



[TANDEM KROSS]

2245 KRAKEN LOWER RECEIVER ASSEMBLY



[Factory Lower Disassembly]

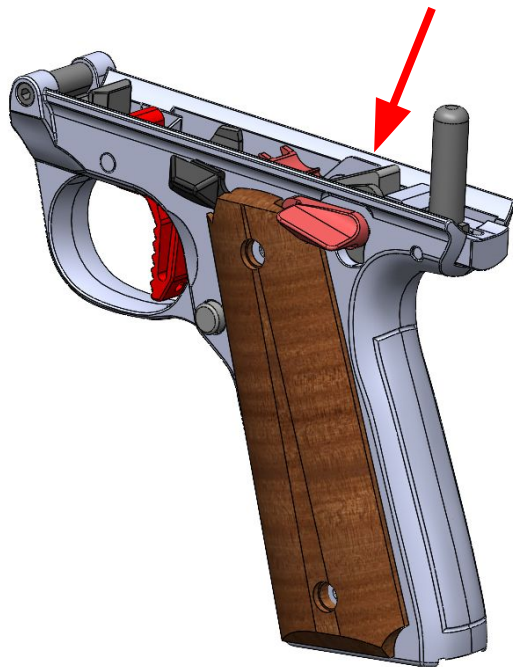


WARNING

Firearms and Ammunition are inherently dangerous. Make sure your firearm is unloaded, visually inspect the chamber, and remove any live ammunition from the work area before attempting any assembly, disassembly, or service to your firearm

Separate the Upper and Lower Receiver

1. Make sure your firearm is unloaded by removing the magazine and visually inspecting the chamber.
2. Cock and release the bolt, then set the safety selector switch to the "Safe" position.
3. Press the back takedown button of the Ruger 2245 lower receiver.
4. Tilt the upper receiver downward and remove the bolt and receiver and set aside



NEVER DRY
FIRE IN THIS
CONDITION!

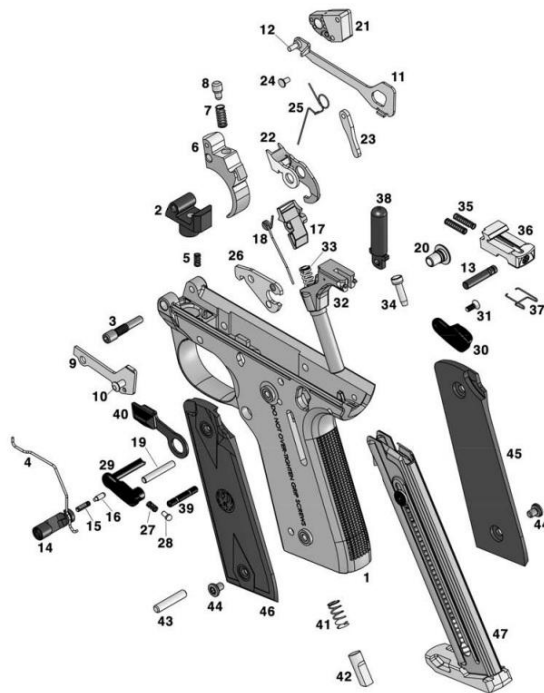
WARNING

There is no mechanism to prevent dry firing when the upper receiver is not installed. Releasing the hammer without the upper receiver installed may result in permanent damage to your lower receiver or to the internal components. ALWAYS SLOWLY lower the hammer when necessary by placing your thumb on the hammer while pulling the trigger and allowing the hammer to slowly come to rest at the end of its travel. Keep the hammer un-cocked during lower maintenance or assembly, and keep the safety engaged if the hammer has to be cocked for upper receiver installation.

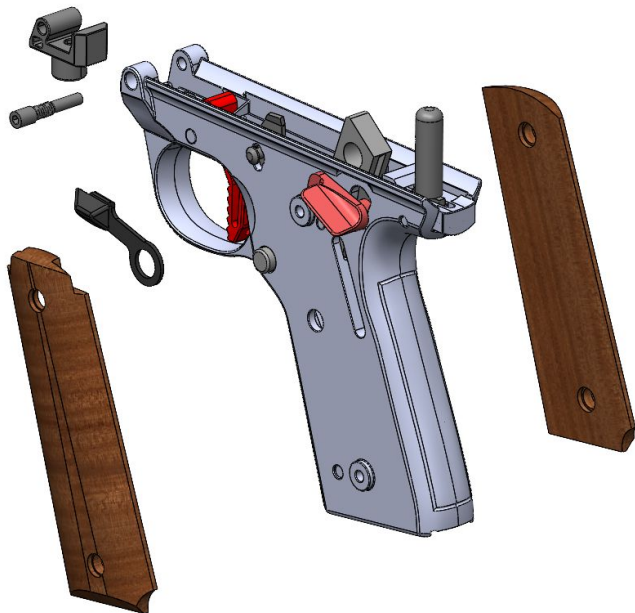
[Factory Lower Components]

