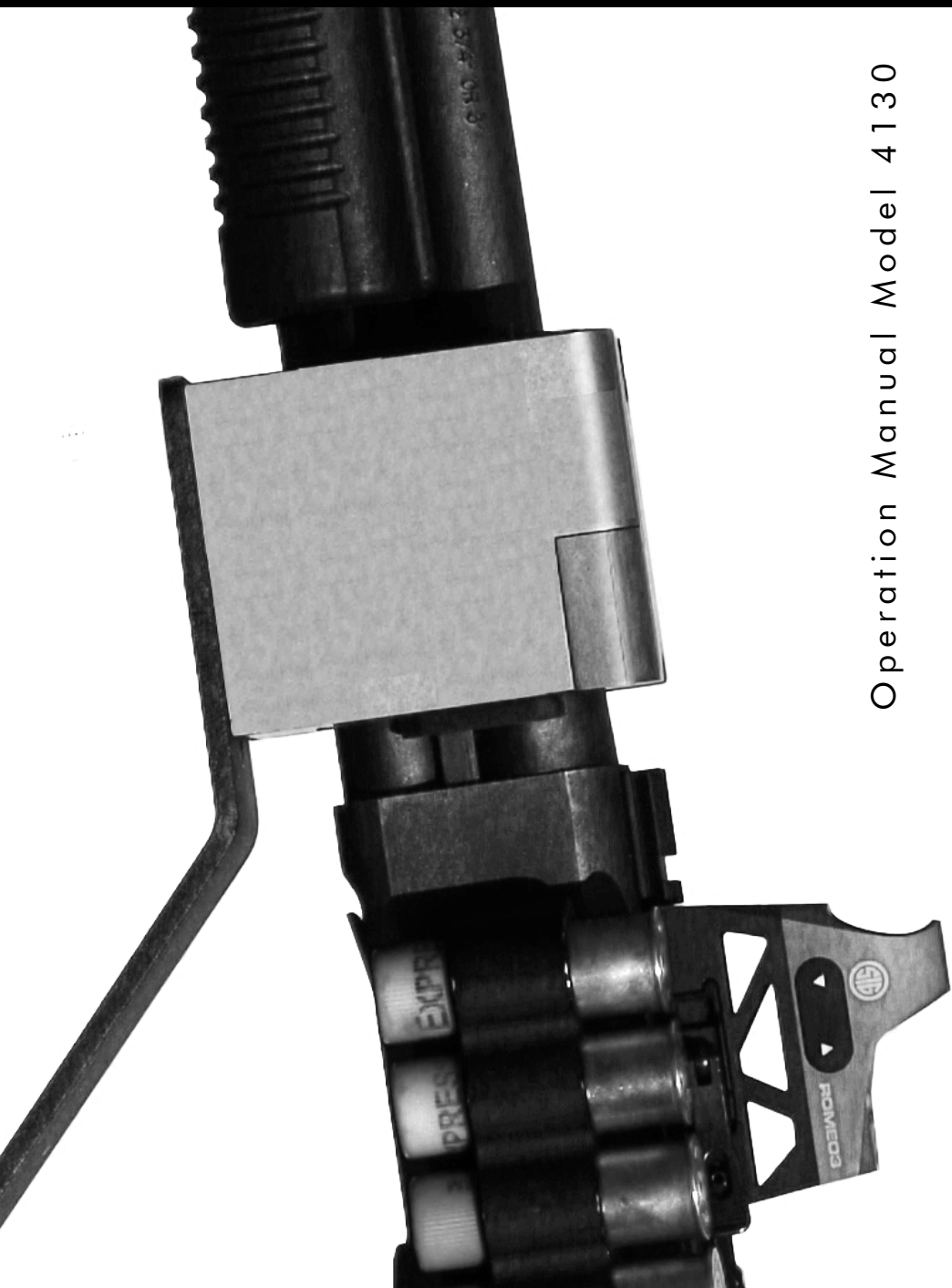


BLAC-RAC[®]

