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SAFETY, INSTRUCTION and PARTS MANUAL

RDB[™]

 Warning: Read this manual carefully before loading or using the RDB[™].

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A. SAFETY INFORMATION AND WARNINGS

Read this manual and the warnings contained in it before loading or using the RDB™. This manual explains the function and the handling of the RDB™ and warns of the potential dangers, including death or serious personal injury that can result from the unsafe use of the RDB™. This manual should always accompany the RDB 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™. This manual gives basic instructions on the proper handling and functioning of the RDB™. Your safety and the safety of others depends on you following the instructions and warnings in this manual and the constant use of 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™ is designed to function reliably with proper care and knowledgeable use. Do not use your RDB™ unless you fully understand how to safely operate it.

 **WARNING** Only safe firearm handling habits will ensure the safe use of your firearm. This is your responsibility. Accidents are the result of violating the rules of safe firearms handling noted below and common sense.

 **WARNING** Always seek a doctor's advice if you are taking medication to 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.

 **WARNING** Always treat a firearm as though it were loaded.

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

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

⚠ 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™ 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™ because this could cause it to malfunction and create a dangerous condition.

⚠ 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™ 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.

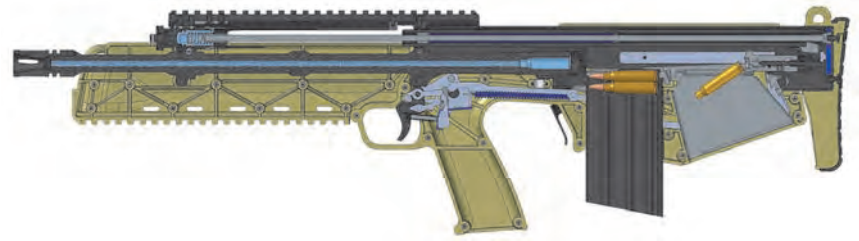
⚠ CAUTION Most ammunition contains lead in the projectile and/or primer. Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have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

B. OVERVIEW

Description

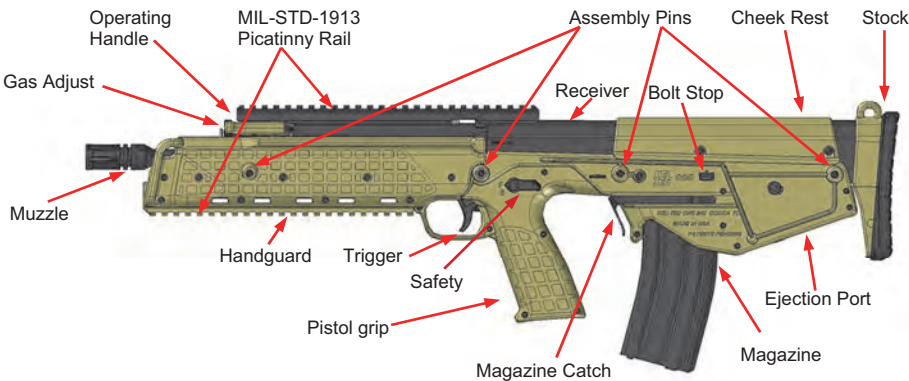
The RDB™ is a semi-automatic, magazine fed rifle for 5.56NATO/.223REM or other intermediate cartridges. The bullpup design provides the operator with a compact well balanced rifle. The modular construction allows a multitude of variations or accessories.

The RDB™ features a revolutionary downwards ejection and fully ambidextrous controls, enabling the RDB™ to be fired from both the dominant and non-dominant side.



Two integral MIL-STD-1913 Picatinny rails, located above the barrel and on the handguard, come standard with the RDB™ for mounting compatible accessories. The RDB™ maintains a center of gravity over the grip assembly to facilitate ease of handling and balance.

Nomenclature



Specifications

	RDB-17		RDB-20	
Caliber	5.56 NATO/.223 REM			
Operation	Short stroke gas, rotary bolt.			
Weight empty	6.9 lbs	3.1 kg	7.2 lbs	3.3 kg
Length	27.3"	693 mm	30.6"	777 mm
Barrel length	17.2"	437 mm	20.5"	521 mm
Rifling	6 grooves right hand		1:7"	
Barrel	AISI 4140 steel, Salt Bath Nitride QPQ			

Ammunition

Use only high quality, commercially manufactured ammunition in good condition of the appropriate caliber. The caliber of your rifle is marked on the barrel. The RDB™ is chambered for 5.56 NATO, which will also 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 which functions best, keep using it.