Refer to the Ruger OEM
Drawing and List of
Components for Reference

1	Grip Frame	24	Hammer Strut Pin
2	Frame Lug	25	Magazine Disconnecter Spring
3	Lug Screw	26	Safety
4	Trigger Pivot Retainer	27	Safety Detent Spring
5	Bolt Open Stop Spring	28	Safety Detent Plunger
6	Trigger	29	Safety Lever, Left
7	Trigger Spring	30	Safety Lever, Right
8	Trigger Spring Plunger	31	Safety Lever Screw
9	Bolt Stop	32	Main Spring Housing
10	Bolt Stop Stud	33	Hammer Spring
11	Trigger Bar	34	Hammer Spring Plunger
12	Trigger Bar Pivot Pin	35	Latch Spring
13	Trigger Pin	36	Latch
14	Magazine Latch	37	Bolt Stop Cross Pin Retainer
15	Magazine Latch Spring	38	Bolt Stop Pin
16	Magazine Latch Plunger	39	Bolt Stop Cross Pin
17	Sear	40	Bolt Stop Thumb Piece
18	Sear Spring	41	Magazine Release Helper Spring
19	Sear Pin	42	Magazine Release Helper Plunger
20	Hammer Bushing	43	Magazine Release Helper Plunger Pin
21	Hammer	44	Grip Panel Screw
22	Magazine Disconnecter	45	Right Grip Panel
23	Hammer Strut	46	Left Grip Panel
		47	Magazine

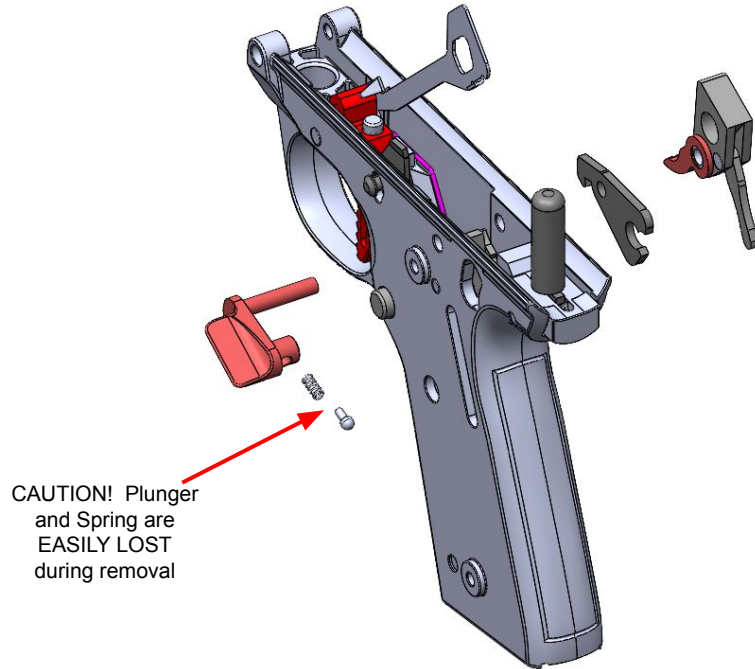


[Factory Lower Disassembly]



1. If your factory 2245 Lower Receiver has the magazine disconnect installed, you will have to insert the magazine to release the hammer
2. Set the safety selector switch to “Fire” and place your thumb on the hammer. Pull the trigger and slowly let the hammer fall to its resting position.
3. Remove the Magazine from the Lower Assembly
4. Remove the Grip Screws from both sides of the Lower Assembly
5. Remove the Grip Panels and the Bolt Stop Thumb Piece.
6. Remove the front Frame Lug and Lug Screw

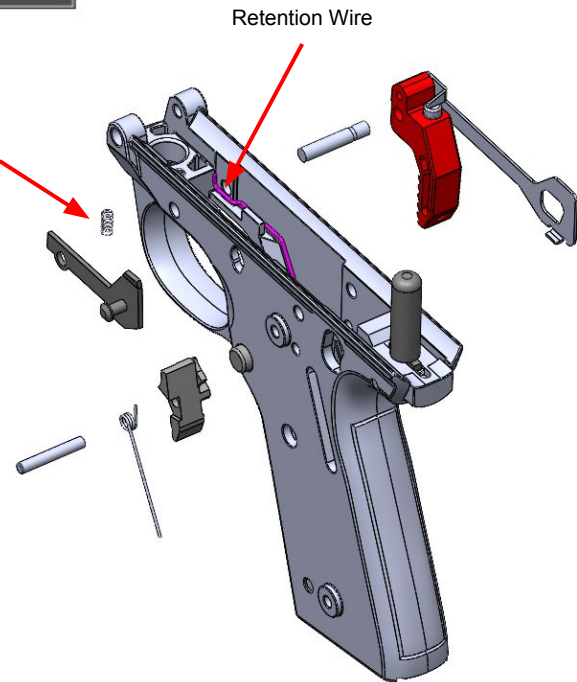
[Factory Lower Disassembly]



