



SAFETY, INSTRUCTION & PARTS MANUAL

RDB-C

MARNING: Read this manual carefully before loading or using the RDB-C.

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SAFETY INFORMATION AND WARNINGS

This manual explains the function and the handling of the RDB-C and warns of the potential dangers, including death or serious personal injury that can result from the unsafe use of the RDB-C. This manual should always accompany the RDB-C and be transferred with it if it is sold or loaned to another person.

Even if you are an experienced shooter, you must READ THIS ENTIRE MANUAL CAREFULLY before loading or firing the RDB-C. This manual gives basic instructions on the proper handling and functioning of the RDB-C. The safety of yourself and that of others will depend on you following the instructions and warnings in this manual. Always use safe firearms practices. If you are unfamiliar with firearms, take a course in the safe handling of firearms run by a qualified firearms instructor, your local gun club, or a similar qualified organization.

This manual contains several safety warnings and instructions preceded with **WARNING CAUTION**, or **NOTICE**. These signal words are designed to draw your attention to important safety information. **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury. **CAUTION** indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury. **NOTICE** addresses safety practices not related to personal injury.

WARNING Firearms can cause death or serious personal injury. Safety must be the prime consideration of anyone who handles firearms.

WARNING The RDB-C is designed to function reliably with proper care and knowledgeable use. Do not use your RDB-C unless you fully understand how to safely operate it.

WARNING It is your responsibility to use safe firearm handling habits. Accidents are the result of violating the rules of safe firearms handling noted below.

WARNING Always seek a doctor's advice if you are taking medication or are pregnant, be sure that you are able to shoot and handle a firearm safely. Never drink alcoholic beverages or take drugs before or while shooting. Your vision and judgment could be seriously impaired, making your firearm handling unsafe.

Always treat a firearm as though it were loaded.

Always keep the muzzle pointed in a safe direction. Never point a firearm at anyone or anything you do not intend to shoot.

AWARNING Always keep your finger off the trigger and outside the trigger guard until you have made the decision to fire.

Always wear hearing and eye protection when using your firearm.

WARNING Never accept or pick up a firearm without checking the magazine and the chamber to make sure that it is unloaded.

WARNING Do not trust the extractor to remove the cartridge from the chamber. Always check to confirm that it is empty.

WARNING Always make sure the RDB-C is unloaded, on SAFE and the action is open before handing it to another person.

WARNING Never allow a firearm to be used by individuals who are not familiar with its safe operation and rules of firearm safety.

WARNING Never alter or modify the RDB-C because this could cause it to malfunction, create a dangerous condition, and void the warranty.

WARNING Be sure all accessories are compatible with the firearm. Be sure all accessories are properly installed on the firearm and that the accessories do not interfere with safe operation of the firearm. Follow the instructions provided by the accessory manufacturer to the extent those instructions are not inconsistent with the warnings and instructions contained in this manual.

WARNING If the RDB-C is dropped or forcefully struck, it could be damaged and may not function properly. Have it inspected by Kel-Tec CNC Industries, Inc. before continuing to use it.

WARNING Never load a firearm except immediately before shooting. When transporting your firearm, be sure your firearm is unloaded, on SAFE and the action is open.

WARNING Never store or transport firearms and ammunition together, keep them locked up and away from children or other unauthorized persons.

WARNING Always secure firearms from children. You are responsible for the firearm's safety and security.

CAUTION Most ammunition contains lead in the projectile and/or primer. Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.

Before it left the factory, the RDB-C was tested, carefully inspected, and packaged. Kel-Tec CNC Industries, Inc. cannot control what happens to the RDB-C after it leaves the factory. Therefore, carefully examine the RDB-C when you acquire it to ensure that it is unloaded and undamaged. If you do not understand any of the warnings and instructions in this manual, have any problems operating the RDB-C, contact Kel-Tec CNC Industries, Inc. at:

KEL-TEC CNC INDUSTRIES INC 1505 Cox Road Cocoa, FL 32926 Telephone Number: 321-631-0068 Toll free: 1-800-515-9983 Hours: M-F 9am-6pm EST (excluding holidays) Website: http://www.keltecweapons.com Email: customerservice@keltecweapons.com

The current version of the instruction manual can also be downloaded at: <u>www.keltecweapons.com</u>

I. DESCRIPTION

The RDB-C is a semi-automatic, magazine fed rifle for 5.56NATO/.223REM or other intermediate cartridges. With a bullpup design it provides the operator with a compact, well-balanced rifle and a revolutionary downward ejecting cartridge chute. Having modular construction allows for a multitude of variations and accessories.



