TP9 OP TRIGGER KIT

INSTALLATION GUIDE

DISASSEMBLY

STEP 1

- Ensure that the firearm is unloaded by placing the fire selector to SAFE, removing the magazine, retracting the bolt, and inspecting the chamber.

STEP 2

- Ensure that your stock is not folded (the factory stock prevents disassembly or reassembly when it is latched in the closed position).

STEP 3

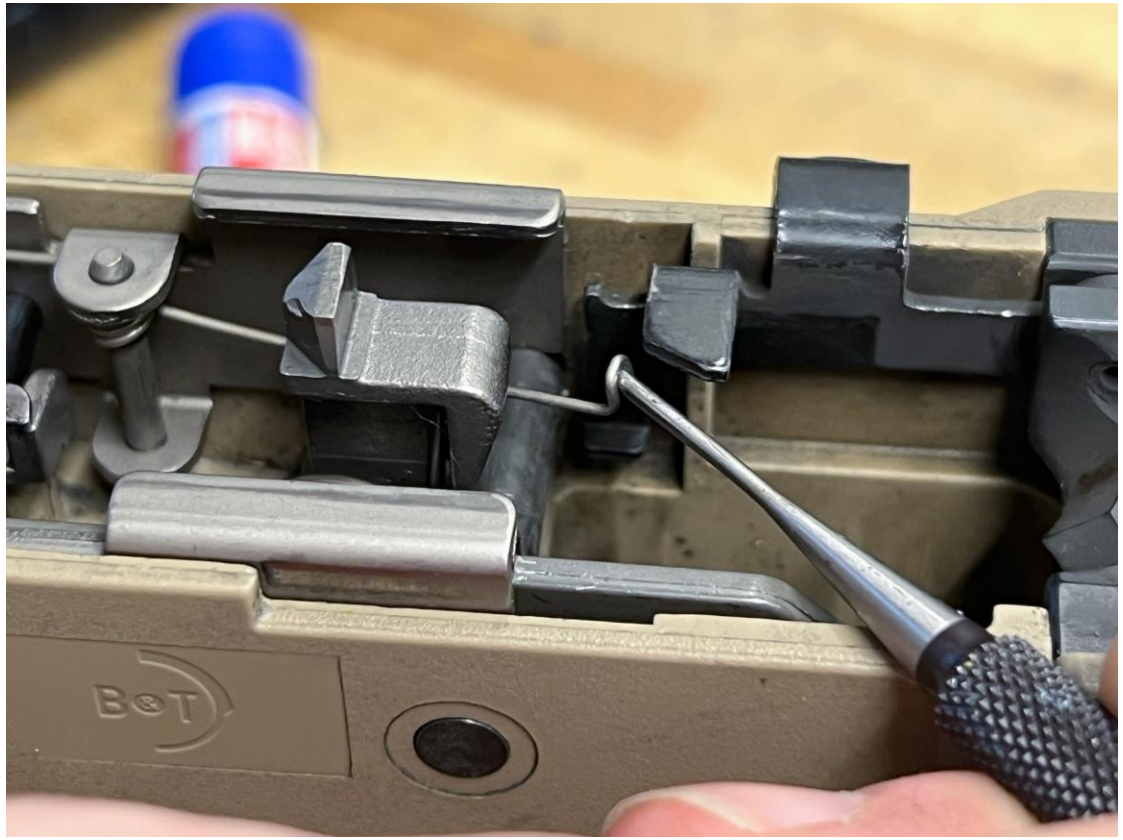
- Remove the upper receiver.

STEP 4

- Place the selector on FIRE and, while holding the hammer, pull the trigger to gently lower the hammer.

