Lippard Combat NCO® 1911 A2® and "Tactical 1" +P

US Patent 8,132,352

Pistol, Caliber .45, Automatic

Operator and Organizational
Maintenance Manual
Including Basic Issue Items List
Repair Parts, Tools and Accessories

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WARNING

Care must be exercised to either have the pistol raised or pointed down range when loading.

Before firing, the firer must be sure that the bore of the pistol is free from any foreign matter. Firing a pistol with any obstruction in the bore will result in damage to the weapon and possible injury to personnel. **Do not adjust trigger pull length without reading the safety warning page 19, section 6-3, e.**

Before starting an inspection, be sure to clear the weapon. Do not actuate the trigger until the weapon has been cleared. Remove magazine, inspect the chamber to insure that it is empty and check to see that no ammunition is in position to be introduced.

Section I. Pistol Automatic, Cal .45 Combat NCO 1911 A2 T-1

- **1-1. General.** The semiautomatic pistol, caliber .45 acp, Combat NCO, is recoil operated, magazine fed, self loading hand weapon. It has a hand held point of aim range of 125 yards; an effective range up to 400 yards. It can be used to 600 yards with marksmanship instruction. It has the following characteristics:

 - d. Magazine capacity......7 rounds.
 - e. Muzzle velocity...... 885 feet per second.
 - f. Maximum Range1600 yards.
 - b. Maximum effective range375 yards.
 - c. Length of the barrel is 5.03 inches.

 - e. The principle parts that contribute to the accuracy of the Combat NCO are the *NCO* barrel, *Military Link*, and *NCO* barrel Bushing.
 - f. The Combat "NCO .45" barrel has a *Barrel Collar*. It allows for barrel wear in the NCO Barrel Bushing. This extends barrel life to the limits of the rifling. Barrel material of the Combat NCO is 416R stainless or S7 high chromium tool steel. These materials insure accuracy beyond normal barrel limits and prevent corrosion and pitting. (The S7 barrel is a model A3 and A4 component for Hypervelocity ammunition.)
 - **g.** *NCO Barrel Bushing* has internal grooves that lubricate the barrel and remove debris on each function cycle.
 - h. The *Barrel Linkage* to the Receiver has been tightened and enlarged for repeatability in firing and accurate lockup to the Slide.
 - i. The **Barrel torque** experienced in the former M1911A1 Barrel Link has been eliminated with the new *Military Link*. It forms a unified link the width of the barrel itself. Further no modification of the barrel is required and all the original fitting attributes of a M1911A1 barrel are unchanged. In additional, a Match Grade NCO Barrel comes on every Combat NCO pistol made.
 - j. The Combat NCO can accept 1911A1 barrels and barrel link without alteration. This combination provides greater barrel and slide life. Retrofitted, these components can bring most inactive guns back into shooting condition with a small frame alteration and link installation found in the Combat NCO.
 - k. The *Military Link* comes is 8 sizes to fit any wear adjustment to the limit of serviceability.
 - 1. Many arms can be re-commissioned with Combat NCO modifications.
 - m. The *Military Link and Bushing* combination provide for absolute return to battery of the barrel when fired saving Slide and Barrel wear.
 - n. The additional attributes of the Combat NCO involve a Frame and Slide Modification. The Combat NCO can be used from -76 degrees to 2600 degrees Fahrenheit when using Nuclear Nickel Anti Seize MIL-A-907E.

This lubrication is deposited in fourteen cut recesses of the frame, slide, barrel bushing, slide stop and hammer components. As the firearm heats up the material bleeds into the action as required. Conversely in cold conditions it remains a liquid to provide operational capability. Further, in extreme conditions such as HALO applications the gun can be used immediately without it seizing to the hand by subzero temperature.

