GUARDIAN DEFENSE MFG.

GDM® RIMFIRE SERIES

RIMFIRE SUPPRESSORS

OWNER'S, MOUNTING & OPERATING INSTRUCTIONS

Silent Defense. Loud Impact.®

WARNING **Read and understand this manual completely before installing or using any GDM® Rimfire Series suppressor. Improper installation, alignment, mounting, ammunition selection, or maintenance can cause suppressor damage, firearm damage, serious personal injury, or death.**

Document	Details
Document	GDM® Rimfire Series Owner's, Mounting & Operating Instructions
Models	GDM® RFC • GDM® 22AL
Mounting	Direct Mount
Revision	Draft Rev. A
Effective Date	July 2026

1. IMPORTANT SAFETY INFORMATION

Read and understand these instructions completely before installing or using a GDM® Rimfire Series suppressor.

WARNING	**Follow all firearm safety rules and verify the firearm is unloaded before installation, removal, inspection, or service.**

- Always treat every firearm as if it is loaded.
- Keep the firearm pointed in a safe direction.
- Remove the magazine, open the action, and physically verify the chamber is empty.
- Never install or remove a suppressor from a loaded firearm.
- Never fire through a suppressor that is loose, damaged, obstructed, or improperly aligned.
- Never use a crush washer behind a suppressor or direct mount.
- Verify projectile stability before suppressor use.
- Wear appropriate eye and hearing protection.
- Suppressors become extremely hot during firing; do not touch a hot suppressor with bare skin.

2. PRODUCT OVERVIEW

The GDM® Rimfire Series includes the all-titanium GDM® RFC and the all-aluminum GDM® 22AL. The RFC's titanium construction supports a broader range of approved host platforms and operating applications, while the 22AL is optimized for lightweight use within its more limited approved envelope.

3. MODEL COMPARISON

Model	Construction	Use profile	Key distinction
GDM® RFC	All titanium	Broader approved rimfire host-platform range	Titanium strength, durability, corrosion resistance, and greater platform flexibility
GDM® 22AL	All aluminum	Lightweight rimfire hosts within the approved envelope	Lowest weight; more restrictive heat, cartridge, and platform limits
Platform selection	Model-specific	Pistols, rifles, and other hosts only as approved	RFC may be approved on more platforms; verify every host before use

Ratings apply only within Guardian Defense Mfg.'s current barrel-length, ammunition, and firing-schedule limits. Confirm those limits before use.

4. CARTRIDGE, HOST & DIRECT-MOUNT COMPATIBILITY

Use only ammunition and host configurations expressly approved by Guardian Defense Mfg. for the specific suppressor model. Compatibility is model-specific and must be confirmed for the exact cartridge, load, barrel, and host platform:

Cartridge / chamber	Status	Required verification
.22 LR	Core rimfire application	Suppressor model, host platform, barrel length, ammunition, and firing schedule
Other rimfire cartridges	Model-specific; not established by this manual	Obtain current GDM approval for the exact cartridge and suppressor model
Centerfire cartridges	Not approved by this manual	Do not use unless the exact model and combination are expressly approved by GDM

IMPORTANT	**Bullet diameter alone does not establish compatibility. Pressure, projectile stability, barrel length, twist rate, thread geometry, ammunition quality, and suppressor model all affect safe use.**

5. DIRECT MOUNT CONFIGURATIONS

Depending on the configuration ordered, the suppressor may use an interchangeable GDM direct mount installed into the rear of the suppressor.

Rimfire Host Thread Selection

- 1/2-28 is a common rimfire host thread; verify the actual host thread and approved GDM mount before installation.
- Use other thread pitches only with a GDM-approved mount specifically matched to the host firearm.

NO CRUSH WASHERS	**Mount against a clean, square barrel shoulder or the mounting surface specified by the firearm and mount manufacturer. A crush washer can create angular misalignment and contribute to a baffle or end-cap strike.**

6. PRE-INSTALLATION INSPECTION

1. Unload the firearm completely and remove the magazine.
2. Open the action; visually and physically verify the chamber is empty.
3. Inspect barrel threads, shoulder, direct mount, and rear suppressor threads.
4. Remove carbon, chips, burrs, dirt, excess thread compound, and other debris.
5. Verify the suppressor bore is unobstructed.
6. Confirm the mount matches both the host firearm and suppressor.

