

MRDS Mounting Procedures

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PURPOSE:

The purpose of this white paper is to provide the essential knowledge, step by step instructions, and list all recommended equipment needed to properly mount, retain, and maintain zero for a pistol mounted Miniature Red Dot Sight (MRDS). The information we are about to pass along to you has been developed and refined over 25 plus years of weapon mounted optics experience and application of engineering best practices, along with modern material science advancements. Failure to follow these steps may result in gross accuracy issues, equipment damage, and personal injury.

SECTION I: REQUIRED TOOLS AND EQUIPMENT

1. Inch-Pound Torque wrench or Fix it Stick with torque head 10 IN LB limiter
 - Fix its Sticks Torque Limiter Mnfr Part # FISTL10
 - Wheeler Digital FAT Wrench Mnfr Part # 710909
2. Vibra-Tite VC-3 Threadmate thread locker
 - Mnfr Part # 21305 (VC-3 Threadmate - Red - 5 ML)
3. Sharpie Oil Based Paint Marker
 - Blue Mnfr Part # 35536
 - Blue MSC Part # 42742791
 - White Mnfr Part # 35543
 - White MSC Part # 61659249
4. Wooden Q-tips
 - Mnfr Part # 229613
 - Brownells Part # 885-861-500WB
5. T8 & T10 Torx bits
6. Acetone
7. Rag
8. Compressed Air - Optional
9. Soldering Iron - Optional
 - Mnfr Part # WSB25HK
 - MSC Part # 85020295

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SECTION II: PRE-INSTALLATION CLEANING/THREAD LOCKER/DRY TIME

1. Ensure firearm is unloaded and follow all firearm safety protocols.
2. Remove all screws from adapter plate and MRDS packaging and clean with acetone to remove any oil or debris then set aside. Figure 1
 - Warning - Keep the screws near their appropriate marked bags to ensure they do not get mixed up. Failure to do so can cause damage to the slide, plate, or screws.
3. Clean all threaded holes in the slide, adapter plate, and T-Nuts with acetone and Q-tip, then blow out with air to ensure they are free of any oil or debris.
4. Apply one drop of Vibra-Tite VC-3 Threadmate to the threads of all the mounting screws you will be using. Ensure the VC-3 is applied evenly to the threaded portion of the screws. Set these screws aside and allow to dry for 15 to 30 minutes. Ensure no VC-3 is applied to the head of the screw. Figure 2



Figure 1

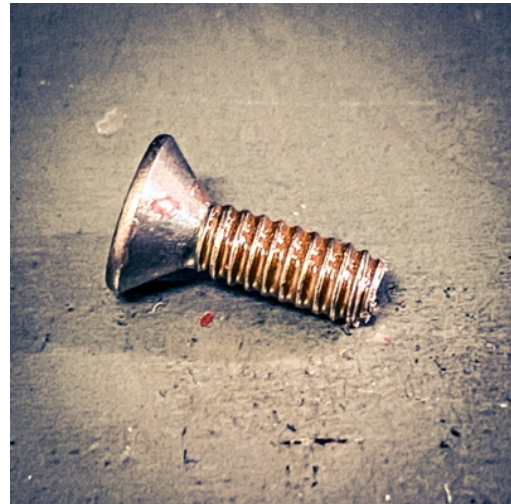


Figure 2

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SECTION III: MOUNTING THE OPTIC ADAPTER PLATE TO THE SLIDE

If you are installing a C&H (C&H Precision Weapons) V3 Optics Adapter Plate or an Original Equipment Manufacturer (OEM) Plate, proceed to step 2. If you are installing a C&H V4 Plate, continue to step 1.