1. Remove the Safety Lever Screw from the right side of the lower receiver using a 1/16" Allen wrench
2. Slowly pull the Safety Lever out making sure not to lose the Safety Detent Spring and Safety Detent Plunger
3. Remove the Hammer Assembly keeping all parts together and remove the Safety. You will have to tilt the Trigger Bar upward as shown to remove these components
4. Keep the frame upright so as not to lose the Trigger Spring and Trigger Spring Plunger which can fall out when the Trigger Bar is tilted upwards

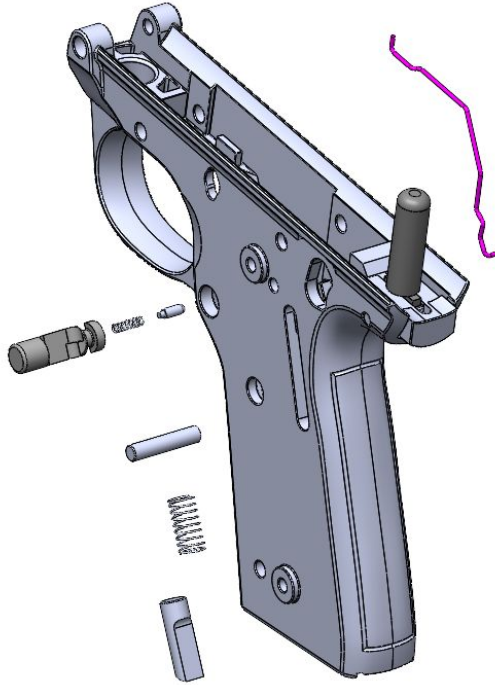
[Factory Lower Disassembly]

CAUTION! Spring
is EASILY LOST
during removal



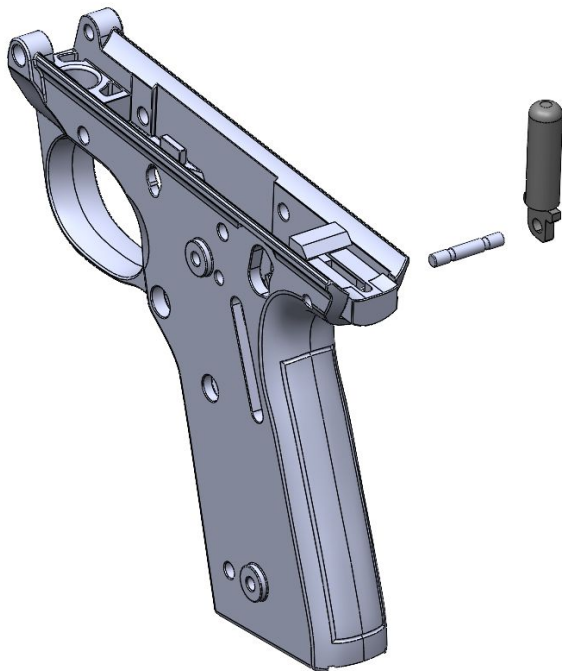
1. Depress the wire keeping the trigger pin in place and remove the trigger Pin
2. Slowly pull the Trigger Assembly out making sure not to lose the Trigger Return Spring and Plunger
3. Remove the Bolt Stop and Bolt Stop Spring
4. Remove the Sear Retaining Pin, Sear, and Sear Spring

[Factory Lower Disassembly]



