430x320x200mm
Proofing level	IP55
Operating Temperature	-10°C - +50°C
Humidity	5% - 90%
Wired Remote Control Unit functions	ON/OFF, status with LED or screen.
Cooling	Heat sink and air forced fans
Power	220 VAC/ 28VDC
Total Power consumption	500 W

#### **RF Characteristics**

Internal Modulation	Digital Jamming Technology Signal Source: DDS
RF Output Power	200 Watts
Type of modules	Programmable
Jamming distance (depends on conditions such as transmitter frequency and output power, distance to receiver, and obstacles between, etc)	50 to 60 meters' radius when the field signal strength around -95dBm

### **Power in Frequency Bands**

Frequency Bands	Wattage
20 MHz to 130 MHz	50 Watts
130 MHz to 500 MHz	50 Watts
GSM 900 (925 MHz to 960 MHz)	50 Watts
GSM 1800 (1805 MHz to 1880 MHz)	
3G (2110 MHz to 2170 MHz)	50 Watts
2100-2600MHz	

#### **Battery**

Battery type	built-in Lithium-Ion Battery
Low battery warning:	available
Battery fast change:	available
Battery working time	1 hour
Battery quantity	2pcs



#### **Antenna Characteristics**

Item	INDEX
Input Impedance	50Ω
VSWR	≤1.5
Gain	0 to 3dBi
Beam Width	H:360- 0; E:65- 0
Maximum Power Rating	150W
Polarization	Vertical Polarization
PIM	<-107dBm
Operating Temperature	-20 to +60 Celsius Degrees
Wind Velocity	60(m/s)
<b>Hold Pole Diameter</b>	φ40(mm)

#### **Remote controller functions**

- Working Frequency bands and Output Power Indication
- Output Power and VSWR Alarming status
- Adjust the RF Power
- System Standby, ON/OFF

#### **Safety Feature**

- Power Amplifier Protectors:
- Over- Heat protection Thermal protector
- Over current protection
- High input Voltage and low Voltage protection
- VSWR protection: against antenna miss-match including open and short circuit



## FREQUENCY JAMMER EJ-04MP



The EJ-04B is a compact and lightweight High Power Frequency Scan Convoy Jamming System. It utilizes advanced RF jammer technology and comes with a fully-integrated broadband jamming system. This device is highly portable and can be easily carried in a backpack, allowing for flexible use in both vehicle and foot patrol applications, even in harsh environments. Its ruggedized case ensures durability and reliability while maintaining a lightweight and mobile design.

Equipped with 6 jamming modules, the EJ-04B can cover more than 8 bands of frequencies. Deployment and operation are simple: just attach the desired antennas and activate the frequency bands of choice. The system's overall design meets rigorous military standards and international quality requirements. Our in-house quality management system guarantees top-notch performance, reliability, and long life cycles. Moreover, we offer customization options to tailor our systems to specific client scenarios, catering to both military and civilian applications and ensuring the best individual solution.

- Field programmability for rapid adjustment to frequency and output power.
- Fully modular compact design with extremely high efficient cooling system provides system stability even in extreme climate conditions.
- Remote control can control each module working frequency, output power, etc.
- Fully portable -type case for easy transportation and rapid deployment. Supplied by AC mains or DC power source options.



#### **General characteristics.**

Net Weight of Jammer Host	16 Kg
Operating Temperature	-10 °C to +50° C
Wired Remote Control Unit functions	Wired functions- ON/OFF, status with LED or screen.
Cooling	Heat sinks and forced air cooling Intelligence Cooling System
Power supply	24-28 VDC
Power consumption	<22 Amps
Built-in Test	VSWR/ High Temperature/Low Battery
Jamming System	Sweep and spot

#### **RF Characteristics**

RF Characteristics		
RF Output Power	200 Watts	
Type of modules	Programmable	
Jamming distance	50-100 meters	
(depends on conditions such as transmitter frequency and output power, distance to receiver, and obstacles between, etc)		
Power in Frequency Bands		
Frequency Bands	Wattage	
25-130 MHz	≥20	
130-300 MHz	≥20	
130-500 MHz	≥20	
GSM900:925-960Mhz	≥25	
GSM1800:1805-1880Mhz	≥25	
3G:2110-2170Mhz	≥25	
4G:2300-2400Mhz	≥25	
4G:2500-2690Mhz	≥25	
VSWR	≤1.5	



## FREQUENCY JAMMER EJ-04T



EJ-04T is a rugged case jammer available in different power levels upto 1000 Watts. It is modular design with trolley for rapid deployment. It can be used as Military Vehicle Convoy Protection Roof Mounted Jammer system that incorporates a fully-integrated broadband jamming system. This system ensures continuous jamming of commonly exploited frequencies by terrorists from 20 to 3600MHz.

