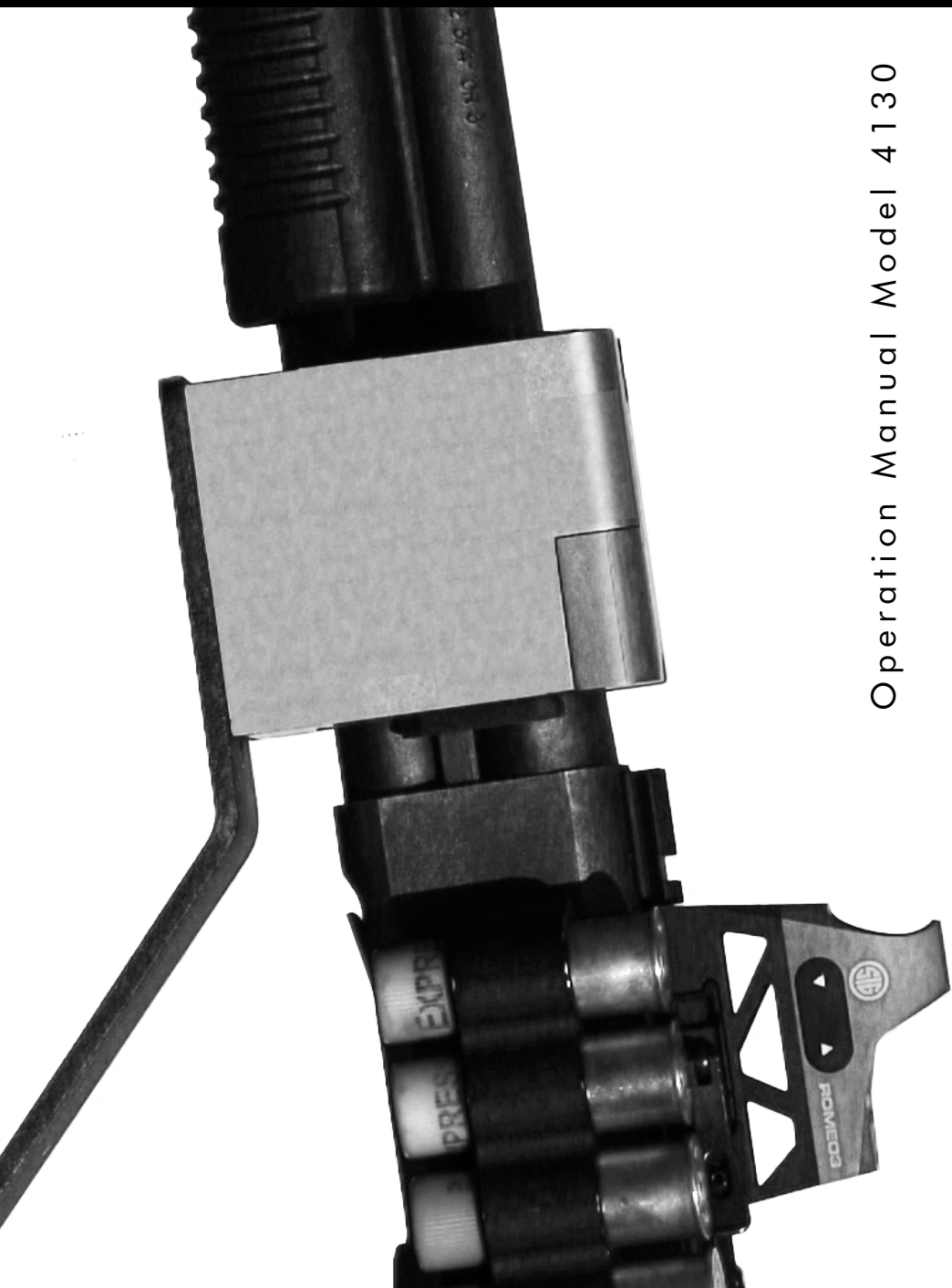


BLAC-RAC[®]