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

Sling Mounting

The RDB™ comes equipped with numerous ambidextrous sling attachment points compatible with a hook style swivel.



The different sling attachment points on the RDB™ should be used to mount the included 1¼" wide nylon sling but will also accommodate most hook style aftermarket slings.

C. OPERATING INSTRUCTIONS

Safety

The RDB™ features an ambidextrous rotating safety 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.



Position "S" for SAFE



Position "F" 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.

Loading Magazines

The RDB™ accepts STANAG 4173 (AR style) magazines of varying capacity. Press the cartridges straight down between 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 located.

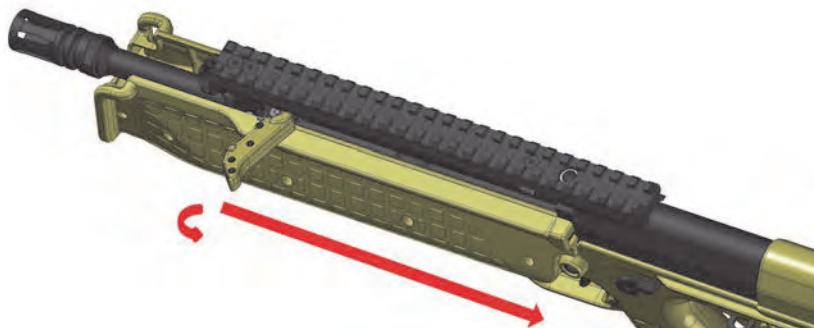
WARNING Always check that the ammunition is clean and undamaged, and the correct caliber for the rifle. Forcing damaged ammunition into the chamber could result in injury, death, damage to property and damage to your rifle.

Loading the Rifle

WARNING Always position the safety lever in the SAFE position when loading and unloading the firearm!



Insert a loaded magazine into the well behind the pistol grip. Make sure it is engaged by the magazine catch. Unfold the operating handle and pull it all the way back. Release the handle and let it go forward by its own power.



THE RIFLE IS NOW READY TO BE FIRED WITH A ROUND IN THE CHAMBER AND THE SAFETY LEVER ON SAFE.

Firing

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

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

⚠ WARNING 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.

⚠ WARNING 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.

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

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

⚠ WARNING The RDB™ is a very short firearm. Make sure you have a firm hold of the handguard and at no time extend fingers or body parts in the line of fire.

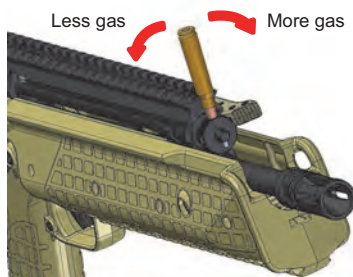
⚠ WARNING The RDB™ ejects spent cases downwards behind the magazine. Even after limited firing those cases are hot and can cause burns if contacting unprotected skin.

1. Aim at the target, taking notice of the target's backdrop.
2. Disengage the safety.
3. Place trigger finger into trigger guard.
4. When the trigger is pressed, the RDB™ 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.

Adjusting the Gas Operation

The RDB™ 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™ 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. Too much gas pressure on the piston will give a sharper recoil and deform the ejected cases. However, a minor dent at the mouth of the casing indicates proper case ejection. Too little gas may cause an ejection failure and malfunction. The gas regulator can be turned by hand or by a cartridge, when hot.



If the action is not ejecting a case, follow the unloading procedure. Then load a new full magazine and increase the gas until it ejects. Then increase gas one click for reliability.

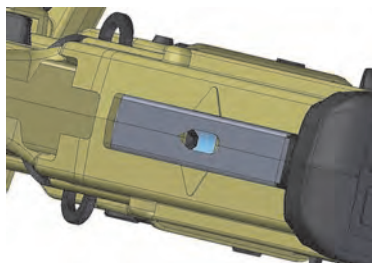
Unloading



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. Engage the safety.
3. Push back the magazine catch and remove the magazine.
4. Pull back the operating handle and rotate it upwards into a locked position.
5. Turn the RDB™ upside down, visually and physically (with your finger) 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.



