A revolver is a multi-shot handgun where rounds of ammunition are contained in chambers of a cylinder which rotates with each press of the trigger. In a law enforcement application, there are customarily five or six chambers cut into the cylinder although some manufacturers are producing duty applicable weapons which hold as many as eight rounds of ammunition. Revolvers most commonly used in Law Enforcement are of .38 or .357 caliber although .41 magnum and .44 magnum have been authorized by some agencies. It should be noted that while the .38 caliber and the .357 caliber are fundamentally the same diameter and fit into the chambers, the .357 caliber cartridge is longer and can only be fired in a weapon designed for it. Although, the .38 caliber cartridge, being shorter, can be fired in a weapon designed to shoot .357 caliber ammunition. Each cylinder rotation progressively aligns each chamber with a single fixed barrel at the front and the hammer/firing pin at the rear. There is a small gap between the front of the cylinder and the rear of the barrel (the area referred to as the forcing cone) to allow free, unobstructed, rotation of the cylinder. This gap can produce bullet shaving or splatter if the weapon is not “timed” to precisely align the chambers with the forcing cone. This timing is a job for an authorized gunsmith.

While the Semi-Automatic pistol has become the predominant standard sidearm, the venerable revolver still serves a function in the Law Enforcement community. Its simplicity and reliability have kept it from disappearing from this venue. While there are a few agencies which still use it as their primary handgun, it has more frequently found use as a back-up or off-duty weapon. Some agencies employ the smaller, more concealable configurations in an undercover capacity. For these reasons it is important to recognize that for the foreseeable future, the modern day firearms instructor must have a basic understanding of this weapon’s function, operation, care and maintenance. This proficiency must be such as to lend credibility to their position as a trainer.
FUNCTIONING

Revolvers

The modern revolver used in Law Enforcement is referred to as being double action. The long trigger pull allows the weapon to be cocked and fired with each press to the rear. Initially, the hammer moves to the rear (cocked) while the cylinder is rotated to align one of its chambers with the barrel at the front of the cylinder and the hammer at the rear. As the hammer moves rearward, the energy is being stored in the mainspring. The hammer reaches the rearmost point in its travel where it is released. The energy of the mainspring propels the hammer forward where it strikes the primer of the round in the aligned chamber (fired). This action can be repeated as needed and the weapon will continue to fire until the hammer strikes an empty chamber or spent shell casing. Depending on make and model, the modern revolver authorized for use in Law Enforcement requires between 9 and 13 pounds of pressure to fire. Most double action revolvers may also be manually thumb cocked prior to squeezing the trigger to be placed in a single action mode. Single action triggers require between 3 and 5 pounds of pressure to fire. While the single action trigger stroke may enhance accuracy and aid in competition situations, its extremely short length of travel, combined with its light trigger pressure make it a hazardous option for most Law Enforcement deadly force confrontations. It would take an inordinate amount of training to enable a shooter to transition from the very long and heavy double action trigger to the extreme opposite of a single action trigger, under “lives at stake” stress without increasing the risk of unintentional discharge. Agencies authorizing the use of the double action revolver should establish procedures addressing this safety issue.

Single action revolvers, not commonly used in law enforcement, require the hammer to be manually pulled to the rear and cocked by the shooter’s thumb. The rotation of the cylinder that aligns the chamber with the barrel and loads the energy into the mainspring takes place during this manipulation. When the trigger is squeezed, the hammer is released forward to strike the primer of the round aligned in the chamber.

While most modern revolvers for use in law enforcement function in a similar manner, there are manufacturer and model idiosyncrasies which necessitate user familiarization prior to carrying. Some differences worth noting are:

- The cylinder of the Smith & Wesson revolvers rotates counter clockwise while the cylinder of Colt revolvers rotates clockwise.
- The cylinder release latch on the Smith & Wesson is pushed forward to open the cylinder and the one on the Colt is pulled towards the rear
- Some revolvers come standard with fixed sights while others have adjustable sights

Never “flip” the cylinder of the revolver open or closed. This can cause undo wear and damage to the revolver. The cylinder should always be controlled when opened or closed.

