MRDS
PDW

MADE IN AMERICA

Table of Contents

Part 1: Description

Part 2: Handling

Part 3: Warranty

Part 1: Description

1.1 Essential Safety Instructions

The Modern Roller Delayed System Personal Defense Weapon (MRDS PDW) is made up of the ZF-9, and the ZF-10. The firearms in the MRDS PDW line are designed and manufactured to precise specifications and recognized safety standards. Nevertheless, using any of these firearms in an unsafe manner may result in injury or death of the user, third parties, or damage to the firearm or property.

ATTENTION: Zenith Firearms, Inc. shall not be held accountable for any death, injury, or damage to property resulting from any intentional, unintentional, or accidental discharge of the firearm, or from any firearm feature when used for improper purposes for which it was not designed. Zenith Firearms, Inc. will not honor claims involving the firearm that resulted from careless or improper handling, unauthroized use, or neglect.

1. Follow all safety instructions in this operator's manual. Non-compliance may result in injury or death.
2. Do not handle the firearm if you are tired, feel unwell, or have consumed alcohol, drugs, or medications.
3. Do not use the firearm for criminal acts or in support of criminal activities.

1.1.1 Outlining Safety

This operator's manual is an integral component of the firearms' safety standards.

1. Do not use the firearm until you have read or if you do not understand any part of this manual or you are unsure about the operation.
2. Keep this operator's manual for the entire service life of the firearm.
3. If you receive updates from Zenith Firearms, Inc. add them to this operator's manual.
4. Pass this operator's manual on to any subsequent operator or owner.
5. Do not entrust the firearm to anyone who has not read and understands this operator's manual.

1.1.2 Safety Instructions for Handling Firearms in the MRDS PDW Line

1. Take special care when handling firearms, because muzzle position and direction changes can occur very easily.
2. Keep the safety selector in the "safe" position at all times, until ready to fire.
3. Only use the firearm when it is in good condition.
4. Treat the firearm as if there is a round of ammunition in the chamber until you verify whether or not it is loaded.
5. Keep the firearm unloaded when handling for purposes other than loading or firing.
6. Only use the firearm for its intended purpose. Using the firearm for other than its intended purpose may result in damage and/or an accidental discharge of the firearm.
7. Do not play with the firearm.
8. Never point the firearm at people or property when handling or practicing with it. Maintain muzzle discipline at all times.
9. Do not touch the trigger when loading, unloading, aiming, or handling the firearm in any other way until you are ready to fire your firearm.
10. Keep your trigger finger outside of the trigger guard until you are ready to fire.
11. Do not use excessive force when handling, disassembling, cleaning, or assembling the firearm.
12. Avoid unnecessary dry firing as it can lead to premature wear.
13. Store the firearm and ammunition separately.

14. Prevent access to the firearm and ammunition by unauthorized persons, especially children.
15. Never give or take the firearm from another person unless it is unloaded and the bolt is in the open position with the safety engaged.
16. Immediately fix any issue that compromise the safe operation of the firearm.
17. Exposure to exceptional stress such as hitting a hard object or dropping the firearm may have a negative effect on the firearm's safe operation. Have the firearm inspected by the manufacture or a trained armorer, if this occurs.
18. Do not rely on the safety features of the firearm alone. Safety features are not a subsitute for careful and correct handling of the firearm.
19. When using accessories and ammunition, follow the instructions provided by the respective manufactures and verify its compatibility with Zenith Firearms, Inc.

1.1.3 Safety Instructions for Live Fire

1. Wear eye and ear protection when handling and firing any firearm.
2. Keep your hands out of the path of the bolt or muzzle.
3. Keep your muzzle area clear.
4. Do not shoot at doors, panes of glass, walls, concrete, stone, or smoth surfaces; including water. Ammunition projectiles can penetrate these objects and/or deflect in an unsafe direction.
5. Only pull the trigger when the firearm is pointing at the target and the area behind the target is free from other persons, structures, buildings, obstructions, or objects for as far as the projectile is able to travel. For instance, a 9mm round of ammunition can travel approximately 1.4 miles.
6. Only use factory-loaded ammunition of the correct caliber.
7. Do not touch the barrel, flash hider (if applicable) or muzzle device as it heats up during live firing.

1.1.4 Exclusion of Liability and Warranty

Zenith Firearms, Inc. accepts no liability and provides no warranty for incidents resulting from:

1. Non-compliance with this manual.
2. Incorrect handling of the firearm.
3. Negligence
4. Improper use or unsafe practices.
5. Modifications, attachments to, or conversion of the firearm without the express written consent of Zenith Firearms, Inc.
6. Use of accessories or spare parts from other manufactures without the express written consent of Zenith Firearms, Inc.
7. The firearms in the MRDS PDW line have proprietarty lower receivers, upper receivers, and handguards. Parts and accessories from other manufacturers might not immediately fit onto the firearms in the MRDS PDW line, and excessive hand fitting if these parts might affect the manufacturer's warranty.
8. Some aesthetic feature of defects resulting from the manufacturing process.
9. FRT triggers

1.2 Technical Description

1.2.1 Safety Features

The safety selector prevents accidental actuation of the trigger. In the “0” or “safe” position, (see figure 1), the selector axle and trigger tail prevent rearward trigger movement.

When the safety selector is rotated to the “1” or “fire” position, (see figure 2), the axle rotates and creates a cavity for the trigger tail to enter, allowing the trigger to move rearward and release the sear from the

Figure 1: “Safe” position

Figure 2: “Fire” position

1.2.2 Functional Elements

1. The safety selector (figures 1 & 2) are used to make the firearm safe and to select the mode of fire.
2. The push button magazine release allows (see figure 3) removal of the magazine.
3. A silencer or suppressor can be attached to attached to any of the firearms in the MRDS PDW line via the threads at the end of the barrel. (see figure 4)
4. The charging handle is used to to open and close the bolt in order to chamber or clear the firearm. (see figure 5)
5. The buttstock, if attached, can be telescoping or folded (depending on the variant).
6. The front and rear sight attachment points can be used to mount a sling.
7. Front and rear sights can be installed using the full length 1913 picatinny rail.

Figure 3: Magazine release button

Figure 4: Threaded barrel

Figure 5: Charging handle

1.2.3 Firing Sequence

Initial state: The bolt carrier group is pulled all the way back manually using the charging handle. This causes the bolt carrier group to cock the hammer. The firearm has a loaded magazine inserted.

Operational Cycle

Step One

Feeding: A cartridge is removed from the loaded magazine when the charging handle is released.
The bolt group moves forward in the receiver as the recoil spring assembly decompresses. As it passes through the feed lips of the magazine, the top cartridge is stripped from the magazine and travels forward with the bolt to the chamber.

Step Two

Chambering: A cartridge is placed into the chamber of the barrel and secured.
The bolt continues its forward progress and inserts the cartridge into the chamber until the front of the cartridge case contacts the end of the chamber.

Step Three

Locking: Before firing, the breech is completely closed and temporarily locked.
The bolt completes its forward movement as the extractor secures the cartridge case and the breech of the bolt contacts the face of the barrel. Even as the bolt heads forward, progress is stopped, the locking piece and bolt carrier continue to move forward until the locking rollers have been pushed into position by the locking piece.

Step Four

Firing: The primer of the cartridge is activated, igniting the powder.
A trigger pull causes the sear to release the hammer, which forcefully contacts the firing pin. The firing pin is driven forward into the primer of the unfired cartridge. Once activated, the primer detonates to ignite the powder contents of the cartridge for firing.

Step Five

Unlocking: The locking peice is moved rearward away from the rollers, allowing the bolt assembl to unlock and open.
Once fired, rearward pressure is applied to the bolt head assembly, locking rollers, and locking piece. The locking piece then moves to the rear, away from the rollers, causing the bolt to unlock.