6. Close the action by rotating the operating handle downwards.

D. DISASSEMBLY



Never rely on your memory to determine whether the RDB™ 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.

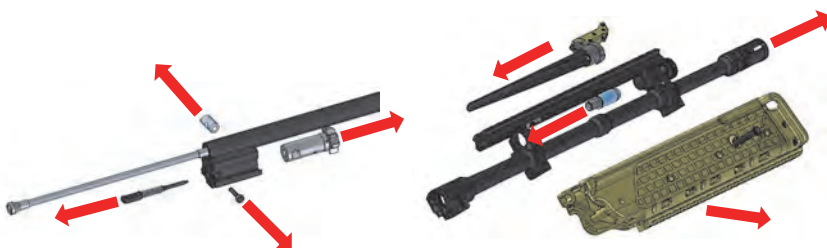
WARNING Always wear safety glasses when disassembling the RDB™ to protect your eyes from components that are under pressure, such as springs.

WARNING If the RDB™ 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 hammer should be in cocked position and the RDB™ on SAFE.
2. Push the two forward grip assembly pins all the way to the right. The pins are captive and will stay in the grip.
3. Rotate the grip downwards and pull the barrel and bolt forward.



4. Pull the bolt carrier out of the barrel assembly.
5. On the bolt carrier push the firing pin retaining pin to the right with a pointed object. Pull out the firing pin, then the cam pin, and finally pull the bolt forward.



6. Push out the assembly pin, then pull the handguard forward and down, clear of the barrel. Pull the operating handle back and out. The gas piston assembly can now be pulled back and removed.
7. If necessary, the rear assembly pin can be pulled out and the receiver and grip separated.

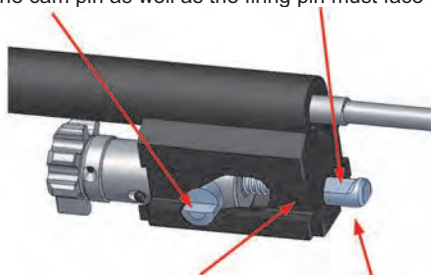
WARNING Further disassembly should only be performed by a certified gunsmith or Kel-Tec CNC Industries, Inc. Attempting further disassembly could void your warranty.

E. ASSEMBLY

⚠ WARNING Always wear safety glasses when reassembling the RDB™ 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.

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. Slide the bolt and barrel all the way back into the receiver. There is a minor spring load at the end of the insertion that has to be applied while rotating the grip upwards. The assembly pins can now be pushed in. Do not use excessive force, some wiggle or twisting may be required.



3. Make sure the rifle is unloaded and without magazine. After assembly, test the rifle for functioning. Operate the action a couple of times. Dry fire the trigger mechanism and make sure the safety works.

F. CLEANING AND MAINTENANCE

Maintenance

⚠ WARNING Always wear safety glasses when cleaning the RDB™ to protect your eyes from cleaning materials.

⚠ WARNING Always make sure that no ammunition is located in the area where you clean the RDB™. 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™ 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™.



WARNING If the RDB™ 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™ 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™ after every shooting session or more frequently if needed. Be sure to unload your RDB™ (see *Unloading on pg. 8*) before performing any cleaning or maintenance procedures.



NOTICE Only use commercially available gun solvent and gun oil or a cleaner-lubricant-preserved. Use of improper cleaning fluids could damage the RDB™ and void the warranty.

1. Disassemble the RDB™ (see *Disassembly on pg. 8-9*).
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. Wipe the areas clean with patches or a swab.
4. Using a small brush dipped in solvent, remove all deposits from around the 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.

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.

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™ malfunctions, we have included a list of several suggested remedies below.

If the RDB™ Fails to Fire:

You may be experiencing a misfire and should point the barrel of the RDB™ in a safe direction, engage the safety and wait at least 30 seconds before fully cycling the action and ejecting the round.

Otherwise, ensure the action is fully forward. The RDB™ is designed to prohibit firing out of battery to protect the user.