1 Specifications listed are generalizations representative of most revolvers used in law enforcement. According to Smith & Wesson Factory Armory, the length of trigger travel and pounds of pressure necessary to fire varies somewhat with the make and model of revolver.
EQUIPMENT

Grips: The size and configuration of the grips on the semi-automatic pistol may be a limiting factor in matching to the hand size of the shooter. One of the advantages of the revolver is the variety of grip configurations making it more adaptable to individual’s physical characteristics. Numerous after-market grips are available to fit different sized hands. These include wood, rubber and combinations of both. Stock, as well as after-market grips, can be modified with common wood working tools and a little patience for a custom fit. Whether the grips come with the weapon, are purchased as after-market equipment, or modified to suit the individual, they must be tested to ensure that they do not interfere with the ejection of spent casings or the loading of the ammunition into the cylinder with speed loaders.

Speed Loaders: A revolver speed loader is a device used for loading all of the chambers of the cylinder of a revolver simultaneously. Currently, these devices provide the shooter with the fastest method of reloading the revolver. The most commonly used in law enforcement are HKS and Safariland Competition I and II styles. HKS models have a knob at the rear that is twisted clockwise to release the cartridges from the loader after the nose of the rounds have been inserted into the chambers and while the weapon is pointing directly toward the ground to allow gravity to assist in the process. It is important that the user is sure that the cartridges are actually started into the chambers as a premature turning of the knob will release the ammunition onto the ground. Safariland Competition I and II do not require the turning of the knob on the back of the reloader. The cartridges are simply inserted into the chambers of the cylinder until the center post on the reloader presses against the center post of the extractor and mechanically release the rounds. The Comp I and Comp II reloaders differ from each other in that the size of the locking knob on the rear is smaller on the Comp I. This only affects the ease with which the ammunition is locked into the loader itself and not its function as it relates to loading the revolver.
**Revolvers**

**Equipment Continued:**

**Speed Strips:** This is a strip of rubber 3 ½ inches long and ½ inch wide. It has six slotted holes in it which securely hold six .38/.357 cartridges. These can be used to load one or two chambers of the revolver cylinder at a time. They are flat, compact and easy to conceal in a pocket or dump pouch on the equipment belt. Speed Strips can be used to perform a tactical reload where only a partial cylinder of ammunition needs to be replaced where otherwise remaining live rounds would need to be ejected to facilitate reloading all chambers with a Speed Loader.

**Dump pouch:** This is a pouch worn on a duty belt designed to hold either individual loose revolver ammunition or loaded speed strips. It customarily has a closure on the bottom to allow gravity to release the reloads into the shooter’s hand when unsnapped.
Revolvers

NOMENCLATURE:

- Barrel
- Front Sight
- Forcing Cone
- Ejector Rod
- Trigger
- Grips
- Cylinder Release Latch
- Cylinder
- Hammer
- Extractor Star
- Rear Sight
- Muzzle
- Yoke or Crane
- Chambers
CLEANING AND MAINTENANCE:

While the simplicity of the revolver’s design lends itself to reliability, any tool having moving parts will malfunction if not maintained. The malfunctioning semi-automatic handgun, can usually be returned to working condition with proper application of malfunction clearance procedures. However, many times, if a malfunction occurs to the revolver, they are not usually so easily remedied. The exception would be that revolver malfunctions caused by faulty ammunition are quickly dealt with by simply pressing the trigger again to rotate a fresh round into firing position. It is imperative that this life saving tool is inspected, cleaned and lubricated on a regular basis. An improperly maintained revolver can result in a variety of malfunctions. Other shooter-induced malfunctions can occur during reloading and will be addressed in this section.