1. Install and press fit the C&H T-Nuts into the machined pockets located on the underside of the adapter plate. Ensure the T-Nuts are flush with the bottom of the plate. If the T-Nuts protrude past the bottom of the adapter plate, the plate will not mount on the slide properly. You may need to lightly tap the T-Nut into place or press fit it against a solid surface to get the T-Nuts to seat properly. Figure 3
2. Place the optic adapter plate onto the slide and inspect to ensure the adapter plate sits flat and the mounting holes are aligned with the pistol's optics ready cut.
3. Install the appropriate mounting screws through the plate into the threaded holes in the slide (Example - M3 Screws for GLOCK MOS). Carefully tighten each screw until the head contacts the plate.
4. Using your torque driver, torque each screw to 10 IN LB.
 - Warning - Do not over torque. If you feel the screw is not threading properly, stop and seek the help of a qualified gunsmith or instructor so as not to damage the slide/plate or over torque the screws.
5. Ensure the top surface of each screw head does not protrude above the top surface of the plate.
6. Wipe away any excess VC-3.



Figure 3

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- Using a Sharpie oil based fine paint marker, apply a lateral witness mark across each screw head. Ensure a small amount of oil based paint flows into the ring recess between the screw head and the mounting surface. Allow witness marks to dry for at least five minutes. Figure 4

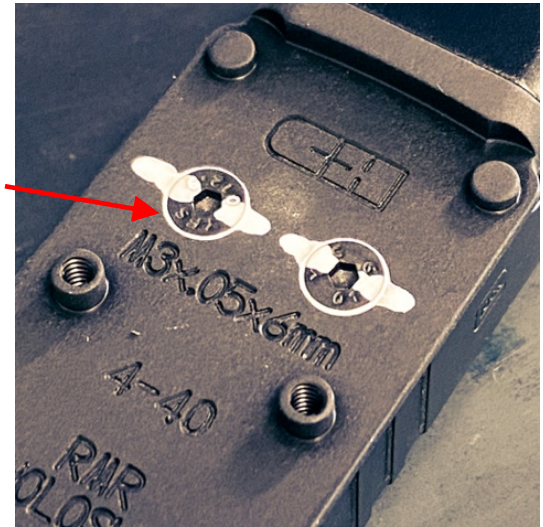


Figure 4

SECTION IV: MOUNTING THE RED DOT TO THE ADAPTER PLATE

- Place the MRDS onto the optic adapter plate and inspect to ensure it sits flat and the mounting holes align with the threaded holes on the plate.
- Install the mounting screws through the MRDS into the threaded holes of the plate. Carefully tighten each screw until the head contacts the body of the MRDS.
- Using your torque driver, torque each screw to 10 IN LB
 - Warning - Do not over torque. If you feel the screw is not threading properly, stop and seek the help of a qualified gunsmith or instructor so as not to damage the MRDS, optic adapter plate, or the screws.
- Wipe away any excess VC-3.
- Using a Sharpie oil based fine paint marker, apply a lateral witness mark across each screw head. Ensure a small amount of oil based paint flows into the ring recess between the screw head and the mounting surface. Allow witness marks to dry for at least five minutes. Figure 5