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

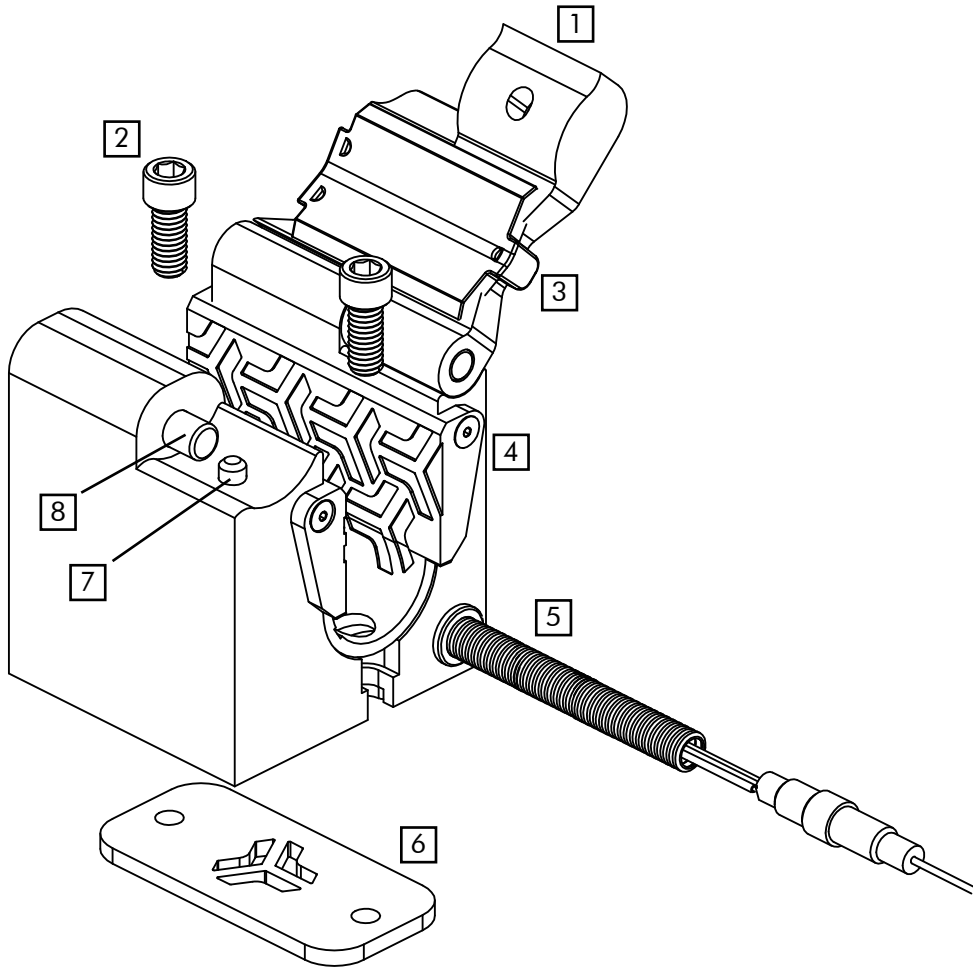
Contact

208.855.9388
info@blac-rac.com



SECTION 1

Parts Diagram



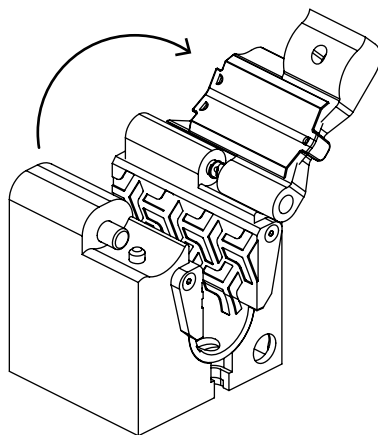
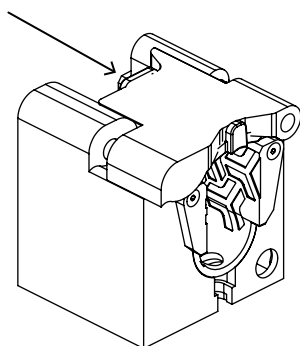
1	Security Lid
2	x2 Mounting Bolts 5/16-18 x 3/4" Button Head Bolt
3	Plastic Lid
4	Rubber Pad
5	Wires & Fuse Holder
6	Double Nut
7	Solenoid Pin
8	Key Lock Plunger

SECTION 2 | Unlocking Operation

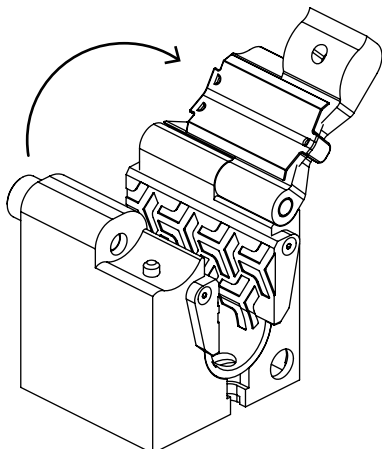
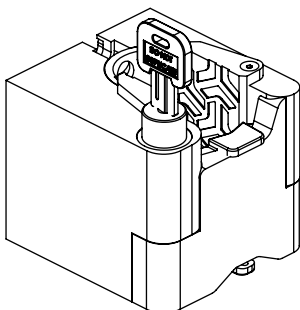
[1] To Unlock the BLAC-RAC there are two distinct operations.

