

Carbine Malfunctions, Diagnosis and Remediation

Part 2 – Complex Carbine Malfunctions

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In part 2 of this series of articles/tutorials I am going to outline how to set up for training, diagnose in-fight and remediate the more complex malfunctions. For demonstration purposes the AR15 weapon platform is being used but it is important to note that the skills outlined are applicable across a broad spectrum of weapons. Whenever conducting any firearms related training it is important to review and follow the four firearm safety rules:

- 1) Treat all guns as if they are loaded at all times
- 2) Never let the muzzle cover anything you are not willing to kill, destroy or purchase
- 3) Keep your finger off the trigger until your sights are on the target and you have made the conscious decision to fire
- 4) Know your target and the environment around it to include its background, what's to each side and it's foreground

Generalized Malfunction Clearance Guidelines

The following generalized guidelines have proven through training to support fast, efficient and retainable malfunction clearance application under stress:

- 1) **MOVE and COMMUNICATE** by getting offline or to cover/concealment while communicating with team mates, partners or family members
- 2) **Bring carbine into natural workspace** to perform all combative gun-handling or manipulations
- 3) **Aggressively handle the carbine** at all times; i.e. attempt to RIP the charging handle off the carbine when racking AND RELEASE the charging handle, do not ride it forward
- 4) **Avoid breaking the final firing grip** when manipulating the charging handle unless absolutely necessary or during remediation of a complex malfunction
- 5) **Breath and Slow down** taking a little time in the beginning could save you a lot of time at the end. Just because you can do something fast does not mean you're doing it right
- 6) **CLICK means TAP, MUSH means RIP!**

Complex Carbine Malfunction Remediation

Remedial Action Drill (RAD):

Rip- the magazine out of gun aggressively

Retain/Discard- time and context of situation are critical factors, a military troops load out may justify discarding the magazine but a Law Enforcement patrolman possessing one magazine when jumping out of his/her cruiser or citizen defending their home will have limited resources therefore retaining the magazine may be more prudent

Pull & Hold- the charging handle, hold to the rear during next step

Insert & Digitally Manipulate- while holding charging handle to rear insert fingers and manipulate stuck rounds out of chamber, physically feel with tip of finger that chamber is clear

Release- the charging handle

Reload- the carbine with a fresh magazine

Rack- the charging handle to the rear and release, chambering a fresh round

Re-assess- the target and environment

The remedial action process takes time, but like everything, with proper training it can be done quite rapidly. It is of course important to assess the combative environment to determine if time and opportunity are available in order to perform remedial action. Seeking cover and/or concealment is always a sound tactic. Note visual inspection of the chamber is suggested in order to determine if a true double feed was the cause of the malfunction. In this case, discarding the magazine is recommended since in most double feeds the magazine is the cause. However, if the malfunction is not a double feed discarding the magazine may not be necessary. A citizen or patrol officer may be faced with limited load out making it necessary to hold onto as much ammunition as possible.

TRAINING TIP

During complex malfunction clearance (Remedial Action Drill), transferring the carbine into the support side shoulder (for a right hand operator) is recommended. This has proven to provide the operator with better visualization of the ejection port and the ability to utilize the dominant hand during remediation. In timed complex malfunction remediation drills operators following this method are as fast as and usually faster than operators retaining the carbine in their right shoulder.

Deep Failure to Eject (stovepipe) – With the deep failure to eject the bolt has reciprocated and in the process caught the previously spent casing between the actual bolt face and front vertical edge of the ejection port as it was being ejected. Tap/Rack may work to remediate this malfunction depending upon the make, condition of firearm (dirty vs. clean) and severity of the malfunction (is the casing partially jammed into chamber from repeated Tap/Racks!). The deep failure to eject can be caused by blocking the ejection port (operator error or possibly crowding cover), dirty weapon, weak or broken ejector and weak extractor spring. The operator will feel a MUSH when attempting to fire and following our Refunction Mantra:

MUSH means RIP

Setting up the Deep Failure to Eject:



At Home

- Verify you are using only dummy rounds!
- Carbine, dummy rounds and a magazine
- With the bolt forward on an empty chamber Insert magazine loaded with dummy round
- Pull charging handle back far enough to place the spent casing into ejection port between bolt face and front vertical surface of the ejection port



Note- in front of bolt face



On the Range

- Carbine, piece of spent brass and magazine with live rounds
- With the bolt forward insert magazine loaded with live rounds
- Pull charging handle back far enough to place spent casing into ejection port between bolt face and front vertical edge of ejection port

Deep Failure to Eject – **MUSH means RIP (RAD)**



Operator has attempted to fire and experiences a deep failure to eject, feeling a MUSH of the trigger. Remedial action drill is initiated



Carbine is rolled outboard into high control and magazine is ripped out.