WEAPON RETENTION SYSTEMS



Operation Manual Model 4130





Section **1**
4130 Parts Diagram

Section **2**
Unlocking Operation


Section **3**
Mounting & Proper Alignment

Section **4**
Electrical Wiring Installation

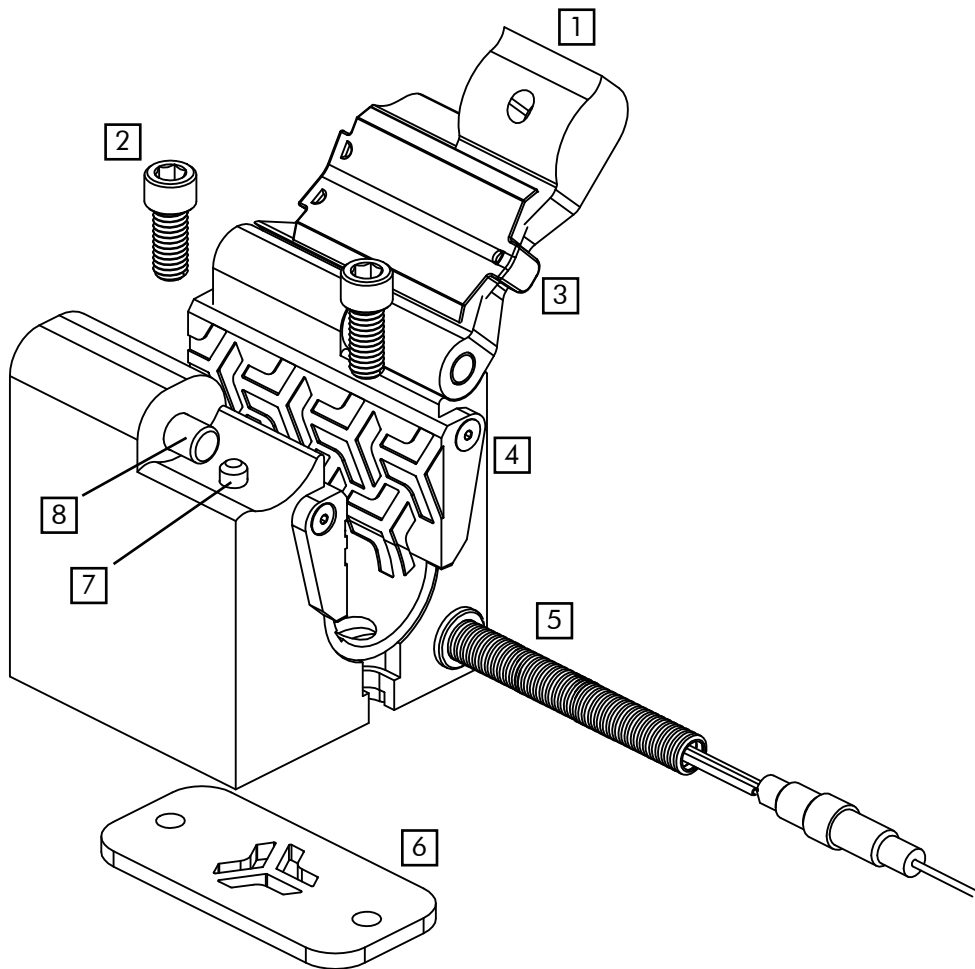
Troubleshooting

Contact

208.855.9388
info@blac-rac.com



SECTION 1 | Parts Diagram



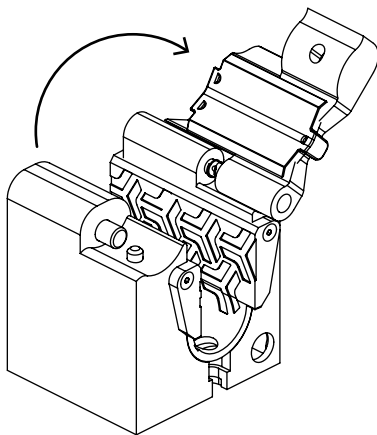
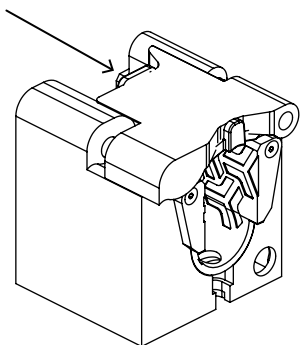
1	Security Lid
2	x2 Mounting Bolts 5/16-18 x 3/4" Button Head Bolt
3	Plastic Lid
4	Rubber Pad
5	Wires & Fuse Holder
6	Double Nut
7	Solenoid Pin
8	Key Lock Plunger

SECTION 2 | Unlocking Operation

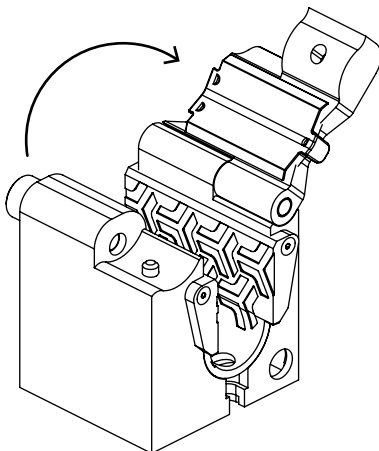
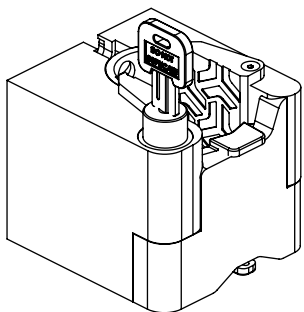
[1] To Unlock the BLAC-RAC there are two distinct operations.

[2] The first operation requires the BLAC-RAC to be connected to the vehicle's power as outlined in Section 4 to actuate the Solenoid Pin. As the pin descends the Security Lid cannot openly pivot about the hinge. To open, the user must slide the lid down until it has cleared the key lock plunger. At this point the lid is able to openly pivot about the hinge.

Note: To close the unit, the user must once again slide the lid down to clear the key lock plunger and then release.



[3] The second operation requires the user to unlock the unit mechanically with the lock's key. Upon unlocking the lock will pop out allowing the user to pivot the lid without the need to slide the lid down.