#### **Key features**

- Rugged casing for sealing and deterioration.
- Heat sink and forced cooling design.
- Prevent of interference between frequency band.
- Focus on downlink frequency of mobile systems.
- Selectable frequency bands and output power.
- Each frequency band is individually powered.
- Antenna options, directional or Omni & protection to antenna short circuiting
- Upgrade possible.
- Works both in AC and DC modes.



#### **General characteristics.**

Parameter	EJ-04TB Minimum	EJ-04TP High power
Net Weight of Jammer Host	24 Kg	28 Kg
Dimension	550×500×320mm	
<b>Operating Temperature</b>	-10 °C to +50° C	
Humidity	30%-95%	
Wired Remote Control Unit functions	Wired functions- ON/OFF, status with LED or screen.	
Cooling	Heat sinks and forced air cooling	
_	Intelligence Cooling System	
Power supply	24-28 VDC	
Power consumption	<22 Amps	<52 Amps
<b>Built-in Test</b>	VSWR/ High Temperature/Low Battery	
System protection	VSWR, Over-voltage, Over-current	
Jamming System	Sweep and spot	
Carry case	Wheeled ruggedized water-resistant	
Battery	Lithium ion	
<b>Battery Weight</b>	≤4.5 Kg	≤6.5 Kg
Additional Backup for Power Optional	Optional battery system and generator system.	AC Alternator ( 1600W) or DC Generator ( +24 VDC/66A )

Given the general design outlined above, we can tailor our systems to meet the unique requirements of our clients, whether they are in military or civil applications, ensuring that we deliver the most personalized and optimal solution for each client's specific needs.

#### **RF Characteristics**

- Characteristics		
Internal Modulation		
RF Output Power	185 Watts	400 Watts
Type of modules	Programmable	
Jamming distance	50-120m	100-500m
according to signal density of mobile network		



Power in Frequency Bands		
Frequency Bands	Wattage	
25-130MHz	20W	50W
130-300MHz	20W	50W
300-500MHz	20W	50W
925-960MHz GSM850/900	25W	50W
1805-1880MHz DCS1800	25W	50W
2100-2170MHz 3G	25W	50W
2300-2400MHz 4G LTE	25W	50W
2500-2690MHz 4G LTE	25W	50W
20-6000MHz Option	Option	50W
VSWR	≤1.5	

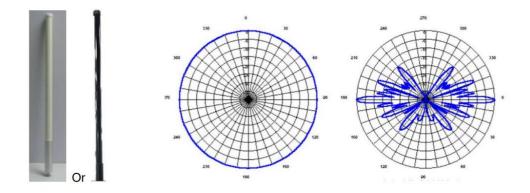
Upgrades options are possible to Jam up to six different jamming modules simultaneously, covering up to 20 different frequency bands.

#### **Antenna Characteristics**

Item	INDEX
Input Impedance	50Ω
VSWR	≤1.5
Gain	7 to 9dBi
Vertical Beam width	16°
Horizontal Beam width	360°
Maximum Power Rating	150W
Polarization	Vertical Polarization
Operating Temperature	-30 to +60 Celsius Degrees
Wind Velocity	60(m/s)
Mounting Pole Diameter	φ 50~70mm
Connector	N female
Antenna dimensions	φ 60×1200 mm
Weight	6kg
Lighting Protection	Direct Ground

Directional Antennas Directional Antennas Gain: 12~18dBi





Omni and direction antenna pattern

#### **Wired Remote Control Panel (optional)**

The Vehicle Jammer includes a wired remote control feature, which can be conveniently integrated into the driver's console unit. This allows the driver to easily operate the jammer and independently activate or deactivate each module while driving. By utilizing this remote control panel, the driver has the ability to selectively disable specific frequency bands, ensuring uninterrupted internal communication during emergency situations.