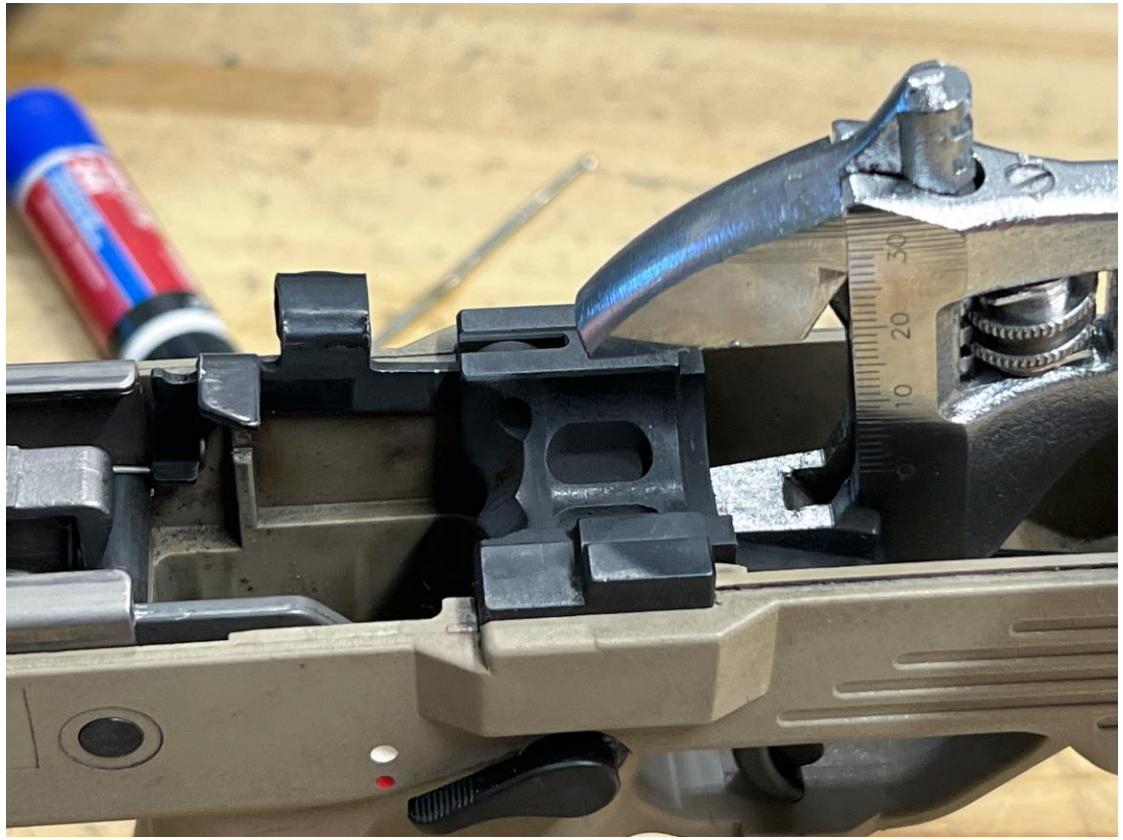
STEP 5

Unhook the bolt catch spring from the bolt catch (recommended tool: punch or 3mm crochet hook)



STEP 6

Remove the feed ramp block. Recommended technique: insert a crescent wrench under the feed ramp block, with the curve resting on the top of the trigger shoe. Rotate the wrench upwards to gently pry the block up. Be careful not to tilt or rotate the block, because that may break the front plastic walls that support it.



STEP 7

Remove the trigger return spring by grasping the front of the spring with a pair of needle nose pliers. Move the spring towards the front of the gun and then lift it up and out of the lower receiver.