IF the bolt goes forward, RACK, RELOAD, RACK, REASSESS

***Finger out of trigger guard**



IF the bolt does not go forward: **PULL & HOLD** charging handle back, **INSERT** a finger and **DIGITALLY MANIPULATE** any stuck casings/rounds out



RELEASE charging handle, **RELOAD, RACK**



Sights are reacquired and target(s)/environment is **REASSESSED**



Failure to Extract (Linear Malfunction) – With the failure to extract a round has been fired and the casing of that round remains in the chamber. The bolt and carrier have cycled rearward cocking the hammer. Bolt and carrier move forward stripping the next round off the top of the magazine and jam that round up behind the casing stuck in the chamber in a line (linear malfunction). This is commonly called a double feed by some, when in fact it is not. The failure to extract can be caused by having a dirty weapon, blocked ejection port, broken case rim, and a lubricated chamber, weak or broken extractor. The operator will feel a MUSH when attempting to fire and following our Refunction Mantra: **MUSH means RIP**

Setting up the Failure to Extract:



At Home

- Verify you are using only dummy rounds!
- Carbine, (2) Dummy Rounds and Magazine
- With the bolt locked back insert a dummy round into the chamber
- Insert magazine with dummy round and release bolt forward



On the Range

- Carbine, (1) dummy round and magazine with live rounds
- With the bolt locked back insert the dummy round into the chamber
- **WARNING!** Using a live round can cause the firearm to discharge. If tip of round being fed from magazine impacts primer of round in chamber and the bolt is dropped hard it may result in an open breach detonation!
- Insert magazine with live rounds and release bolt forward

Failure to Extract – **MUSH means RIP (RAD)**



Operator has attempted to fire and experiences a failure to extract, feeling a MUSH of the trigger. Remedial action drill is initiated



Carbine is rolled outboard into high control and magazine is RIPPED out

IF the bolt goes forward, RACK, RELOAD, RACK, REASSESS

***Finger out of trigger guard**



IF the bolt does not go forward: PULL & HOLD charging handle back, INSERT a finger and DIGITALLY MANIPULATE any stuck casings/rounds out



RELEASE charging handle, RELOAD, RACK



Sights are reacquired and target(s)/environment is REASSESSED



Double Feed – With a true double feed two rounds have come out of the magazine and both are being forced into the chamber by the bolt in a “V” configuration. A double feed can be caused by having a dirty weapon, bad magazine or overloaded magazine. The operator will feel a MUSH when attempting to fire and following our Refunction Mantra: **MUSH means RIP**

Setting up the Double Feed:



At Home

- Verify you are using only dummy rounds!
- Carbine, (2) dummy rounds and magazine
- With the bolt locked back insert a magazine with dummy round into the magazine well
- Manually drop another dummy round into the ejection port
- Release bolt forward

Note- “V” Configuration



On the Range

- Carbine, (1) live round and a magazine with live rounds
- With the bolt locked back insert the magazine with live rounds into the magazine well
- Manually drop another live round into the ejection port
- Release bolt forward

Double Feed – **MUSH means RIP (RAD)**



Operator has attempted to fire and experiences a double feed, feeling a **MUSH** of the trigger. Remedial action drill is initiated

WARNING! If a **TAP, RACK** is initiated this malfunction can be made more severe by hammering the rounds deeper into the chamber!



Carbine is rolled outboard into high control and magazine is **RIPPED** out.

***Finger out of trigger guard**



PULL & HOLD charging handle back, **INSERT** a finger and **DIGITALLY MANIPULATE** the stuck casings/rounds out



RELEASE charging handle, **RELOAD**, **RACK**



Sights are reacquired and target(s)/environment is **REASSESSED**



Triple Feed (Charging Handle Impingement) – The triple feed occurs when a spent casing becomes lodged in the carrier key channel above the bolt carrier, a live round is in the chamber and another round is attempting to be fed into the chamber. This malfunction is commonly caused when the operator clears a failure to eject improperly by rolling the carbine inboard (ejection port upward) instead of outboard during remediation and rides the charging handle forward or by blocking the ejection port. These operator errors cause the casing to fall back into the receiver or remain in the receiver where it gets kicked up into the carrier key channel by the bolt reciprocating and attempting to feed a new round. The end result is a spent casing above the bolt carrier impinging the charging handle and a double feed in the chamber. The operator will feel a MUSH and following our Refunction Mantra: **MUSH means RIP**