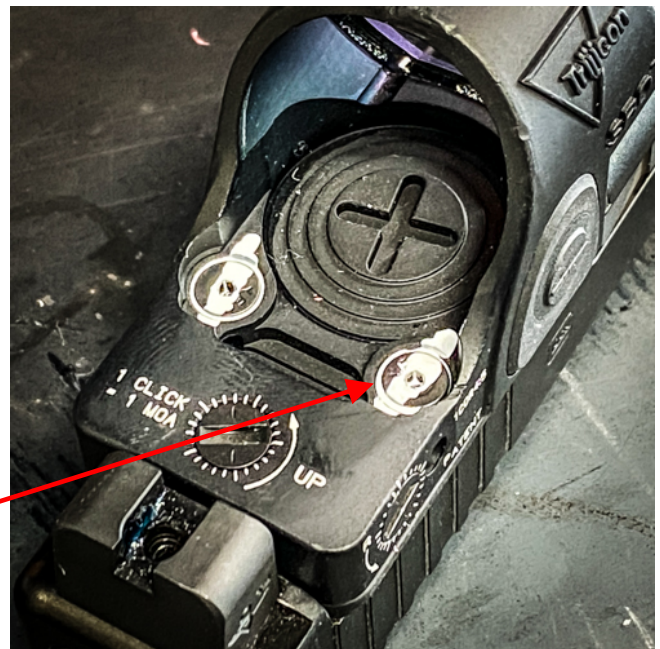


Figure 5

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SECTION V: OPTIC MOUNTING TO DIRECT MILLED SLIDE

1. Ensure firearm is unloaded and follow all firearm safety protocols.
2. Remove all screws from packaging and clean with acetone to remove any oil or debris then set aside. Figure 1
3. Clean all threaded holes in the slide with acetone and Q-tip, then blow out with compressed air to ensure they are free of any oil or debris.
4. Apply one drop of Vibra-Tite VC-3 Threadmate to the threads of the mounting screws you will be using. Ensure the VC-3 is applied evenly to the threaded portion of the screw. Set these screws aside and allow to dry for 15 to 30 minutes. Figure 2
5. Place the MRDS onto the pistol slide and inspect to ensure a proper fit into the direct milled pocket.
6. Install the mounting screws through the body of the MRDS and into the threaded holes of the slide. Carefully tighten each screw until the head contacts the body of the MRDS.
7. Using your torque driver, torque each screw to 10 IN LB
 - Warning - Do not over torque. If you feel the screw is not threading properly, stop and seek the help of a qualified gunsmith or instructor so as not to damage the MRDS, the slide, or the screws.
8. Wipe away any excess VC-3.
9. Using a Sharpie oil based fine paint marker, apply a lateral witness mark across each screw head. Ensure a small amount of oil based paint flows into the ring recess between the screw head and the mounting surface. Allow witness marks to dry for at least five minutes. Figure 5

SECTION VI: GUNSMITH/INSTRUCTOR NOTES

1. **Fasteners:** For any fasteners not listed in the MRDS Mounting Procedures, refer to Table 1 for Torque Specs.
2. **RMR Sealing Plate:** If you are running a C&H V3 or V4 plate, you are not required to install a Trijicon RMR Sealing Plate. The C&H plate design eliminated the need for a sealing plate to meet or exceed the 66 ft for 1-hour submersion requirement.
3. **Annual Battery Change:** During each annual Preventative Maintenance (PM) battery change, if you are required to remove the MRDS mounting screws to access the battery compartment, we strongly suggest you procure and replace the MRDS mounting

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screws. Repeat all prescribed steps from Section IV or V based on your pistol configuration.

4. **Thread Locker Alternatives:** If VC-3 is not available, you can substitute VC-3 with Loctite 222 or 222MS (Purple).

When substituting Loctite 222 for VC-3 follow these install procedures:

- Apply one drop of 222 inside threaded holes and one drop of 222 on the threads of each screw. Torque using the same specifications listed in the installation instructions or the Firearms Fastener Torque Guidelines. Table 1
- Loctite 222 requires 20 minutes to set and 24 hours to cure. We recommend allowing a full 24-hour cure before shooting.
- **DO NOT USE BLUE OR RED LOCTITE**

5. **Torque Wrench / Limiter:** We DO NOT recommend the installation of these items without the use of an INCH-POUND torque wrench. This prevents the over torque of screws.
6. **Witness Mark Alternative:** If you do not have access to an oil based paint marker, you can also use black fingernail polish by applying a brush stroke across the tops of each screw ensuring a small amount is deposited into the ring recess between the screw head and the mounting surface. Wipe off any excess. Allow five minutes to dry. Figure 5
7. **Stubborn Screw Removal:** If you encounter a mounting screw that does not come loose during the annual PM, use a soldering iron with a sharp tip to apply targeted heat to the head of the screw for 60 seconds, then attempt to remove the screw again. If you strip the head of a screw, notify your armorer immediately so the screw can be removed by a qualified machinist.

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Table 1 - Firearms Fastener Torque Specifications

Based on Installation with Vibra-Tite VC-3 or Loctite 222

Fastener Size	Recommended Torque Spec
4-40	10 IN LB
M3x0.5	10 IN LB
6-32	10 IN LB to 13 IN LB
6-48	10 IN LB to 13 IN LB
M4x0.7	10 IN LB to 13 IN LB