Step Six

Extracting: The spent cartridge case is removed from the chamber.
Gas expands from the inside of the cartridge case to the flutes of the chamber. Expanding gases surround the cartridge case in the flutes assisting the spent case to be removed. This prevents sticking in the chamber.

Step Seven

Ejecting: The spent cartridge case is expelled from the firearm.
The extractor assembly continues to secure the speant cartridge case to the face of the bolt head as it moves rearward. The channel at the bottom of the bolt head allows it to travel past the ejector until the spent case is engaged by the ejector, expelling it through the ejection port.

Step Eight

Cocking: The trigger assembly is reset to the follow-up shots.

Semi-auto configuration: The bolt carrier group moves rearward under recoil, and resets the hammer, compressing it to the cocked position where it is retained by the sear.
Full-auto configuration: The bolt carrier group moves rearward under recoil, and resets the hammer, compressing it to the cocked position. As the bolt carrier moves forward, the hammer begins to follow the carrier until it is temporarily retained by the catch. The bolt carrier continues to move into battery and the trip lever is released, allowing the hammer to move to the sear for retention, recharge, and repeat fire.

1.3.4 Ammunition Recommendations

The Modern Roller-Delayed System Personal Defense Weapon (MRDS PDW) is designed to fire high quality, new production factory loaded brass ammunition that meets SAAMI or NATO specifications. It is imperative that ammunition of the correct caliber is used to prevent damaging the firearm and to avoid serious injury or death.

Zenith Firearms, Inc. highly recommends inspecting each cartridge for damage, corrosion, or other abnormalities before loading a magazine for firing.

Break-In Period Recommendations

During the 300-500 round break in period of a brand new firearm, Zenith Firearms, Inc. recommends NATO-spec or other high quality, high pressure ammunition having a bullet weight of 55 grains or more.

Post Break-In Period Recommendations

Factory new brass-case ammunition meeting NATO or SAAMI specs from 55 grains to 85 grains.

DO NOT USE

- Aluminum-cased ammunition
- Hand-loaded or remanufactured ammunition
- Ammunition of the wrong caliber
- Ammumition that has been damaged, corroded, or exposed to water, lubricants, grease, or other contaminants.
- Exposed lead projectile ammunition
- Low pressure ammunition
- Outdated surplus ammunition
- Ammunition that has been exposed to extreme temperatures

PART 2: Handling

2.1 CHECKS

2.1.1 Performing a Safety Check

Successful completion of the safety check verifies that there is no ammunition in the firearm. The safety check is especially important when giving or taking the firearm from someone or when the status of the firearm is unknown.

1. Point the firearm in the safe direction.
2. Move the selector lever to the “0” or “safe” position.
3. Removing the magazine from the firearm by pressing the magazine release button.
4. Move the charging handle to the rear and lock it in place.
5. Inspect the firearm’s chamber visually and physically to make sure the chamber is clear.

2.1.2 Performing a Function Check

WARNING: PRIOR TO PERFORMING A FUNCTION CHECK - REMOVE THE MAGAZINE AND CLEAR THE CHAMBER. ENSURE THE FIREARM IS POINTED IN A SAFE DIRECTION AT ALL TIMES.

Successful completion of the function check verifies that the firearm is operating correctly. The function check is especially important after reassembly of the firearm.

Semi-auto configuration:

1. Verify the firearm is unloaded (see section 2.1.1).
2. Remove the magazine (see section
3. Move the charging handle (see figure,) completely backward and forward several times.
4. Release the charging handle and allow the bolt group to snap forward.
5. Move the safety selector to the “0” or “safe” position.
6. Pull the trigger. The hammer should remain cocked.
7. Move the safety selector to the semi-auto “1” or “fire” position.
8. Pull the trigger and hold it all the way to the rear. You should hear the hammer release and impact the firing pin.
9. Continue to hold the trigger to the rear and pull the charging handle back and release the charging handle to simulate a round firing.
10. Release the trigger. You should feel and hear the trigger reset, and the hammer should not move forward to strike the firing pin.
11. Insert an empty magazine and verify that it seats correctly and that it is retained. Try to remove it without manipulation of the magazine release.
12. After verification of magazine retention, remove it by pushing the magazine release button.

Full-auto configuration:

1. Complete steps 1 through 10 from the semi-auto configuration.
2. Move the selector lever the the “full-auto fire” position.
3. Pull the trigger and hold it all the way to the rear. You should hear the hammer release and impact the firing pin.
4. Continue to hold the trigger to the rear and pull the charging handle back and release it several times. Each time the charging handle completes its forward travel, the hammer should release and strike the firing pin.
5. Release the trigger and pull the charging handle to the rear and release. You should feel and hear the trigger reset, and the hammer should not move forward to strike the firing pin.
6. Complete steps 11-12 from the semi-auto configuration.

2.2 PREPARATIONS

2.2.1 Using a Sling

Mounting the Sling

The firearms in the MRDS PDW line are equipped with 2-4 sling mounting points, depending on the configuration.

Depending on the variant of the MRDS firearm, attach the sling of your choice using QD sling mounts to the rear and front mounting points of the firearm.

Adjusting the Length of the Carrying Sling

Regardless of which type is used, the length of the sling is optimal if the firearm can be shouldered/ extended without compromising the proper position for shooting and manipulation of the safety selector. Attach the sling to the firearm. Loosen the sling to its maximum setting. Mount the sling to your body. Extend the firearm out to a natural shooting position. Have another person tighten the sling until it is at the appropriate lenth and secure the loose end with a band.

Figure 6: QD Sling mounts

Figure 7: QD sling mounts

2.2.2 Mounting Optics and Accessories on the Picatinny Rail

All variants of the MRDS PDW line, come equipped with a full length 1913 picatinny rail, extending from the rear of the upper receiver to the front of the handguard. The rail is a standard MIL-STD 1913 rail and all compatible sights and optics can be mounted on it according to the manufacturer's recommendations.

Figure 8: Picatinny rail

2.2.3 Using the Firearms with a Silencer/Suppressor

Firing with a silencer places greater stress on the firearm and contributes to faster wear on the internal components, as well as heavier fouling. If the firearm is used with a silencer, it is recommended that the firearm be cleaned every 500 rounds and lightly lubricated more frenquently. Heavy lubrication will cause excessive smoke while firing, which may cause eye irritation or breathing difficulties.

Due to the change in velocity of a bullet being fired with a silencer, the point of impact may change. Re-adjusting the sights may be necessary.

1. Ensure the firearm is unloaded and the safety selector is in the “safe” position.
2. Verify that no obstructions are present in the silencer.
3. Thread the silencer on the barrel, utilizing the correct thread pitch.
4. Ensure that the silencer is fully threaded securely on the barrel.
5. Check with an alignment rod.
6. Load the firearm and fire.
7. After firing has been completed and the silencer has cooled down adequately, remove the silencer.
8. Inspect the mounting point on the barrel and on the silencer, as cleaning may be necessary prior to mounting the silencer for follow-up use.