- Any debris under the extractor star may impede the rotation of the cylinder and will result in the trigger being difficult or impossible to squeeze.
- Dirty chambers can cause difficulties in loading and extracting of ammunition or casings.
- Failure to remove all solvents and lubricants from the chambers of the cylinder contaminates ammunition and may render it inert.
- Leave the bore of the weapon dry and clean. No lubrication.
- User level maintenance should include periodic checks of external screws, (grips, side plate, rear sight)
- The ejector rod should be routinely checked to ensure tightness. If it is allowed to loosen it will result in the inability to open the cylinder.
- Periodic inspection of ammunition and speed loaders should also take place. High primers on cartridges can cause the cylinder to not rotate.
- Due to the common practice of using unjacketed, lead ball ammunition (especially during training), it is common for heavy lead build up to occur in the barrel and forcing cone. This must be prevented by vigorous cleaning of both to prevent the loss of accuracy.
- *Do not adjust the mainspring strain screw* located in the grip. This is a common cause of light primer hits and the resulting misfires. This should only be touched by a qualified armorer.
- Place a drop of lubricant onto the hinged portion of the yoke, ejector rod and the point where the cylinder rotates on the yoke.
- Wipe down all exterior surfaces of the revolver with a clean dry cloth.
Revolvers

SHOOTING

The two most noticeable differences in shooting the revolver compared to the semi-automatic pistol are in the feel of the grip of the weapon and in the length of travel and heavy resistance of the trigger pull.

Grip: Shooters must be conscious to ensure that the web of their hand is at the top of the back strap of the revolver. Those who are proficient with semi-automatic pistols must be conscious of the difference in grip angle as well as size and configuration. This will affect the manner in which the weapon “naturally points” in their hand. As with all such issues, training and repetition is the only way to compensate.

Trigger Press: Experienced revolver shooters refer to two manners in which to pull the trigger of this handgun. The first is commonly referred to as the “straight through pull” and is the most applicable in a Law Enforcement context. This is where even, steady pressure is applied until the shot is fired. As with all firearms, smoothness, control and consistency of both the press and the release/reset of the trigger will influence the accuracy of the shot. The other term used to describe the revolver trigger press is called the “staging” method. This is performed in the double action mode and is generally considered to be used at longer distances, especially applicable to competitive shooting. “Staging” the trigger is achieved by pulling the trigger most of the way (about 3/4) through its length of travel. The shooter pauses, then finishes the shot by slowly pressing it the last, shorter distance until the shot is fired. To effectively employ this method of trigger control requires first mastering the “straight through” method followed by extensive dry practice with the specific weapon to allow the shooter to recognize when the shot is about to break. Even then it is questionable as to whether or not the stresses of a deadly force encounter would allow this technique to be employed effectively and safely.

One of the malfunctions that can occur with the revolver is commonly called “short stroking” the trigger. This occurs when the trigger is not controlled far enough forward to reset before it is squeezed for the successive shot. This moves the trigger sufficiently to rotate the cylinder but not far enough to start the hammer to the rear. The result is no shot being fired. Sufficient dry practice can train the finger to travel the required distance.

Just as “ball and dummy” drills (Sec. 2 Pg. 28) can assist the semi-automatic pistol shooter, “skip loading” the chambers of the cylinder can be used as an instructional tool to teach the revolver shooter correct trigger control technique. Instructors can randomly load some of the chambers with live ammunition, leaving some chambers empty. The cylinder is spun and closed without the student looking, leaving them ignorant as to whether the weapon will fire or not when the trigger is pulled.
Revolvers

LOADING THE REVOLVER:
1. Point the revolver in a safe direction
2. Keep the trigger finger indexed above the trigger guard
3. Manipulate the cylinder release latch and open the cylinder
4. Load the cartridges into the chamber of the cylinder
5. Close the cylinder
6. Holster the weapon

UNLOADING THE REVOLVER:
1. Point the revolver in a safe direction
2. Keep the trigger finger indexed above the trigger guard
3. Release the cylinder latch and open the cylinder.
4. Eject all spent casings from the chambers of the cylinder
5. Visually determine that all chambers are empty. Count the number of ejected rounds to verify.
6. Leave the cylinder open for inspection or maintenance, or close it if the weapon is to be stored.