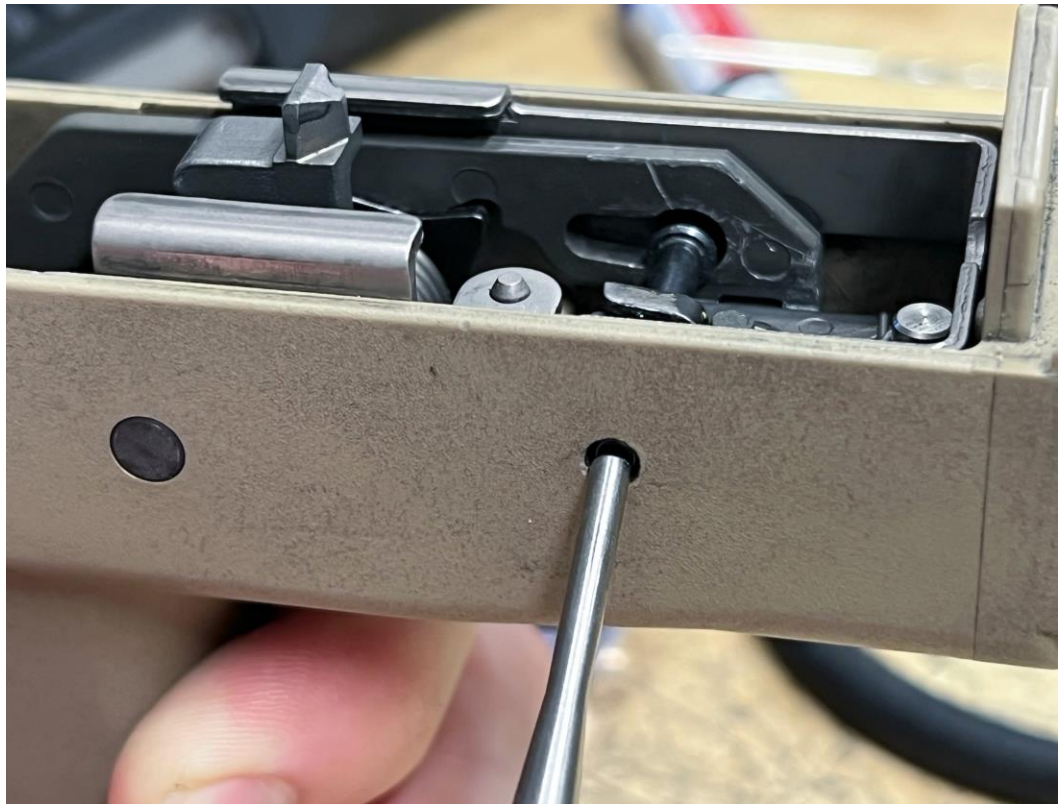
STEP 8

Remove the E-clip that holds the axle pin in place. (recommended tool: small flathead screwdriver)