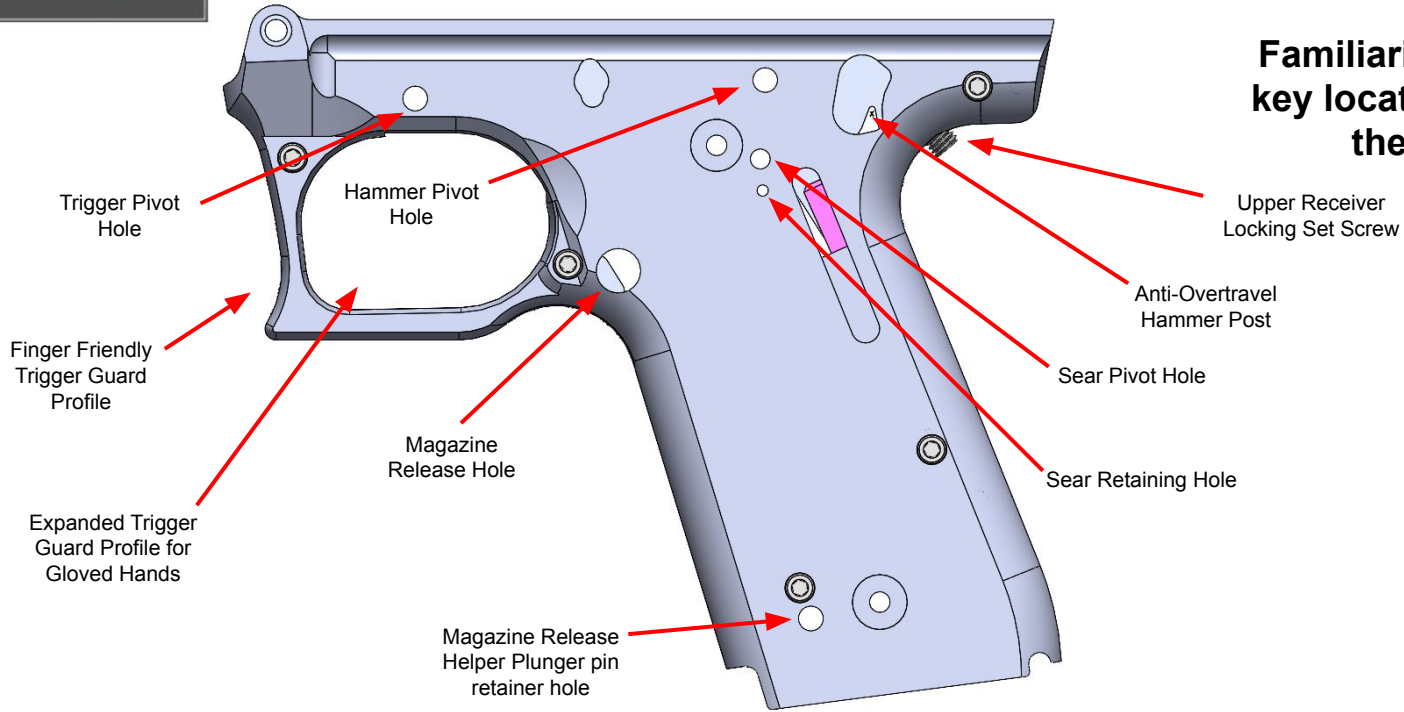
1. Rotate the Mag Release Retaining Wire which will allow the removal of the Magazine Release. Be careful not to lose the small plunger and spring inside the Mag Release
2. Remove the Mag Release Retaining Wire
3. Push out the Magazine Release Helper Plunger Pin while keeping your finger on the Magazine Release Helper Plunger to keep it from getting lost when the pin is removed.
4. Slowly release the Helper Plunger and remove the Plunger and Spring

[Factory Lower Disassembly]



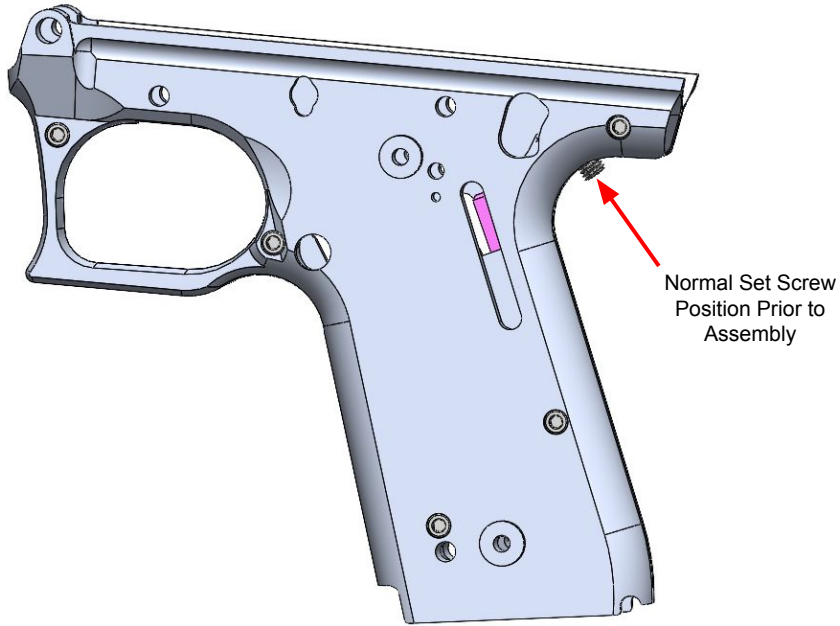
1. Remove the Bolt Stop Cross Pin by tapping lightly with a punch and hammer. This pin is retained by a keeper spring.
2. Remove the Bolt Stop, leaving the Mainspring Housing and Button Take Down assembly in the lower receiver.
3. Replace the Bolt Stop Cross Pin which will keep the Mainspring Housing and Button Take Down assembly inside the lower receiver
4. Lower Receiver Disassembly is now complete. You can store the plastic lower receiver along with the mainspring housing and Button Take Down Assembly, these parts will not be needed.