- o. Magazine surfaces are further coated with Teflon an anti moisture application to prevent seizing in cold weather conditions.
- p. The *Receiver and Slide* are made of S7 tool steel for 100% interchangeability of parts and components.
- q. **The** *Ejection port* has been lowered and the back flared to deflect empty cartridges cases to the right and rear of the shooter.
- r. *Extended Slide Stop* allows for Slide release without shifting the hand position. It allows for use of either hand if needed. The tolerances have been improved between Receiver and Barrel Military Link. Surfaces have been recessed in three locations for Anti-Seize functionality in all weather conditions of friction.
- s. *Ambi Safety* allows for weak hand use of the pistol safety. A positive Safety on either side makes the Safety reliable for long use. The enlarged size facilitates manual operation under extreme conditions. A 4-40 threaded screw is that is required to service and clean the part.
- t. **The** *Sear ledge* has also been modified to channel debris that could invade the pistol from a cocked and locked condition away from the Sear ledge that could cause the pistol to fail. The A3 Sear fires differently and provides greater safety.
- u. **The** *Hammer* has rebated side walls to prevent stoppage in a mud condition or fouling. On the inside frame contact surfaces are rebated providing a reservoir for anti-seize for functioning in extreme weather conditions but also to capture impurities invading the Hammer area contact space that could cause malfunctions.
- v. **The** *Belleau Wood Grip Safety* cavity in the Receiver has been modified to eliminate the malfunctions found to occur from ice, mud, blood and other debris pressed into the Frame that prevents the Grip Safety from being applied. The Safety now stop is a different location.
- w. **The** *Firing Pin* has added serrations to clean the firing pin during firing preventing malfunctions.
- x. The *Front Sight* can be luminous. When combined with the two on the rear sight the three dots horizontally aligned provide a shooting plane for 25 yard point of aim firing accuracy. Further **the front sight** has graduations of yardage in which the pistol can be aimed at 50, 220, 295 and 400 yards without sight adjustment if required. It can be staked or dovetail cut for retrofit.
- y. The *Rear Fixed Sight* is serrated to deflect light to a rear downward angle providing a clear sight picture without reflection to the eye under all conditions. The top rear surface has a luminous dot on either side of the aperture. When aligned with the front sight dot it presents a line of

reference in which to accurately shoot point of aim to 25 yards. The upper edge surface of the Rear Sight provides a killing surface in the final use of a Combat NCO in a defense mode. An in Offensive mode an enemy can be dispatched if hit with the Rear Sight. It uses two set screws.

- z. **A patented** *Accessory Rail* can be attached to the frame of the Combat NCO to use of additional accessories and remove without screws.
- **1-2. Combat NCO T-1 or Tactical One.** The T-1 is a +P upgrade to the 1911 A2 making it more robust in the use of +P ammunition. The main differences are:
 - a. The Barrel Bushing recess in the Slide has been reduced in tolerance to accommodate an enlarged connection foot of the NosePiece.
 - b. The NosePiece T-1 connection foot has increased in depth and width to withstand increased recoil of M1911 +P .45 acp use by distributing the shock over 100% additional surface area.
 - c. A Reverse Plug modification to the Slide has been made to relieve all Recoil Spring pressure to the Barrel Bushing or Nosepiece.
 - d. An extended guide rod has replaced the Recoil Spring Guide to allow for ease of disassembly. The Slide Assembly can thus be removed as a single unit by removal of the Side Stop Pin.
 - e. Disassembly with the Slide Unit removed is achieved by removing the Guide Rod and Recoil Spring together. The Reverse Plug is then removed and finally the barrel Bushing or NosePiece.

The advantage of the T-1 +P upgrade is that a +P Ball ammunition has more than 100% additional recoil to the 1911 design. The additional 20 lb spring required is 50% greater that the 1911 recoil operated design. These stresses require a design change to accept the demands of new munitions over a long period of weapon life.

- The new T-1 design upgrade removes all additional spring pressure at maximum compression from the Barrel Bushing connection foot and NosePiece.
- The kinetic energy of recoil during firing and return to battery by recoil spring has be nullified by enlarging the contact foot of the Barrel Bushing or NosePiece.
- A third benefit is the complete removal of the Slide Assembly as a unit making exchange of Slide lengths and calibers easy without separation of parts and components as with the 1911 A2 and its predecessors.

