

AWC SYSTEMS TECHNOLOGY

TACTICAL RIFLE

MANUAL

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BEFORE YOU FIRE THE FIRST SHOT

PLEASE READ ON

Under ideal conditions the average shooter with an average rifle can hit a stationary target that is posing no threat to him or others. At AWC Systems Technology we are concerned with the non-ideal conditions that exist in the tactical scenario. Every minor detail of a rifle becomes critically important when human life is at stake. We have taken input from our tactical clientele and integrated the features that these professional shooters require in their roles as SWAT and Military Marksmen.

AWC Systems Technology is well known world wide as the leader in the field of Firearm Silencer Technology. Although the company had worked with high powered tactical rifles in research and development of silencers, it had not ventured into offering complete rifles systems until 1990.

Upon completion, every rifle is range tested for accuracy certification. Following accuracy certification the rifle must be properly re-cleaned, and after the final Quality Assurance inspection is performed each rifle must be properly packaged for secure shipment to the client.

This manual is intended to assist you in selecting the accessories that are appropriate for your intended use of the rifle, and to educate you relevant to the proper procedures for maintaining your investment.

CLEANING AND MAINTENANCE ITEMS:

- ✓ Shooters Choice MC #7 Solvent- broadly accepted as the best bore cleaner and conditioner
- ✓ Shooters Choice Copper Solvent- Use periodically to prevent build up of copper jacket veneers
- ✓ One Piece Coated Cleaning Rod- The only type of rod you want to put in that precision barrel
- ✓ Rod Case- Keeps your rod clean and protects the coating from nicks and dings
- ✓ "O" Ring Bore Guide- Prevents chamber and bore damage during cleaning keeps solvents from seeping into your action and stock
- ✓ Cotton Flannel Patches- The best available from any source
- ✓ Match Grade Bronze Bore Brushes
- ✓ Action Cleaning Kit- Facilitates the proper cleaning of the bolt and locking lug recesses in the receiver

RIFLE CLEANING INSTRUCTIONS

PREPARATION:

- 1) Make sure rifle is unloaded and pointed in a safe direction
- 2) Use a rifle cleaning cradle- be sure the cradle is steady and cannot fall
- 3) Elevate the butt of the rifle higher than the muzzle
- 4) Remove the bolt from the receiver

BORE CLEANING:

- 1) Insert "O" ring bore guide into chamber
- 2) Cover the buttstock area (aft of the receiver) with an absorbent cloth or towel
- 3) After installing the jag tip into the coated one piece cleaning rod, push cotton flannel patched soaked in Shooters Choice Solvent MC#7 through the bore. Do not re-use the patch! It's dirty!
- 4) Repeat step #3 and allow the bore to soak for approximately 2 minutes.
- 5) Remove the jag tip from the cleaning rod and install the brush adapter onto the rod. Install a new match grade bronze bore brush and soak the brush with Shooters Choice MC #7 solvent. Push the bore brush through the barrel and withdraw it fully. You should make 2 passes through the barrel for each round you have fired since the last cleaning.
- 6) Remove the bore brush and discard it. Attach the jag to the rod and begin pushing clean, dry patches through the bore until a patch exits the muzzle clean. In most cases the 5th or 6th patch should come out of the muzzle clean. In extreme "fouled" conditions it may be necessary to repeat Steps 3 through 6. Repeat the cleaning procedure until you get a clean dry patch.
- 7) In cases of long term neglect, or after several normal cleanings it is advisable to use the Shooters Choice Copper Solvent. **READ THE MANUFACTURE'S INSTRUCTIONS FOR USE!** The Copper Solvent, if used properly will accomplish a thorough cleaning and removal of layered veneers of copper and propellant fouling. **USED IMPROPERLY**, the product could be detrimental.
- 8) **Clean The Bolt-** Using the special brushes included in the **Action Cleaning Kit**. Remove all brass chips and filings. Wipe the bolt off using a cotton flannel patch soaked with Shooters Choice MC #7 solvent. Use a clean cloth to dry off the excess solvent.
- 9) **Clean the Action-** The **Action Cleaning Kit** comes with complete instructions for this procedure. After cleaning the action lubricate the rear area of the bolt locking lugs with a premium bearing grease. Use grease sparingly to achieve a light film coating. Also lightly coat the bolt striker cam surface (underside-rear of bolt).

This will aid in smoothing the “up stroke” lift of the bolt handle when cycling the bolt out of lock.