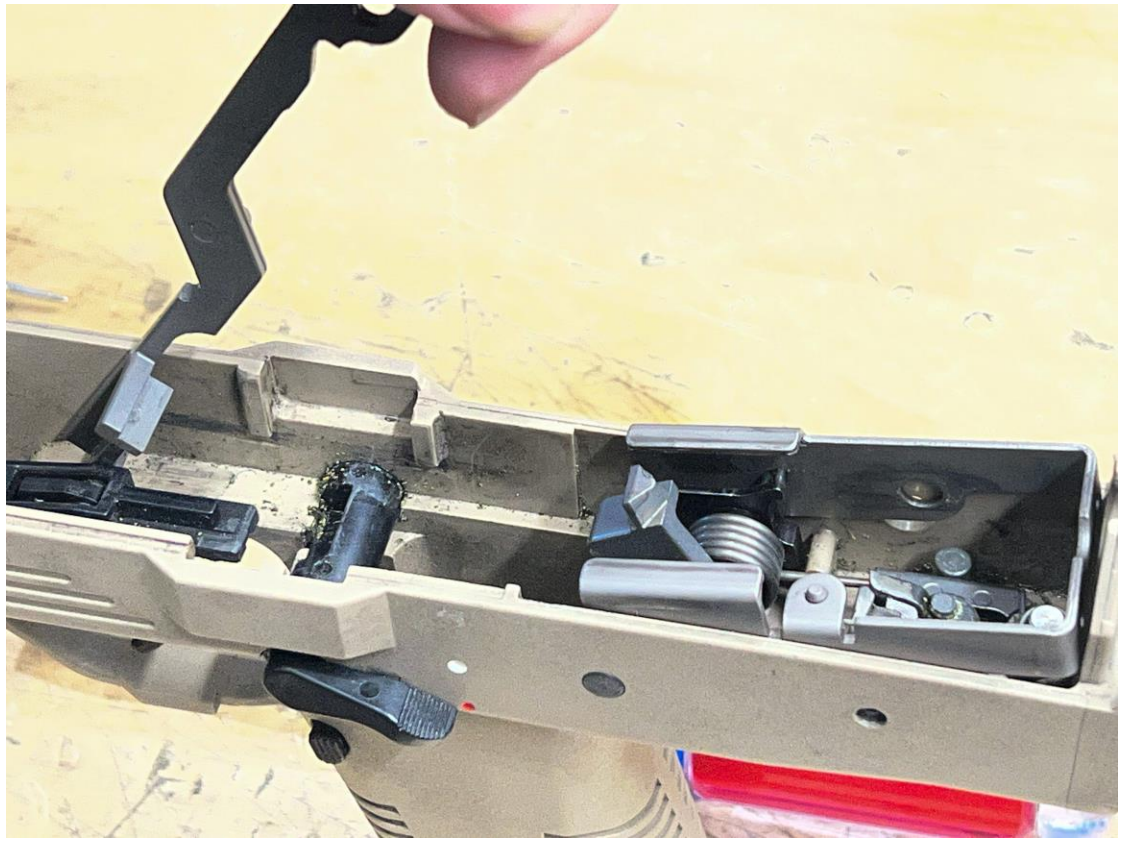
STEP 9

Align the large hole in the trigger bar with the wide portion of the axle pin. Use a punch to drive the axle pin out of the gun.



STEP 10

With the axle pin removed, move the trigger bar over the firing pin block lever and towards the centerline of the lower receiver. Lift the trigger bar and trigger out of the lower receiver.