[Kraken Lower Features]



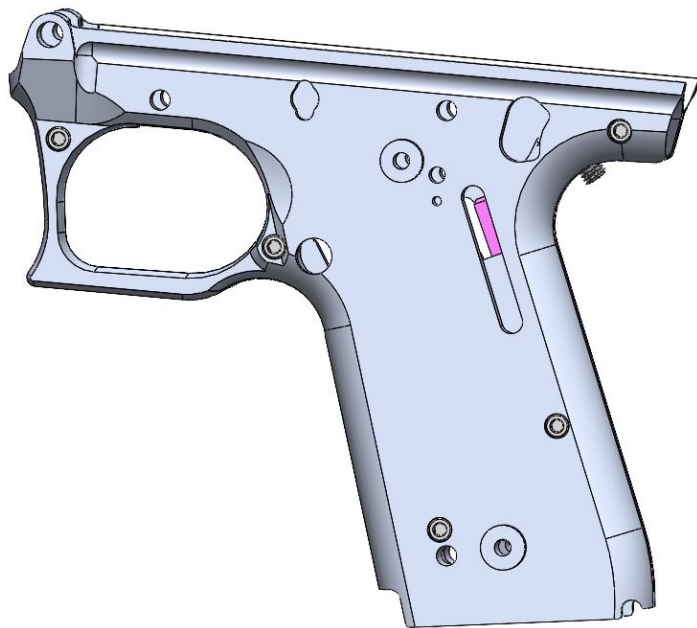
Familiarize yourself with the key locations and features of the Kraken Lower

[Kraken Lower Assembly]



1. The Kraken Lower is assembled from two halves of Aircraft Grade High Strength Aluminum.
2. The Kraken uses its own mainspring housing and Proprietary Locking mechanism for the Upper Receiver.
3. There is no need to disassemble the two halves of the Kraken and this is not recommended.
4. The Set Screw protruding from the rear of the grip approximately $\frac{1}{8}$ " is normal and will be tightened during final assembly

[Kraken Lower Assembly]

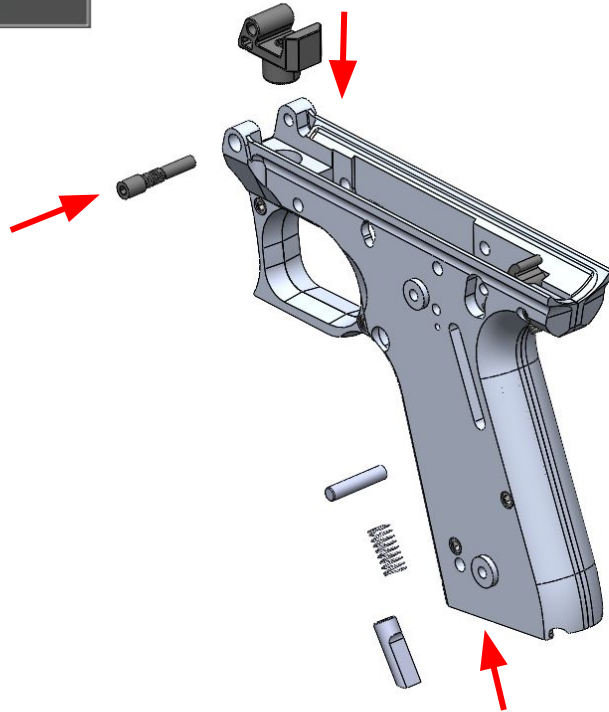


Tools Needed for Assembly

1. 3/32" Allen Wrench and 1/16" Allen Wrench
2. Needle Nose Pliers
3. 3/32 Punch or similar
4. Safety Glasses

Be sure to clear your workspace of any clutter and arrange the components neatly for re-assembly. A large piece of paper or similar clean workspace will make assembly much easier and reduce the chances of losing any small components

[Kraken Lower Assembly]