PROPER BARREL BREAK-IN/CLEANING PROCEDURE

It has been demonstrated that proper barrel “break-in” procedures on a new barrel reduces barrel fouling and insures greater accuracy. The first 5 shots through a new barrel are the most important. To initiate proper “break-in” fire one round through a barrel that has been dried with clean flannel patches.

AFTER THE 1ST SHOT- Clean the just fired barrel with a solution such as Shooters Choice MC #7 on a new brass bore brush. You should only clean from the chamber end using a bore guide. This will prevent muzzle crown damage. Run a wet patch through, and then make about 10 passes through with the bore brush, then dry the bore with clean flannel patches. We recommend that you now apply Shooters Choice Copper Remover according to the instructions on the label of this product.

Dry the bore with clean flannel patches and fire round #2.

AFTER 2ND SHOT - Repeat previous process.

This firing of one round and thorough cleaning should be done for at least 10 rounds. After this sequence progress to 2 shots and clean, then 3 shots and clean, etc to a maximum of 5 shots between thorough cleaning. You should use two passes of the brush (down & back count as one pass) for every round fired. Barrels will usually cease fouling after 30 to 50 rounds.

CAUTION- AVOID LEAVING ANY CLEANING SOLUTION IN A BORE FOR MORE THAN 10 MINUTES. This could etch the bore. Also, do not use any abrasive liquids. This type of product can be detected if the label states “Shake well before using” or similar statements. An abrasive removes metal and defeats the “break-in” efforts.

AWC Systems Technology has proper cleaning equipment and kits in inventory.

EXTERNAL MAINTENANCE:

The metal surfaces of the rifle should be coated with a very light coat of NON penetrating oil such as Rem-Oil or Break Free. Do not use WD-40 or other types of penetrating oils.

NEVER PUT OIL OF ANY TYPE IN THE CHAMBER OR BORE. THESE AREAS MUST BE KEPT CLEAN AND DRY!

The stock can be cleaned with a soft, dry nylon brush or rag. In extreme conditions use a mild soap solution with warm water and a soft cloth.

SCOPE CLEANING:

Treat the scope with the same care you give your fine camera. We recommend using the Leupold LENSPEN for scope maintenance. This device will allow you to properly maintain and clean the scope. The Leupold LENSPEN is available from our inventory.

AMMUNITION

Use of the proper ammunition is critical to accuracy. Do not assume that all ammunition is similar in performance. We have extensively tested a wide range of fodder and offer you the benefits of our findings.

AMMUNITION RECOMMENDATIONS

.223 caliber Barrel twist 1-9 - Federal .223 M 69gr HPBT

.223 caliber Barrel twist 1-12- Federal .223 E 55gr HPBT

.308 caliber Barrel twist 1-12- Federal .308 M 168gr HPBT

.30-06 caliber Barrel twist 1-12- Federal .30-06 M 168gr HPBT

.300 WIN MAG Barrel twist 1-10- Custom hand loaded 220gr Sierra HPBT Muzzle
velocity 2650 FPS

AWC M91 BDR RIFLE SPECIAL INSTRUCTIONS

SPECIAL NOTE: Due to the mere nature and construction of the AWC M91 BDR Rifle, we need to supply instructions on the breakdown and re-assembly procedure. By following a few simple guidelines your experience with the M91 BDR will be a trouble free one.

We suggest:

- 1) Using the AWC dis-assembly tool or the MIL SPEC 65 in/lbs Torque Wrench secure the attachment of the bolt in the buttstock to the forestock. The bolt must not be overstressed via too much torque. Access the main bolt drive head, which is located inside the buttstock via the hole in the recoil pad. Mate the extension to the main bolt head in forestock. A preset T-Handle torque wrench comes standard with your AWC BDR Rifle.
- 2) Turn the tool/torque wrench clockwise to tighten the main bolt into the receptacle located on the rifle assembly. The 2 large locator pins must be started into their proper holes before the threads will begin to engage. Tighten the main bolt until snug, or until 65 in/lbs of torque has been applied. The torque wrench will click when correct amount of torque has been applied.
- 3) To dis-assemble the M91 BDR follow steps 1 and 2, but turn the tool/torque wrench counter clockwise.

The only maintenance is to lubricate the main bolt threads with a light coat of oil occasionally, and be sure the mating surfaces are free of debris.