[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.



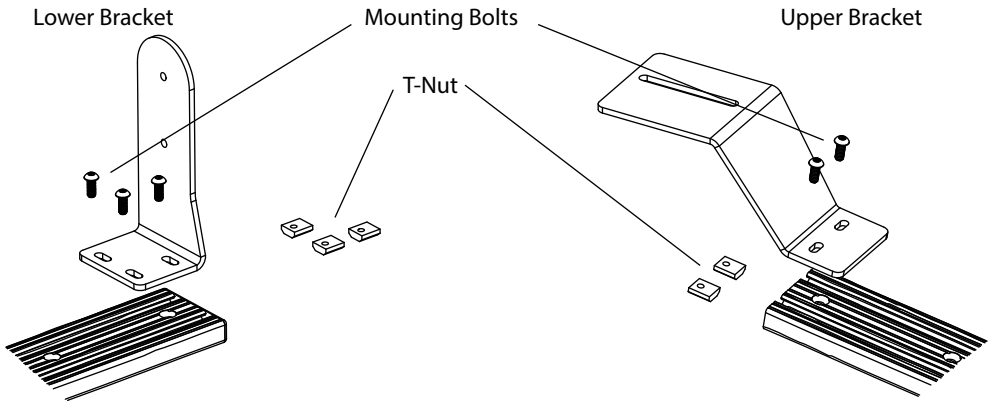
SECTION 3

Mounting & Proper Alignment

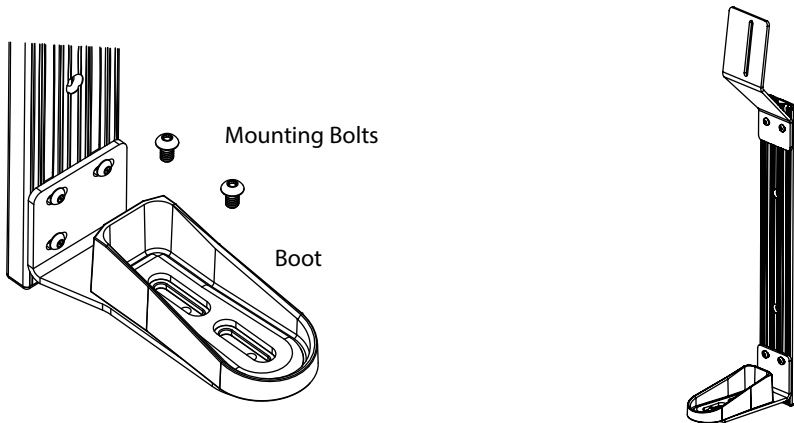
CAUTION: The user is responsible for determining the proper installation location, surface type, and that the mounting hardware used can hold the T-Channel and BLAC-RAC securely.

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.



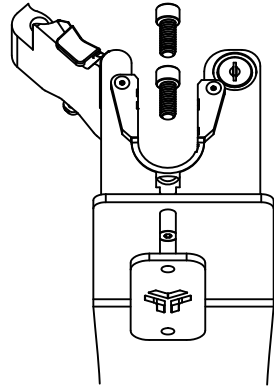
[2] Install boot into lower bracket by securing the boot with the two mounting bolts. Thread locking fluid is not necessary. Final bracket assembly should look like the figure shown.