STOP	**Do not proceed if any component is damaged, obstructed, incompatible, or questionable.**

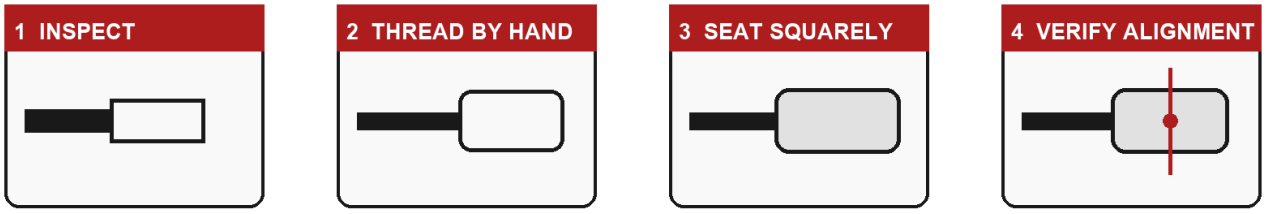
7. INSTALLATION

Installing the Direct Mount into the Suppressor

1. Confirm the suppressor is cool and the firearm is unloaded.
2. Verify the selected direct mount has the correct host-barrel thread pitch.
3. Inspect and clean all mating threads.
4. Thread the mount into the rear of the suppressor by hand.
5. Confirm smooth engagement and full seating.
6. Wrench-tighten the mount using the GDM 22 wrench supplied with the suppressor. Firm wrench-tight assembly is sufficient for reassembly.
7. Verify the mount is fully seated and secure.

Installing the Suppressor on the Firearm

1. Start the suppressor onto clean barrel threads by hand.
2. Rotate slowly; stop if resistance, binding, or cross-threading is felt.
3. Continue until the suppressor seats fully and squarely against the proper shoulder.
4. Secure firmly and perform a light hand check.
5. Perform a bore-alignment check before firing.



WARNING	**Never fire if the suppressor is partially threaded, loose, improperly seated, or misaligned.**

8. BORE ALIGNMENT CHECK

With the firearm unloaded and the suppressor fully installed, insert the correctly sized straight alignment rod through the suppressor and into the barrel bore. Observe clearance at the suppressor exit.

Even clearance around rod

Rod off-center or contacting bore

DO NOT FIRE	**If the rod contacts the suppressor bore or appears significantly off-center, remove the suppressor and inspect the complete mounting system. Contact Guardian Defense Mfg. if alignment remains questionable.**

9. FIRST-FIRE PROCEDURE

1. Keep the firearm unloaded until ready to fire.
2. Verify the mount and suppressor are fully seated and secure.
3. Complete the bore-alignment check.
4. Load one round only and fire from a safe position.
5. Unload and inspect the system.
6. Confirm the suppressor and mount remain secure and show no evidence of projectile contact.
7. Inspect the target for abnormal impact behavior.
8. If normal, continue firing while periodically checking mount security.

10. ACCURACY & POINT-OF-IMPACT SHIFT

A repeatable point-of-impact shift may occur when a suppressor is installed. A major, erratic, or changing accuracy loss is not normal.

1. Stop firing and unload the firearm.
2. Verify suppressor and direct-mount tightness.
3. Inspect for projectile contact and perform another alignment check.
4. Verify square seating before resuming fire.

11. MODEL & PLATFORM GUIDANCE

Model	Heat / firing guidance
GDM® RFC	All-titanium construction provides greater durability and a broader approved platform envelope. Follow the current cartridge, barrel-length, and firing-schedule limits for each host.
GDM® 22AL	All-aluminum construction minimizes weight but requires stricter heat and platform limits. Avoid rapid, prolonged firing and allow additional cooling.
Both models	Rimfire residue accumulates quickly. Inspect and clean at the current GDM interval; never exceed the model-specific service interval.
HOT SURFACE	**All suppressors can cause severe burns and ignite nearby combustible material. Never cool a hot suppressor by immersing it in water or another liquid.**

12. PERIODIC MOUNT CHECKS

Periodically verify suppressor tightness, direct-mount security, full shoulder seating, and the absence of abnormal movement. If anything loosens: stop firing, unload, cool, correct the condition, and recheck alignment.

13. REMOVAL

Removing the Suppressor from the Firearm

1. Unload the firearm completely.
2. Allow the suppressor to cool naturally.
3. Secure the firearm safely.
4. Rotate the suppressor in the removal direction; use the approved wrench when applicable.
5. Remove it without damaging barrel threads.
6. Inspect barrel and mount threads after removal.

Removing or Changing the Direct Mount

1. Confirm the suppressor is completely cool.
2. Secure it using a safe, non-damaging method.
3. Use the supplied or approved mount wrench when applicable.
4. Rotate and remove the mount carefully.
5. Inspect and clean mount and rear suppressor threads before installing another compatible mount.