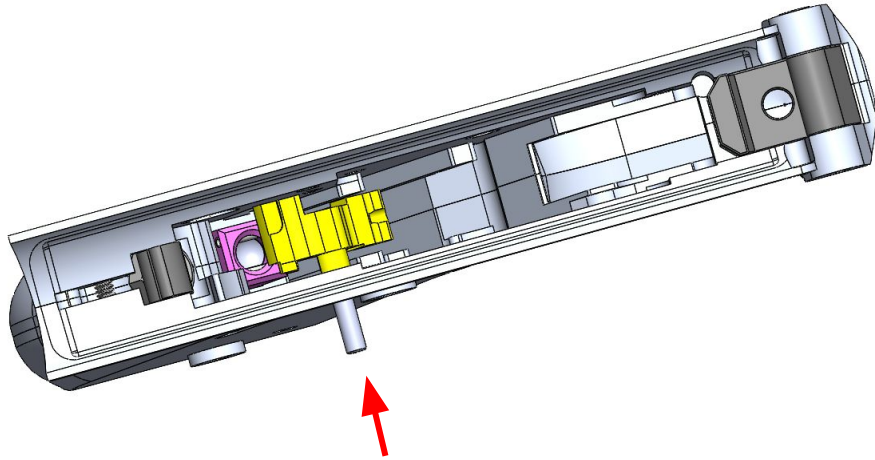


Step 1

1. Install the Frame Lug and Lug Screw using the 3/32" Allen Wrench
2. Install the Magazine Release Helper Plunger and Spring. Compress the Plunger and insert the Helper Plunger Cross Pin. Spring Pressure should keep these components assembled until the Grip Panels are installed

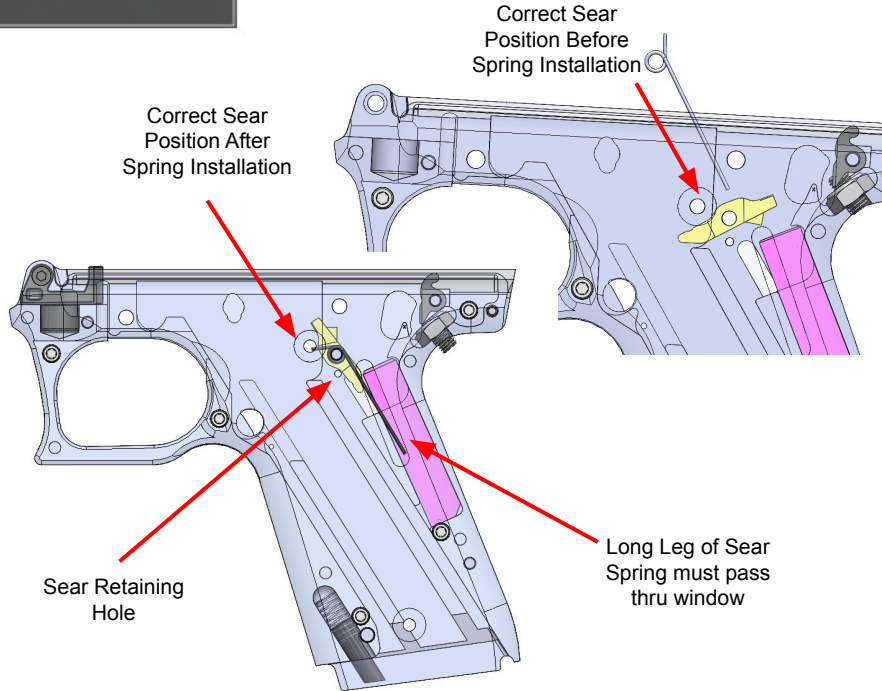
Step 2 - Sear Installation

One of the difficult aspects of MK4 Assembly is maintaining the correct Sear position during installation. Tandemkross has simplified this assembly step by adding a Sear Retention Hole which allows the Sear to be held in place with a 1/16" allen wrench until the Hammer Assembly is installed



1. Position the Sear (Highlighted in Yellow) as shown in the frame with your Needle Nose Pliers
2. Insert the Sear Pin from the bottom, enough to hold the sear but not too much to block installation of the Sear Spring

[Kraken Lower Assembly]