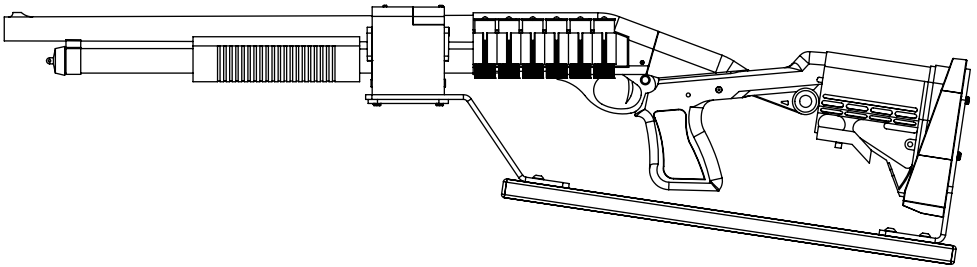
SECTION 3

Mounting & Proper Alignment

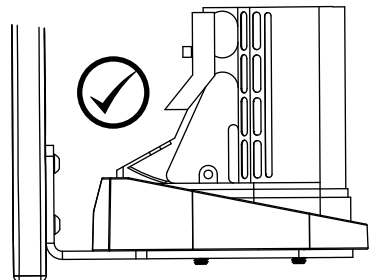
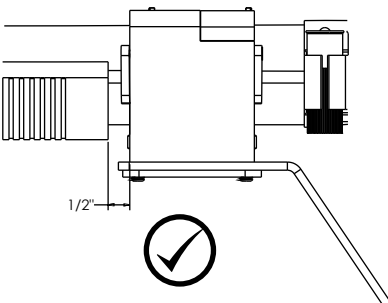
[3] To Install the BLAC-RAC to upper bracket begin by applying thread locking fluid to the two mounting bolts. Place bolts thru the unit and thru the slot located on the bracket. Secure bolts using the double nut on the backside of the bracket. Normal orientation for the BLAC-RAC is lock facing up, however 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.

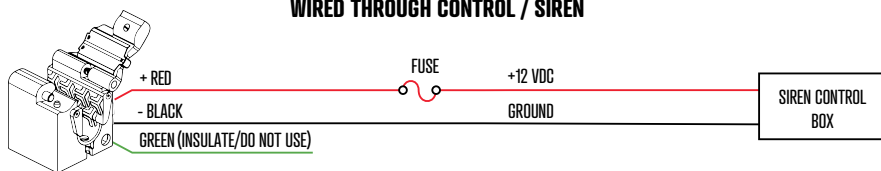


[4] For optimal mounting ensure the pump forend is spaced about 1/2" above the BLAC-RAC as shown. After moving both upper and lower bracket until shotgun sits correctly torque bracket bolts down 7 - 10 foot pounds. Finally adjust boot until butt stock fits snugly inside. Tighten to 3 - 5 foot pounds

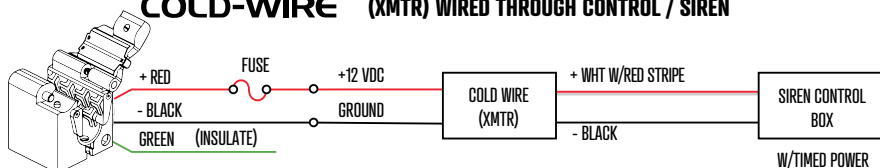


SECTION 4 | Electrical Wiring Installation

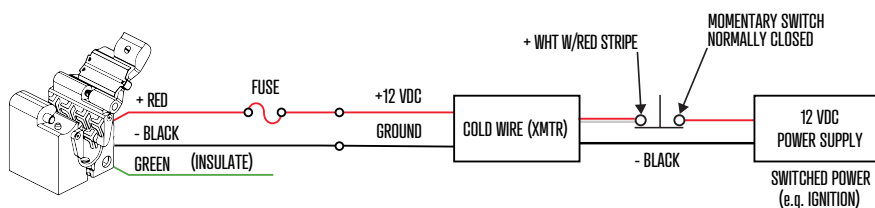
WIRED THROUGH CONTROL / SIREN



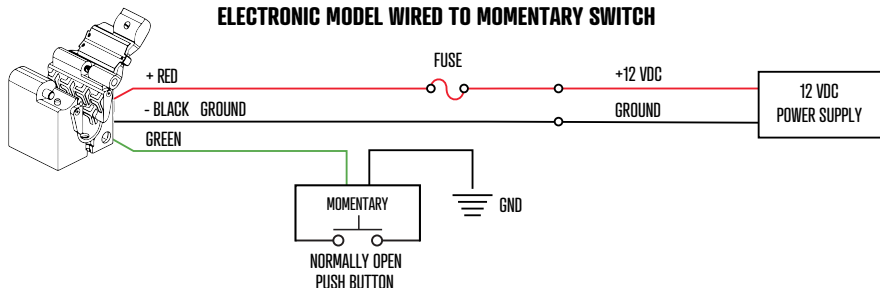
COLD-WIRE® (XMTR) WIRED THROUGH CONTROL / SIREN



COLD-WIRE® (XMTR) USING MOMENTARY SWITCH ONLY



ELECTRONIC MODEL WIRED TO MOMENTARY SWITCH



WIRE CHART	
GROUND [-]	BLACK
POWER [+]	RED
POWER [+]	WHITE/RED
TRIGGER	GREEN

Dimensional: 3.0" X .655" X .250"

Electrical: 12 VDC 20 Amps Max.

Wire: 6.0" Red+ and Black-
7.5 White w/Red Stripe+ and Black-
TXL-22 UL1013, CSA 600V 105C

SECTION 4 | Electrical Wiring Installation

These instructions apply to all Blac-Rac electronic models Version V4 and above.

