



LIPPARD

Professional Firearms

"The 400-yard difference"

KARL LIPPARD DESIGNS



Post Office Box 60719, Colorado Springs, Colorado, USA 80960

Internet: www.karllippard.com • E-Mail: info@karllippard.com • Telephone: (719) 444-0786

Lippard Model 1911 A2 Pistols & A2/A3 Upgrade Components

In January 2011, Karl Lippard Designs of Colorado Springs, CO, designer and maker of a full line of New Generation shotguns, rifles, pistols, ammunition and accessories covered by more than two-dozen patents and patents pending, released the first production models of Lippard's New Generation .45ACP caliber handgun, the Lippard Model 1911 A2 pistol.

Lippard manufactures the New Generation handgun in two models: The Combat NCO™ and the Close Quarters Battle Pistol (CQBP), a design created in compliance with US Marine Corps criteria (*as contained in the March 17, 2010 US Marine Corps Request For Information for 10-M45 MEU/SOC Pistol, Solicitation Number M67854-10-R-1064, and in the October 8, 2010 US Marine Corps Request*



Lippard M1911 A2 CQBP

For Proposals for the Close Quarter Battle Pistol (CQBP) System, CQBP-PRF-A Pistol, Solicitation Number M67854-11-R-1006). The Lippard M1911 A2 CQBP not only complies with all Marine Corps criteria, but far surpasses it in all respects, especially in demands for accuracy, durability, dependability and interchangeability.

With 39 new designs and innovations created by Karl Lippard, covered by 16 new US patents and patents pending (the first new US patents awarded in the 1911 shooting system in

more than 100 years), the Lippard 1911 A2 pistol is the world's most durable, most reliable and most accurate semi-automatic handgun.

Significantly, Karl Lippard purposefully designed all Model 1911 A2 and A3 handgun components and parts to fully retrofit and upgrade all existing makes and brands of 1911-style pistols that comply with the original M1911 and M1911A1 design specifications. Thus, most existing 1911-style handguns easily accept the Lippard A2 and A3 New Generation shooting systems. Only the retrofitting of the Lippard patented Wide Link or Military Link requires a

minor cut in the well of the lower receiver to accept the Lippard Link. All other Lippard A2 and A3 parts easily drop in.

In shooting tests fired from a Ransom Rest, the Lippard Combat NCO™, the Lippard Close Quarters Battle Pistol and other brands of 1911-type pistols upgraded with the Lippard A2/A3 operating system consistently held shot groups within 13-inch groups at a range of 200 yards. The Lippard 1911 A2 is designed to shoot at ranges out to 400 yards with its patented open sights, shooting consumer common 230 grain .45 ACP ammunition. At typical, close pistol



Lippard M1911 A2 Combat NCO™

ranges, 15, 25 and 50 yards, the Lippard Combat NCO™ and Close Quarters Battle Pistol rival even the best-made match pistols.

These guns, as well as all other Lippard Professional Firearms, are fully Made in the USA of a unique Lippard proprietary alloy of S7 tool steel that is highly resistant to rust or corrosion, extremely strong and does not move from tolerances even when heated or cooled to extreme temperatures. Thus the Combat NCO™ and Close Quarters Battle Pistol will fully function in temperatures as high as 2,700 degrees Fahrenheit or as low as minus-78 degrees Fahrenheit.

Mined and smelted in the USA, the steel used to make Lippard Professional Firearms, components and parts is produced in a vacuum-arc remelt process, and then hammer forged into steel billets before being



Lippard M1911 A2 Close Quarters Battle Pistol showing Lippard patented sights (calibrated for ranges out to 400 yards), Lippard patented ambidextrous thumb safety and jam-proof, patented Lippard Belleau-Wood grip safety, and the Lippard Cam-Ne magazine.

cut by the latest Computer Numerical Control (CNC) machine technology. Lippard uses no cast parts or components in any Lippard Professional Firearm.

Once cut and finished, the firearms components are then hardened to HRC-44-46 Rockwell. Axes, chisels, machine tools and the like are typically hardened from HRC-40 to HRC-45. As such, most cutting tools are not able to even scratch a Lippard steel firearm component, once finished and hardened.

Because of the high quality, strength and durability of this steel, and its nature to never warp or move from its tolerances, even when heated or cooled, all Lippard Professional Firearms are fully interchangeable. Furthermore, because of its exact tolerances, the Lippard components fit more perfectly than even the best custom components made by other gun makers and hand-fitted by a gunsmith. Lippard Professional Firearms are the world's only fully interchangeable firearms. Therefore, anytime a part or component is replaced or upgraded on a Lippard gun, the new part merely "drops in."