1-3. Combat NCO Accessories:

- a. The Combat NCO 1911 A2/T-1 can be *fully silenced* and take on **multi forms** to meet all combat situations. It has a **Rifle component** configuration. It can be upgraded to the Combat 1911A3 and 1911A4 systems in testing where **new ammunition** and components will be available if approved for military use.
- b. **The NCO** *Adjustable Rear Sight* is an accessory that looks almost exactly like Fixed Rear sight and shares its attributes. However it can be mechanically adjusted to move the sights for different ammunition.
- c. A new NCO A3 Cam/Sear design allows for greater safety of the firearm under all conditions and trigger pulls. In conjunction with Sear Spring a choice of trigger pull weight can be selected from 3-12 pounds. It requires no fitting.
- d. *NCO NosePiece Accessory:* The Combat NCO may add a weighted NosePiece to provide stability in a fully loaded condition of 7 rounds and stabilizes the Combat NCO in acquiring targets or providing suppressing fire at long distances. Further, the *NosePiece* can and does contain muzzle blast condensing said blast into an orange cone. The shooter retains night vision and suppresses visual complications with night vision optics. "T1" designates +P model modifications for heavy round use.
- e. *NCO NosePiece Laser* can be installed in the lower disassembly hole on the NosePiece. That hole is threaded. An NCO Laser can be screwed into this receptacle and provide an aiming device in low light conditions and to laze targets up to 1 ½ miles to direct other munitions on targets.
- f. *NCO Ambi magazine release* allows for better ejection of empty magazine without shifting the hand to eject or remove with either hand. It allows magazine release in extreme cold.
- g. *NCO T-1 Reverse Plug* allows for single upper unit removal for cleaning and Slide length selection. The NCO with interchangeable parts can interchange from 5", 3 ½ Office lengths and 5" .22 caliber for practice. The reverse plug takes all pressure off the barrel bushing protecting the pistol from bushing and slide failures when using M1911 Ball +P ammunition.
- h. A *SolidRifle* component can be added to the lower unit or frame. A number of rifle calibers are available for special operations using the Combat NCO.
- i. *NCO* .45 acp 416R barrels will accept conventional .45 acp ammunition in service as well as the ultra high velocity ammunition in testing. The barrel is identified by the nomenclature located on the chamber hood. All marked "NCO .45" barrels are +P and are 78,000 psi and 5 times stronger than any mil-spec barrel in use.

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Section II. Diagram and Pictures



Fig. 1 Lippard Combat NCOTM 1911 A2/ T-1



Fig. 2 Optional Nosepiece Component

Section III. SIGHTS

- **3-1. SIGHTS.** The Combat NCO has multiple faceted Front Sights. There are serrations that are used for deflection of light and a depository of color enhancement for different conditions. A "touch target system" is employed for offensive engagement close firing at distances from point blank to 50 yards and measured distances firing in sight graduations of 220, 295 and 400 yards. (Depending on the ammo used and 6 o'clock sighted pistol)
- a. The method of sight use is to always keep the target in the same location on the front sight blade regardless of distance. The Combat NCO will shoot flat to a distance of 125 yards by aligning the rear sight with the top of the front sight blade. The Front Sight Blade is of such a size as to be readily picked up by the eye and an enemy "Touched" with the front Sight Blade is fired upon immediately and loosely aimed.

Targets beyond 50 yards are aimed shots and the Combat NCO Front Sight allows for accurate shot placement to 125 yards.

b. A target estimated to be 220 yards the Rear Sight is dropped down to the first Front Sight notch. Here the trigger is pulled and a target reduced. This applies for the second notch on the Front Sight for 295 yds. You lower the Rear Sight again while holding the target at the same place on the top of the Front Sight blade and pull the trigger. A target deemed to be at 400 yards the Rear Sight is dropped down to the bottom

of the Front Sight blade to its Sight base. That location is 400 yards for 6 o'clock hold sighting.

c. For Cover Fire up to 600 yards can be achieved by taking the target from the top of the Front Sight blade and dropping it down to the bottom and beside the front Sight blade where the Rear Sight is holding. Then slowly move the Front and Rear Sight over to cover the target and the Combat NCO will shoot 600 yards without further sights adjustment.



Fig. 3 Short Range Touch and Long Range Front Sight System.