There are three TXL-22 Gauge wires exiting through the bottom of the frame. They are Red + Power, Black – Ground and Green used for a Momentary Switch. The TXL-22 is a 22 Gauge automotive primary wire. It is rated up to 60 VDC. Temperature range is -51C to +125C. The Red wire is fused with a 6 x 20 mm size, Littlefuse 3.15477, 500V fuse, the exact same fuse is required. Failure to do so will result in the Warranty **BEING VOIDED**. Fuse can be ordered from Blac-Rac using Part Number 04773.15MXP. Longer wires may be required. Check the Wire Chart at the bottom of this page for requirements.

Blac-Rac contains a timer operation that is integral. It is set at the factory for 8 seconds. If you are installing to a programmable timer and set the power “on” for longer than 8 seconds, the Blac-Rac will time out and close at the 8 second mark. To increase the timer “on” duration the Blac-Rac can be programed (at the factory) for a longer period. Contact your Distributor, Installer or Blac-Rac customer service for additional information.

Blac-Rac is a 12 VDC system and requires a power source of 10 Amps for one unit and 12 VDC at 20 Amps for operating two units simultaneously. Two units can be operated from a single Blac-Rac Power Source.

Proper wiring includes a clean ground. Use of an external star washer will ensure that it is grounded properly with a metal-to-metal contact for painted or plated surfaces.

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 in the past is rated at 125VAC, 15 Amps, Push Button from Carling Technologies.

IMPORTANT! If the green wire is not used, it is highly recommended that it be completely insulated from any possible conductive surface.

IMPORTANT! If the Blac-Rac is to be used/wired to a 125VAC power source, it must be converted to a 12VDC source. A licensed electrician is recommended to complete this type of installation.

IMPORTANT! The 3.15 Amp Slow Blow Fuse must remain installed on the RED Power Wire extending from the Blac-Rac AT ALL TIMES

Electronic models of the BLAC-RAC come factory equipped with 4ft standard wire lengths. If installation requires longer wire, please refer to the following WIRE LENGTH CHART for correct wire length and gauge to be ADDED to existing wires to ensure proper functionality of the BLAC-RAC system.

WIRE LENGTH CHART		
ADD	TOTAL LENGTH	GAUGE
1' - 4'	UP TO 8'	#18 AWG
4' - 9'	8' - 13'	#16 AWG
9' - 20'+	13' - 20'+	#14 AWG

Wiring COLD-WIRE® (XMTR) to electronic Blac-Rac via Control/Siren box with Timed Power

The Transmitter is compatible only with an electronic Blac-Rac equipped with a V4.0 or above Receiver (RCVR). All electronic models manufactured after January 1, 2020, are equipped with V4.0 or above RCVR. End users with units produced prior to this date must contact Customer Service at 1.800.855.9388 for conversion details.

Each Transmitter (XMTR) can power up to 2 weapon mounts that must be individually wired to its own power wire and ground extending from the Blac-Rac electronic cable assembly. Power must be capable of 12VDC at 20 AMPS. And must be fused on each unit powered.

To connect; attach the RED (+) and BLACK (-) wires from the COLD-WIRE® (XMTR) to the RED (+) and BLACK (-) wires extending from the Blac-Rac unit. The Green wire is not used, and must be cut entirely and insulated to avoid connectivity.

The WHITE w/Red Stripes is the Positive (+) and the BLACK wire is Ground (-).

The outgoing wires from the COLD-WIRE® (XMTR) are RED Positive (+) and BLACK Negative (-) and must be connected to the electronic Blac-Rac cable assembly in line with the RED Power (+) that includes the Slow Blow fuse (Supplied) one each for each Blac-Rac. Slow Blow fuses are required for each of the two Blac-Rac's being wired.

NOTICE: Once the Transmitter (COLD-WIRE®) is installed and connected to a 4.0 Receiver model integral in a 4.0 version or above, and power is applied, the 4.0 Receiver will permanently install the COLD-WIRE® firmware. It WILL ALWAYS be necessary to have the Transmitter (COLD-WIRE®) connected in order to operate all Blac-Rac electronic models with COLD-WIRE® equipped units. Removing the Transmitter (COLD-WIRE®) WILL NOT ALLOW the Blac-Rac to be opened by electronic means. At this point, a key override must be used. In this instance, a factory reset is possible. To factory reset the Integral Receiver Module, contact Blac-Rac Customer Service at 1.800.855.9388



COLD-WIRE®
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	

NOTES

[illegible]

**We have your six
contact us at:**

Website: www.blac-rac.com

Phone: 1.208.855.9388

Email: info@blac-rac.com

FAX: 1.800.528.8040

LOCATION

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Boise, ID 83704