The Lippard Combat NCO™ is made to the most demanding tolerances of any pistol in the world, only 0.003 thousandths variance in the entire gun's operating system, compared to 0.028 thousandths variance in even the most precision made mil-spec 1911 pistol. The Lippard Close Quarters Battle Pistol is likewise designed and made to exact mil-spec tolerances.



Lippard Combat NCO™ disassembled into basic components

Until this time, Karl Lippard had been custom making his New Generation .45 ACP Combat NCO™ pistols, using off-the-shelf, military specification base components refitted to incorporate Lippard's patented design innovations, and incorporating his multitude of newly patented design parts. From about 2007 until the spring of 2010, Lippard sold these custom-made handguns per special orders. Like today's production of Lippard Model 1911 A2 pistols, all of the custom handguns are also Unconditionally Guaranteed for Life. These custom guns represented the prototypical design evolution of what has become the Model 1911 A2 pistol that Lippard manufactures today in its current limited mass production.

All of the early edition, custom-made Combat NCO™ pistols remain in service today without complaint from any of their owners. Some of these early guns represent test-bed guns, and after more than 25,000 rounds of shooting and even abusive handling, none of them show any wear. None of the guns have required any kind of repair or refitting, except for re-bluing, yet

they operate and hold extremely accurate shot groups at all ranges, no different than the brand new production guns manufactured today by Lippard.

While the early models of the Lippard M1911 A2 Combat NCO™ continue to perform well, the New Generation Lippard A2 production guns have even more to offer consumers and professionals, as the pistols have evolved forward in design.

Major Lippard A2 and A3 design innovations include:

- ▶ **Lippard A3 Sear and Hammer**—Perhaps the greatest step forward in fine trigger control and firearms safety is Karl Lippard’s invention and production of the patented **Lippard A3 Sear and Hammer** firing system. The New Generation firing system is applicable to all firearms that employ a sear and hammer firing mechanism. The patented Lippard A3 Sear and Hammer firing system is the first change of significance in any mechanical firing mechanism since the invention of the Bow and Arrow. Until the advent

of the Lippard A3 Sear and Hammer, all firearm sears held their respective hammers in the cocked position until trigger pressure exerted on the opposite end of the sear dragged the sear from under the sear-ledge on the hammer, allowing the hammer to fall and strike the firing pin, flint striker or percussion cap. The principle worked the same whether a rifle bolt, exposed hammer or hidden hammer. It is no different from the trigger releasing the sear holding the string of a crossbow, or the human fingers acting as a sear holding the bow string on a bow and arrow. All small arms, from muskets and flintlocks to modern rifles and pistols fired on that same principle. That fundamental operation now changes with the advent of the New Generation, Lippard A3 Sear and Hammer.

With the A3 Sear, a cam point at the pivot/balance point of the A3 Sear engages the A3 Hammer at a directly opposing cam point, lifting the A3 Hammer away from the A3 Sear, thus eliminating the relationship of the hammer’s sear-ledge and the tip of the sear as the firing point, or point of release to fire. The sear-ledge



Typical 1911A1 Sear



Conventional Sear and Hammer relationship illustrated with the patented Lippard A2 Sear and typical 1911A1 Hammer.

changes with the advent of the New Generation, Lippard A3 Sear and Hammer. With the A3 Sear, a cam point at the pivot/balance point of the A3 Sear engages the A3 Hammer at a directly opposing cam point, lifting the A3 Hammer away from the A3 Sear, thus eliminating the relationship of the hammer’s sear-ledge and the tip of the sear as the firing point, or point of release to fire. The sear-ledge

and sear relationship thus act only as a safe holding point for the hammer when cocked and ready to fire. The Lippard A3 Sear and Hammer will not allow any firearm to accidentally discharge by the sear falling off the sear ledge, such as in an accidental drop, because of the substantial sear ledge employed on the A3, 0.022 thousandths of an inch, well inside the envelope of what most firearms experts consider safe (greater than 0.018 thousandths of an inch). Trigger pull on a 0.022 thousandths sear ledge on a typical M1911A1 pistol would normally fall well within the five-to- six-pound range, when the springs controlling the relationship of trigger, disconnecter, sear and hammer are correctly adjusted. Most 1911 pistol consumers and professionals, however, want a much nicer and lighter trigger. The Lippard A3 Sear and Hammer firing system employing what Karl Lippard has termed the “Anvil and Fulcrum”