RELOADING THE REVOLVER:
One of the drawbacks to the revolver when compared to the semi-automatic weapon is the relatively low ammunition capacity. It is imperative that significant practice occurs to develop speed and efficiency in reloading. It is also important that serious consideration is given to placement of the speed loader pouches on the belt. The reloading technique will determine whether they are accessible on the left or right side of the buckle. Perhaps the biggest drawback in reloading the revolver is that all techniques require the weapon to be held just above belt level where any fumbling with the reload usually results in the officer’s focus being directed away from the area of the threat. Therefore, it is critical that they learn to perform all reloads under stress without looking at the weapon. Throughout all reloading the officer must be careful to keep the trigger finger outside the trigger guard. The first two techniques presented here are applicable to right handed shooters. The third is for left handed shooters. Instructors should be familiar with both right and left handed reloading techniques. The reloading techniques addressed here in this manual will assume that the reloading is being done with speed loaders. Instructors and students alike will need to be familiar with the unique configuration and operation of their specific speed loader. Just as there is a correct way to grasp a semi-automatic magazine from the pouch, there is a correct manner in which to grasp the speed loader to facilitate efficient loading. The loader should be grasped so that the fingers and thumb completely encircle the speed loader and the fingertips are forward of the nose of the bullets. This allows the finger tips to be used as a guide around the rearward edge of the cylinder for sure, reliable, loading without the need to see the weapon.
Revolvers

FBI Technique:1

1. **Open the cylinder:** As the left hand moves from the two-handed grip on the weapon and rotates under the handgun so that the middle and ring fingers contact the right side of the cylinder, the cylinder release latch is manipulated by the thumb of the right hand. Push open the cylinder with the middle and ring fingers of the left hand. The weapon is now cradled in the palm of the left hand. This allows the right hand to be moving to the speed loader pouch (located on the right front of the equipment belt) while the left hand is completing the next step.

2. **Eject the casings:** Rotate the weapon to point the muzzle straight up. Place the left thumb on the end of the ejector rod and push it sharply downward to eject the casings. Moving the weapon in a short downward jerking motion as this is done adds energy to the ejection process.
FBI TECHNIQUE Continued:

3. **Reload the live ammunition:** Rotate the muzzle downward in the left hand and press the butt of the revolver against the stomach to assist in stabilizing the weapon against the effects of stress. Using the correct grip on the speed loader in the right hand, insert the nose of the cartridges into the chambers of the cylinder. Release the cartridges from the speed loader in the manner dictated by the speed loader design.

4. **Close the cylinder:** Release the grip on the speed loader with the right hand. Use the thumb of the left hand to close the cylinder as the right hand returns to the grip on the weapon. Do not add an extra step by attempting to retain or throw the speed loader away. Simply closing the cylinder will cause the speed loader to fall to the ground.

5. **Reestablish the two handed shooting grip:**
REVOLVERS

FBI TECHNIQUE Continued

STRENGTHS:

- This is perhaps the fastest of the revolver reloads due to the right hand obtaining the reload while the left hand ejects the spent casings. By the time the casings are ejected and the weapon turned muzzle down, the right hand has obtained the speed loader and is ready to load the chambers.
- The dominant, more dexterous hand is more reliable at using the fine motor skills required in the manipulation of the speed loader.

WEAKNESSES:

- The spent casings may be difficult to eject with only the left thumb to activate the ejector rod especially if shooting magnum or aluminum cased ammunition where the casings have more of a tendency to expand when fired. They can also be difficult to eject if the chambers are dirty.
- If the weapon is held at an angle and the muzzle is not pointed straight up when ejecting the casings, malfunctions frequently occur due the casing(s) hanging up on the grips or being caught under the ejector star.
- Unless the student is extremely flexible, this technique makes it difficult to place the weapon in a vertical (muzzle straight down) position when attempting to reload. This can cause issues for speed loaders needing gravity to function reliably.
Stress Fire Reload²