3-2. Combat NCO SIGHTING SYSTEM:

- a. The Combat NCO is a 600 yard tactical weapon. There is no glow in the dark sights. For dim light or a changing light condition simple chalk is used of different colors to compensate. As that condition changes wipe the front sight and you are back to black or change color to another.
- b. The Combat NCO can be called upon to shoot further. In a tactical situation the marksman will learn to *call target distances* in his mind. Up to 125 yards the Combat NCO can engage immediately and fire point of aim as with 25 yards. There are three more points on the Combat NCO front sight that allows a marksman to extend the range.
- c. The Combat NCO front sight has a series of notches. The First notch is for 220 yards. The Second notch is for 295 yards. And the Third is the base of the front sight; 400 yards using standard 230 grain FMJ .45 acp military M1911 Hard Ball ammunition with sight set 6 o'clock at 25 yards.
 - 1. To sight the pistol at ranges indicated, the target is viewed the same as at 25 yards: *center mass*.
 - 2. With target location in view, Drop the REAR Sight down to align with the First range notch of 220 yards. Hold this position and squeeze the trigger until the pistol fires.
 - 3. At 295 yards the same sight picture applies for the second notch.
 - 4. At 400 yards the same picture applies when aiming using the BASE of the front sight. The target however remains in view the same as at 25 yards.
- d. To shoot these distances requires a firm grip on the weapon with the right hand. The left hand is wrapped around the grip of the right hand, and the forefinger of the left hand, wrapped around the front of the weapon trigger guard. The trigger should rest under the PAD of the marksman's trigger finger.
- e. When a marksman identifies a target at 200 yards; he "calls that distance to himself"; aligns his sights immediately to the proper notch on the front sight, (or part thereof) and fires on that target is a matter of seconds with the Combat NCO battle sights. Practice shooting various distances on a man size silhouettes will quickly provide expertise in target distance identification and shooting skill.
- f. In practice it is recommended that a marksman shoot into, and thru different types of cover such as steel vehicles, wood barriers, doors at various distances, to learn the penetration of the .45acp and full Combat NCO weapon capability. This will give confidence and experience at different ranges thus making the marksman fully qualified with the weapon and ready to engage targets to the limits of the Combat NCO effective range both at 25 yards, to the maximum range of its capability when called on to do so.
- g. The Combat NCO front sight can be installed in conventional M1911A1 staked front sight in upgrade without modification to the Slide.
- **3-3. COVER FIRE.** Cover fire is covering the movement of another to a preferred position or, to a position of safety. There is another type of *Cover Fire* and that is to protect, cover a front, or to augment your fire over another's position. Your position and location may NOT BE in the line of fire or even engaged. However another part of your

unit may be engaged with a superior force where your combined fire can increase a unit's effectiveness. It may become necessary that all firepower of a supporting unit be brought to bear in Cover Fire. The Combat NCO gives marksman the ability to rain down *Cover Fire* from a safe distance to aid in such a tactical situation.

a. For this type of fire the rear sight of the Combat NCO is lowered to the base of the front sight as with 400 yard shooting; however now the Target is no longer held center mass. The target instead is brought down *beside* the front sight blade to the *base* of the front sight. Then the front sight is moved horizontally over covering the target. The weapon is slowly fired. That distance is 500 yards depending on ammunition and 600 yards with hold over of 9 feet for 975 fps ammunition. Cone of fire at 600 is 6 feet or less.

Note: The 1911 A2 holds the world record set Sept. 22, 2012 at NRA Whittington Center, Raton, NM with a score of 38/100 at 600 yards on an official 600 yard rifle target using these issue NCO fixed sights. Only 4 rounds were shot on that range prior to record. Factory +P ammunition was used. A six foot cone of fire at 600 yards proves combat effectiveness of the 1911 A2 at rifle distance without the aid of sight adjustment.

- **3-4. COMBINED FIRE.** This goes hand in hand with *Cover Fire*. It uses the *Combined Fire* of all a units' assets to bring to bear on a given target. *Combined Fire* is a coordinated firing of pistol, combined with rifle, adding 10-15% to a unit's offensive firepower strength in a time of need for maximum effectiveness.
 - a. The Combat NCO has the capability to provide cover fire up to 600 yards with existing sights. That means supporting fire on a target can be covered by a radius of 1,200 yards; a massive advantage to tactical operations. Marksman can engage from a distance which in turn demoralizes an enemy force into withdrawal or, reduces it by effective use of a Combat NCO.
- **3-5. LIGHT CONDITIONS.** The Combat NCO has serrations which can also be used to illuminate the entire sight with the use of chalk, tooth paste, paint or any material available including spit and dirt.
 - a. The use of chalk in white, orange, or any suitable color can be used intermittently with the natural Front Sight color or the dot configuration. Carry a couple of chalk sticks in the pocket.
 - b. For indoor "house to house" low light conditions the Front Sight with illumination will provide sight identification. If chalk is used, when the indoor threat is reduced wipe the Front Sight with the thumb and select another color for a new light conditions or simply leave the natural color of the Front Sight until another light condition presents itself. (Note: Chalk was used on the front sight for world record at 600 yards in bright sun with dark background at range)