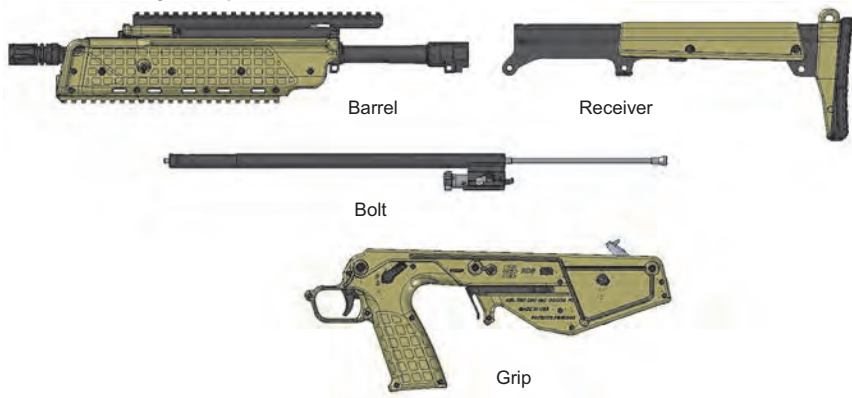
No ejection:

Engage the safety, pull back the operating handle into the locked position. Remove magazine, rotate the RDB™ 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 7.

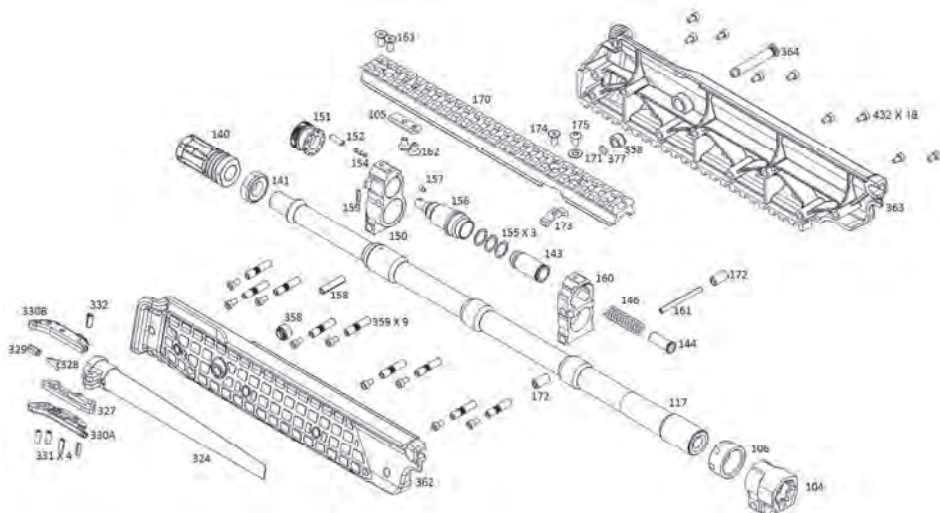
No extraction:

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 www.keltecweapons.com/contacts.