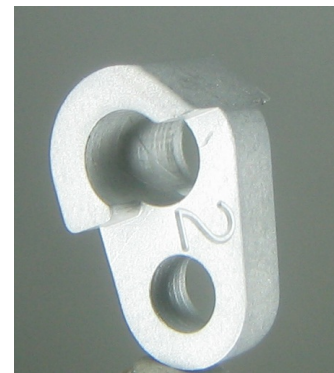
New Generation Lippard A3 Sear and Hammer illustrates the Anvil and Fulcrum release, allowing the opposing cam points to lift the A3 Hammer from the A3 Sear when firing.

release, allow cam points meeting at the center of balance/pivot point to lift the hammer away from the sear, achieving a very clean and nice feeling 3.5-pound to 4-pound trigger. For most people who have shot a 1911 pistol of any make, employing the Lippard A3 Sear and Hammer, say that it feels more like a 2.5-pound trigger, because of the positive connection with no drag. Some competitive shooters, firearms professionals, consumers and even gunsmiths will attempt to lighten and improve trigger pull on a 1911 pistol by trimming off the sear ledge and lightening the firing mechanism’s spring resistance. If the sear ledge is reduced to less than 0.018 thousandths the gun is then vulnerable to accidental discharge with a mere bump or shallow drop. Today, this event is becoming common. Many high-end 1911 handguns have come to Lippard for service with sear ledges cut to 0.014 thousandths and less. One high-end, very expensive pistol had its sear ledge trimmed to only 0.011 thousandths. Such shortened sear ledges present a high risk of accidental firing, even when only slightly jarred. Some such guns have even begun firing full automatic because of the lack of adequate sear ledge to stop the hammer action. The Lippard A3 Sear and Hammer now make a light trigger and safe gun available to all consumers and professionals. And it is tamper proof!

- ▶ **Lippard Link**—Awarded two US patents [*US Patent 7,673, 553 B2 - March 9, 2010 (Pistol) and- US. Patent 7,861, 640 B2 - January 4, 2010*]. The **Lippard Link** comes in two styles, the **Wide Link** and the **Military Link**. The Wide Link is the prototypical Lippard Link, first conceived by Karl Lippard in 1988, and led to his development of the more functional and adaptable Military Link, developed in 2008. Today the Wide Link is considered virtually obsolete by Lippard, and is rarely used, only when a gun and barrel fit far outside of normal specifications. The Military Link is the latest Link design from Karl Lippard, and is standard on all Lippard New Generation M1911 A2/A3 handguns, including the Lippard M1911 A2 Combat NCO™ and Lippard M1911 A2 Close Quarters Battle Pistol. The Military Link retrofits nearly all existing barrels and typical 1911 guns made today. The Lippard Military Link is designed to accommodate positive lockup of the barrel lugs into the upper receiver (slide), providing a solid shooting platform, top and bottom. Most importantly, the Lippard Military Link fully stops all side to side play of the barrel during firing and cycling, typically found in all other 1911 handguns using the standard “bicycle-style” narrow link. It is this energy vortex, which sends lateral pressure to the sides of a 1911 pistol during firing that tends to spread the slide from the frame. Over time, with each round fired, the typical 1911 pistol becomes more and more loose fitting, and the variance in shot groups grows larger and larger. Both the Lippard Wide Link and Military Link saddles the full width of the rear of the barrel, locking it into the lower receiver, eliminating the side to side play, while in contrast, the standard, narrow link only provides stability along the barrel’s centerline, allowing the energy vortex to travel outward as well as to the rear. Additionally, the loose tolerances typical in



Patented Lippard Barrel Links—Upper Left is the Lippard patented Wide Link, rarely used except on barrels far out of specification, considered now obsolete by Lippard. Center is the Lippard Military Link, which fits most 1911 barrels and is the normal Lippard Link used when upgrading another make of 1911 handgun. The Military Link is Lippard’s state-of-the-art link, standard on all Lippard New Generation M1911 A2 pistols including the Combat NCO™ and Close Quarters Battle Pistol. Right is the standard 1911 barrel and narrow link, typical of all other 1911 style pistols made today.