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Section IV. 7-8 Round Magazine

4-1. MAGAZINE. The Combat NCO 7 round magazines are tempered steel can be coated with Teflon to reduce friction and sticking to the hands during cold weather. A special 2 stage spring is used to insure continuous pressure on the rounds throughout the magazine cycle of 7 cartridges. However, the Combat NCO using a "touch system" recommends the use of Double Tap or shooting 2 rounds at a time loading or shooting six rounds then jettisoning the magazine. With the 8 round magazine shooting pairs of 2 rounds jettisoning on empty. (Cam Ne weighted jettison) In a combat situation it has been proven that rounds are lost in count after six rounds are expended. With one round left in the chamber the firearm is always ready to fire and malfunctions from Slide Stop release loading is eliminated. Seven rounds are therefore recommended as standard.



Fig. 4 Eight Round Magazine with Cam Ne bumper Accessory

Section V. DISSEMBLY INSTRUCTIONS

5-1. DISASSEMBLY OF THE WEAPON. The Lippard Combat NCO is a variant of the Browning 1911 model. It has patented and improved parts and components.

- 1. Remove the magazine.
- 2. Point the weapon in a safe direction and open the slide; inspect to insure pistol is unloaded.
- 3. Close the Slide.
- 4. Place the weapon on manual safe with the hammer cocked.
- 5. Depress the NosePiece Plug.
- 6. Rotate the NosePiece <u>Counter clockwise</u> to 5 o'clock position removing it with the Spring Plug under tension of your finger. For a standard bushing rotate it CLOCKWISE and remove the Spring Plug. Fig. 5
- 7. Slowly release the tension of the Recoil Spring holding in firmly on the Spring Plug.
- 8. Replace the NosePiece over the barrel at 90 degrees but do not install holding the barrel in position for disassembly. (If a Bushing is installed only remove after the Slide has been removed from the Frame.)
- 9. Unlock the manual safety.
- 10. Open the Slide to the Slide Disassembly notch. Fig. 6.
- 11. Remove the Slide Stop pin.
- 12. Upside down Remove the Slide.
- 13. Remove the Nosepiece.
- 14. Remove the Recoil Spring, Spring Plug and Recoil Spring Guide.
- 15. Remove the barrel.

To re-assemble, reverse the disassembly process.



Figure 5. Remove the Recoil Spring Plug. Here shown is 1911 A2 plug.



Fig. 6 Move Slide to the Slide Stop Disassembly Notch



Fig. 7 Remove the Slide

Note: T-1 models with Reverse Plug the upper unit is removed as a single piece.



Fig. 8 Field Disassembly 1911 A2

- **5-2. Disassembly of 1911 A2 T-1.** The 1911 A2 T-1 is a variant of the 1911 A2. The modification for M1911 +P ammunition is upgradeable to all 1911 A2 and 1911 Browning designed pistols.
 - a. Remove the magazine.
 - b. Point the weapon in a safe direction and open the slide; inspect to insure pistol is unloaded.
 - a. Close the Slide.
 - b. Open the Slide for disassembly using the NosePiece against a surface to the Slide Stop disassembly notch or open the Slide by hand to the disassembly notch. Fig 6.
 - c. Remove the Slide Stop Pin.
 - d. Remove the Slide Unit.
 - e. Turn the Slide Upside down and remove the recoil spring guide and recoil guide spring.
 - f. Remove the Reverse Plug.
 - 16. Remove Barrel Bushing or NosePiece by turning counter-clockwise 90 degrees and pulling outward.
 - **17.** Remove the barrel.

To re-assemble, reverse the disassembly process.

