



Explosive Ordnance Disposal

CYCLOPS MK4D REMOTELY OPERATED VEHICLE

The Cyclops MK 4D is the latest development in the Cyclops series, it has been developed from the well –proven MK4C variant that is in service with many military and law enforcement organisations worldwide.

Cyclops is supplied complete with a compact control station and a kit contains operating accessories of the highest quality standards.

Guaranteed back up and support is provided by AB Precision. AB Precision's comprehensive engineering facilities allow customer's unique requirements to be met.



Please note: This information is not intended to form the basis of a contract. Specifications subject to change without notice. Please contact ABP for further details.
© AB Precision (Poole) Ltd Issue 1, Jan 09

AB Precision (Poole) Ltd
1 Fleets Lane, Poole, Dorset BH15 3BZ

TEL +44 (0) 1202 665000
FAX +44 (0) 1202 441666

EMAIL eod@abprecision.co.uk
WEB www.abp-eod.co.uk



FM 24132

REACH & DEXTERITY

FACT: CYCLOPS has an arm that extends to a reach of 2m vertical or 1.1m horizontal

Cyclops has a Proven capability to:

- Open Doors
- Move Furniture
- Search Overhead Lockers
- Search Underneath Vehicles/seats
- Search Vehicle Boots / Trunks / Engine Compartments etc
- Search Bunks



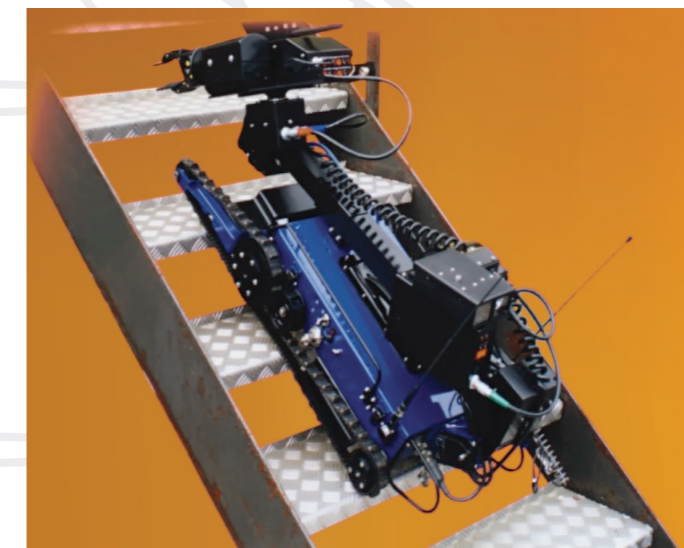
ACCESSORIES AND ATTACHEMENTS

Typical accessories that may be incorporated and used are:

- Additional cameras (4 video channels max)
- Hand held controller with video glasses
- X-Ray systems
- Chemical agent monitor systems
- Explosive "sniffer" systems

- Water disruptors up to maximum weight of 6Kg
- De-Armer systems up to maximum weight of 6Kg
- Shot gun or other small arms

Abrasive Water Cutting System for deployment of the AWCS nozzle for cutting into suspect vehicles and packages.



VERSATILITY, ADAPTILITY & EQUIPMENT INTEGRATION

THE CYCLOPS has a removable hand controller from the control station.

Vehicle control functions include:

- Vehicle drive, proportional joystick control
- Brake on / off control
- Arm extension and retraction, 2 speed control (High speed and operator adjustable low speed for accurate positioning)
- Arm raise and lower, 2 speed control (High speed and operator adjustable low speed for accurate positioning)
- Payload carrying head, pan and tilt controlled by joystick
- Automatic configuration for stair climb and descent
- Articulated drawbridge, automatic / down control
- 1 of 4 camera selection system
- Colour camera zoom control
- Auxiliary camera tilt facility (if fitted)
- Video / data channel selection
- Arm control for firing circuits with visual indication of armed status
- Fire control for each of 4 firing ccts
- Manipulator rotate and jaw control
- Drive system slow/fast speed control



CONTROL AND MOBILITY

THE CYCLOPS can be fitted with off road wheels

Terrain:-

Water fording capability:-
65mm tracked configuration
135mm wheeled configuration.

Paved

Open Country

Urban Settings

Undergrowth

Sand

Aircraft Steps

Aircraft Aisle

Bus & Train

Ship's Gangway

Ship/Submarine Passageway
(Bracket available to allow bulkhead door traverse)

Towing capability:- >1000Kg
(terrain dependent)

Stair Climb / descend capability
(tracked configuration only):-
Using auto configuration,
Maximum stair angle 45 degrees,
maximum riser height 200mm
Maximum tread 200mm.

Steeper angles possible with
manual configuration.