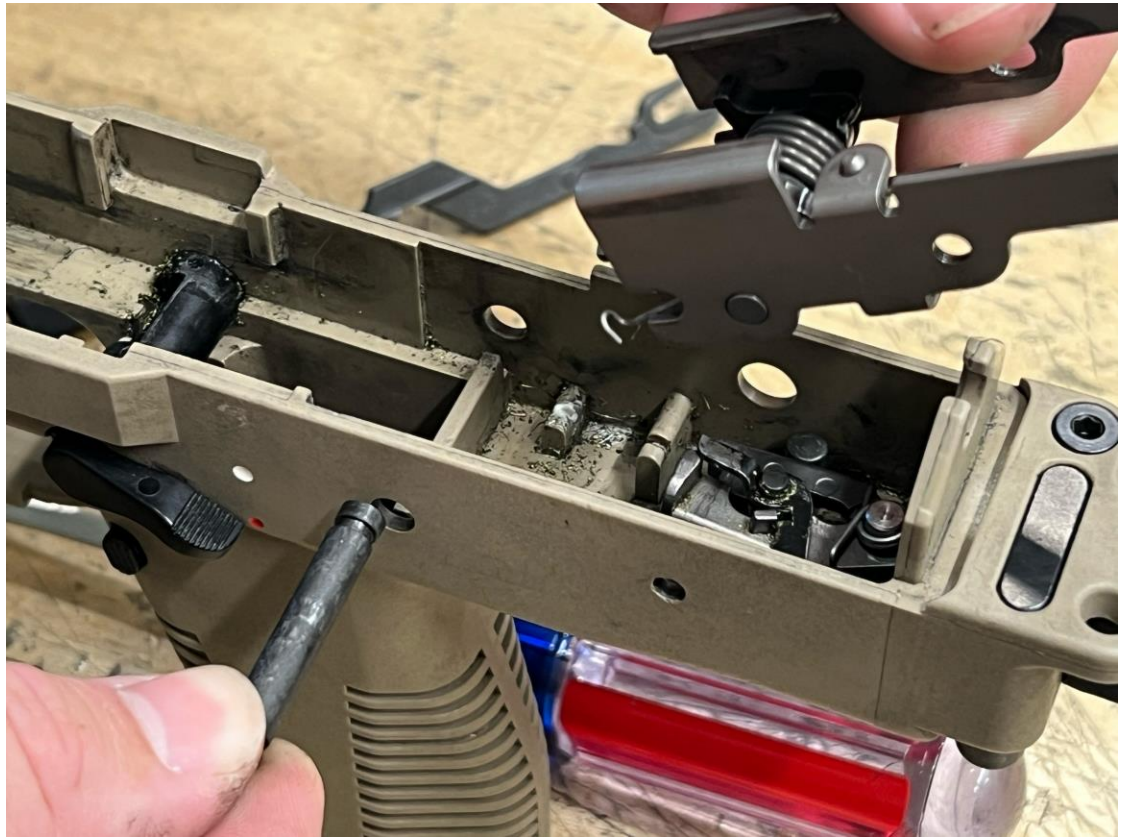
STEP 11

Rotate the trigger housing cage up and out of the gun.



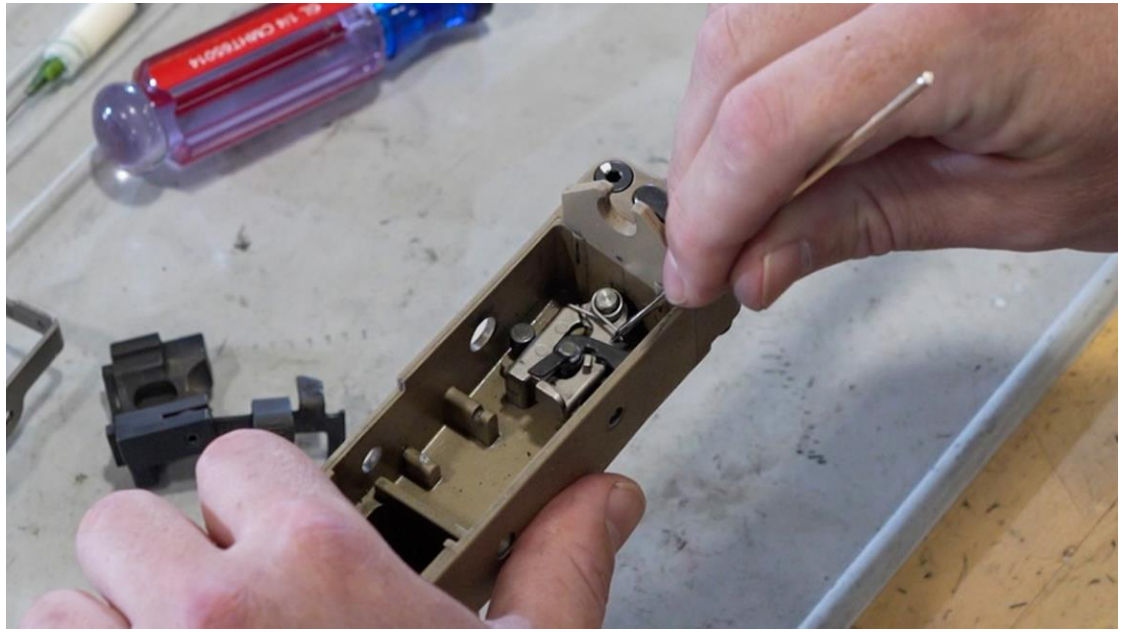
STEP 12

Remove the trigger pin.



STEP 13

Unhook the sear spring from the sear and disconnector using a punch or hook.



STEP 14

- Remove the sear spring, sear, disconnector, and control lever assembly from the gun.

STEP 15

- Remove the hammer, hammer spring, and firing pin block from the trigger housing cage. Set the hammer and hammer spring aside but keep the firing pin block lever to re-install it later.

STEP 16

Wipe any debris out of the lower receiver while it is disassembled.



REASSEMBLY

STEP 1

- Replace the old firing pin block lever spring with the new one included in your kit. Recommended technique: put a small amount of grease in the spring hole to hold the spring in place so that it does not fall out during assembly.

STEP 2

- Recommended: lubricate the bottom and side of the sear safety, the face of the sear, and the sear notch on the hammer with TW25B or a similar grease before installation.