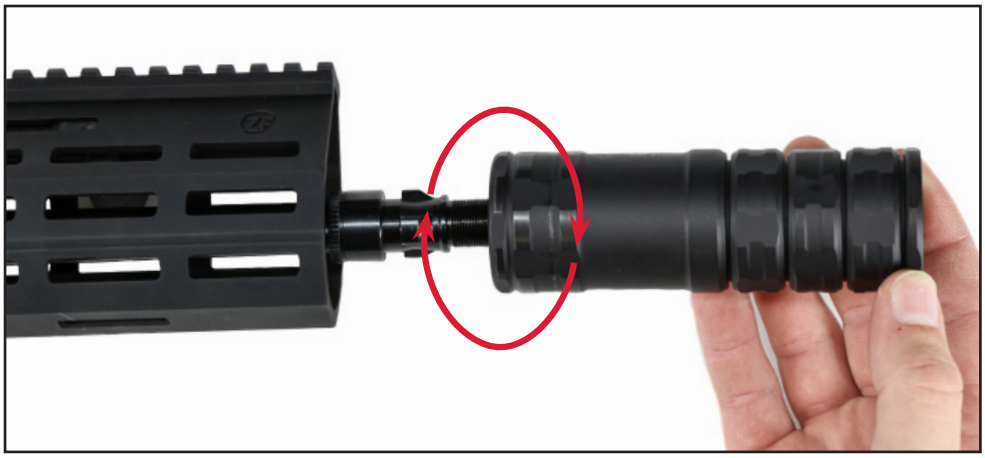


Figure 9: Direct thread installation

2.2.4 Loading the Magazine

Magazine loading sequence

1. Grasp the magazine.
2. Push the cartridge straight down, unser the magazine lips.
3. Be sure the cartridge sits all the way to the rear of the magazine.
4. Repeat steps 2-3 until reaching the desired number cartridges and no more than the full capacity indicated for the specific magazine.

Push one round of ammunition in at a time with the projectile forward, straight down onto the follower.

Allow each additional round to offset as they stagger to fill the magazine.

RISK OF FIREARM DAMAGE AND INJURY OR DEATH TO PERSON
Damaged, dented, or fouled cartridges can damage the firearm and cause malfunctions, along with serious injury or death.
Only use newly manufactured factory-loaded ammunition that is in good condition.

RISK OF FIREARM MALFUNCTION AND DAMAGE
An overfilled magazine can lead to malfunctions or damage to the firearm. Only load the magazine with the number of rounds of ammunition indicated on the magazine.

RISK OF FIREARM MALFUNCTION AND MAGAZINE DAMAGE
Keeping the magazine filled for long periods can result in damage to the magazine spring and may cause malfunctions. Remove all of the ammunition from the magazine before placing it in long-term storage.

RISK OF DAMAGE
Sustained firing in the “full-auto” position can damage the silencer. Only fire with the silencer in “semi-auto” position or with short bursts in the “full-auto” position to avoid overheating the barrel and silencer (unless the silencer is specifically rated for full-auto and then follow the manufacturer’s directions).

RISK OF BURN
The silencer becomes very hot during firing. Do not remove the silencer from the firearm until it has sufficiently cooled to avoid being burned and keep away from materials that may melt or catch fire.

2.3 Operation

2.3.1 Safety Selector

The ambidextrous safety selector has two positions, “FIRE” (1) and “SAFE” (0). A single shot will be fired each time the trigger is pulled when the selector is set to “FIRE”. When set to “SAFE” the movement of the trigger is blocked, preventing the hammer from being released.

2.3.2 Inserting the Magazine

1. Load the magazine
2. Move the safety

Figure 10: Inserting the magazine

ACCIDENTAL OR NEGLIGENT DISCHARGE CAN CAUSE SERIOUS INJURY OR DEATH

A firearm with a round of ammunition in the chamger is a potential source of danger. Only chamber a round of ammunition immediately before firing.

Unload the firearm immdediately after firing.

2.3.3 Chambering a cartridge

1. Pull the charging handle all the way back and lock it in place.
2. Insert the loaded magazine into the magazine well.
3. Release the charging handle and let it travel forward under the full force of the recoil spring. **DO NOT** attempt to ease the charging handle forward. There is now a cartridge in the chamber.

NOTE: There will be resistance to properly seating a fully loaded magazine with the bolt closed.

2.3.4 Firing Position and Aiming

WARNING: ENSURE THE FIREARM IS POINTED IN A SAFE DIRECTION AND THE SAFETY IS SET TO SAFE AT ALL TIMES WHILE HANDLING AND LOADING. KEEP YOUR FINGERS OR OTHER OBJECTS FROM CONTACT WITH THE TRIGGER WHILE LOADING OR UNLOADING YOUR FIREARM.

1. Always wear ear and eye protection when handling your firearm.
2. Prepare the firearm for firing by adjusting the sling of your choice and installing desired sights, optics and accessories.
3. Familiarize yourself fully with the firearm before firing. Practice your stance, aim, and breathing for steady handling with your UNLOADED firearm.
4. Load firearm as previously described.
5. Chamber a cartridge.
6. Grasp the forearm grip with your non-dominant hand on the pistol grip with trigger finger off the trigger, raise smoothly, bring buttstock to shoulder, and avoid holding the magazine may cause malfunctions.

7. Move the safety selector to the “fire” position.
8. Aim by aligning front and/or rear sights to the desired target.
9. Keep steady aim, while placing your trigger finger on the trigger and squeezing gently until the trigger releases the hammer. Avoid jerking the trigger.
10. Continue firing by releasing the trigger and squeezing it again after every shot until the magazine is empty.
11. When the magazine is empty, release the trigger, remove finger from trigger, and set the safety selector lever to the “safe” position. After the last round, the bolt carrier group will be held open to the rear allowing a quick reload by replacing the magazine, or the chamber can be checked to ensure its clear.

RISK OF INJURY
The firearm’s recoil can cause injury. When firing, pull the firearm firmly into your shoulder, is using a stock. If firing as a pistol, push out toward the target against a sling to provide a stable firing platform. Keep your eye at least 2 inches from the rear of the firearms when firing. Keep your hands away from ghe muzzle when firing.

2.3.5 Removing the Magazine

1. Grasp the magazine.
2. Press on the push button magazine release.
3. Remove the magazine by pulling it down and out of the magazine well.
4. Move the selector to the “safe” position.

Figure 11: Removing the magazine

2.3.6 Clearing the Chamber (unloading)

1. Press the ambidextrous magazine release button to remove the magazine.
2. Pull back the charging handle and lock into handguard groove. This cocks the hammer and locks the bolt carrier group to the rear. If a round or a spent cartridge remains in the chamber, it will eject.
3. Ensure the selector is in the “safe” position.
4. Visually inspect the chamber to ensure it is empty.
5. With the firearms posinted in a safe direction, slap the charging handle. This will release the bolt carrier group.
6. Colse the ejection port cover (dust cover).

RISK OF INJURY
A firearm with a cartridge in the chamber is a potential source of danger.

2.3.7 Reloading the MRDS PDW Firearms

1. There is a bolt hold open feature in these firearms, which will keep the bolt open after the last round has been fired.
2. After the bolt remains open, remove the magazine.
3. Insert a new loaded magazine into the firearm.
4. Continue firing.

RISK OF INJURY
The bolt travels forward quickly when the charging handle is released.

2.3.8 Emptying the Magazine

1. Push cartridges forward and out of the magazine by hand.

NOTE: Using a sharp tool to remove a cartridge from the rear may detonate the primer.

Figure 12 : Emptying the magazine

RISK OF INJURY
Impacts to the primer can ignite the cartridge.

2.4 Disassembling the MRDS PDW Firearms

1. Ensure the chamber is clear of ammunition.
2. Make sure the bolt assembly is in the forward (battery) position.
3. To remove the stock or a butt cap from the receiver, remove the two rear push pins.
4. Slide the take down pin out. The firearms upper receiver will now pivot forward.
5. Take care to not misplace the pins.
6. To completely separate the lower receiver from the upper receiver, slide the front pivot pin out.
7. Holding the upper receiver in your right hand, grab the charging handle with your left hand and pull back so the bolt comes to the rear.
8. Remove the bolt carrier group assembly (bolt carrier, bolt head, and two recoil springs) from the receiver.
9. Remove the handguard retainer screw and slide the handguard off the muzzle end of the firearm.