RECOMMENDED ACCESSORIES

OPTICS:

You can only hit what you can see. The better you see the target, the better you hit the target. Leupold scopes have proven to be the finest, most reliable optics available. Their service and warranty is unsurpassed.

BIPODS:

We stock one very special variant of the Harris bipod, designated the LMS. This bipod allows for a 45 degree “cant” or rotation for fast horizon leveling on uneven ground. This is a critically important feature. The bipod legs have six detent locking height settings, from 9 to 13 inches. Weight is a mere 14 oz. This is the correct bipod for use on a tactical rifle, and in all but the most unusual situation the bipod we will recommend.

AWC KWIK-T LOCKING SCREWS:

This item replaces the factory Harris bipod slot head attachment screw. It allows for rapid attachment, adjustment and removal of the Harris bipod in just seconds without tools.

FOREND RAIL ADAPTOR:

You must have this accessory in order to attach the Harris bipod to rifles with the integrated forend rail. Extra adaptors can be used for alternate sling swivel mounting as well.

NOTE: Rifles with the forend rail feature allow for very flexible positioning of the bipod or sling mounting point. When using the Harris bipod with the rail adapter and KWIK-T you suddenly have an almost mystical ability to engage targets from the prone position.

MIL SPEC ACTION AND SCOPE MOUNT TORQUE WRENCH

(“T” HANDLE VERSION-PRESET FOR 65 INCH POUNDS TORQUE)

- 1) Your rifle action is bedded in the stock with 65 in/lbs of torque set on the action screws.

- 2) Leupold recommends that their scope mounts and rings be installed at 65 in/lbs of torque.
- 3) The AWC M91 BDR Stock is engineered to be properly assembled with 65 in/lbs of torque.

Therefore, if you ever take any of these items apart, you will need to put it back together properly. If you already own an Inch pound adjustable wrench you may not need ours. However, our wrench is very durable, compact, and precise.

HYPER DYNE II MUZZLE BRAKE:

The Hyper-Dyne II is simply the most effective brake available. If there was an acceptable brake available from another source, we would not punish ourselves producing this one.

The Hyper-Dyne II significantly reduces the “dust and debris” signature during prone firing. The device forces the muzzle blast pressure away from the shooter and his observer. It pulls enough recoil off a .300 WIN MAG rifle to allow you to shoot that monster all day long. Tactical users will like the fact that recoil is reduced to the extent that eye relief to the scope can be maintained and the target will remain in the field of view when the weapon is fired with the device in place. We feel that this is a must have item for the .300 WIN MAG unless you intend to use the ThunderTrap suppressor for all of your shooting sessions.

IMPORTANT NOTE: There is not a more effective muzzle brake/flash suppressor than a properly engineered suppressor. Contact our office for specific information.

FAST ACTION KNOB:

We remove the factory knob and strategically position the AWC Fast Action Bolt Knob. If you like to cycle your bolt fast, you will love this option. This knob increases the speed and reliability of cycling the action while maintaining target acquisition and quick recovery with each executed shot. The AWC Fact Action Bolt Knob can be installed on most rifle bolts including for example: CZ, Remington, Savage, Sako and most other custom tactical rifles.

SNIPER LOG BOOK:

If you have ever used one you already understand the vital requirement. If you haven't used one you have never understood how to use a sniper rifle. Get ours or theirs, BUT GET ONE. The Marines will not let their people fire a single round until they are familiar with logging!

DRAG MAT:

Refer to our catalog. This is a very functional item. You could go shooting in a Tux and still be presentable for cocktails and dinner. This system properly protects the rifle when

a hard case cannot be used and becomes a clean, dry surface for you and your rifle to operate from.

SLINGS AND LOCKING SWIVELS

We stock what would be classified as a shooting sling. It is constructed from 1 1/4" wide belt grade steer hide. Available in black or U.S.M.C. dark brown. The metal frogs (hooks) are MIL STD parkerized. This sling, when properly used, provides a steady engagement position.

Locking swivels have proven to be an essential safety feature. If you use a sling at all, you should install locking swivels. Quick detach swivels can allow the sling to detach from the stock, resulting in damage to the rifles.

NOTE: IF YOU DON'T PROTECT AND MAINTAIN YOUR RIFLE, WHO ARE YOU CHEATING?

HARD CASES

We stock the excellent Pelican & Storm hard cases. These FAA approved water proof cases are the best protection we can offer you for your investment. Your precision rifle should be protected.