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LUBRICATION OF THE WEAPON. A Lippard Combat NCO 1911 A2 has **seventeen reservoirs** for lubrication. Four on the Slide rails, two on the Frame rails, three inside the Barrel Bushing, one on the Slide Stop, one on the Cam, two on the Hammer and four on the Firing Pin. On these 17 areas you put recommended Lippard Nuclear Nickel Anti-seize Mil-A-907E or issue MIL-PRF-14107D until these recesses are filled. As the pistol fires, it lubricates the Frame, Slide, Barrel, Military Link and Hammer to keep it from freezing, removing fouling, and as the gun heats up, bleeds lubrication to keep the pistol functioning. Only a very small amount is needed on the pistol. The Pistol CAN BE shot dry without damage. Lubrication is for water immersion, cold weather, and prolonged shooting in high temperature. Made of S7 tool steel at RC 46 it is believed the pistol will can never be damaged from dry shooting or seize under normal conditions. HOWEVER, the Barrel Bushing and or Nosepiece must have oil or anti-seize for reliable firing.

Section VI. CARE AND CLEANING UNDER NORMAL CONDITIONS

6-1. CLEANING OF THE WEAPON. Cleaning is part of scheduled maintenance and should always begin with an inspection of the weapon system. Begin by field stripping the pistol, as described in para 5-1 on page 11. Use the tools and equipment listed in Table 6-2 to clean and lubricate the pistol. The pistol should be cleaned as soon as possible after firing, and each time it is exposed to field conditions.

****WARNING ****

Make sure the pistol is safe before cleaning. Ensure that the pistol magazine is removed and does not have a loaded chamber.

To clean a Lippard Combat NCO 1911 A2 that has seized, does not function, or has become fouled; apply AntiSeize MIL-A-907E to the frame rails and hand cycle the pistol 10 times until free and cycling smoothly. The pistol now has suspended the fouling. It can be wiped clean or cleaned normally with MIL-PRF-63460D Cleaner. The standard cleaning kit for the CQBP is the NSN 1005-01-455-0575.

NOTE: In combat conditions where no cleaning equipment is available, a seized or nonfunctioning weapon Slide and Frame can be cleaned with common <u>sand</u>; either scrubbed or cycled with the same and then brushed, wiped or rinsed with water or any liquid available. It is not necessary to lubricate to use the weapon and unlikely that any condition can reduce its combat capability or void its lifetime warranty.

a. Rust.

1. Rust on the weapon can be caused by acid chemical reaction with the low carbon metal properties but is only superficial. It is not harmful to the weapon as S7 is extremely resistant to salt or corrosive chemicals. A bare surface can be renewed with use of "Scotch Brite" type cleaning pad.

b. Bore and Chamber.

- Cleaning is normal for stainless 416R materials and S7 NCO barrels. Assemble cleaning rod with bore brush. Wet bore brush with CLP or rifle bore cleaner (RBC). Caution: Never reverse direction of the bore brush inside the bore. This damages the bore brush.
- 2. Insert the cleaning rod into the bore and push carefully until the bore brush protrudes completely from the chamber. Pull bore brush back through clearing the chamber. Repeat this procedure several times keeping the bore brush wet.

3. Assemble cleaning rod with the swab holder. Insert a clean swab on the cleaning rod and run the swab through the bore and out of the chamber. Change swabs and continue until a swab comes out clean.

c. Slide Assembly.

- 1. Scrub the face of the slide with the small cleaning brush (toothbrush). With a swab or rag dampen with CLP, wipe all outer surfaces. Be sure to remove all primer residue and to clean in and around the exterior of the recoil spring plug.
- 2. Use CLP to clean the recoil spring guide and helical spring. Keep the *shok-buff* clean if present, clean and dry. Clean both the interior and exterior of the recoil spring plug.
- 3. Use CLP to clean both the interior and exterior of the barrel bushing.

d. Receiver.

- 1. The hammer, ambidextrous thumb safety, magazine catch, trigger and trigger guard all be scrubbed down using a cleaning brush and CLP. Use cotton tip applications to clean hard to reach areas.
- e. <u>Slide Stop</u>. Clean the slide stop pin with rag dampened with CLP.
- f. <u>Barrel Bushing.</u> Clean the barrel bushing internal grooves with rag dampened with CLP.
- g. Magazine Assembly. Clean the magazine with rag dampened with CLP.