RELEASE THE BOLT GROUP FORWARD BEFORE DISASSEMBLY.

Figure 13: Remove rear push pins

Figure 14: Separating the lower and upper receiver

RISK OF INJURY
The use of excessive force during disassembly, cleaning, and assembly can damage the firearm. Do not use excessive force when disassembling and assembling the firearm.

RISK OF INJURY
Improper disassembly/assembly may cause malfunctions and lead to injury. Limit the extent of disassembly to the instructions in this manual and no further.

RISK OF INJURY
If the charging handle and bolt group are locked to the rear, the recoil spring is under tension.

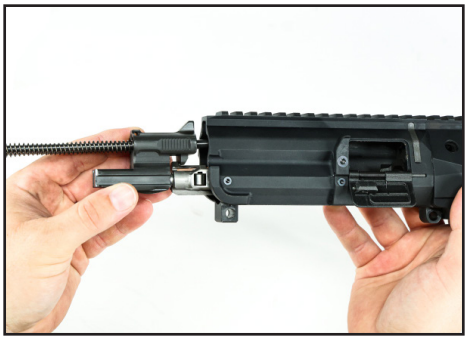


Figure 15: Remove the bolt carrier

Figure 16: Remove the handguard retainer screw

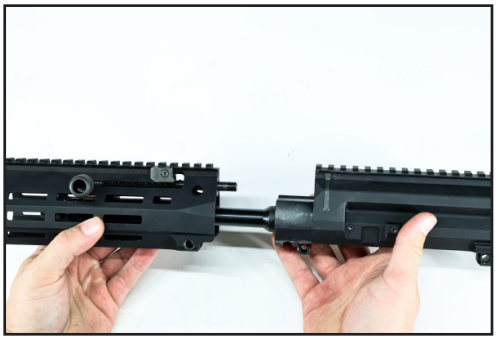


Figure 17: Remove the handguard

2.4.1 Disassembling the Bolt Carrier Group

1. Remove the recoil spring assemblies from the rear of the bolt carrier.
2. Grasp the bolt head in one hand and the bolt carrier in the other, pull out slightly and rotate the bolt head 90 degrees to the right until it releases from the locking piece.
3. At this point the locking piece can be removed from the bolt carrier. Remove it, along with the firing pin and the firing pin spring from the bolt carrier.
4. The bolt group is now disassembled.

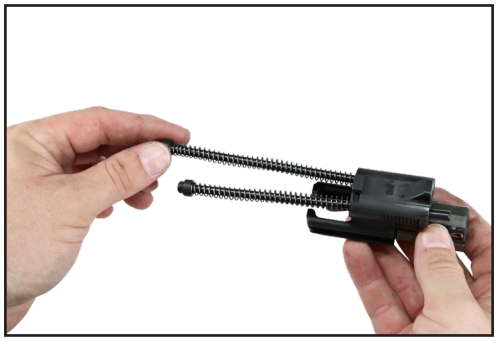


Figure 18: Removing the recoil spring assemblies

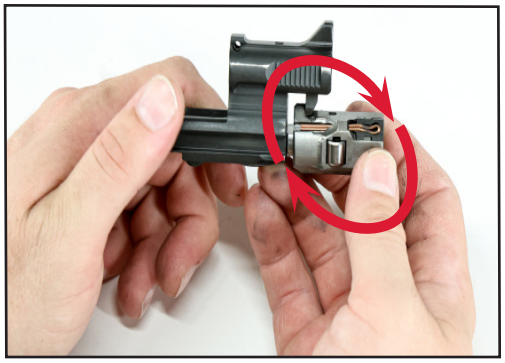


Figure 19: Removing the bolt carrier

Figure 20: Removing the firing pin

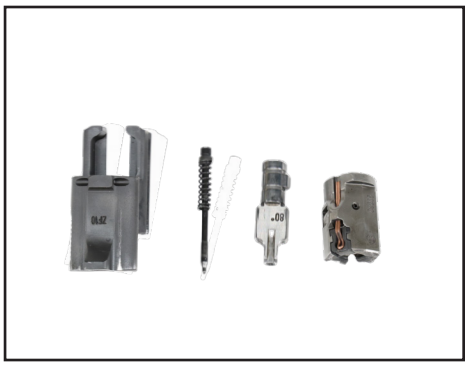


Figure 21: Disassembled bolt group

2.4.2 Disassembling the Lower/Trigger Group

1. Remove the grip screw and grip being sure to secure the safety selector spring and detent pin.
2. Removing the right side hex head screw and remove the safety selector. Do not misplace the screw.
3. Remove the ejector axle retainer (roll pin) from top to bottom.
4. With your thumb on the hammer, pull the trigger and ease the hammer to the forward position.
5. Push the ejector axle pin in towards the trigger pocket and retrieve it from the receiver.
6. Remove the ejector and ejector spring.
7. Drift the hammer pin from right to left and remove the hammer and hammer spring.
8. Drift the trigger pin from right to left and remove trigger, trigger spring, disconnector and disconnector spring.

Figure 22
Step 1 & 2: Remove the safety

Figure 23
Step 3: Removing the ejector axle retainer

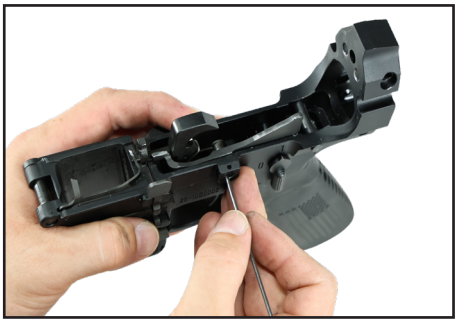


Figure 24
Step 5: Removing the ejector axle pin

Figure 25
Step 6: Removing the ejector spring

Figure 26
Step 6: Ejector removed

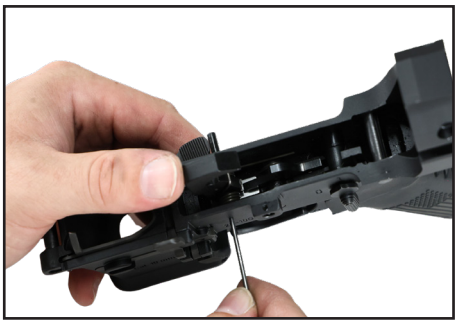


Figure 27
Step 7: Drifting the hammer pin

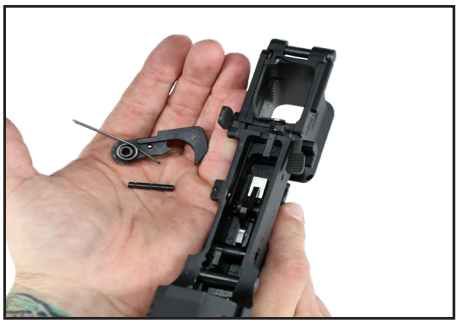


Figure 28
Step 7: Removed the hammer and hammer spring

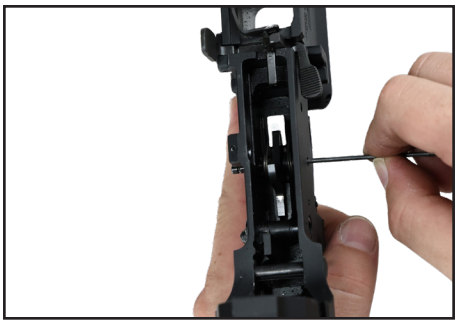


Figure 29
Step 8: Drift the trigger pin

Figure 30
Step 8: Trigger removed

2.5 Cleaning the MRDS PDW Firearms

2.5.1 General Instructions for Cleaning

Frequent cleaning and lubrication provide several benefits:

> Prevents premature wear
> Maintains the highest level of reliability
> Makes the next cleaning easier and less time consuming

Clean the firearm each time it is fired and at intervals of 1000 rounds. Cleaning intervals should be every 500 rounds when using a silencer/suppressor.

