



SOF RIFLE PLATFORMS

OWNER'S MANUAL & FURTHER INFORMATION

SAFETY NOTICE – READ BEFORE USE

Clearing the Weapon

Before handling, inspecting, cleaning, or servicing the firearm:

1. Remove the magazine.
2. Lock the bolt carrier group to the rear.
3. Visually and physically inspect the chamber to confirm it is unloaded.
4. Verify no ammunition is present in the firearm or immediate work area.

Failure to clear the weapon may result in serious injury or death.

Heat Warning

During firing, barrels, gas systems, and muzzle devices may reach extreme temperatures. Do not touch these components until they have cooled to ambient temperature. Use protective gloves when necessary.

1. GENERAL PLATFORM DESCRIPTION

SOF's semi monolithic AR15 platforms are designed for duty, professional, and hard use applications. Receivers, barrels, bolts, and supporting components are selected for durability, reliability, and compatibility with modern suppressor and unsuppressed configurations.

All firearms are assembled to recognized firearm industry standards.



2. MATERIALS & OPERATING LIMITS

Receiver Material – 7075 T6 Aluminum

Application: Upper and lower receivers.

Properties:

- High strength-to-weight ratio.
- Excellent fatigue resistance for cyclic loading.

Temperature Considerations:

- Structural degradation begins above approximately 300°F (150°C).
- Prolonged exposure above 400°F (205°C) may reduce mechanical properties.

Receivers are not typically exposed to these temperatures under normal use but sustained automatic or extreme firing schedules can elevate heat transfer through the barrel extension.

Barrel Material – 4150 CMV Steel

Application: Barrels.

Properties:

- High carbon chromium-molybdenum steel.
- Excellent resistance to throat erosion.
- Maintains strength under high heat and pressure.

Temperature Considerations:

- Optimal service life maintained below 800°F (425°C).
- Accelerated throat erosion and reduced barrel life occur above 1,000°F (540°C).
- Severe degradation possible above 1,400°F (760°C).

Sustained rapid fire and short barrels significantly increase barrel temperature.

3. FIRING SCHEDULE & THERMAL MANAGEMENT

Excessive firing schedules increase thermal stress across all components.

- Avoid continuous high rate firing strings.
- Allow cooling periods between magazines during sustained fire.
- Suppressor use increases heat retention and should be managed accordingly.

Operating outside recommended firing schedules accelerates wear and reduces service life. This is normal across all AR15 platforms regardless of manufacturer.

4. CLEANING & MAINTENANCE SCHEDULE

Routine Cleaning

- Every 1,000 rounds or after each training session.
- Clean bolt carrier group, chamber, and bore.
- Inspect gas rings, extractor, and ejector.

Detailed Inspection

- Every 3,000 rounds.
- Inspect barrel throat erosion.
- Check gas system alignment.
- Inspect receiver extension, buffer, and springs.

Harsh Conditions

- Clean immediately after exposure to rain, sand, dust, or suppressor use with high round counts.

Use only quality firearm cleaning solvents and non-abrasive tools.

5. TORQUE SPECIFICATIONS

All torque values reflect accepted firearm industry standards.

Barrel Nut

- Lubricate with high temperature anti-seize.
- Torque to 50 ft lbs, loosen 1/4, and re-torque to 50 ft lbs to achieve proper gas tube alignment.
- If gas tube is not aligned, tighten up to 100 ft lbs.
- Do not exceed maximum torque of 100 ft lbs.

Muzzle Device

- 25–35 ft lbs unless otherwise specified by the device manufacturer.
- Use shims or suppressor rated washers only.
- Do not use crush washers with suppressor mounts unless explicitly designed for that purpose.

Castle Nut (Receiver Extension)

- 38–42 ft lbs.
- Stake after final torque.

6. SUPPRESSOR & MUZZLE DEVICE COMPATIBILITY

Only use muzzle devices designed for suppressor use when mounting suppressors. Improper installation may cause misalignment, baffle strikes, or catastrophic failure.

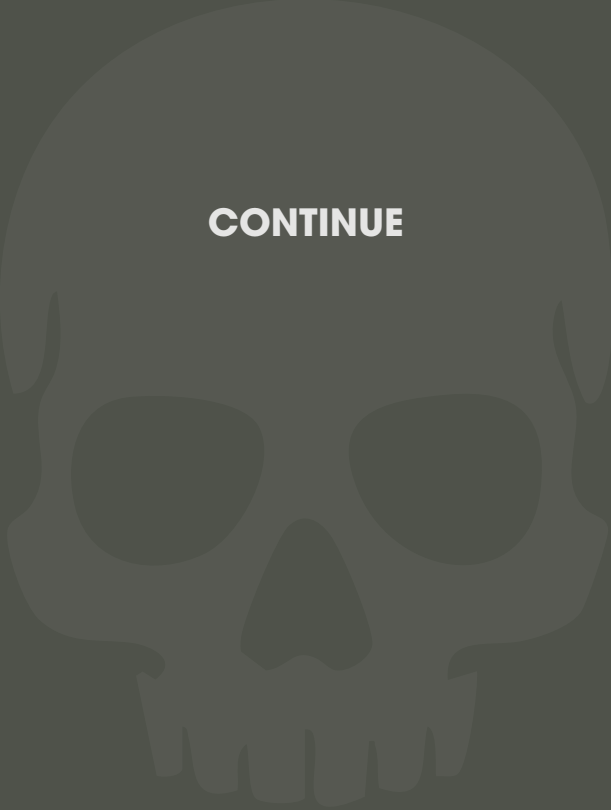
7. AMMUNITION

Use only factory loaded ammunition manufactured to recognized industry standards. Use of overpressure, improperly loaded, or reloaded ammunition may result in firearm damage or injury and may void warranty coverage.