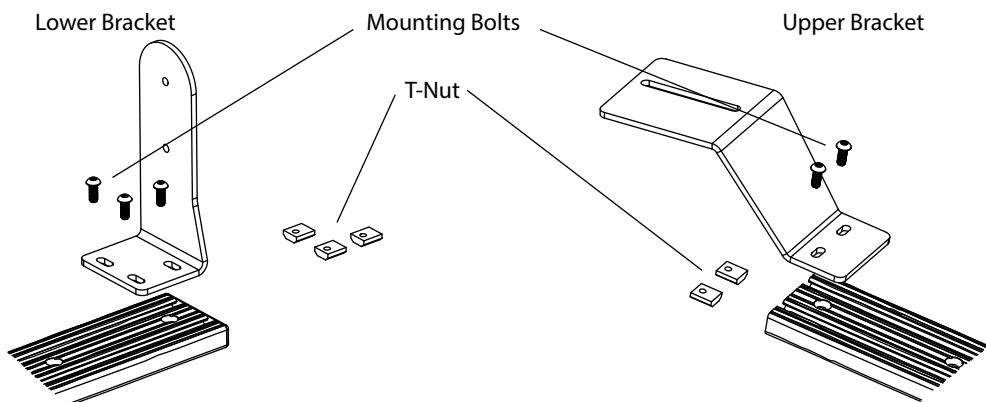
SECTION 3

Mounting & Proper Alignment

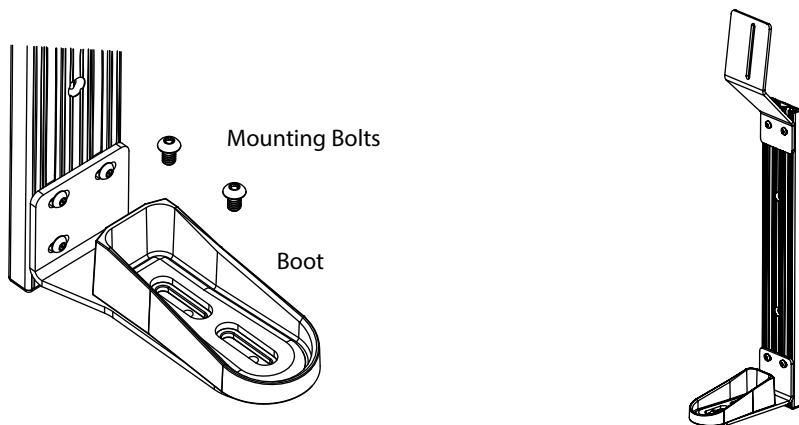
CAUTION: The user is responsible for determining the proper installation location, surface type, and that the mounting hardware used can hold the T-Channel and BLAC-RAC securely.

BLAC-RAC Manufacturing, Inc. accepts no liability of any kind or extends any warranty for any type to user defined and installed mounting schemes or materials used in mounting the product to any surface whether stationary or mobile.

[1] Place and apply thread locking fluid to the mounting bolts through the holes on the bracket(s) and loosely attach the t-nuts. Slide the brackets into the slots of the T-Channel and tighten loosely. You will fully tighten after brackets are positioned correctly.



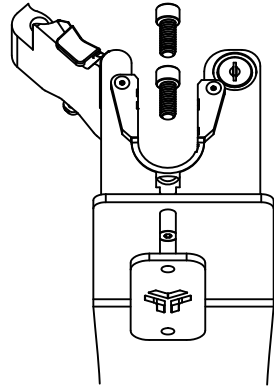
[2] Install boot into lower bracket by securing the boot with the two mounting bolts. Thread locking fluid is not necessary. Final bracket assembly should look like the figure shown.



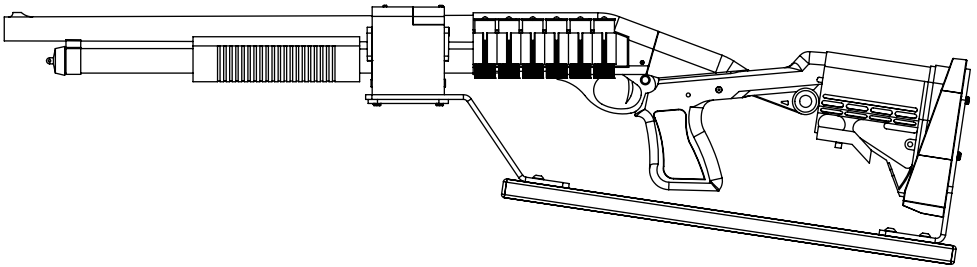
SECTION 3

Mounting & Proper Alignment

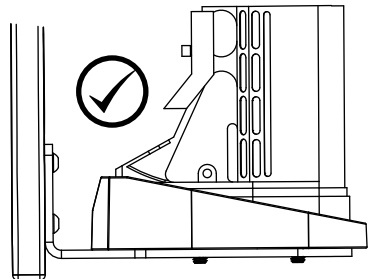
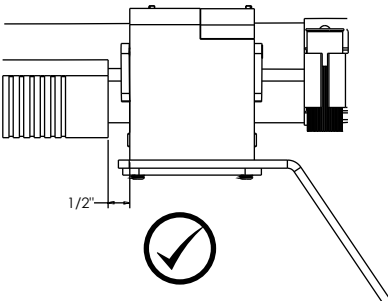
[3] To Install the BLAC-RAC to upper bracket begin by applying thread locking fluid to the two mounting bolts. Place bolts thru the unit and thru the slot located on the bracket. Secure bolts using the double nut on the backside of the bracket. Normal orientation for the BLAC-RAC is lock facing up, however the opposite orientation will not affect performance if user prefers. Torque to 15 - 20 foot pounds.