Required Materials: Cleaning Kit and Oil

1. Disassemble the firearm.
2. Visually check the firearm for damage.
3. Clean fouled parts and surfaces using cleaning cloths or brushes.
4. Assemble a barrel cleaning brush on the cleaning rod.
5. Clean the chamber using the brush.
6. Pull lubricated cleaning brush through the barrel several times from the inside of the receiver, not from the muzzle end. Always clean pull-through on the cleaning rod or a bore snake.
7. Replace the barrel cleaning brush with a clean pull-through on the cleaning rod or a bore snake.
8. Run a clean pull-through or bore snake through the barrel several times until it is free of oil and fouling.
9. Lightly lubricate a patch on a cleaning rod or a bore snake.
10. Pull it through the barrel from the chamber.
11. Using a cleaning brush with CLP scrub. Clean the firing pin, locking piece, lip of the extractor, and the outside of bolt head, bolt carrier, and recoil springs.
12. Wipe all components clean and dry, and inspect for excessive wear, corrosion or mechanical damage. Have an armorer or a gunsmith replace any worn or defective parts before firing.
13. Wipe any dirt from the trigger mechanism. Carefully clean the magazine release button and the cavity for the magazine catch on the left side of the bolt receiver. Also inspect and clean the bolt catch mechanism and receivers takedown and pivot pins.
14. Lubricate designated points on the firearm, as well as any other metal to metal bearing surfaces.
15. Assemble the firearm.
16. Conduct a function check.

Use only approved gun solvent, oils and a nylon brush, followed by thorough drying with a clean cloth.

Before reassembling your MRDS PDW firearm, ALL PARTS MUST BE COMPLETELY DRY!

2.6 ASSEMBLING THE MRDS PDW FIREARMS

2.6.1 Assembling the Bolt Carrier Group

1. Place the firing pin spring over the firing pin and place both inside the rear of the locking piece.
2. With the lug of the locking piece facing down, hold it with your left hand. With your right hand, hold the bolt carrier. Insert the locking piece into the bolt carrier and push inwards against the tension of the firing pin spring and rotate the locking piece 45 degrees to the left.
3. The bolt will lock into position and you can now move it forward and back over the locking piece.
4. Reinsert the recoil spring into the rear of the bolt carrier.
5. The bolt group is now assembled.

Figure 31: Inserting the locking piece

Figure 32: Inserting the bolt

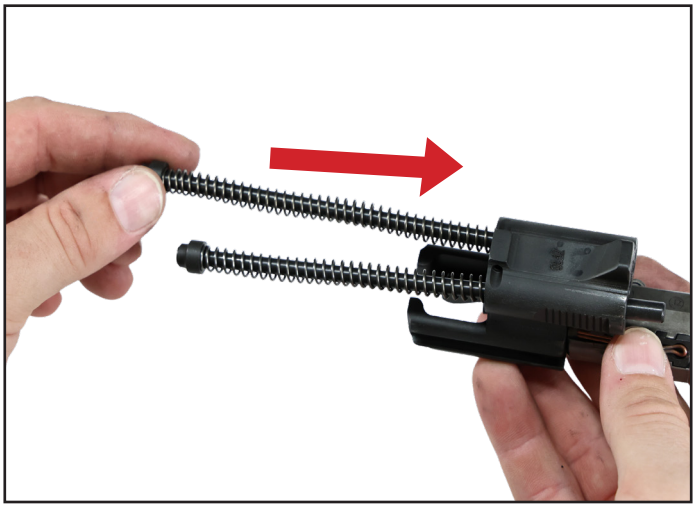


Figure 33: Inserting the recoild springs

2.6.2 Assembling the Lower Receiver

Install the trigger assembly
1. Insert the trigger and the trigger spring into the lower receiver.
2. Place the disconnector spring and disconnector into the lower receiver.
3. Align the trigger pin holes and drift the trigger pin from left to right to secure the assembly.

Install the hammer
1. Insert the hammer and spring into the lower receiver, aligning the pin holes.
2. Drift the hammer pin from left to right to secure the hammer.

Install the roll pins
1. Insert the trigger pin retainer roll pin from the bottom to top.
2. Insert the hammer pin retainer roll pin from bottom to top.

Install the ejector
1. Insert the ejector spring into the lower receiver.
2. Place the ejector on the spring and align the ejector axle hole.
3. From the inside, push the ejector axle pin through the receiver and ejector.
4. Secure with roll pin.

Install the safety selector
1. Insert the safety selector into the lower receiver.
2. Install the right side hex head screw to recure the safety selector.

Install the grip
1. Install safety selector detent into the receiver and safety detent spring into grip.
2. Attach the grip to the lower receiver and tighten the grip screw.

2.6.3 Assembling the Upper Receiver

Reassemble the bolt carrier group as described in section 2.6.1

Install the bolt assembly
1. Insert the bolt carrier group assembly with the bolt forward into the upper receiver.
2. Install the two recoil spring assemblies.
3. Ease the bolt carrier forward and guide the bolt into battery.

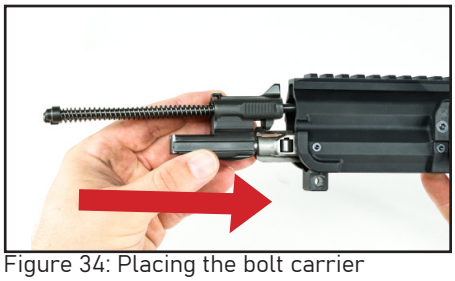


Figure 34: Placing the bolt carrier

Install the handguard
1. Slide the handguard over the muzzle end of the firearm.
2. Secure the handguard with the handguard retainer screw.


Figure 35: Put the handguard retainer screw

2.6.4 Reassembling the MRDS PDW Firearms

Mate the upper and lower receiver
1. Align the upper and lower receiver components.
2. Insert the pivot pin and secure it.
3. Insert the takedown pin and push it to the closed position.

Figure 36: Pivot pin inserted

Figure 37: Pushin the takedown pin

After reassembling the firearm, performing a function check. Refer back to section 2.1.2 Performing a Function Check, follow the instructions to test your firearm.

2.7 Storing your firearm

WARNING: BEFORE STORING, REMOVE THE MAGAZINE AND CLEAR THE CHAMBER.

1. After clearing the chamber, check that the bolt carrier group assembly is in the forward (battery) position.
2. Point the gun in a safe direction and pull the trigger so the hammer is in a fired position.
3. Close the dust cover.
4. Store the firearm in a locked case in a safe area.
5. If storing your rifle for an extended period of time, use light oil in the barrel and chamber to prevent corrosion.

RISK OF INJURY OR DEATH
In the event of a malfunction, the firearm may be loaded even if you expect it to be unloaded. Treat the firearm as if there was a round of ammunition in the chamber. Verify whether the firearm is actually loaded or unloaded. Follow fundamental safety instructions before attempting to resolve malfunctions.

MRDS PDW MODELS

In this section, you will find the model specific information. Including, diagrams, specs and descriptions, etc.

DESCRIPTION OF THE ZF-9

The ZF-9 is a semi-automatic pistol and/or rifle with a roller-delayed blowback operating system. The lower and upper receiver as well as the handguard features well known AR-style characteristics, while retaining the iconic “slap” of the charging handle. It also features a last round bolt hold open system and fully ambidextrous safety selector, bolt catch, and magazine release. The ZF-9 is crafted using MIL standard aluminum and the highest quality steel. It is chambered in 9 x 19 mm and accepts standard Glock magazines. The ZF-9 has a full length picatinny rail and a cold hammer-forged FNC treated barrel with 1/2 x 28 right hand threaded end for suppression. The AR-style trigger has a 6-8lb pull weight and a AR buffer tube compatible end cap or stock.