Figure 1.1 – Right Side Sectional View

The MIL-STD-1913 Picatinny rail, located above the barrel, comes standard with the RDB-C for mounting compatible accessories. Unloaded, the RDB-C maintains a center of gravity near the trigger guard to facilitate ease of handling.

II. NOMENCLATURE



Figure 1.2 – Left Side View

- 1. Muzzle
- 2. Gas Adjust
- 3. Operating Handle
- 4. Picatinny Rail
- 5. Receiver
- 6. Cheek Rest
- 7. Stock
- 8. Sling Mount

- 9. Frame Pins
- 10. Trigger
- 11. Safety
- 12. Magazine Well
- 13. Magazine Catch
- 14. Bolt Stop
- 15. Ejection Port

III. SPECIFICATIONS

A. Overall

Caliber	5.56 NATO/.223 REM
Operation	Short stroke gas, rotary bolt
Mode of Fire	Semi-automatic
Magazine Capacity (Included)	10 rounds
Barrel Material	AISI 4140 steel, Salt Bath Nitride QPQ

B. Measurements

RDB – C (Base Model)

Weight				
Rifle w/o Magazine	6.9	lb	3.1	kg
Loaded Magazine	5.9	oz	167.6	g
Dimensions				
Overall Length	30.4	in	771.5	mm
Barrel Length	20.5	in	520.7	mm
Width	1.8	in	46.6	mm
Height	4.6	in	117.5	mm
Rifling	1 in 7	in	1 in 177	mm
Force				
Trigger Pull	4 to 6	lb	1.8 to 2.7	kg

IV. AMMUNITION

The rifle has been adjusted at the factory to operate with standard M193 type ammunition. Use only high quality, commercially manufactured ammunition in good condition of the appropriate caliber. The caliber of your RDB-C rifle is marked on the barrel. If it is marked 5.56 NATO, it will also safely fire .223 REM caliber ammunition. Use only NATO or SAAMI specification ammunition. Not all ammunition produces the same result, we recommend that once you find a brand that functions best, keep using it.

Kel-Tec CNC Industries, Inc. does not recommend using hand loads, reloads, remanufactured ammunition, foreign or military surplus ammunition of unknown or questionable quality. The use of this type of ammunition will: void the warranty, be dangerous, and possibly cause death or serious injury if the ammunition is not made to the proper specifications.

OPERATING INSTRUCTIONS

I. SAFETY

The RDB-C features a push button safety (Figure 2.1a & 2.1b) located behind the trigger on the grip assembly. When the safety is activated, it blocks the sear bar from releasing and prevents the trigger from being pulled. Please note that the safety will not engage unless the hammer is cocked. Do not force the safety past the indicated positions.





Figure 2.1a – Position Inward for SAFE

Figure 2.1b – Position Outward for FIRE

WARNING Never totally rely on a mechanical safety as it can fail or become unintentionally disengaged. A mechanical safety is not a substitute for safe firearm handling practices.

II. LOADING MAGAZINES

The RDB-C accepts STANAG 4173 (AR-style) magazines of varying capacity. Press the cartridges straight into the magazine lips. Do not force rounds in beyond the specified capacity. A tap on the back wall should ensure that all rounds are properly seated. Insert loaded magazine as shown in (Figure 2.2).



Figure 2.2 – Right Side View w/ Magazine Removed

Always check that the ammunition is clean, undamaged, and the correct caliber for the rifle. Forcing inadequate ammunition into the chamber could result in injury, death, damage to property and damage to your rifle.

III. CHAMBERING

After a loaded magazine has been place into the well behind the hand grip (Figure 2.2), make sure it is engaged by the magazine catch. Unfold the operating handle (Figure 2.3a), then pull all the way back and up into the locking position (Figure 2.3b). Press the handle downward and let it go forward by its own power.

A ROUND IS NOW CHAMBERED IN THE RIFLE. ENSURE SAFETY IS ENGAGED UNTIL THE WEAPON IS TO BE FIRED.

Always position the safety button inward to the right which is the "SAFE" position when loading and unloading the firearm!



Figure 2.3a Bolt Handle View



Figure 2.3b Bolt Handle View

IV. FIRING

AWARNING Never discharge a firearm without proper shooting glasses and ear protection.