SIZE AND WEIGHT

Weight (without payload or accessories) 34kg

Size

Width 395mm max when in tracked configuration,
535mm max when in wheeled configuration,
Length 870mm drawbridge down 790mm drawbridge up,
Height (Stowed)400mm Max

MANEUVERABILITY & SPEED

Stair Climb / descend capability (tracked configuration only):-
Using auto configuration, Maximum stair angle 45 degrees, maximum
riser & tread 200mm.
Steeper angles possible with manual configuration.

Typical obstacle climbing height:- 400mm (manual configuration)
Typical gap / ditch traversing:- 500mm
Articulated drawbridge for first stair and obstacle climbing

Speed:- (proportional control) 0-3Km/hr tracked configuration,
0-6Km/hr wheeled configuration

Turning circle:- within diagonal length
Ability to fit 4 wheels for rural and off road capability, track system retained
when wheels are fitted to assist obstacle negotiation.

Water fording capability:- 65mm tracked configuration 135mm wheeled
configuration.

Brakes:- Operator controlled brakes to hold vehicle stationary on stairs of slopes.

Towing capability:- >1000Kg (terrain dependent)

PAYLOAD CARRYING AND DEPLOYMENT

Extending Arm:
Extended length greater than 2 metres, retracted length within vehicle footprint.
Position of arm:- Adjustable from +90 degrees (Vertically upwards) to minimum
-7 degrees (below horizontal).

Payload carrying head (situated on extending arm).
Pan facility:- +/- 185-degree rotation from normal front facing position.
Tilt facility:- +/- 90 degrees from normal horizontal position with automatic
system to keep head level as arm is raised and lowered.
Payload head allows quick change mounting of disruptors, de-armers
manipulators and other accessories.
Maximum payload:- 10Kg (Dependant on arm position)

Four firing circuits to allow initiation of weapons or other accessories.

Manipulator has jaw capable of opening from 0 to 100mm. Continuous rotation
capability, grip force = 45Kg (f) (Optional manipulator 0 - 230mm jaw opening
continuous rotation capability).

POWER SYSTEM:

Vehicle power derived from 24V-battery complete with capacity gauge.
Typical mission duration 2 - 6 hours depending on battery chemistry.
Base station duration 4 - 8 hours depending on battery chemistry.
Base station power derived from 12V battery system. Quick change facility.

VISION / CAMERA SYSTEM:

Payload carrying head contains:
1 colour zoom camera (26 X Optical zoom + 12 times digital zoom) auto focus,
auto iris, 460 TV lines. With automatic Infra Red mode for night vision.
1 mono camera, 98 degrees viewing angle, very low light capable (0.0005 lux).
2 spare video channels to allow fitment of extra cameras or other video systems.
Forward facing high power LED spot lamp.

Note: Standard accessories are:

Lateral head assembly which includes a forward facing colour zoom camera,
high power LED spot lamp and a rear facing B/W camera including rear infra red
illumination.

Fixed rear mounted camera module with 2 fixed colour wide angle cameras
(1 forward facing and 1 rearward facing), both cameras have automatic
Infra Red lighting for night vision).

CONTROL STATION KEY FEATURES

Control is by radio control 300 to 1000m range (condition dependent) or Fibre
Optic cable (100m, 200m, or 300m option). If Fibre optic cable is damaged in
use control will automatically switch to radio control.

Standard or customer specified radio frequencies (VHF, UHF, MW).

2 selectable channels for data and video radio system.

Video display 10.4 inch colour TFT LCD display (17 inch screen option).

Vehicle control functions include:

- Vehicle drive, proportional joystick control
- Brake on / off control
- Arm extension and retraction, 2 speed control
- Payload carrying head, pan and tilt controlled by joystick
- Automatic configuration for stair climb and descent
- 1 of 4 camera selection system
- Articulated drawbridge, up/down control
- Colour camera zoom control
- Auxiliary camera tilt facility (if fitted)
- Video / data channel selection
- Arm control for firing circuits with visual indication of armed status
- Fire control for each of 4 firing ccts
- Manipulator rotate and jaw control
- Drive system slow/fast speed control

AUDIO SYSTEM:

Vehicle mounted microphone, audio monitoring headphones at base station

OPTIONS

Typical accessories that may be incorporated and used are:
Additional cameras (4 video channels max)
Hand held controller with video glasses
X-Ray systems
Chemical agent monitor systems
Explosive "sniffer" systems
Manipulator

ARMAMENT

- Water disruptors up to maximum weight of 6Kg
- De-Armer systems up to maximum weight of 6Kg
- Shot gun or other small arms

Please note: This information is not intended to form the basis of a contract. Specifications subject to change without notice. Please contact ABP for further details.
© AB Precision (Poole) Ltd Issue 1, Jan 09