DESIGNATIONS

Depending on the variant, the ZF-9 may be classified as a pistol, rifle, machine gun or SBR. Follow all BATFE and NFA regulations when configuring your ZF-9 to your needs. Consult with the BATFE regarding relevant NFA questions.

INTENDED USE

The ZF-9 is effective against targets at ranges up to 500-600 yards (450-550 meters). The ZF-9 excels in many roles including, but not limited to: sporting uses, self defense, or law enforcement and security applications.

ZF	ZF-9 SPECS
Caliber	9 x 19 mm
Operating System	Roller-Delayed Blowback
Mode of Fire	Semi-Automatic
Magazine	30-Round Glock or Scorpion Magazine
Trigger Pull	6-8 lbs.
Safety	Manually Actuated Ambidextrous Lever
Weight (W/O MAGAZINE)	5 lbs.
Magazine Weight- Empty	
Magazine Weight- Full	
Height	8 in.
Width	2 in.
Barrel Length	6 in., 9 in.
Barrel	Cold Hammer Forged 4150 CMV, 3-Lug, 1/2 x 28 RH Threaded
Rifling	6 Grooves, RH Twist, 1:10 in.
Forearm	Floating M-Lok® Handguard
Stock	Retractable or Foldable

ZF-9

The orientations of the two images below refer to the sides of your firearm when it is shouldered.