AWARNING Never shoot until you are sure of your backstop and what lies beyond it.

AWARNING Never shoot at a hard surface, such as a rock, or a liquid surface, such as water, because a bullet may ricochet and travel in any direction, striking you or someone else

AWARNING When firing on a target range, be alert and follow the range officer's commands. Always be aware of other people so that they cannot accidentally walk into the line of fire. Make sure your "audience" is always 5 feet behind you, not next to you, when firing.

Always carry the RDB-C unloaded while on a range until preparing to fire. Always keep the RDB-C pointed towards the backstop when loading, firing, and unloading it.

After firing several rounds, the exterior metal parts of the RDB-C get very hot and can cause severe burns if touched.

AWARNING The RDB-C is a very short firearm. Make sure you have a firm hold of the handquard and at no time extend fingers or body parts in the line of fire.

A WARNING The RDB-C ejects spent cases downwards behind the magazine. Even after limited firing those cases are hot and can cause burns if contacting unprotected skin.

- Aim at the target, taking notice of the target's backdrop. 1.
- Disengage the safety. 2
- Place trigger finger into trigger guard. 3.
- 4. When the trigger is pressed, the RDB-C will fire.
- 5. Release the trigger. Repeat aiming and pulling the trigger to fire a shot, then releasing the trigger, aiming and pulling the trigger to fire the next round and subsequent rounds until you are finished firing or the magazine is empty.

V. ADJUSTING GAS OPERATION

The RDB-C is a gas operated firearm. The rifle has been adjusted at the factory to operate with standard M193 type ammunition. Other variations or brands may have different gas pressure curves and require adjustment.

The RDB-C has a very long bolt carrier travel contributing to a soft and manageable recoil. Ideally, the carrier should never touch the back of the receiver. The gas regulator can be turned by hand or a cartridge when hot (Figure 2.4). Too much gas pressure on the piston will give sharper recoil and deform the ejected cases. To decrease gas pressure: with the muzzle pointed away from the body, rotate gas adjust one click clockwise until recoil is appropriate and case is not deformed. A minor dent at the mouth indicates proper case ejection. Too little gas may cause an ejection failure and malfunction.



Figure 2.4 – Gas Adjust

If the action is not locking back on an empty magazine, follow the unloading procedure. Then load a magazine with a single round and increase the gas until it locks back. After this is accomplished, increase the gas adjust one click counter-clockwise for reliability.

VI. UNLOADING

Always make sure the muzzle is pointed in a safe direction when unloading.

- 1. Ensure your muzzle is pointed in a safe direction before unloading.
- 2. Push the magazine release button and pull the magazine downward (Figure 2.5).
- Pull back the operating handle and rotate it upwards into the locked position.
- 4. Engage the safety.
- 5. Turn the RDB-C upside down, visually and tactilely inspect the magazine well and ejection chute to make sure no cartridges are left in the action. Line up markings with the window in the ejection chute to view the chamber.
- Close the action by rotating the operating handle downwards and letting it go forward on its own power.



Figure 2.5 – Magazine Release



Figure 2.6 – Cartridge Area

BREAKDOWN

I. DISASSEMBLY

WARNING Never rely on your memory to determine whether the RDB-C is loaded or unloaded. Always open the action and then visually and physically (with your finger) check to make sure there is not a round in the chamber.

WARNING Always wear safety glasses when disassembling the RDB-C to protect your eyes from components that are under pressure, such as springs.

WARNING If the RDB-C has been fired, wait a sufficient amount of time for the components to cool before attempting disassembly. Failure to do so may result in burns.

1. For disassembly, the RDB-C should be on "SAFE" position. To do so, unfold the operating handle and pull it all the way back, then release the handle and let it go forward by its own power. The weapon can now be switched to "SAFE."



Figure 3.1 – Receiver, Grip, Barrel, and Bolt Separation

- 2. Push the two grip frame pins ("A" and "B" in Figure 3.1) all the way to the right. The pins are captive and will stay in the grip.
- 3. Rotate the grip downwards (motion "C" in Figure 3.1), pulling by the trigger guard and holding the barrel.
- 4. Slowly allow the barrel and bolt to slide forward out of the receiver ("D" Figure 3.1).
- 5. Pull the bolt carrier out of the barrel assembly.
- 6. Duplicating the orientation shown in Figure 3.2; To disassemble the bolt carrier: push out the firing pin retainer to the right with a pointed object, then pull out the firing pin, next the cam pin, and finally pull the bolt forwards.