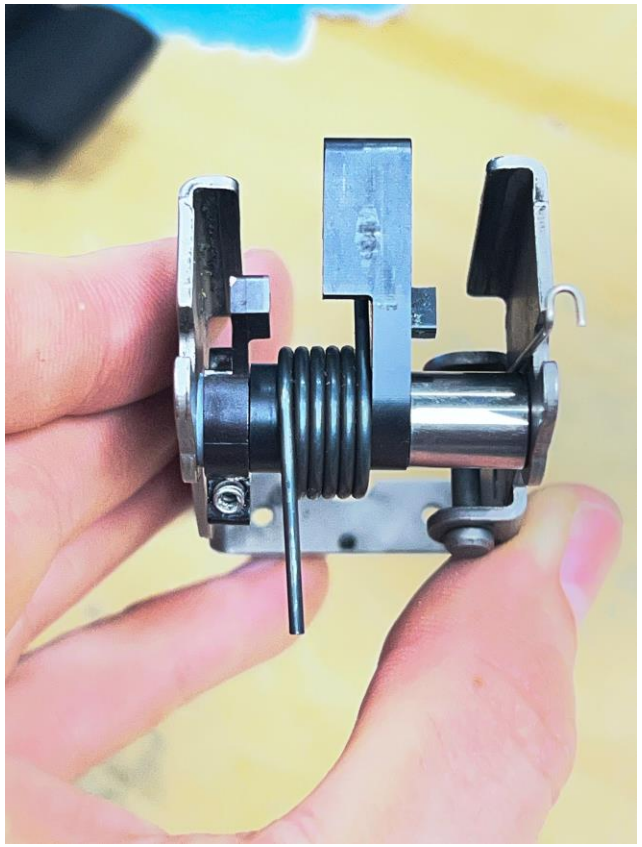
STEP 3

Drop the new sear assembly and sear safety into the lower receiver, making sure that they are fully seated. The sear assembly should wrap around the two oblong posts in the center of the receiver and sit flush against the floor of the receiver. The sear safety should fit underneath the sear actuator and fit flush against the receiver wall, while riding on the long oblong boss near the receiver wall.



STEP 4

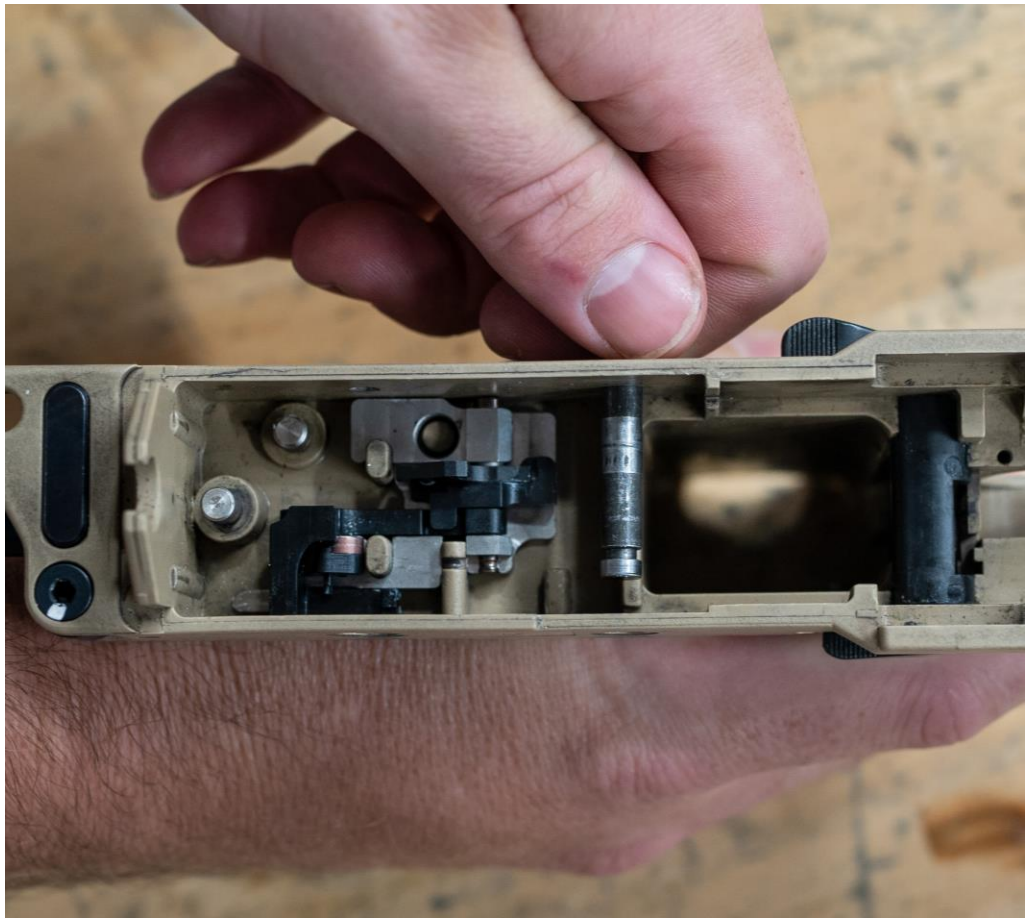
Install the new hammer assembly into the trigger housing cage. Note the diagram below. When viewed from the front of the cage, the order of parts should be as follows from right to left: hammer pin, hammer, hammer spring buffer and hammer spring, firing pin block lever, and firing pin block washer.