RDB™ Assembly Groups



Barrel Assembly Group

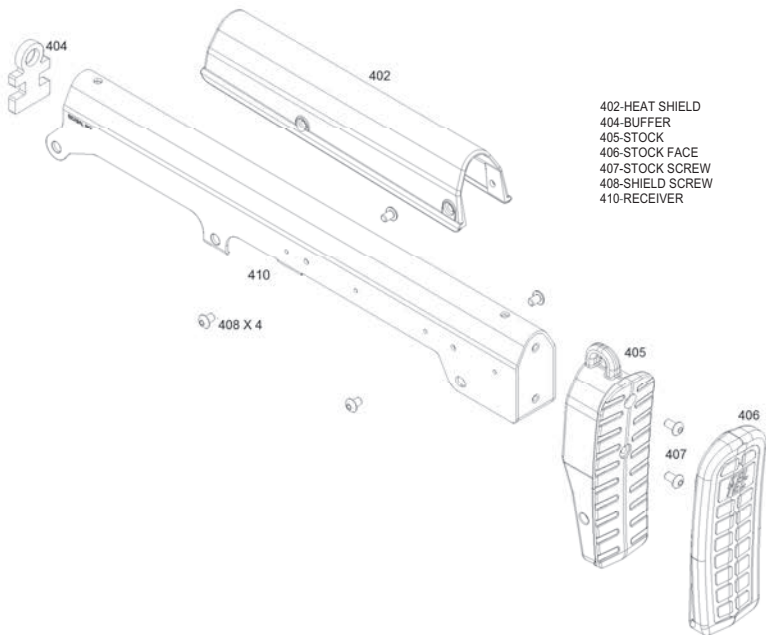


104-BARREL EXTENSION
105-RECOIL LUG
106-BARREL NUT
117-BARREL 17
140-FLASH HIDER
141-COMPENSATOR NUT
143-PISTON
144-PISTON DRIVER
146-PISTON SPRING
150-GAS BLOCK
151-GAS ADJUST
152-GAS ADJUST PIN
154-GAS ADJUST SPRING
155-GAS RING
156-GAS HEAD

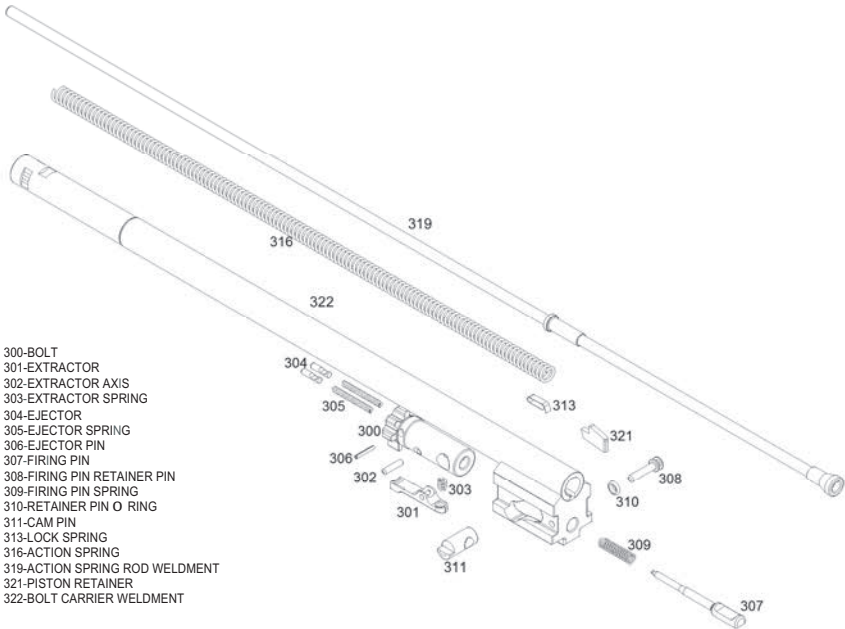
157-GAS HEAD LOCK
158-GAS BLOCK PIN
159-GAS ADJUST PIN
160-GRIP MOUNT
161-GRIP MOUNT PIN
162-RECOIL LUG SCREW
163-GAS BLOCK SCREW
170-PICATINNY RAIL
171-GRIP MOUNT WASHER
172-HANDGUARD DOWEL
173-MANUAL BOLT STOP
174-MANUAL BOLT STOP SCREW
175-GRIP MOUNT SCREW
324-HANDLE WELDMENT

327-HANDLE LEVER
328-HANDLE PLUNGER
329-HANDLE SPRING
330A-HANDLE PANEL A
330B-HANDLE PANEL B
331-HANDLE PANEL RIVET
332-HANDLE AXIS PIN
357-CAPTOR SPRING
358-PIN CAPTOR
359-GRIP NUT LONG
362-HANDGUARD LEFT
363-HANDGUARD RIGHT
364-HANDGUARD PIN
377-CAPTOR SPRING
432-M3X6 SOCKET CAP SCREW