Figure 3.2 – Bolt Disassembly



Figure 3.3 – Barrel Disassembly

- 7. In a similar fashion as the grip assembly, push out the handguard pin ("E" in Figure 3.1). Next, push the handguard forward and then down off of the barrel. Pull the operating handle back and rotate slightly left out toward the muzzle. The gas piston assembly can now be pulled back and removed (Figure 3.3).
- 8. If necessary, the rear frame pin ("F" in Figure 3.1) can be pulled out and the receiver and grip separated.

WARNING Further disassembly should only be performed by a certified gunsmith or Kel-Tec CNC Industries, Inc. Attempting further disassembly could void your warranty.

II. ASSEMBLY

WARNING Always wear safety glasses when reassembling the RDB-C to protect your eyes from springs.

Assembly is essentially in the reversed order of disassembly. However, some steps warrant extra attention.

1. The flat surface on the cam pin as well as the firing pin must face up. Make sure the firing pin is locked by its pin and protrudes behind the bolt carrier (Figure 3.4).



Figure 3.4 – Bolt (close up)

- 2. When attaching the grip to the receiver, push in the rear assembly pin first. Make sure the bolt is seated into the barrel extension.
- 3. Slide the bolt and barrel all the way back into the receiver. When sliding the bolt back into the barrel, make sure that the bolt aligns and slides properly into the barrel extension. There is a minor spring load at the end of the insertion; minor force must be applied to line up the assembly pins. The assembly pins can now be pushed in. Do not use excessive force, some wiggle or twisting may be required.
- 4. After assembly, test the rifle for functioning. Make sure the rifle is unloaded, without a magazine, and safely check there is not a round in the chamber. Operate the action a couple of times, put the firearm on "SAFE" and make sure the trigger will not fire. Disengage the safety and then pull the trigger. The hammer should allow for a dry fire. Repeat this step a couple of times to make sure the RDB-C is operating correctly.

III. PROPER CARE

A. Maintenance

AWARNING Always wear safety glasses when cleaning the RDB-C to protect your eyes from cleaning materials.

WARNING Always make sure that no ammunition is located in the area where you clean the RDB-C. Cleaning solvents can affect the primer and powder in ammunition and cause it to malfunction. This could result in a bullet being pushed into the barrel of the RDB-C and getting stuck. Firing another round with a bullet stuck in the barrel could cause the barrel to burst and result in death or serious personal injury and/or damage to the RDB-C.

WARNING If the RDB-C has been fired, wait a sufficient amount of time for the components to cool before attempting disassembly. Failure to do so may result in burns.

Your RDB-C is a precision instrument and will provide a lifetime of faithful service if it is properly cleaned and maintained. It is recommended that you clean your RDB-C after every shooting session or more frequently if needed. Be sure to unload your RDB-C (see *Unloading on pg. 10*) before performing any cleaning or maintenance procedures.

NOTICE Only use commercially available gun solvent and gun oil or a cleanerlubricant-preservative. Use of improper cleaning fluids could damage the RDB-C and void the warranty.

- 1. Disassemble the RDB-C (see Disassembly on pg. 11).
- 2. Thoroughly clean all exterior sides of the bolt and receiver with solvent and brush.
- 3. Brush the barrel bore and chamber with a good powder removing solvent and bore brush. <u>Wipe the areas clean</u> with patches or a swab.
- 4. Using a small brush dipped in solvent, remove all deposits from around the piston, breech of the barrel, and barrel extension, as well as all adjacent areas that have been subjected to powder or primer residue.
- 5. Clean the magazines with solvent and brush if needed.

B. Lubrication

After cleaning the entire gun, use a cloth to apply a light coating of high quality gun oil to all interior and exterior metal surfaces and wipe clean.

Manually cycle the action back and forth to check the function of the firearm. If any parts are damaged or badly worn or the firearm does not work correctly, the firearm should not be fired and should be returned to Kel-Tec for servicing immediately.

WARNING Discharging a firearm with oil, grease, or any other material even partially obstructing the bore could result in serious injury or death and serious damage to your firearm.

C. Troubleshooting

Proper functioning of your firearm is directly related to proper maintenance and care as well as the quality of ammunition you use. If in the unlikely circumstance your RDB-C malfunctions, we have included a list of several suggested remedies below.