[4] To ensure proper alignment place a shotgun or shotgun replica in the mount as shown following all proper safety procedures for handling firearms.



[4] For optimal mounting ensure the pump forend is spaced about 1/2" above the BLAC-RAC as shown. After moving both upper and lower bracket until shotgun sits correctly torque bracket bolts down 7 - 10 foot pounds. Finally adjust boot until butt stock fits snugly inside. Tighten to 3 - 5 foot pounds



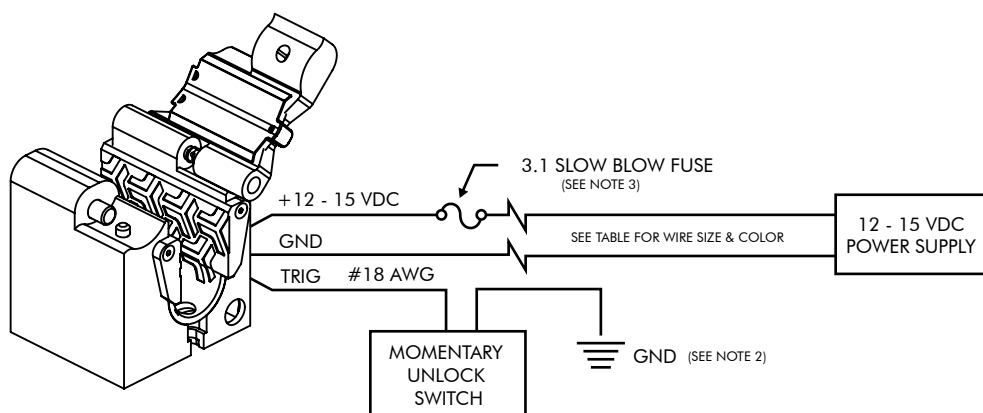
SECTION 4 | Electrical Wiring Installation

The BLAC-RAC must be wired in exact adherence to these instructions. Failure to properly wire the unit, including the required 3.1 Amp Slow Blow Fuse, will cause the BLAC-RAC to malfunction. Wiring incorrectly will void the warranty.

BLAC-RAC MANUFACTURING INC. desires a successful installation process and will provide technical assistance as needed.

The BLAC-RAC requires a 12VDC power source to operate. The BLAC-RAC can be wired directly to the battery (always on) or to power source controlled by the vehicle's ignition switch. At initial activation, the BLAC-RAC will cycle one time for its 8 second timing cycle and then return to the locked position. This ensures the BLAC-RAC is functioning normally.

There is a 3.15 Amp Slow Blow Fuse with a time delay of 500ms installed in the cable assembly. The BLAC-RAC requires the use of the fuse in order to function properly. A single BLAC-RAC requires a power source that can provide 10 amps for 300ms. To activate 2 units simultaneously, the power source must be capable of providing 20 amps.



Notes:

- [1] For proper operation, the source resistance between the BLAC-RAC and the power source should not exceed 0.1 Ohms
- [2] Proper wiring procedures require a clean ground and use of an external star washer to ensure metal to metal contact for painted or plated surfaces.
- [3] Fuse (P/N 04773.15MXP) can be purchased directly from BLAC-RAC (No fuse other than the one described can be used)

SECTION 4 | Electrical Wiring Installation

GROUND [-]	BLACK		WIRE LENGTH	WIRE GAUGE	WIRE GAUGE TRIG
POWER [+]	RED		8 FT.	#18 AWG	#18 AWG
			13 FT.	#16 AWG	
TRIGGER	GREEN		20 FT.	#14 AWG	

A momentary switch is not provided. The end user must define how the BLAC-RAC will be wired and activated. The electrical rating of a momentary switch we have supported upon request is rated at 3 amps at 125VAC SPST Momentary.

IMPORTANT If the Green Trigger is not used, it is HIGHLY recommended that it be completely insulated from any possible electrical conductive surface.

IMPORTANT – If the Blac-Rac is wired to 120VAC power, you must convert the 120 VAC to 12VDC. A licensed electrician is recommended to complete this type of installation.