8. NOTES

- Regular inspection extends service life.
- Heat is the primary driver of wear in AR platforms.
- Short barrels and suppressors require disciplined firing schedules.

Failure to follow this manual may result in equipment damage, personal injury, or reduced service life.



CONTINUE

WARRANTY, LIABILITY & LEGAL NOTICE

1. ASSUMPTION OF RISK

Firearms are inherently dangerous. By purchasing, possessing, handling, or using this firearm, the user knowingly and voluntarily assumes all risks associated with its use, including but not limited to serious bodily injury, death, property damage, and harm to third parties.

Failure to follow the instructions, warnings, and limitations contained in this manual may result in injury, death, or damage and void all warranty coverage.

2. COMPLIANCE WITH LAW

The user is solely responsible for compliance with all applicable federal, state, and local laws and regulations governing the ownership, possession, use, transport, modification, and storage of firearms and firearm accessories.

SOF assumes no responsibility or liability for unlawful possession or use of this firearm.

3. LIMITED WARRANTY – CIVILIAN USE

SOF warrants to the original civilian retail purchaser that this firearm is free from defects in materials and workmanship under normal, intended use and proper maintenance as described in this manual. Unless otherwise indicated in the quotation or proposal, SOF warrants that equipment and other items will conform to contract specifications and will be free from defects in material and workmanship under normal usage at time of delivery, provided that notice of any defect must be furnished in writing to SOF within 12 months of delivery. SOF's sole liability under the warranty shall be limited to repair, replacement, or refund, at SOF's option. The warranty period shall not be extended. This warranty does not cover cosmetic damage or damage due to accident, misuse, abuse, or negligence. SOF is not liable for rifle platforms that have been abused, altered, or repaired by Buyer or a third party.

This Limited Warranty:

- Applies only to the original purchaser.
- Is non-transferable.
- Covers manufacturing and material defects only.

Normal wear, finish wear, barrel erosion, gas system wear, and component fatigue are inherent to firearm operation and are not defects.

4. WARRANTY EXCLUSIONS

This Limited Warranty is void and SOF shall have no obligation if the firearm has been subject to:

- Improper installation or removal of barrels, barrel nuts, muzzle devices, suppressors, or accessories.
- Use of reloaded, remanufactured, experimental, or over-pressure ammunition.
- Unauthorized modification, alteration, or repair.
- Excessive firing schedules, sustained automatic, or abuse.
- Operation outside recommended barrel length, gas system, or suppressor parameters.
- Negligent handling, improper storage, or inadequate maintenance.

Thermal damage, accelerated wear, or material degradation caused by heat, pressure, or firing cadence does not constitute a manufacturing defect.

5. MATERIAL & THERMAL LIMITATIONS ACKNOWLEDGMENT

The user acknowledges that materials including 7075 T6 aluminum and 4150 CMV steel possess defined thermal and mechanical limits. Sustained firing, short barrels, suppressor use, or insufficient cooling intervals may exceed these limits and permanently degrade components.

Such degradation is expected, irreversible, and excluded from warranty coverage.

6. LAW ENFORCEMENT & GOVERNMENT USE CARVE OUT

Firearms sold to or issued for law-enforcement, military, or government agency use are warranted solely pursuant to the terms of the applicable agency purchase agreement or contract.

Operational wear, sustained fire, training abuse, and duty related damage are expressly excluded unless otherwise stated in a written contract executed by SOF.

No civilian warranty terms shall apply to agency issued firearms.



7. LIMITATION OF LIABILITY

To the maximum extent permitted by law:

SOF shall not be liable for any indirect, incidental, consequential, special, or punitive damages, including but not limited to loss of use, loss of profits, or personal injury, arising from the use or inability to use this firearm. SOF shall in no event be liable to Buyer or any third party for any consequential damages for personal injury, property damage or for any incidental or consequential damages due to use, possession, or operation of the products sold hereunder, whether alleged to be due in whole or part to SOF's fault or negligence, or for any damages in excess of the price actually paid for the item of rifle platform which is the subject of the claim for damages.

SOF's total liability under any theory of recovery shall not exceed the original purchase price of the firearm.

8. INDEMNIFICATION

The user agrees to indemnify, defend, and hold harmless SOF, its officers, directors, employees, agents, and affiliates from and against any claims, damages, liabilities, costs, or expenses arising from misuse, unlawful use, modification, or failure to comply with this manual.

9. DISCLAIMER OF IMPLIED WARRANTIES

Except as expressly stated herein, SOF disclaims all implied warranties, including any implied warranties of merchantability or fitness for a particular purpose, to the fullest extent permitted by law.

10. GOVERNING LAW & VENUE

This warranty and all disputes arising from the ownership or use of this firearm shall be governed by the laws of the jurisdiction designated by SOF, without regard to conflict of law principles.

Venue for any legal action shall lie exclusively in a court of competent jurisdiction selected by SOF.

11. SEVERABILITY

If any provision of this section is held invalid or unenforceable, the remaining provisions shall remain in full force and effect.