If the RDB-C Fails to Fire:	You may be experiencing a misfire and should point the barrel of the RDB-C in a safe direction, engage the safety if possible. Otherwise the hammer is down and the safety may not engage. For either scenario, wait at least 30 seconds before fully cycling the action and ejecting the round.		
	Otherwise, ensure the action is fully forward. The RDB-C is designed to prohibit firing out of battery to protect the user.		
No ejection:	Pull back the operating handle into the locked position and then engage the safety. Remove magazine, rotate the RDB- C to expose the ejection port and visually examine the malfunction. Clear all cases or cartridges in the receiver or barrel. If the problem persists follow the gas adjust procedure on page 8.		
No extraction:	A case could get stuck in the chamber. This indicates a faulty extractor or spring. Some steel cased ammunition may also fail to extract. Contact Kel-Tec Service at <u>www.keltecweapons.com/contacts</u> .		

CUSTOMER SERVICE

I. SERVICE/ REPAIR

Always make sure the RDB-C is unloaded before sending it in for service.

If your RDB-C ever requires adjustment, refinishing or repair, it should be returned to Kel-Tec CNC Industries, Inc.'s service department. The unloaded firearm should be sent prepaid shipping charges to:

Kel-Tec CNC Industries, Inc. ATTN: Service Department 1505 Cox Road Cocoa, FL 32926

Contact your chosen carrier to determine its requirements for shipping firearms. In certain States, your firearm may have to be returned to you through a local, federally licensed firearms dealer. Be sure to securely package your firearm and insure it for its full value because Kel-Tec CNC Industries, Inc. is not responsible for firearms lost or damaged during shipment.

To ensure prompt service and handling, include a brief letter including your name, address, telephone number, the serial number of your RDB-C, and what you would like to be done with it, or the issue that you would like addressed. No return authorization number is required. Once your firearm has been received, we will provide a quotation of all charges (unless the repairs are covered by the warranty) and will not begin work until we receive your approval. Charges for adjustments, refinishing, and repairs are payable by money order, Master Card, Visa or American Express. No COD or personal checks are accepted.

II. LIMITED LIFETIME WARRANTY

Subject to the terms, conditions and limitations outlined below, Kel-Tec CNC Industries, Inc. guarantees your RDB-C against defects in materials and workmanship for the lifetime of the original consumer purchaser.

To make a claim under this warranty, return your RDB-C pursuant to the instructions above and include a copy of a bill of sale in your name, or a copy of the 4473 form, showing that you are the original consumer purchaser. For repairs that are covered by the warranty, Kel-Tec CNC Industries, Inc. will pay the transportation and insurance charges to return your RDB-C.

LIMITATIONS OF WARRANTY

The warranty will be void if any of the following occur:

- (1) the instructions in the Instruction Manual are not followed;
- (2) the RDB-C or any of its parts are altered or modified from their original state;
- (3) damage is caused by misuse, abuse or improper maintenance; or

(4) the RDB-C is disassembled beyond the instructions in the Instruction Manual.

There are no warranties which extend beyond the description on the face hereof.

The sole and exclusive remedy pursuant to this warranty is the repair or replacement of the RDB-C, at the sole discretion of Kel-Tec CNC Industries, Inc.

The implied warranties of merchantability and fitness for a particular purpose are expressly disclaimed.

All disclaimers and limitations of liability shall still apply even if the limited remedy of repair and replacement fails of its essential purpose.

In States where permitted, Kel-Tec CNC Industries, Inc. assumes no liability for incidental or consequential damage or for incidental expenses.

Any action against Kel-Tec CNC Industries. Inc. based on an alleged breach of this warranty must be brought within one (1) year of the claimed breach.

Kel-Tec CNC Industries. Inc.'s liability for breach of warranty shall be limited to repair or replacement of the RDB-C, at the sole discretion of Kel-Tec CNC Industries. Inc.

The RDB-C is a dangerous weapon. The purchaser assumes all liability resulting from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. Kel-Tec will not be responsible for injuries or damages resulting from careless handling, unauthorized or unsafe adjustments or modifications, the use of non-standard, defective, or improper ammunition, the use of incompatible or improperly installed accessories, corrosion, neglect, fire damage, water damage, theft, abuse, ordinary wear and tear, or unreasonable use of the RDB-C. Under no circumstances shall Kel-Tec be responsible for incidental or consequential damages with respect to economic loss or injury or property damage, whether as a result of breach of express or implied warranty, negligence or otherwise.



II. RDB-1121 CHARLIE BARREL ASSEMBLY GROUP