The 3.15 Amp Slow Blow Fuse must remain installed on the power wire extending from the BLAC-RAC.

UPGRADE FOR ELECTRONIC MODELS BELOW

COLD-WIRE[®]
technology

- Prevents hot-wiring of the electronic lock if an external power source is applied to power wires
- Compatible with a siren control box or momentary switch
- Undetectable inside vehicle, cannot be “skimmed” with EMF detection
- Field upgradeable for all BLAC-RAC electronic models currently in service
- Compatible ONLY with BLAC-RAC weapon retention systems
- Small size makes device easy to conceal in hard to reach areas
- Each COLD-WIRE device can secure one or two BLAC-RAC weapon retention systems
- Proprietary and patented technology

TROUBLESHOOTING

Troubleshooting Procedures Found on Next Pages

General Information

The BLAC-RAC requires a 12-volt DC power source capable of providing up to 10 amps to operate a single BLAC-RAC and a 12V power source with up to 20A to operate two. The BLAC-RAC can be opened by a stand-alone momentary switch or by a siren control switch that provides timed power. The type of momentary switch used must be “normally open” for a standard BLAC-RAC and “normally closed” if using a BLAC-RAC with COLD-WIRE.

Installations that are using a stand-alone momentary switch can be wired directly to the battery (always on) or a power source controlled by the vehicle’s ignition switch. If the BLAC-RAC is wired to ignition power, the BLAC-RAC will cycle one time for its 8-second cycle and then return to the locked position each time the ignition switch is placed in the on position. This ensures the BLAC-RAC is functioning normally. The BLAC-RAC will not cycle each time the key is turned on if it is wired directly to battery power. It should be noted that the BLAC-RAC will have constant power even while the vehicle is unattended if it is wired directly to battery power.

The standard delay time for the BLAC-RAC is 8 seconds. If using a siren box, the gun lock switch must provide timed power for at least 8 seconds. BLAC-RAC electronic units can be ordered with specific delay time depending on the application. Special orders could have a longer than normal lead time.

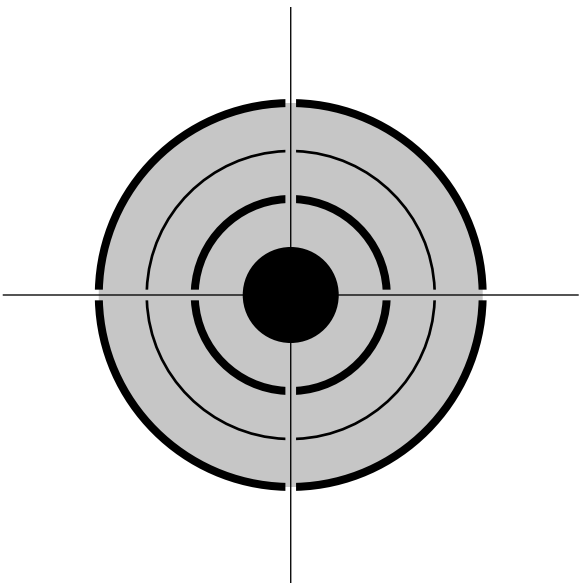
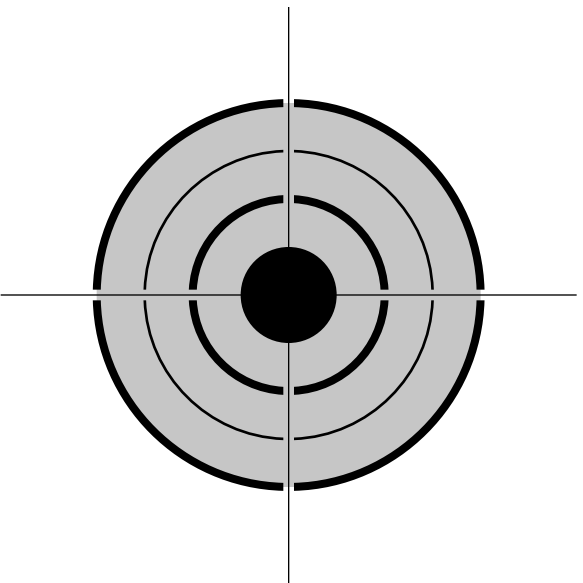
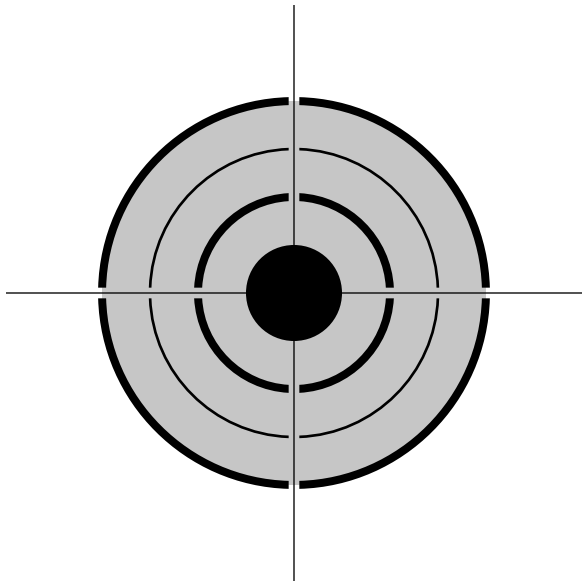
The BLAC-RAC opens by using a negative ground trigger. If a control box or timer is used that uses a positive ground trigger, a relay will be necessary to reverse polarity to a negative trigger to open the BLAC-RAC.