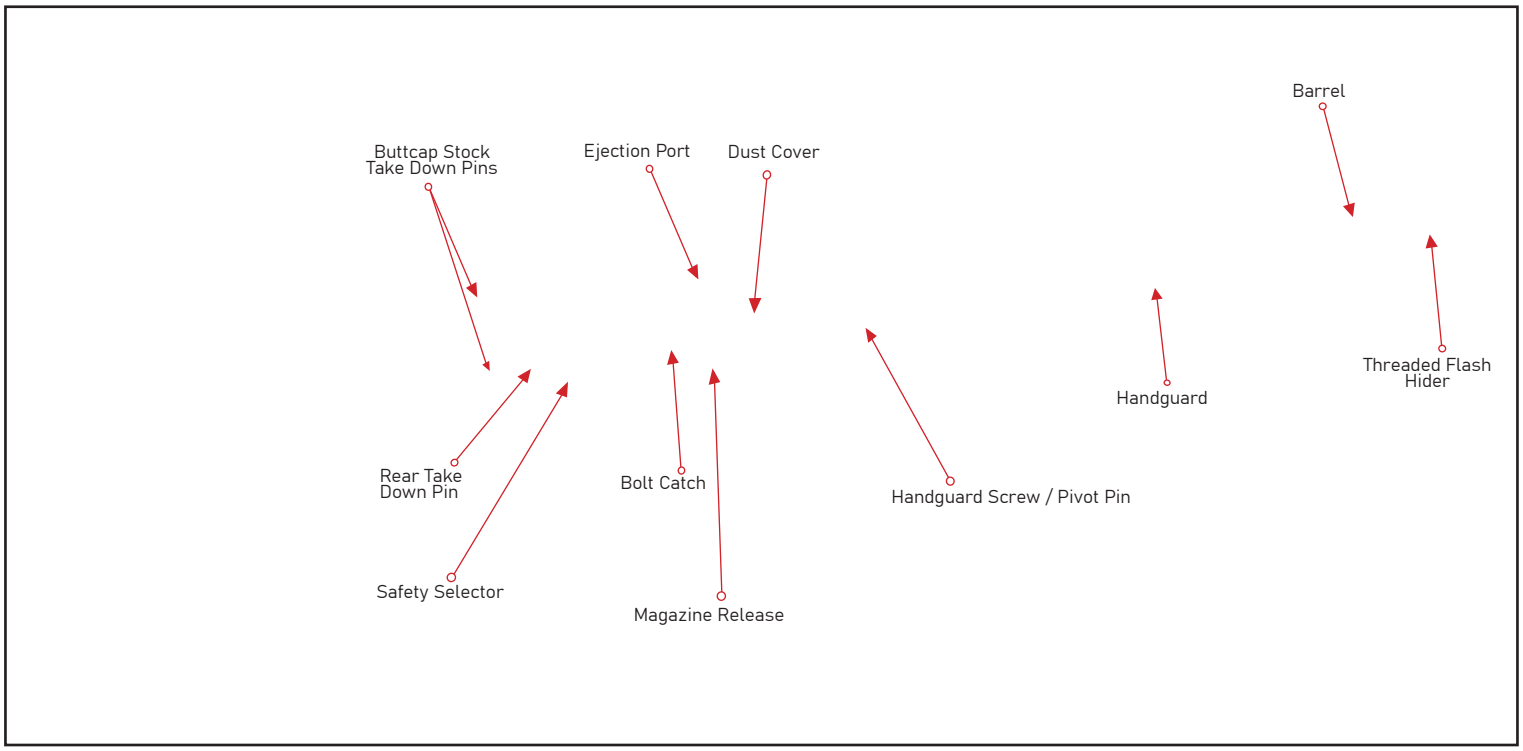


Figure : ZF-9 right side view

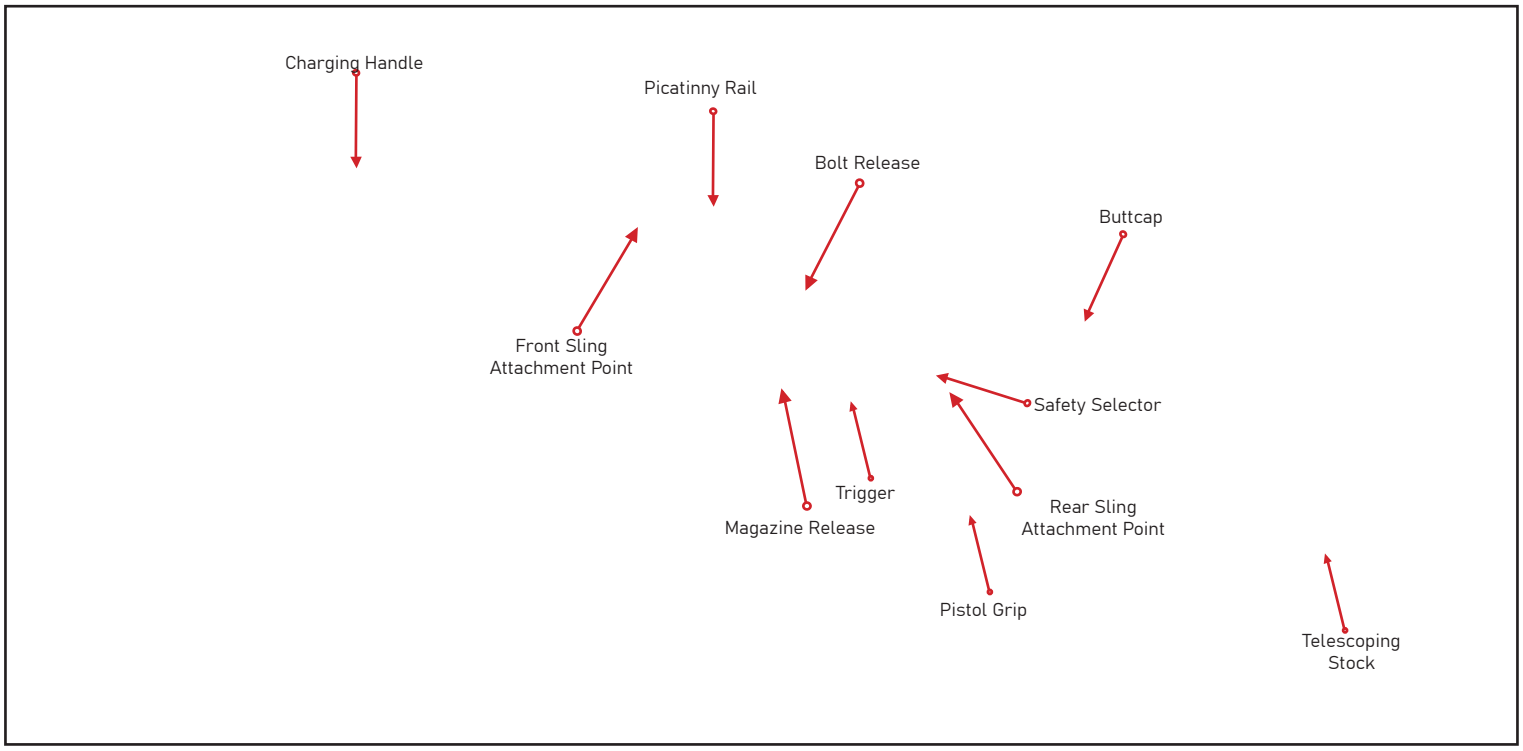
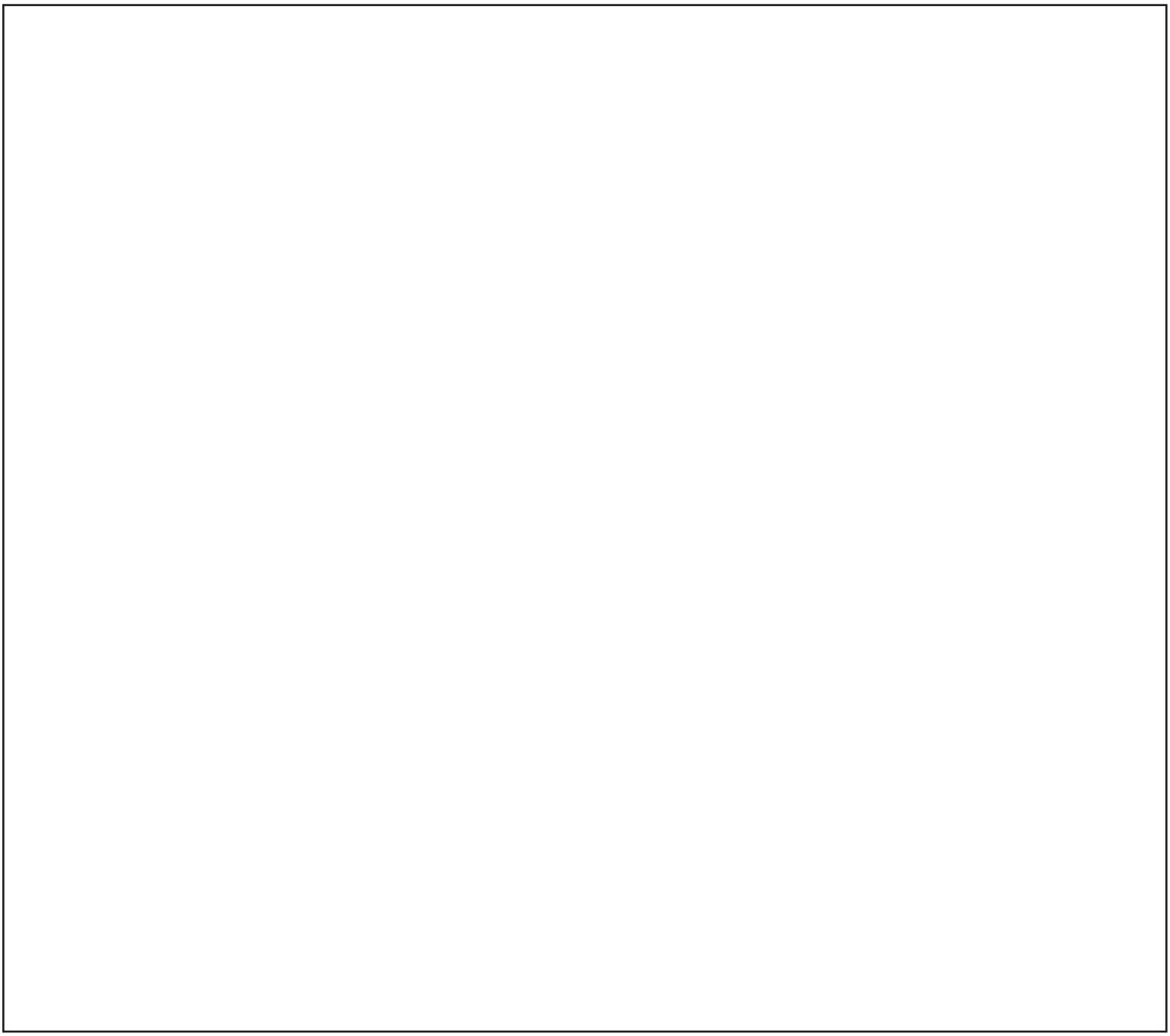


Figure : ZF-9 left side view

ZF-9 Assembly Groups



1. Lower Receiver
2. Upper Receiver / Barrel
3. Bolt Carrier Group Assembly
4. Handguard
5. Buttcap / Stock Assembly
6. Magazine
7. Flash Hider
8. Pivot Pin
9. Buttcap Take Down Pin

DESCRIPTION OF THE ZF-10

The ZF-10 is a semi-automatic pistol and/or rifle with a roller-delayed blowback operating system. The lower and upper receiver as well as the handguard features well known AR-style characteristics, while retaining the iconic “slap” of the charging handle. It also features a last round bolt hold open system and fully ambidextrous safety selector, bolt catch, and magazine release. The ZF-300 is crafted using MIL-standard aluminum and the highest quality steel. It is chambered in 10 mm and accepts standard Glock magazines. The ZF-10 has a full length picatinny rail and a cold hammer-forged FNC treated barrel with 1/2 x 28 right hand threaded end for suppression. The AR-style trigger has a 6-8lb pull weight and a AR buffer tube compatible end cap or stock.

DESIGNATIONS

Depending on the variant, the ZF-10 may be classified as a pistol, rifle, machine gun or SBR. Follow all BATFE and NFA regulations when configuring your ZF-10 to your needs. Consult with the BATFE regarding relevant NFA questions.

INTENDED USE

The ZF-10 is effective against targets at ranges up to 500-600 yards (450-550 meters). The ZF-10 excels in many roles including, but not limited to: sporting uses, self defense, or law enforcement and securoty applications.

ZF	ZF-10 SPECS
Caliber	10 mm
Operating System	Roller-Delayed Blowback
Mode of Fire	Semi-Automatic
Magazine	30-Round Glock or Scorpion Magazine
Trigger Pull	6-8 lbs.
Safety	Manually Actuated Ambidextrous Lever
Weight (W/O MAGAZINE)	4.7 lbs.
Magazine Weight- Empty	
Magazine Weight- Full	
Height	8 in.
Width	2 in.
Barrel Length	8-7/8 in.
Barrel	Cold Hammer Forged 4150 CMV, 3-Lug, 1/2 x 28 RH Threaded
Rifling	6 Grooves, RH Twist, 1:7 in.
Forearm	Floating M-Lok® Handguard
Stock	Retractable or Foldable

ZF-10

The orientations of the two images below refer to the sides of your firearm when it is shouldered.