- Remote control switches of each machine.
- Remote viewing each machine working state.
- The power output of each machine remote adjustment.
- Remote viewing offline log of each machine.

#### **External Battery (optional)**



High Li-ion Battery power supply for Main Machine



## CLMS-26 Limpet Mine Disposal Equipment



CLMS-26 Limpet Mine Disposal Equipment (LMDE) has been designed to disable thincased sea-mines that have been attached to the hull of a ship or underwater structure. The equipment consists of a disruptor system that is mounted on a stand using magnets and is diver-deployable. Buoyancy blocks are fitted to the stand to aid carrying and placement. The stand has to be positioned against the target. On firing the disruptor a high-velocity slug of water hits the target penetrating the thin skin mine to disrupt the explosive filling and detonation mechanism, ensuring that detonation does not occur.



**Breech with safety pin.** Disruptor breech is upgraded from the older version that it has a safety pin to keep the terminals short and cartridge is connected just when it has been deployed. This enables the diver to be safe to set up the disruptor.



#### **Injector Barrel**

Injector /disruptor is made of stainless steel and pressure tested and flaw detected before supply. It has fluid capacity of 0.2 liters (485 mm length). Barrels are specially treated to have a long life. Barrel length can be changed on customer requirement.

#### **Stand**

The stand is made of hard anodized aluminum and stainless steel with ease of deployment with magnetic base.

#### Kit complete

The kit is supplied as two boxes, which collectively contain the stand and barrels with firing and maintenance accessories. The kit has following key components.

1 x Barrel	1 x Small Arms cleaning Brush
1 x Breech	1 x Screw Driver
1 x Tool Loading Injector	2 x Ln Key
1 x Adapter	1 x Water Bottle
2 x Cleaning Brush Wool	2 x Safety pin
1 x Cleaning brush steel	1 x Transit case fabric
1 x Cleaning Brush Nylon	1 x Multi position Stand with magnetic base
1 x Rod for cleaning brush	5 x bouncy Blocks and securing bands
Clamp and sleeves set	Spanner open jaw fixed
Carry case 1 and 2	Hand book



## **EOD Rapid Response Vehicle**



EOD Rapid Response Vehicle ensure rapid deployment of EOD teams by housing and conveying men and equipment to and around the EOD or IED incident site. The EOD vehicles integrate advanced systems and equipment such as EOD robots, detectors, mine clearance, Disruptors and protective clothing. Equipped with essential features of communications equipment, robot workstation, exterior LED lighting, robot storage, and folding assist ramps, our highly customizable vehicles serve militaries border patrol, and counter-terrorism missions.

#### **Key features**

- Facilities of working station to operate Robot.
- Provides space/work place for preparing EOD equipment.
- Vehicle's power plant is used for all electric power requirement.
- To be used as cover at the incident control points.
- Provisioning aids to store and pack the equipment in the vehicle.
- Incorporates the design, planning, and integration of a wide range of subsystems, tactical equipment, and tools.
- Equipped to the highest global standards, with advanced technologies.
- Anti-Slip Venial Flooring.
- Communication between front and rear cabin.
- Socket jacks provided in the cabin for connection of axillary lights.
- Pintle Hook for Bomb Container Trailer Installed on Rear of vehicle.



#### **Specifications**

Specifications	
Electric Winch	2000 lbs electric winch 12V 24V off-road vehicle self-rescue for vehicle crane vehicle winch.
Fire Extinguisher	1x 4Kg, 1x 6 Kg
<b>Equipment boxes</b>	As per user requirement
Driver seat adjustable type	Yes
Vehicle Mounted Generator	Yes
Illumination	<ul><li>6 x 12 DC lights inside vehicle.</li><li>2 x lights on each sides of the cabin.</li><li>2 x lights on rear side.</li><li>1x Flood light</li></ul>
Refrigerator to store water bottles.	2.5 cubic meters
Rechargeable battery	12v/100 ah.
Telescopic mast	2M in height
Vehicle Rear View Camera Monitor System.	4.3/5 Inch Car LCD Monitor Rear View Backup Camera for Vehicle Van Night Vision Reverse Video Parking System







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