



3rd Millennium Engineering, LLC

Worrying Sarah Brady Since 1994

Level II & Level III Trigger User's Guide

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Unlimited Lifetime Warranty

Any Ruger 10/22® or Ruger Charger® trigger group supplied or modified by 3rd Millennium Engineering, LLC is covered by an Unlimited Lifetime Warranty. If your 3ME trigger group EVER fails to function properly, simply return it to us by mail or in person, and we will adjust and/or repair it at no charge for parts, labor and return shipping within the US lower 48 states. Any disassembly, modification, damage or alteration of the trigger group in any way may void this warranty, however we will make reasonable efforts to make necessary repairs as applicable with a surcharge to cover the costs of parts.

Cleaning Your Trigger Group

You may need to occasionally clean your trigger group, however it should never be disassembled for cleaning. Simply remove it from the gun and soak it in a solvent or cleaner, such as Simple Green, for several minutes and then rinse it out with hot water and blow completely dry with compressed air or a heat source such as a hair dryer.

Why can't I take it apart? Even if you are very familiar with Ruger 10/22 and Charger trigger groups, you should not disassemble your 3ME trigger group. As a part of the building process, we add small shims, spacers and a torsion spring that makes reassembly very difficult without some special tools.

Making Minor Adjustments

Your 3ME Trigger Group has been adjusted for optimum performance and you, the customer, are discouraged from making **any** adjustments.

There may be times when your trigger groups is dirty or is no longer at peak performance, and you may want to make a minor adjustment. Tweaking the adjustment points is discouraged, but if your trigger is not operating properly it will become necessary for you to make minor adjustments yourself or return it to us for repairs/adjustments.

There are two adjustments that can be made to your 3ME Level III Trigger Group or one that can be made to a Level II Trigger Group. A Level III Trigger Group can be adjusted for sear take-up and trigger over-travel. A Level II Trigger Group can be adjusted for sear take-up only.

THINK SMALL. A very small adjustment will create a huge change in the way your trigger functions, or will cause it to stop operating at all. It is imperative that you make very small adjustments.



Adjusting Trigger Over-Travel (Level III only)

The trigger over-travel adjustment is a nylon-faced allen screw that is located inside the trigger housing, behind the trigger. As the trigger is pulled back, the nylon face eventually makes contact with the back of the trigger and keeps it from moving back any further.



The optimum adjustment is such that the trigger stops, and can go back no further *just after* the hammer is released. If you pull the trigger and the hammer does not release, the adjustment screw may be extended too far.

If you pull the trigger and, after the hammer releases, the trigger continues to move further back, the screw may need to be extended more. The optimum setting is so the trigger bottoms against the over-travel stop just as the hammer releases.

WARNING: Always verify the gun is unloaded by keeping the muzzle pointed in a safe direction, remove the magazine and visually verify that the chamber is empty before you proceed. If you are unfamiliar with the safe operation of your gun, consult the manufacturer's user guide or documentation.

Step 1 Remove the trigger group. Once the trigger group has been removed, be careful not to allow any of the pins to fall out and become lost.



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Step 2 Release the hammer. With your thumb against the hammer face, deactivate the safety and pull the trigger to carefully release the hammer against pressure from your thumb. Allow the hammer to travel all the way forward.



Step 3 Remove the hammer spring and strut assembly. Note that the position of the hammer spring washer is with the open slot facing up.



Step 4 Insert an allen wrench to adjust the trigger over-travel stop screw. This will require either a 3/32" or 1/8" wrench, depending on the version. CW adjustment makes the stop screw longer and will allow the trigger to travel less. CCW adjustment makes the stop screw shorter and allows the trigger to travel further back. Make very small adjustments and test your work.