HOT SURFACE	**Never attempt to remove a dangerously hot suppressor with bare hands.**

14. CLEANING & MAINTENANCE

Rimfire ammunition produces substantial carbon and lead residue. Disassemble only when the model's current GDM instructions expressly authorize it, and follow the approved component order, tools, and cleaning method.

Routine Maintenance

- After cooling, wipe down the exterior with a clean cloth.
- Inspect the suppressor bore for obstructions.
- Inspect barrel, mount, and rear suppressor threads.
- Clean the baffles with a nonmetallic scrubbing brush and a noncorrosive solvent, such as diluted Simple Green or CLP. A plastic pick or other non-marring tool may be used in corners and recesses.
- Ensure every baffle mating surface is spotless before reassembly so the baffle stack aligns correctly. Inspect threads, end caps, the mount, and accessible components for deposits, impact, erosion, cracking, or abnormal wear.
- Wipe the tube, mount, and end caps clean with a cloth; gently scrub only as needed. Reassemble in the approved component order, wrench-tighten with the supplied GDM 22 wrench, and store clean and dry in a ventilated location.

Do Not

- Force apart seized components, cut the suppressor, or remove welded components.
- Drill, modify, or probe internal components.
- Use aggressive chemicals, steel tools, ultrasonic cleaning, or tumbling unless specifically approved for that model and material.
- Fire with a bore obstruction or continue after a suspected baffle or end-cap strike.

SERVICE	**If damage or abnormal wear is suspected, discontinue use and contact Guardian Defense Mfg. before firing again.**

15. AMMUNITION & PROJECTILE STABILITY

Use only high-quality ammunition appropriate for the firearm and approved suppressor application. Before suppressor use—especially with a new firearm or ammunition combination—fire the host without the suppressor and inspect the target for clean, stable bullet impacts.

- Do not use ammunition showing unstable projectiles or keyholing.
- Do not use damaged or improperly loaded cartridges.
- Do not use ammunition with suspected bore incompatibility.
- Do not use damaged, specialty, tracer, incendiary, or other nonstandard ammunition unless specifically approved for the application.

16. TROUBLESHOOTING

Condition	Possible cause	Required action
Will not thread smoothly	Wrong pitch, dirt, burr, damage, cross-threading	Stop. Remove, inspect, clean, and confirm compatibility. Never force threads.
Becomes loose during firing	Insufficient seating, contamination, vibration	Stop firing. Unload, cool, inspect, reinstall, and recheck alignment.
Significant accuracy loss	Loose mount, misalignment, harmonics, projectile contact	Stop firing and inspect the complete system before reuse.
Suspected baffle / end-cap strike	Misalignment, instability, obstruction, loose mount	Stop immediately. Do not continue use. Contact GDM.
Extreme heat / visible glow	Firing schedule exceeded	Stop firing. Keep clear of combustibles and allow natural cooling.

17. WARRANTY & SERVICE

Coordinate warranty evaluation and repair directly through Guardian Defense Mfg. Do not attempt unauthorized structural repair or modification.

When requesting service, provide:

- Suppressor model and serial number
- Host firearm make, model, barrel length, and barrel thread pitch
- Direct mount used
- Ammunition type and approximate round count
- Description of the issue and photographs when applicable

DO NOT FIRE	**Visible contact, cracking, deformation, an obstructed bore, or persistent alignment doubt requires immediate discontinuation of use.**

18. FINAL PRE-FIRE CHECKLIST

- ☐ Firearm, cartridge, barrel length, and suppressor model are compatible
- ☐ Correct GDM direct mount is installed
- ☐ Direct mount is fully seated and secure in the suppressor
- ☐ No crush washer is present
- ☐ Barrel threads and shoulder are clean and undamaged
- ☐ Suppressor is fully installed and secure on the firearm
- ☐ Bore is unobstructed
- ☐ Alignment has been verified
- ☐ Projectile stability has been confirmed
- ☐ Eye and hearing protection are in use
- ☐ Safe firing direction and backstop are confirmed

DO NOT FIRE	**If any item cannot be confirmed, do not fire.**

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For technical support, warranty evaluation, mounting assistance, replacement components, or service questions, contact Guardian Defense Mfg.

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NOTICE: Guardian Defense Mfg. reserves the right to revise product specifications, approved cartridges, barrel-length requirements, direct mounts, accessories, firing schedules, and instructions as product designs evolve.