NOTE: If your model of the TP9 does not have a firing pin block, then install the firing pin block spacer in place of the firing pin block lever.

STEP 5

- **Install the trigger pin.**



STEP 6

Install the trigger housing cage by hooking the front recesses in the cage onto the trigger pin. Make sure that the hammer spring is correctly indexed on the hammer spring boss notch and that the sear safety lever is in the proper orientation with the long end of the lever facing forward. Then pivot the trigger housing cage into place.



(TIP: lay the underside of the sear safety lever and the face of the hammer against the trigger pin, then index the hammer spring into the hammer spring notch, and then pivot the trigger housing cage into position)

STEP 7

Place the trigger into the trigger slot. Then pivot the trigger bar down and seat it between the firing pin block safety lever and the trigger housing cage.



STEP 8

Ensure that the trigger bar seats over the sear actuator arm and seats into the matching recess in the sear safety.



Additional Photos



STEP 9

- Align the large hole in the trigger bar with the axle pin hole and install the axle pin until the wide end sits flush with the receiver.

STEP 10

- Install the new trigger return spring.

STEP 11

Although the lower receiver is not yet fully assembled, you can now perform a function test. First, make sure that the trigger moves back and forth freely and without binding. If you feel light friction or rubbing, cycle the trigger 20-30 times to make sure that the parts are seating against each other correctly. Next, using your fingers, depress the hammer until it is caught by the sear. While still lightly holding the hammer, pull and hold the trigger to ensure that the hammer drops. While still holding the trigger to the rear, depress the hammer again so that it catches the disconnector. Once it is caught on the disconnector, remove pressure from the trigger and ensure that the trigger resets.

STEP 12

- If your trigger fails any part of the function test, please refer to TROUBLESHOOTING

STEP 13

- Install the E-clip onto the axle pin next to the trigger bar.

STEP 14

- Install the feed ramp block into the lower receiver.

STEP 15

- Seat the bolt catch spring onto the bolt catch. (Recommended tool: 3mm crochet hook)

STEP 16

- Install the upper receiver.

STEP 17

- Perform a second function test as follows: Rack the bolt to the rear. Pull and hold the trigger, making sure that the hammer drops. Rack the bolt again while still holding the trigger. Allow the trigger to move forward and listen and feel for the trigger mechanism to reset. Pull the trigger again, ensuring that the hammer falls.