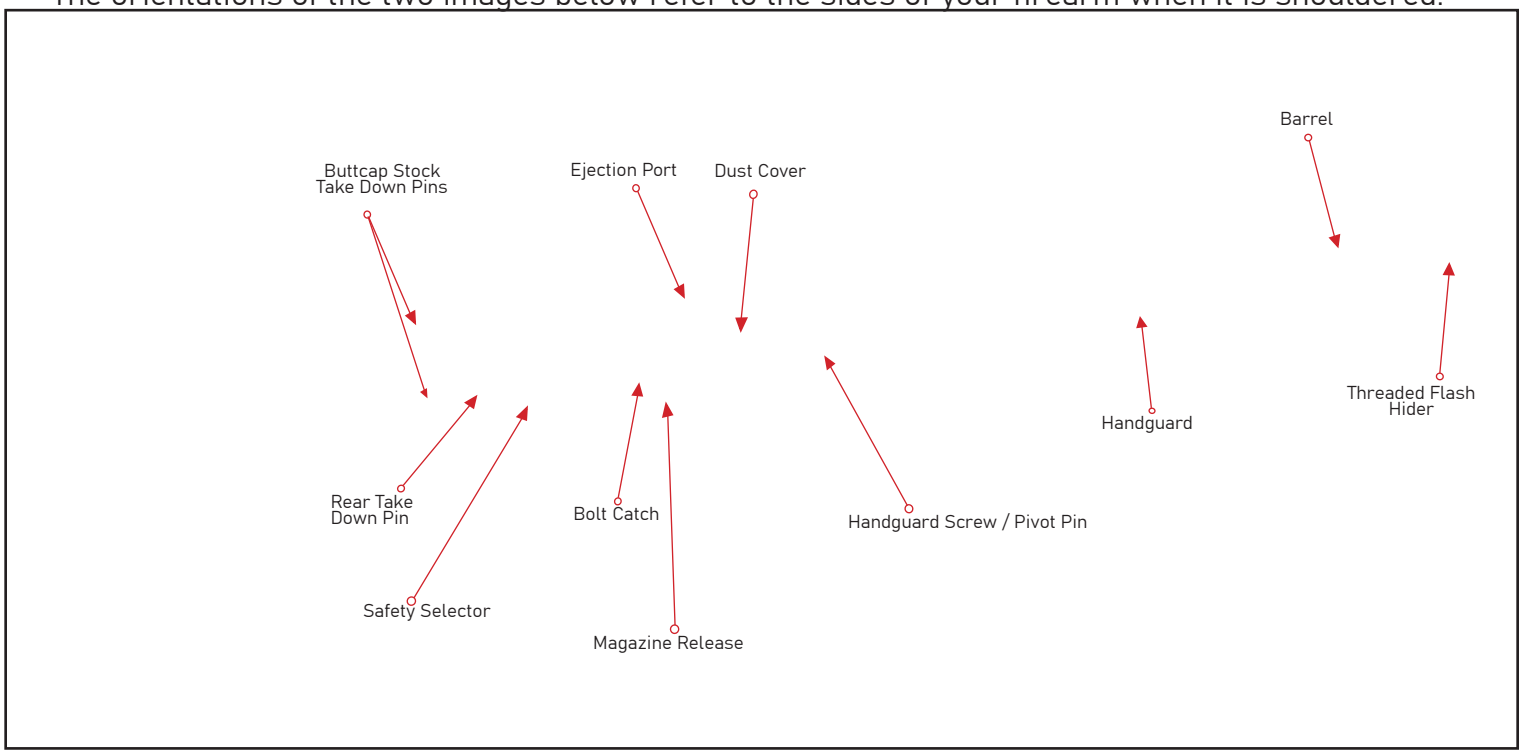


Figure : ZF-10 right side view

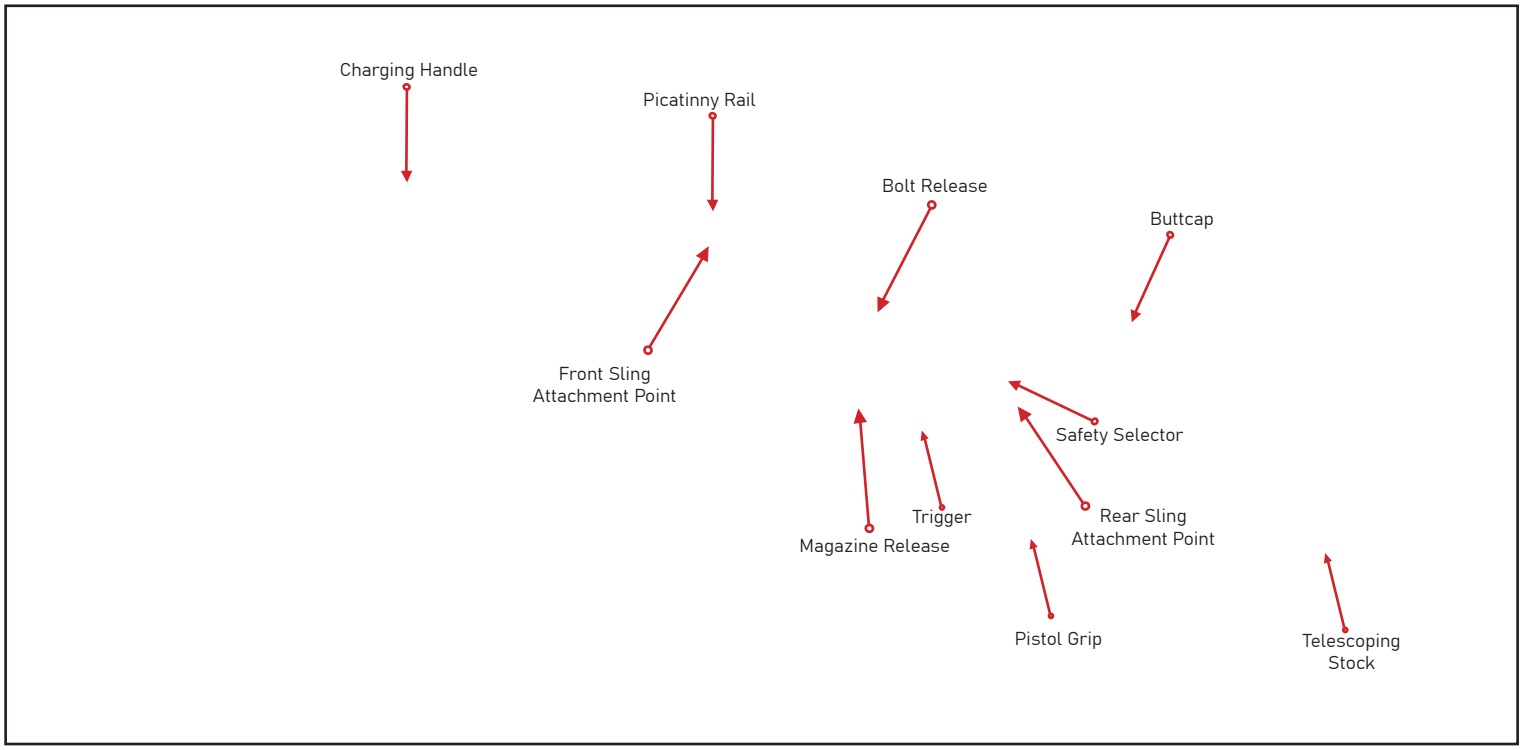


Figure : ZF-10 left side view

ZF-10 Assembly Groups

1. Lower Receiver
2. Upper Receiver / Barrel
3. Bolt Carrier Group Assembly
4. Handguard
5. Buttcap / Stock Assembly
6. Magazine
7. Thread Protector
8. Pivot Pin
9. Buttcap Take Down Pin