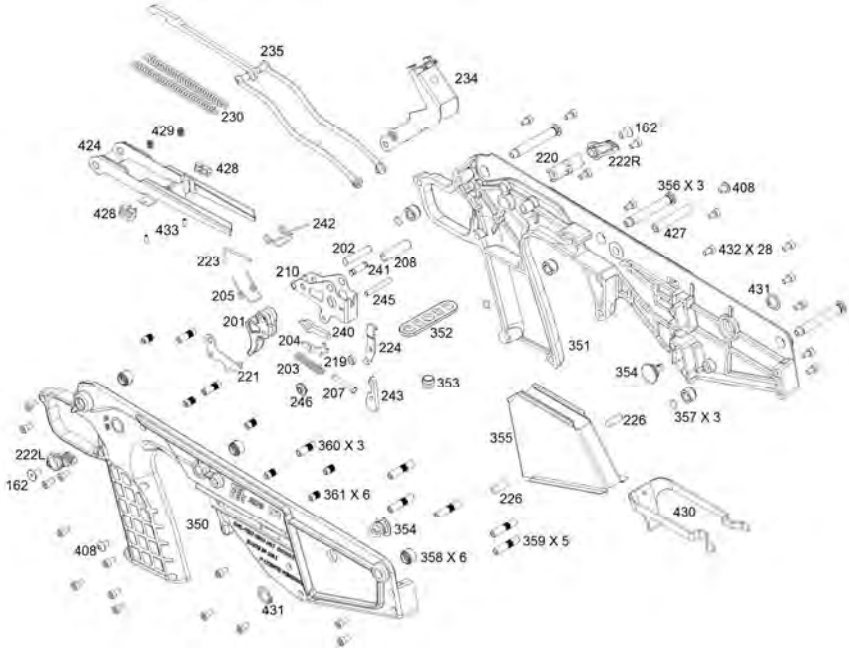
Receiver Assembly Group



Bolt Assembly Group



Grip Assembly Group



162-M4X8 FLAT HEAD
201-TRIGGER
202-TRIGGER AXIS
203-TRIGGER SPRING
204-TRIGGER BAR
205-TRIGGER BAR SPRING
207-TRIGGER SPRING GUIDE
208-TRIGGER HOUSING PIN
210-RIVETED TRIGGER HOUSING
219-SELECTOR SNAP WASHER
220-SAFETY
221-SAFETY CAM
222L-SAFETY LEVER LEFT
222R-SAFETY LEVER RIGHT
223-SELECTOR SNAP SPRING
224-SELECTOR SNAP

226-HAMMER AXIS
230-HAMMER SPRING
234-RIVETED HAMMER
235-RIVETED SEAR BAR
240-SEAR
241-TRIGGER BAR AXIS
242-SEAR SPRING
243-SEAR TRIP
245-SEAR TRIP AXIS
246-SEAR TRIP BUSHING
350-GRIP LEFT
351-GRIP RIGHT
352-SINGLE POINT MOUNT
353-SINGLE POINT MOUNT PIN
354-SLING SWIVEL
355-EJECTION CHUTE

356-FRAME PIN
357-CAPTOR SPRING
358-PIN CAPTOR
359-GRIP NUT LONG
360-GRIP NUT MEDIUM
361-GRIP NUT SHORT
408-MAX6 BUTTON HEAD
424-BOLT STOP WELDMENT
427-BOLT STOP AXIS
428-BOLT STOP BUTTON
429-BOLT STOP SPRING
430-MAG CATCH
431-SWIVEL RETAINING RING
432-M3X6 SOCKET CAP
433-BOLT STOP BUTTON PIN

G. SERVICE, REPAIR, AND WARRANTY



WARNING Always make sure the RDB™ is unloaded before sending it in for service.

If your RDB™ 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, shipping prepaid 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™, 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.

LIMITED LIFETIME WARRANTY

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

To make a claim under this warranty, return your RDB™ 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™.

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™ 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™ 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™, 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™, at the sole discretion of Kel-Tec CNC Industries, Inc.

The RDB™ 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 CNC Industries, Inc. 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™. 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.

Before it left the factory, the RDB™ was tested, carefully inspected, and packaged. Kel-Tec CNC Industries, Inc. cannot control what happens to the RDB™ after it leaves the factory, therefore, carefully examine the RDB™ 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™, or need another copy of this manual, 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-3pm EST (excluding holidays)

Website: <http://www.keltecweapons.com>

Email: customerservice@keltecweapons.com

The current version of the instruction manual can also be downloaded at
www.keltecweapons.com/resources/downloads