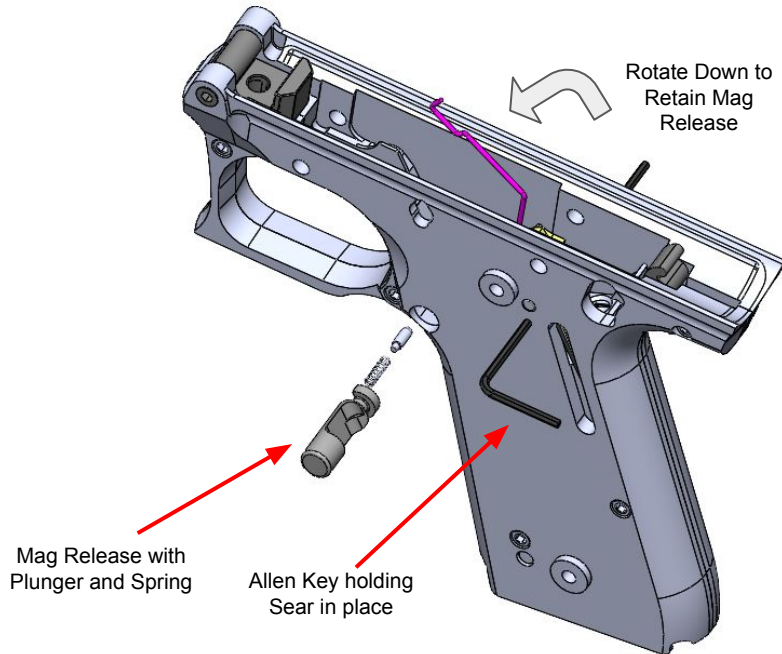


Step 2 - Sear Installation

1. Using the same Needle Nose Pliers slide the Sear Spring into the frame and position it over the sear and hole in the frame. Make sure the long leg of the Sear Spring is captured in the long window of the grip frame
2. Finish pushing the Sear Pin from the bottom, to capture the Sear Spring
3. Rotate the top of the Sear towards the front of the Lower Receiver enough to allow insertion of the 1/16" Allen Wrench in the small Sear Retainer Hole just below the main Sear Pin.
4. Slowly release the Sear and spring pressure will hold these components together until the Hammer Assembly can be installed
(Note: This Preload Technique will only work with new MK4 Type sears and may not work with some Aftermarket Sears)

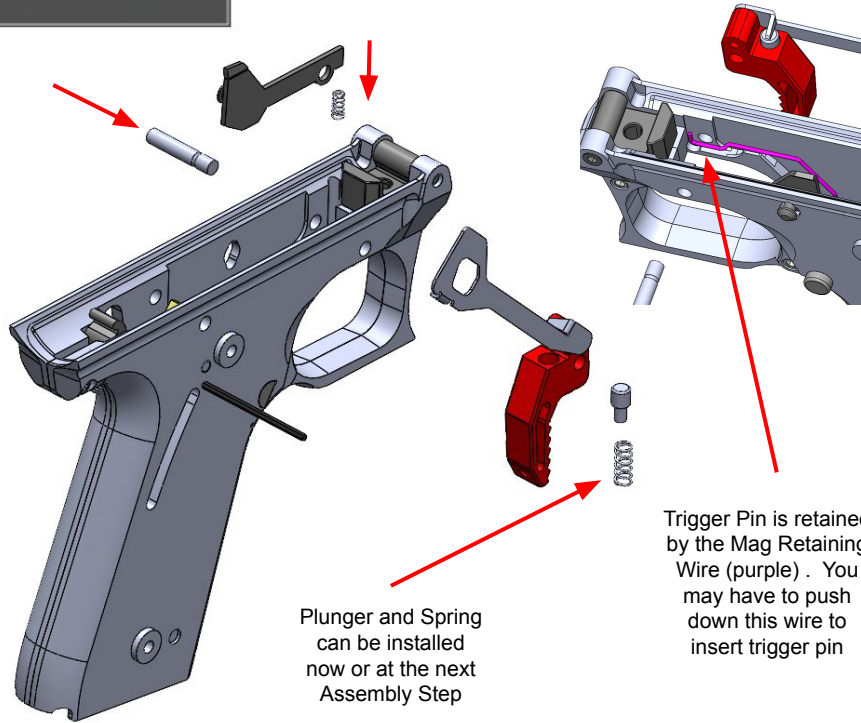
[Kraken Lower Assembly]

Step 3 - Mag Release



1. Install the Mag Release Retaining wire (highlighted in Purple) into the small hole on the right side of the lower receiver with the retaining wire tilted upwards at a 45 degree angle as shown.
2. Install the mag release plunger and spring into the small hole in the mag release
3. Insert the mag release into the left side hole of the frame and align the "D" shaped hole on the opposite side.
4. While compressing the mag release, rotate the retaining wire downward to capture the mag release. Check that the mag release button functions by inserting and removing an empty magazine

