



RFO System (Remote Firing Option)

Patent Pending

Product Summary

The RFO is a drop-in kit that adds remote control capability to the weapon in a motorized turret.

Features/Benefits

- Allows option of manned or remote weapon operation.
- Allows threat engagement with greater accuracy and maximum protection.
- Remote control via RFO user interface.
- View the threat environment on hi-res video display.
- Major Improvement in crew survivability and system effectiveness.

Description

The **RFO** System is a kit that drops into the pintle of an existing motorized turret, and it provides remote control of both the weapon and the turret. The RFO consists of low-cost, commercial-off-the-shelf components. These “plug-and-play” components include a remote fire solenoid, low light camera, user interface with color display, joystick and trigger. The RFO weapon system is simple to operate with minimal training, and provides a major tactical advantage by allowing the gunner to deliver suppressive firepower from a protected position.

The RFO System utilizes an intuitive user interface that incorporates a built-in high-definition display. Joystick and trigger controls are straight forward, allowing for quick training and qualification.

Depending on threat/situation, the RFO provides the gunner with the option of manual turret operation, or remote operation. Manual operation provides superior situational awareness, while remote operation provides dramatically improved protection by operating from within the hull of the vehicle. Remote mode also provides improved accuracy and much greater targeting distance due to the RFO's excellent optics and display.

RFO is a modular upgrade to existing ITDS turrets and other platforms. It does not interfere with current armor configurations. Existing fleets can be incrementally upgraded at the Field Depot Level or Theater Storage Area (TSA) in less than one day. The RFO improves lethality while maximizing vehicle mission time.

When in remote mode, the RFO:

- Locks the gun in alignment with the camera
- Enables the firing solenoid
- Activates camera, and user interface for control of the weapon
- The gunner then uses the user interface to locate and engage the target.



Turret with RFO System



RFO User interface



RFO enables remote operation of the turret while protected inside the vehicle.

About Us

Control Solutions LLC has designed and manufactured field-hardened systems to meet the challenges of the military for over 20 years. Control Solutions LLC, your rapid-response provider of motion control solutions.



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BR0120-03.1



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RFO Specifications																																																													
System																																																													
Shock		MIL-STD-810G, 516.6																																																											
Vibration		MIL-STD-810G, 514.6 procedure 1																																																											
Input Voltage		24VDC; 15 A Max (Traverse and elevation operation)																																																											
Weight		45kg																																																											
Temperature		Operating: -20°C to +55°C Storage: -40°C to 85°C																																																											
Humidity		5% - 95% non-condensing MIL-810G, 507.5																																																											
Sealing		IP66																																																											
Salt Spray		MIL-STD-509.6																																																											
Data Interface		CAN J1939																																																											
Video Input		Capable of supporting 2 Independent NTSC video inputs																																																											
Weapon Elevation Limits		M2, -10° - +45°																																																											
User Interface																																																													
Display		5.0 inch VD sunlight readable																																																											
EMI/EMC		MIL-STD 461; MIL-STD 464																																																											
Accessories		<ul style="list-style-type: none"> • Molle Holster • Care Kit • Hard Case 																																																											
Camera																																																													
Video Format		NTSC																																																											
Resolution		1080P																																																											
Zoom		32X Optical Zoom; 4X digital Zoom (128X Total Zoom)																																																											
Low-Light Capable		Dusk to Dawn <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2" rowspan="2"></th> <th colspan="2">Target Size</th> <th colspan="2">Man</th> <th colspan="2">Vehicle</th> </tr> <tr> <th colspan="2">Zoom Level</th> <th>1</th> <th>32</th> <th>1</th> <th>32</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Detect</td> <td>Day</td> <td></td> <td></td> <td>318</td> <td>3563</td> <td>665</td> <td>4813</td> </tr> <tr> <td>Night</td> <td></td> <td></td> <td>226</td> <td>1338</td> <td>483</td> <td>1872</td> </tr> <tr> <td rowspan="2">Recognize</td> <td>Day</td> <td></td> <td></td> <td>127</td> <td>2184</td> <td>279</td> <td>3370</td> </tr> <tr> <td>Night</td> <td></td> <td></td> <td>86</td> <td>820</td> <td>193</td> <td>1366</td> </tr> <tr> <td rowspan="2">Identify</td> <td>Day</td> <td></td> <td></td> <td>85</td> <td>1641</td> <td>187</td> <td>2720</td> </tr> <tr> <td>Night</td> <td></td> <td></td> <td>56</td> <td>595</td> <td>126</td> <td>1066</td> </tr> </tbody> </table> <p>Identification at full optical zoom >2500m for vehicle size target (Day)</p> <ul style="list-style-type: none"> • Man sized target = 1.75 sq. meters • Vehicle sized target = 4 sq. meters • All calculations in meters • Zoom Level 1 = no optical or digital zoom • Zoom Level 32 = 32x optical zoom, no digital zoom • Night = Nighttime conditions, full moon 			Target Size		Man		Vehicle		Zoom Level		1	32	1	32	Detect	Day			318	3563	665	4813	Night			226	1338	483	1872	Recognize	Day			127	2184	279	3370	Night			86	820	193	1366	Identify	Day			85	1641	187	2720	Night			56	595	126	1066
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Weapon																																																													
Currently Supports		M2 .50 cal (12.7mm)																																																											
Future Support		M240 (7.62mm) M134 (7.62mm) M230LF (30mm) Mk19 (40mm GL)																																																											

All specifications subject to change without notification.



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