

# MK3 CALIBER® EOD ROBOT

Articulating Twin Disrupter Turret



Claw Attachment Kit



Lifts up to 65 lbs (29 kg)



X-ray Mount



Arms fold back for easy storage



Extended Disrupter Reach



Portable Command & Control Unit (CCU)



Climbs Stairs

Drags and Tows

## MULTI-USE

The MK3 CALIBER® EOD robot satisfies the need for a medium-sized platform that offers the towing and dragging capability of a larger robot with the speed, agility, and dexterity of smaller lightweight platforms.

## COST EFFICIENT / MODULAR

The MK3 CALIBER® offers mission critical dependent features at a low cost. The robot's modular design, based on bomb technicians' recommendations, results in reduced maintenance costs through easy platform upgrades, field repair, and part replacement.

## MULTIPLE WEAPONS

The 315° rotating, 250° tilting Twin-Disrupter Turret provides unparalleled aiming capability for 2 recoilless disrupters. Aiming each weapon is accomplished with integrated cross-hairs on the CCU screen, 2 green lasers and 1 color camera per weapon. Four independent firing circuits are used for initiating recoilless disrupters, and other RSP or x-ray systems.

## MANEUVERABLE

The MK3 CALIBER® accelerates up to 4.4 mph (7 km/h) due to its drive motors, 6X6 pneumatic wheels, rubber tracks, and 3-speed drive system. The low end speed provides the torque needed to climb steep stairs and easily navigate all types of rugged terrain including snow and sand.

## COMMAND & CONTROL UNIT (CCU)

The weather resistant CCU's low reflection 15" (38 cm) LCD color screen shows clear images in both bright and low light conditions from any of the 6 color cameras on the robot. The CCU provides precise operation of the MK3 CALIBER® using the variable speed joystick and a real-time dedicated Pan-Tilt-Zoom (PTZ) camera joystick. It also provides easy operation through its on deck 3-D robot layout, LED button indicators, and user feedback.

## MISSION TIME

Two robot battery packs are included in the standard package. Each battery pack powers the robot for 3 – 5 hours (mission dependent) on a single charge. Batteries can be swapped in seconds, which extends mission duration.

## DEPLOYED WORLDWIDE

The MK3 CALIBER® is in use by law enforcement agencies throughout the USA, Canada, Europe, Latin America, Middle East, and Asia.



MK3 CALIBER® EOD Robot

## Standard Features

FEATURE	DESCRIPTION
Drive System	<ul style="list-style-type: none"> <li>• 3-speed, 6x6, all-wheel drive system</li> <li>• 6 Pneumatic tires with quick release coupler</li> <li>• Rubber Tracks over pneumatic tires</li> <li>• Manual Anti-flip bar for climbing stairs</li> <li>• Low Gear: Stair Climbing &gt; 1 mph (1.6 km/h)</li> <li>• Med. Gear: 0-1.7 mph (0-3.2 km/h)</li> <li>• High Gear: 0-4.4 mph (0-7 km/h)</li> </ul>
Robotic Claw on Telescoping Arm	<ul style="list-style-type: none"> <li>• Claw with 360° continuous rotation, 10" (25 cm) opening and rubber lined effectors</li> <li>• 1 x Color CCD Camera with LED lights</li> <li>• 71" (180 cm) Vertical Reach</li> <li>• 26" (66 cm) Horizontal Reach from Chassis</li> <li>• Shoulder Range: 0-100°</li> <li>• Lift capacity: 65 lbs (29 kg)</li> </ul>
Twin-Disrupter Turret on Telescoping Arm	<ul style="list-style-type: none"> <li>• 2 x mounting brackets for recoilless disrupters (<i>*Note: use only recoilless disrupters</i>)</li> <li>• 2 x Color CCD Weapon Cameras</li> <li>• 4 x Aiming Green Lasers</li> <li>• 2 x LED Lights</li> <li>• Turret Rotate: 0-315°</li> <li>• Turret Tilt: 0-250°</li> <li>• Motorized Arm Extension: 16" (41 cm) travel</li> <li>• Shoulder Range: 0-100°</li> </ul>
PTZ Camera	<ul style="list-style-type: none"> <li>• Pan-Tilt-Zoom (PTZ) color camera</li> <li>• 30X optical zoom color camera with LED lights</li> <li>• 360° continuous rotation</li> <li>• Folds down for transportation</li> <li>• Manual Telescopic height adjustment</li> </ul>
Front/Rear Drive Cameras	Color CCD cameras with IR light.
Firing System	• 4 x 24V Firing Circuit
Hardwire Tether	Standard 500' (152 m) tether reel with Slip Ring; used as an alternative to RF control.
Robot Battery Pack	2 x 13 Ah, 24V DC, quick-change, rechargeable, lead-acid battery.
Battery Chargers	<ul style="list-style-type: none"> <li>• 1 x Robot: 24V DC/110 or 220V AC</li> <li>• 1 x CCU: 12V DC/110 or 220V AC</li> </ul>
CCU	<ul style="list-style-type: none"> <li>• Command and Control Unit to operate robot</li> <li>• Multi-function control, variable speed joystick</li> <li>• 15" (38 cm) daylight readable LCD Screen</li> <li>• Battery status indicator</li> <li>• Video jack output to auxiliary monitor</li> <li>• Audio output and MP3 audio input</li> <li>• Weather resistant</li> </ul>
RF System	Data and Video RF wireless systems.
Digital 2 - Way Audio	Two-way (talk/listen) PTT communication with headset; audio in/out ports to connect to MP3 player or external speakers.
Training Course	One day Robot Operation and Maintenance course (either at ICOR or customer's facility).
<b>WARRANTY</b>	<b>2-YEAR LIMITED WARRANTY</b>
<b>TECHNICAL SUPPORT</b>	<b>UNLIMITED TECHNICAL SUPPORT</b> <a href="mailto:customerservice@icortechnology.com">customerservice@icortechnology.com</a>