COLD-WIRE prevents the BLAC-RAC from being opened if the power wires feeding the unit are cut and an external power source is applied to the wires. COLD-WIRE uses a transmitter to send a digital signal to a receiver that is part of the circuit board installed in the BLAC-RAC. A COLD-WIRE equipped BLAC-RAC will not open if it does not receive a signal from the transmitter after the command to open is initiated. To operate correctly, COLD-WIRE must be used with a BLAC-RAC that has a V4 circuit board installed. All new production electronic models will ship with the V4 circuit board. Earlier models, pre-2019, will have earlier firmware which will need to be upgraded and can be done in the field. A single COLD-WIRE transmitter can be used with two units. Once a BLAC-RAC has been paired with a transmitter, that unit must be used with a transmitter or it will not open. Any transmitter can be used with any BLAC-RAC. The circuit board must be replaced to use it without a COLD-WIRE transmitter.

Please refer to blac-rac.com/instructions for installation videos.

TROUBLESHOOTING

PROBLEM	CHECK	POSSIBLE CAUSE	ACTION
BLAC-RAC does not Open Electronically	Vehicle Power Supply	Output is not 12 Volts DC	Replace Supply so Output is 12 Volts DC
	Wires	Bad Ground	Ground BLAC-RAC to Negative Power Supply Terminal
		Pinched Wires	Inspect for Pinching Connecting BLAC-RAC to Power Supply
			Inspect for Pinching Inside Lid Cover
		Wires not Connected	Confirm Connectors are Plugged into Circuit Board
	Fuse	Blown Fuse	Replace ONLY with Littelfuse 04773.15MXP
		Fuse not in Contact with Fuse Housing	Unscrew Housing and Ensure Fuse is Making Contact
	Switch	Switch is not Functioning Correctly	Replace Switch
		Incorrect Switch Selection (if using COLD-WIRE)	COLD-WIRE Requires a Normally-Closed Momentary Switch
	Slam Latch Pin	Pin has Seized inside Solenoid	Return Unit to BLAC-RAC Factory for Warranty
	Circuit Board	Circuit Board has Failed	Field Repair with New Circuit Board
			Return Unit to BLAC-RAC Factory for Warranty
	Solenoid	Solenoid Wires Pinched or Damaged	Return Unit to BLAC-RAC Factory for Warranty
		Solenoid has Failed	



2.0" Ø Outer Target
Every Step Reduces Ø 1/2"