Lippard Military Link

the fit of the link pin through the narrow link allows for further movement as the barrel cycles, thus the shooting platform suffers even greater variance from one shot to the next. Conversely, Lippard's patented Wide Link and Military Link lock the base of the barrel in place, eliminating nearly all variance from one shot to the next. The Lippard Link completely harnesses all recoil energy in the firing cycle and sends it directly to the rear. Use of the Lippard Link greatly enhances the lifetime of any 1911 handgun employing it, and vastly improves and holds the gun's accuracy, because it eliminates the pressures that formerly spread the 1911 pistol apart.

- ▶ **Lippard A2 Barrel**—Made of Lippard's proprietary 416R stainless steel, the patented Lippard A2 Barrel is the truest and strongest 1911 pistol barrel in the world today. While all other 1911 barrels are Proofed at 17,000 psi to 21,000 psi, the Lippard A2 barrel is Proofed at 78,000 psi. The stronger Proof of the Lippard A2 Barrel provides assurance to shooters that the Lippard A2 Barrel will withstand the chamber pressures of even the hottest loaded ammunition today. Many of the new, faster .45 ACP ammunition, especially the new Plus-P loads, approach chamber pressures of 30,000 psi and greater. Anticipated new designs of higher velocity .45 ACP ammunition will surpass even these pressures. With a 78,000 psi Proof, the Lippard A2 Barrel will fully accept all existing and anticipated .45 ACP ammunition, including the New Generation .45 ACP ammunition under development by Lippard.
- ▶ **Lippard A3 Barrel (not yet released)**—With the revolutionary newer and faster .45 ACP ammunition on the horizon, Lippard has designed and will soon begin manufacture of a patented, even stronger barrel, the Lippard A3 Barrel. With four issued patents, The Lippard A3 Barrel is made of a patented proprietary alloy of S7 vacuum-arc remelt tool steel, and is Proofed at 115,000 psi. Its construction allows for significantly lower cost to the consumer when replacing the barrel, or changing configuration of the gun, such as employing a longer or shorter barrel.
- ▶ **Lippard Barrel Bushing**—Also patented, the Lippard Barrel Bushing works in conjunction with the Lippard Link, holding the forward end of the barrel in perfect alignment during cycling, eliminating all variance at the forward end of the barrel. The patented Lippard Barrel Bushing also incorporates an internal spiral groove that removes any debris that may enter the system and flushes it away, eliminating any potential of the debris interfering with the interaction of the barrel and bushing during the shooting cycle.

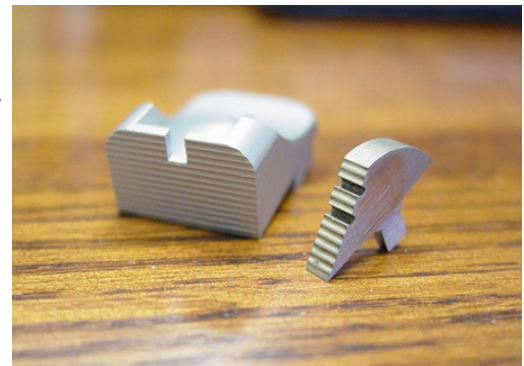


- ▶ **Lippard Combat NCO™ Nose Piece (Compensator)**—Patented by Karl Lippard, the Nose Piece fits all 1911 style pistols that employ a 1911 type barrel bushing. A Lippard patented Barrel Bushing is made integrally within the Lippard Nose Piece, thus replacing the standard barrel bushing when the Nose Piece is attached to the pistol. The patented Lippard Nose Piece provides needed forward balance on the typical rear-heavy 1911 gun, offering a nicer feel and better control of the gun when sighting, especially offhand. The Nose Piece also greatly reduces recoil, allowing the shooter faster recovery onto target between shots, and a kinder feeling gun while shooting. Lastly, the patented Lippard Nose Piece eliminates flash blindness for the shooter while firing at night, by focusing the muzzle flash into a narrow cone in front of the gun, blocking it from view of the shooter. This is especially helpful when firing the gun at night and employing Night Vision Optics.



Lippard Combat NCO™ Nose Pieces unfinished.