## Optional Features

FEATURE	DESCRIPTION
Auxiliary Claw Camera	Mounted on the wrist of the robot the Auxiliary Claw Camera's adjustable folding arms can be manipulated to have multiple viewing angles of the claw.
Picture-in-Picture	Quad screen Picture-in-Picture (PIP) allows for simultaneous viewing of four cameras.
Digital Video Recorder	Integrated into the hardshell case of the CALIBER <sup>®</sup> CCU. The DVR captures video and pictures up to 320GB. Built-in 5" (13 cm) LCD Touch Screen.
FLIR <sup>®</sup> Thermal Image Camera	The thermal imaging camera displays heat signatures in color or B/W and is mounted in place of the PTZ camera.
Claw Attachment Kit	Set of tools for CALIBER <sup>®</sup> claw includes: window breaker, tire deflator, finger extension, cutting hook, utility knife, multiple effectors and hook & line accessories.
Spare Parts Kit	Set of basic spare parts for CALIBER <sup>®</sup> Robot.
X-ray Mount	Mounting bracket for major x-ray systems.
Truck Mount	External truck brackets for RF system.
Handheld Controller Unit	Lightweight HCU connected via tether input port provides full motor control of robotic arm, drive system and LED lights. Wireless Bluetooth model also available.
Shock Tube Initiator	2-Channel Shock Tube Initiator with attachment mounts.
Auxiliary Pole Camera	Manually extendable Camera Pole fastens onto disrupter mount to provide a surveillance option up to 142" (361 cm) above ground, or provides remote under-vehicle video inspections.
RF Extender	Increases Video/Data distance up to 500' (152m) and overcome LOS issues.
Motorized PTZ	Remotely controlled telescoping PTZ mast allows the camera to reach a height of 56" (142 cm) from the ground.
Motorized Anti-flip	Remotely stowable anti-flip bar allows for climbing stairs and navigating confined spaces by shortening robot's chassis.
Fiber Optic Reel	1000' (305m) milspec fiber-optic tether reel with motorized spooler for use as a backup to RF control.

## Specifications

Mission Time	3 – 5 hours +, mission dependent
Width	24" (61 cm)
Height (Stowed Position)	22.5" (57 cm)
Length	36.5" (93 cm)
Ground Clearance	3" (8 cm) - allows for driving in snow and sand
Weight	197 lbs (89 kg) with batteries
Drag Capacity	250 lbs (113 kg)
Stair Climbing Angle	40° - 45° depending on stair structure
Weather Resistance	Environmentally sealed; chem.-bio wash down capability
Third Party Tested	NIST