6-2. LUBRICATION Of THE WEAPON. Field strip the weapon (para 5-1 on page 11) and lubricate in accordance with TM 9150-15/1. Caution: Use only authorized lubrication. Do not mix lubricants. In addition there are fourteen lubrication reservoirs that accept MIL-A-907E. They are: Barrel bushing grooves, slide stop, hammer, receiver and slide grooves. Only a small amount of MIL-A-907E is needed on the pistol to keep it functional in all conditions. (Also see 5-2 for dry shooting)

- a. Use CLP, an approved weapon lubricant, e.g. LSA, LSA-T, or LAW to moderately lubricate the following areas:
 - 1. Guide rails of the receiver assembly
 - 2. Grooves internally on the receiver rails
 - 3. Grooves internally of the barrel bushing
 - 4. Guide rails of the receiver assembly
 - 5. Grooves internally on the slide rails
 - 6. Grooves internally on the hammer

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b. Lightly lubricate all other areas, including the bore and the magazine well. If the pistol has been exposed to salt water, dry it thoroughly, clean, and lubricate as soon as possible.

Caution: Excessive oil could cause loss of control during firing.

c. Prior to loading the pistol, attention should be directed to wiping all visible oil from the bore and exterior areas.

6-3. SAFETY CHECK TESTS. Whenever the Combat NCO 1911 A2 .45 caliber Pistol is reassembled, perform the below listed safety checks. If the safety checks perform as indicated, the pistol is operationally ready. If the checks do not perform as indicated, report the problem to the unit Armorer.

Warning

Make certain the pistol is cleared.

- a. **Manual Safety.** With the hammer cocked and the weapon ON manual safety and the hand grasping the grip safety, pull the trigger. If the hammer does not fall the manual safety is working properly.
- b. **Grip Safety.** With the hammer cocked and the weapon OFF manual safety and the hand NOT grasping the grip safety, pull the trigger. If the hammer does not fall the grip safety is working properly.
- c. **Half-cock Notch.** Draw back the hammer until the sear engages the half-cock notch and squeeze the trigger. If the hammer falls the sear or the hammer must be replaced.
- d. **Disconnector.** Cock the hammer. Shove the slide one–quarter inch to the rear; hold slide in that position and squeeze the trigger. Let the slide go forward maintaining pressure on the trigger. If the hammer falls, the disconnector is worn and must be replaced, OR, the Cam Spring may be broken or in need of pressure adjustment to 1.9 lbs tension or more.
- e. **Trigger.** The trigger is adjustable for length of travel. **Too much adjustment will cause the Cam Sear to disengage from the hammer.** The hammer in turn can follow the Slide when closed during loading. But sure to have some free float in the trigger movement before a tension stop of the trigger is felt. To widen the gap and increase trigger pull turn the set screw counter clockwise ½ turn or more.
- a. **Slam Firing.** With a normal Mi-Spec Recoil Spring a 1911 A2 hammer will not follow the Slide when returned to battery to half cock. A heavier Recoil Spring in the pistol it can follow when dry cycled with no ammunition being loaded. This is called Slam Firing. A T-1 uses a 20 lb. variable Recoil Spring and the hammer can follow the Slide to half cock in a dry cycling condition by slamming shut. However at no time should the hammer fall to half cock with a heavy recoil spring cycling with ammunition. The cause will be the Cam Sear Spring Disconnector finger of

th 1	ne spring taking a set and requires adjustment to a minimum pressure of .9 lbs. and a Cam Sear pressure combined of no less than 2.7 lbs.	
C		
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Section VII Part Numbers and Tools