- ▶ **Lippard Combat NCO™ A2 Sights**—Also patented by Karl Lippard, the Lippard Combat NCO™ A2 Sights enable quick target acquisition at close range while also providing capabilities to effectively put shots accurately on target at ranges of 100, 200, 300 and 400 yards, and to engage effective suppression fire at 500 and 600 yards. The rear sight slot/aperture width is calibrated to match the front sight width so that rather than trying to center the front sight blade in a slot with daylight on each side, the shooter strives to maintain a solid black line across the rear sight, no daylight showing on either side of the front sight blade. At close ranges out to 100 yards, the front sight is set for center mass, point of aim or point of impact. The sights can also be calibrated on the gun for a six-o'clock target hold, if that is the preference. Standard sight setting on both the Lippard Close Quarters Battle Pistol and Combat NCO™ is center mass, but can be changed upon request to the six-o'clock hold with a minor adjustment. The Lippard front sight has deep calibration lines cut at calibrated intervals below the



Unfinished, Combat NCO™ sights in the raw.

top of the front sight blade, designated for targets at 200 and 300 yards. The base of the front sight blade is calibrated for targets at 400 yards. To engage a long-range target, the shooter positions the top of the front sight blade on the target, as would be done at close range, but rather than lining the top of the front sight blade with the top line of the rear sight, the shooter lowers the rear sight until the top line of the rear sight is aligned with the deep calibration line on the front sight blade, respective of the range. If the target is at 400 yards, then the shooter places the top of the front sight blade on target (center mass or six-o'clock) and lowers the top line of the rear sight to the base of the front sight blade. Rather than a forward tilting rear sight, the patented Lippard Combat NCO™ A2 Sights features a rearward tilting, serrated surfaced rear sight. The rearward tilt of the Lippard A2 rear sight defeats glare when shooting upward towards a lighted area, or when backlit. Furthermore, with the Lippard Combat NCO™ A2 Sights installed, the gun can also be used as a battle hammer for hand-to-hand combat, employing the rear sight as a killing point that will penetrate a skull while the gun is gripped by the barrel/forward slide and swung with the top rear of the gun (rear sight) as the striking point.



- ▶ **Lippard A3 Grip Safety and Belleau Wood Modification**—During World War I, at the Battle of Belleau Wood, France, untold numbers of US Marines and US Army soldiers died because their 1911 pistols failed due to the grip safety becoming bound with debris, blood and mud. The foreign material blocked the travel of the 1911 grip safety, thus keeping the gun on safe and not allowing it to fire. Similar events occurred in World War II, at Iwo Jima and other major battles in Europe and the Pacific, where American warriors relied on their M1911A1 sidearms as their last means to fight. In response to this need, Karl Lippard designed a



Lippard Belleau Wood Modification

modification that Lippard has employed in all of its New Generation 1911 A2 and A3 handguns, and can employ in nearly all upgrades of existing 1911A1 pistols, along with the installation of the patented Lippard A3 Grip Safety, which is designed to function in the pistol with a Belleau Wood Grip Safety Modification. With the Belleau Wood Modification and Lippard A3 Grip Safety in place, it is impossible to block the grip safety with any kind of debris or foreign material, and thus keeps the grip safety functioning in all conditions.



- ▶ **Lippard A3 Ambidextrous Safety**—Unlike any other ambidextrous safety on the market, the patented Lippard A3 Ambidextrous Safety is designed to drop in and function in all 1911 pistols. No filing is needed to fit the Sear in most 1911 pistols. It is easy to install, and easy to disassemble. Some ambidextrous safeties rely on a shaft that goes through the gun from one side, and the off-side of the safety is glued or bonded in place. The only way to remove it is by breaking the safety and replacing it. Other ambidextrous safeties use long, flimsy splines that slide together, and can easily break or fall apart, and has a protruding foot extension behind the grip to hold it in place. The Lippard A3 Ambidextrous Safety comes in a left and right half. A shaft on one side keys into the opposite side when installed, and is locked in place with a set screw. In addition, the Lippard A3 Ambidextrous Safety is further connected by a new Sear pin that extends into the right-side Safety making a serpentine interconnection with the Lippard A3 Ambidextrous Safety. This enables easy disassembly with no breakage, and facilitates easy reassembly. Since the Lippard A3 Ambidextrous Safety is keyed to install with the hammer held between cocked and half-cocked position, even if the set screw comes loose and falls out, the safety remains in place and functioning. Precision made of Lippard's proprietary S7 vacuum-arc remelt, solid billet steel the Lippard A3 Ambidextrous Safety is the world's strongest and most durable.
- ▶ **Lippard A2 Ambidextrous Magazine Release**—Should the client desire, Lippard also has the A2 Ambidextrous Magazine Release.