Setting up the Triple Feed:



At Home

- Verify you are using only dummy rounds!
- Carbine, (3) dummy rounds and a magazine
- With the bolt locked back manually insert a dummy round into the chamber and roll the carbine magazine well up so the dummy round falls into carrier key channel
- Insert magazine with dummy round
- Manually insert another round into the receiver
- Release the bolt forward



On the Range

- Carbine, (1) live round, (1) spent casing and a magazine with live rounds
- With the bolt locked back manually insert a spent casing into the chamber and roll the carbine magazine well up until the spent casing rolls into carrier key channel
- Insert magazine loaded with live rounds
- Manually insert another live round into the receiver
- Release the bolt forward



Note- brass above bolt



Triple Feed – **MUSH** means RIP (RAD)



Operator has attempted to fire and experiences a Triple Feed, feeling a MUSH of the trigger. Remedial action drill is initiated



Carbine is rolled outboard into high control and magazine is RIPPED out

***Finger out of trigger guard**



Operator attempts to PULL & HOLD charging handle to rear but charging handle will not retract. This is a primary indicator that a triple feed or some type of charging handle impingement has occurred



Rounds in the chamber must be removed prior to remediating charging handle impingement!

PULL & HOLD charging handle back as far as possible, INSERT a finger and DIGITALLY MANIPULATE any stuck casings/rounds out

Transfer carbine to left shoulder for better visual



Push charging handle forward to reset

This **MUST** be done in order to remediate the charging handle impingement





With an expedient tool like the tip of a live round, index finger, leatherman or corner of magazine



Hook on edge of bolt carrier group and pull rearward while angling magazine well downward so gravity can assist

Shake carbine until casing lodged in carrier key channel above bolt falls free



RELEASE bolt carrier forward, access and insert loaded magazine



RACK, RELOAD, RACK, sights are reacquired and target(s)/environment is REASSESSED



Failure to Unlock – This is where the bolt will not unlock from the chamber. The failure to unlock can be caused by having a dirty weapon (operator error), bulged casing, worn locking lugs, a lubricated chamber or non-spec ammunition. Remediation of this malfunction can be either administrative or combative depending upon how tightly the bolt is locked. This malfunction cannot be replicated for training purposes but in high round count courses it is not uncommon to see one or two.



One combative method to remediate this malfunction is to attempt to put weapon on safe, collapse the stock, take a knee and elevate muzzle 45 degrees, depress charging handle release while robustly strike the butt stock on ground or floor. The inertia of the bolt carrier may unlock the bolt. This method is commonly referred to as “mortaring”.



While this method may work it can damage the stock of the firearm and/or bend the buffer tube rendering the firearm inoperable. Utilizing this technique also limits mobility when assuming a kneeling position which is not recommended in any combative environment.



Another option is to remain standing, attempt to place carbine on safe, step forward with one leg, angle the carbine away from your body, tense the muscles of that leg and depress the charging handle release while smartly striking the butt stock against the inner surface of your tensed thigh muscle.

Utilizing this method there is a very good chance that you will strike the stock hard enough to unlock the bolt but not hard enough to damage the firearm. This method generates enough force to remediate the malfunction and allows the operator to rapidly make movement if necessary.

Conclusion

There are various malfunction diagnosis and remediation methodologies available to the combative carbine operator. Individuals may have a certain technique that works for them and that is fine. As a student, instructor and someone who may have to rely upon my ability to keep my carbine running during a critical incident to protect myself, team member or family member, I am not willing to bet my life on anecdotal information. I don't care that the way someone else did it, one time, worked. Consistency is king and I can say that the procedures and methods outlined here work consistently 100% of the time, with proper instruction and training. Slow down, breath and listen to what the carbine is telling you and you will be on the fast track to diagnosing and remediating whatever malfunction Murphy decides to throw at you.

About Chris Fry

Chris is the owner and director of training and curriculum development for Modern Defensive Training Systems, LLC located in N.Y. where he conducts courses in reality driven practical combatives, extreme close quarters physical defense, tactical folding knife and edged weapon combatives and combative pistol, carbine and shotgun skills. Chris has been an active instructor with Progressive F.O.R.C.E. Concepts in Nevada since 2003, servicing law enforcement, military and select government agencies. Chris is a certified AR15/M4/M16 and Glock armorer, contributor to various online firearms resource websites and a frequent presenter at national and international personal protection and small arms training conferences for both citizens and law enforcement.