1. **Open the cylinder:** Release the left hand (support hand) from the weapon. Maintaining the grip with the right hand, point the muzzle straight up. Apply pressure to the right side of the cylinder with the index finger of the right hand and using the right thumb on the cylinder release latch, open the cylinder. *Extend the right thumb up and away from the weapon to avoid injury during the next step.*

![Image of a hand opening the cylinder of a revolver]

2. **Eject the casings:** Strike the end of the ejector rod with the palm of the left hand to eject the casings straight downward. Once the casings have been ejected, adjust the left hand slightly to allow the ejector rod to spring up between the first and middle fingers. This position allows the left hand to encircle and support the cylinder and the frame of the weapon. With the weapon supported by the left hand, release the grip of the weapon with the right hand and correctly grasp the speed loader (on the right front side of the equipment belt.)

![Images of a hand ejecting casings from a revolver]
3. **Reload the live ammunition:** Rotate the muzzle downward in the left hand and press the butt of the weapon against the stomach to assist in stabilizing the weapon against the effects of stress. Insert the nose of the cartridges into the chambers of the cylinder. Release the cartridges from the speed loader in the manner dictated by the speed loader design.

4. **Reestablish the two handed shooting grip and close the cylinder:** Release the speed loader and reestablish the grip on the weapon with the right hand. Do not attempt to retain or take the time to direct the speed loader to the ground. Close the cylinder with the palm of the left hand and reestablish the two handed shooting grip.
Revolvers

Stress Fire Reload Continued:

STRENGTHS:

• The forceful downward stroke with the palm of the left hand allows more reliable ejection of the casings especially when shooting magnum or aluminum cased ammunition.
• Holding the cylinder and frame of the revolver in the left hand allows the weapon to be easily held in a vertical attitude allowing for more reliable feeding of the ammunition in the gravity fed speed loader.
• The dominant, more dexterous hand is more reliable at using the fine motor skills required in the manipulation of the speed loader.

WEAKNESSES:

• Small hands may have difficulty keeping the index finger in contact with the cylinder and holding it open during the ejection step of the process.
• This is generally somewhat slower than the FBI technique in that the right hand cannot start reaching for the speed loader until the casings have been ejected and the weapon transferred to the left hand.
Left Handed Technique:

1. **Open the cylinder:** The right hand moves from the two handed grip on the weapon and the thumb applies pressure to the right side of the cylinder. Simultaneously, the left thumb is brought to the left side of the frame and activates the cylinder release latch. The right thumb then opens the cylinder and the first and middle fingers of the right hand encircle the cylinder.

2. **Eject the casings:** The right hand, supporting the weight of the revolver, rotates the weapon so that the muzzle is pointed straight up. The left hand strikes the end of the ejector rod with the palm ejecting the casings straight downward.
Left Handed Technique Continued:

3. **Reload the live ammunition:** Rotate the muzzle downward in the right hand and press the butt of the revolver against the stomach to assist in stabilizing the weapon against the effects of stress. During this, the left hand moves to the speed loader pouch (located on the left front of the equipment belt) and obtains the correct grip on the speed loader. Insert the nose of the cartridges into the chambers of the cylinder. Release the cartridges from the speed loader in the manner dictated by the speed loader design.

4. **Reestablish the two handed shooting grip and close the cylinder:** Release the speed loader and reestablish the grip on the weapon with the left hand. Do not attempt to retain the speed loader or take the time to direct it to the ground. At the same time, close the cylinder with the first and middle fingers of the right hand. Reestablish the two handed shooting grip with the right hand.
Revolvers

Left Handed Technique Continued:

STRENGTHS:

- Small hand size is generally not a factor with this reload.
- The forceful downward stroke with the palm of the left hand allows more reliable ejection of the casings especially when shooting magnum or aluminum cased ammunition.
- Holding the cylinder and frame of the revolver in the right hand allows the weapon to be easily held in a vertical attitude allowing for more reliable feeding of the ammunition in the gravity fed speed loader.
- The dominant, more dexterous hand is more reliable at using the fine motor skills required in the manipulation of the speed loader.

2 Stressfire by Massad Ayoob