MAINTENANCE

TP9
MAINTENANCE

Because the TP9 produces substantial fouling and debris from firing, we recommend lightly wiping down the trigger components and re-lubricating the engagement surfaces every 500 rounds for an optimal experience. This is not necessary to ensure function, but it will ensure that you get the best performance out of your trigger. The easiest way to apply lubricant to the engagement surfaces is to use a syringe or Q-tip to apply TW25B or a similar grease to the sear notch on the hammer and to the sear actuator roller when the hammer is in the forward position.

TROUBLESHOOTING

TRIGGER HOUSING CAGE DOES NOT FIT INTO LOWER RECEIVER

Bolt catch spring is caught between the trigger housing cage and the shoulder of the hammer pin.

TRIGGER PULL FEELS EXCESSIVELY HEAVY OR DOES NOT PULL

1. Safety selector is on SAFE.
2. Ensure that the trigger components are correctly installed. Specifically, check to make sure that the trigger bar is properly connected to the sear safety, that the firing pin block lever and spring are installed correctly, that the sear actuator can move freely, and that the firing pin block washer is on the outside of the hammer assembly (between the FPB lever and trigger housing cage), instead of on the inside (between the hammer spring buffer and FPB lever).

TRIGGER PULL FEELS EXCESSIVELY HEAVY OR DOES NOT PULL (CONTINUED)

3. Ensure that there is not excessive fouling, brass shavings, or other debris underneath the sear that inhibits its movement. If there is, clean the debris away so that the mechanism can move freely.

4. Ensure that the trigger safety blade is fully depressed and is not catching on the receiver during the trigger pull.

5. Do not apply excessive force downward on the safety lever while firing. This can cause the safety drum to over-rotate and misalign the trigger shoe with the channel in the safety drum, thus increasing the trigger weight or completely blocking the trigger pull (most common with the factory trigger shoe).

TRIGGER PULL FEELS EXCESSIVELY HEAVY OR DOES NOT PULL (CONTINUED)

6. LTT OP TRIGGER SHOE: Ensure that the overtravel screw is not over-adjusted to the extent that it prevents the proper travel of the trigger.

TRIGGER FAILS TO RETURN FORWARD

Ensure that the firing pin block washer is on the outside of the hammer assembly (between the firing pin block lever and trigger housing cage), instead of on the inside (between the hammer spring buffer and FPB lever). Incorrect assembly order can push the firing pin block lever into the trigger bar and create friction that prevents proper function.

GUN EXPERIENCES LIGHT STRIKES OR FAILURES TO FIRE

1. Ensure that your firing pin block lever and spring are properly installed and that the lever lifts properly during the trigger pull. You can inspect this by removing the upper receiver and, with the hammer down, pulling the trigger. You should be able to see the trigger bar smoothly actuate the firing pin block lever.
2. Ensure that the firing pin block in the bolt moves up and down freely.
3. Ensure that the bolt closes completely when chambering a round – if the bolt is not entirely in battery, then the hammer will not fully strike the firing pin, and the firing pin block may not completely disengage.

GUN EXPERIENCES LIGHT STRIKES OR FAILURES TO FIRE (CONTINUED)

4. Disassemble the bolt and inspect for a dirty firing pin channel or a broken firing pin.

HAMMER WILL NOT DROP

1. Safety selector is on SAFE.
2. The sear actuator pin has been removed, and the actuator is no longer pivoting to drop the sear.
3. The trigger bar is improperly seated on the sear safety so that it does not disengage during the trigger pull.

UPPER RECEIVER CANNOT BE REMOVED OR REINSTALLED

Your stock is folded and is preventing the bolt locking piece from dropping out of the way. Unfold your stock and proceed.

OTHER ISSUES

If you are unable to resolve your problem, or you experience a problem that is not listed in this troubleshooting guide, please contact LTT Customer Service.

DISCLAIMER: We recommend that this product as well as all other firearms parts & kits sold by Langdon Tactical be installed by a competent gunsmith. No liability is expressed or implied for ANY damage or injury which may result from improper installation or use of this product. Installation of any firearm parts may limit or void the manufacturer's warranty. We strongly recommend that the safety and operation of your modified firearm be thoroughly checked by an accredited gunsmith prior to use.