No.	Part
1	Barrel NCO .5808581
1C	Barrel NCO .5808582
10	Barrel Officer w/bushing
112	Bushing NCO .582 Blue
112W	Bushing NCO .582
112W	Bushing NCO .581
114W	Bushing NCO .580
114W 115W	•
	Bushing NCO .579
116W	Bushing NCO .578
117W	Bushing NCO .577
223	Nose Piece NCO .584
224	Nose Piece NCO .583
225	Nose Piece NCO .582
226	Nose Piece NCO .581
227	Nose Piece NCO .580
228	Nose Piece NCO .579
229	Nose Piece NCO .578
230	Nose Piece NCO Cmdr .582
231	Nose Piece NCO Cmdr .581
232	Nose Piece NCO Cmdr .580
233	Nose Piece NCO Cmdr .579
3A1	Military Link undersize 1
3A2	Military Link size std 2
3A3	Military Link size 3
3A4 4	Military Link size 4 Barrel Link Pin
5	Disconnector
6	
7	Ejector
	Ejector pin Extractor
8 9	
9C	Firing Pin .45 Firing Pin 9mm
11	Firing Pin Spg
12	Firing Pin Stop
13	Grips Pachmayr Signature
16	Hammer pin
17	Hammer Strut
18	Hammer Strut pin
19	Magazines
19A	Cam Ne Bumper
19B	Cam Ne Screws
20	Mag Release Ambi Release
201	Mag Release Ambi Plunger
202	Mag Release Ambi Wedge
202	way Nelease Allibi Weage

Main spring 26 Main spring cap 27 Main spg cap pin 28 Mainspring Housing 280 Mainspring Housing 67 Mainspring Housing Loop 68 Mains Housing Loop Pin 29 Mainspring Housing pin 30 Main spg cap retainer 31 Plunger spring 35 Recoil Spring 14 351 Recoil Spring 16.5 352 Recoil Spring 18.4 35v Recoil Spring 20v 36 Recoil spring Guide NCO 360 Recoil spring Guide NCO-T1 36A Recoil spring Guide CMDR 36B Recoil spring Guide Officer Recoil Spring Plug NCO 37 370 Reverse Plug NCO-T1 370-ist Reverse Plug NCO-T-1 install 37A Recoil Spring Plug CMDR 42 Sear Spring Front Site NCO Stake 43A 43F Front Site NCO 44 Rear Site NCO 47 Slide Stop NCO 45 Slide NCO Misc 49 Grip Screws 4 set 50 Grip bushing 4 set 51 Trigger 53 Safety Grip Belleau Wood 54old Hammer NCO A2 54 Hammer NCO A3 57 Mainspring Housing Spring 59 Frame NCO 591 Frame CQBP 60 Safety Ambi NCO Left 61 Safety Ambi NCO Right 62 Safety Single Left 63 Safety Ambi NCO Pin

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64 Safety Ambi NCO Screw65 Sear Chip A2 NCO651 Sear Cam A3 NCO

Section VIII

Warranty

Warranty for a Combat NCO 1911 A2, whether to consumers or professional end users, is Unconditional Limited Lifetime without fault, except for bluing or surface coloring. Any part of a Lippard Professional Firearm or the firearm in its entirety that fails or becomes worn, including the barrel, will be replaced by Karl Lippard Designs at no charge to the Original Registered Firearm Owner. Cost for shipping or handling are the responsibility of the Original Registered Firearm Owner. Any incident, accident, act of God or circumstance during any course of use of the Lippard Professional Firearm that might cause damage to the firearm is covered by this Warranty without condition, and the firearm will, at the option of Karl Lippard Designs, be repaired or replaced free of charge to the Original Registered Firearm Owner. However, bluing or any other surface coloring or other finishes on the firearm are not covered by this Warranty, but if warranted will be covered by another, separate warranty specified for that finish.

Warranty on Lippard Professional Firearms sold to the Government is for a life of 155,000 rounds or a period of use by the Government named in the Government Contract under which the firearms were purchased, satisfactory to meet specified Government needs. Karl Lippard Designs has estimated that period of service to generally be for a period of 100 years.

This Warranty does not include nor pertain to any matters of liability or personal injury, injury to others, or damage to property, and only covers repair or replacement of parts and associated labor contained in the firearm itself.

Warranty Claims Instructions

Firearms or parts to be repaired or replaced by Karl Lippard Designs should be returned to the Place of Purchase for handling, or shipped by registered firearms carrier, such as Federal Express, directly to Karl Lippard Designs at the following address:

Karl Lippard Designs, Inc. 3259 Electra Drive South Colorado Springs, CO 80906

Telephone (719) 444-0786 Fax (719) 444-0383

Prior to shipping any firearm to Karl Lippard Designs, the Original Registered Firearms Owner or his or her representative must contact Karl Lippard Designs by telephone at (719) 444-0786 to coordinate shipment and receipt of the firearm.

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