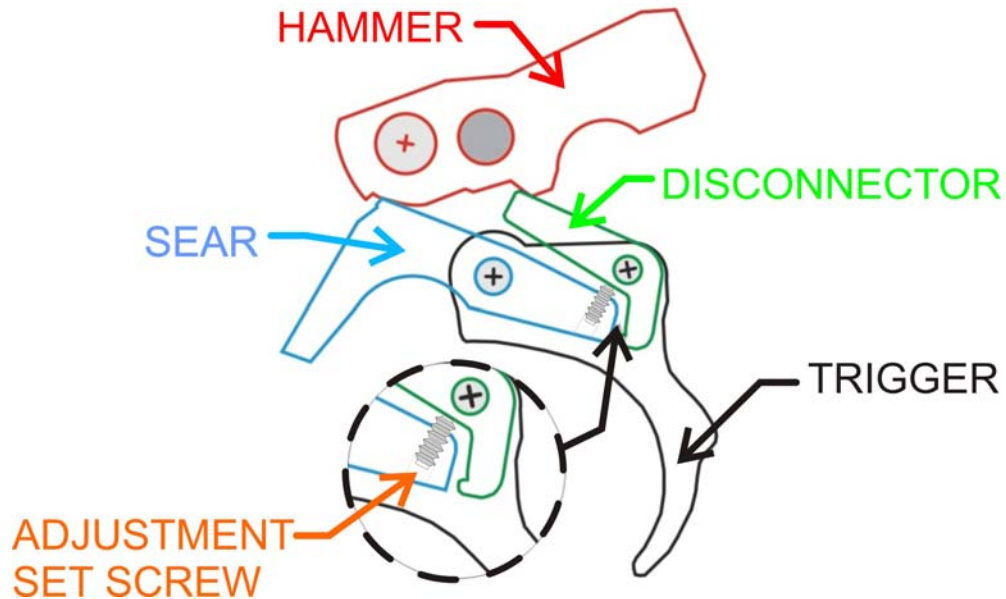


Step 5 Reinsert the hammer spring and strut assembly with the open slot on the hammer spring retaining washer facing up (12 o'clock position). Cock the hammer and release the hammer against resistance from your thumb. When the setting is optimum, the trigger will bottom against the stop just as the hammer releases.



Adjusting Sear Take-up

In order to successfully perform this adjustment, it is helpful for you to understand how the trigger group functions and what it is that you are adjusting.



The factory fit between the sear and the disconnecter is not very precise, and there are several thousandths of space between them. As you slowly pull the trigger back, this space causes there to be a small amount of movement that occurs of the trigger before the sear makes contact with the disconnecter and the remainder of the mechanism begins to move. This undesirable and wasted movement is called *take-up* or *trigger creep*.

Take-up is eliminated by the addition of a set-screw in the sear that provides very light contact with the disconnecter. The level of this contact is the adjustment you will be making. This amount of contact is a delicate balance, and experimentation is often required to find the optimum adjustment.

If contact is too light, you feel more take-up in the trigger. If the level of contact is too great, the trigger group will not function correctly. This causes a condition where it will not release the hammer or the hammer fails to reset properly. The ideal level of contact is the point where the take-up is just barely eliminated, and then back it off just far enough that the trigger will function properly.

This is an extremely delicate adjustment and a small adjustment will cause a huge change in the end results. Make very small adjustments.

WARNING: Always verify the gun is unloaded by keeping the muzzle pointed in a safe direction, remove the magazine and visually verify that the chamber is empty before you proceed. If you are unfamiliar with the safe operation of your gun, consult the manufacturer's user guide or documentation.

Step 1 Remove the trigger group. Once the trigger group has been removed, be careful not to allow any of the pins to fall out and become lost.



Step 2 Insert an allen wrench through the opening in the trigger to adjust the sear adjustment screw. This will require a 1/16" allen wrench. CW adjustment makes the screw longer and will cause more pressure against the disconnecter. CCW adjustment makes the screw shorter and lessens the contact between the sear and the disconnecter. Make very small adjustments and test your work.



Step 3 After you make an adjustment, hold the hammer against pressure from your thumb and test the trigger pull. Continue to make CW adjustments until the trigger take-up is eliminated.



Step 4 If you reach a point where the hammer cannot be reset, make a very small CCW adjustment until you can reset the hammer. Stop. This is the optimum setting.