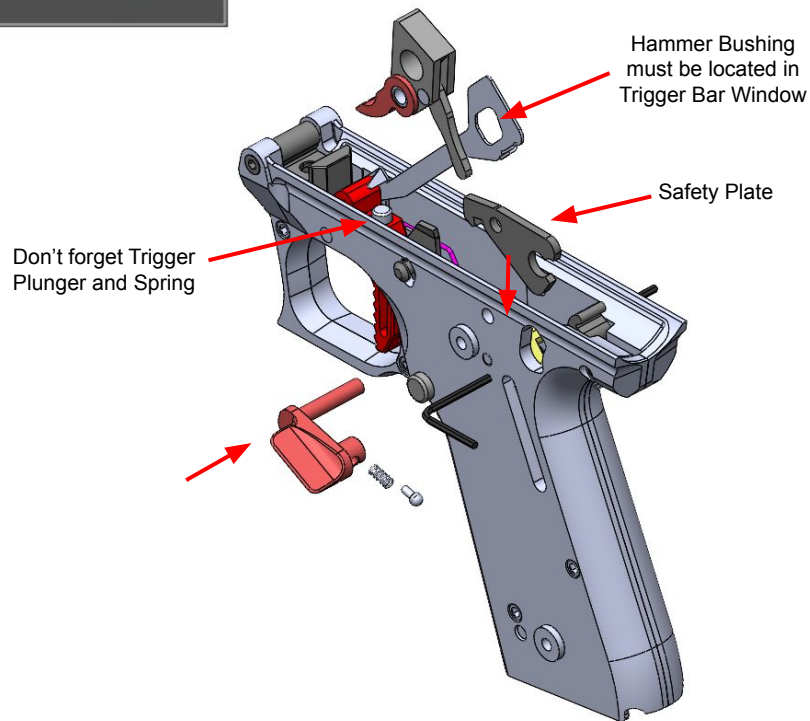
[Kraken Lower Assembly]



Step 4 - Trigger Assembly

1. Install the Bolt Stop and Bolt Stop Return Spring on the left side of the frame.
2. Insert the Trigger Pin just enough to hold the Bolt Stop in place
3. Insert the Trigger and Trigger Bar and align with the trigger pin
4. Push the Trigger Pin through the Trigger until the pin is flush with the right side of the Receiver and ensure the pin retaining wire has engaged the groove in the Pin.
5. You may choose to install the Trigger Return Spring and Plunger at this time or leave them out until the next step as these components can fall out easily while manipulating the Frame

[Kraken Lower Assembly]

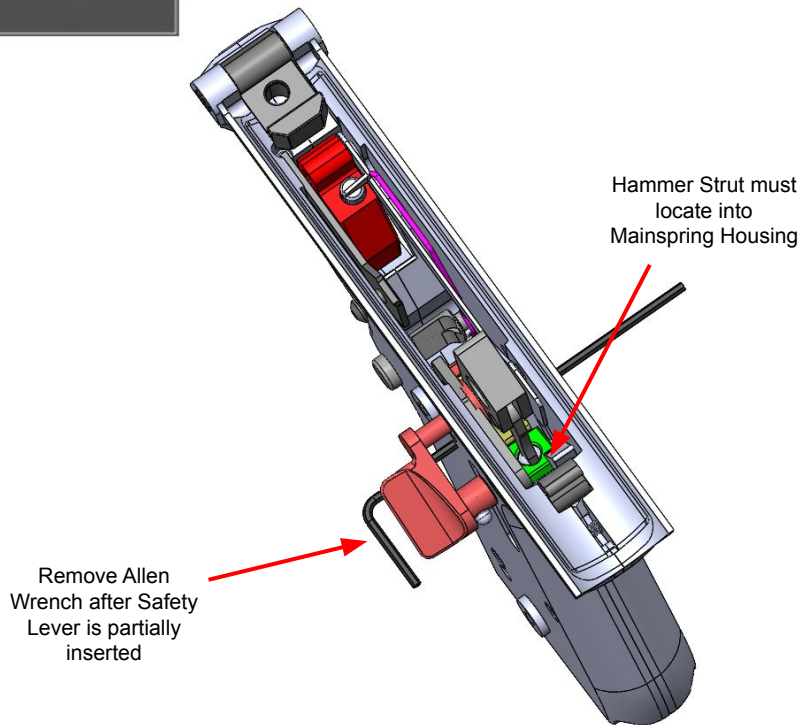


Step 5 - Hammer Assembly

1. Place the Safety Plate inside the frame and position the hook over the Sear and Align the hole with the Hammer Pivot Hole.
2. Insert the Safety Lever just enough to hold the Safety Plate in place but not to block the installation of the Hammer Assembly
3. Make sure the Trigger Plunger and Spring are installed in the Trigger
4. Raise the Trigger Bar and place the Hammer Assembly so that the Hammer Bushing is inside the window of the trigger bar
5. Rotate the Trigger Bar and Hammer assembly down into the frame until the Hammer Bushing Hole aligns with the Safety Lever

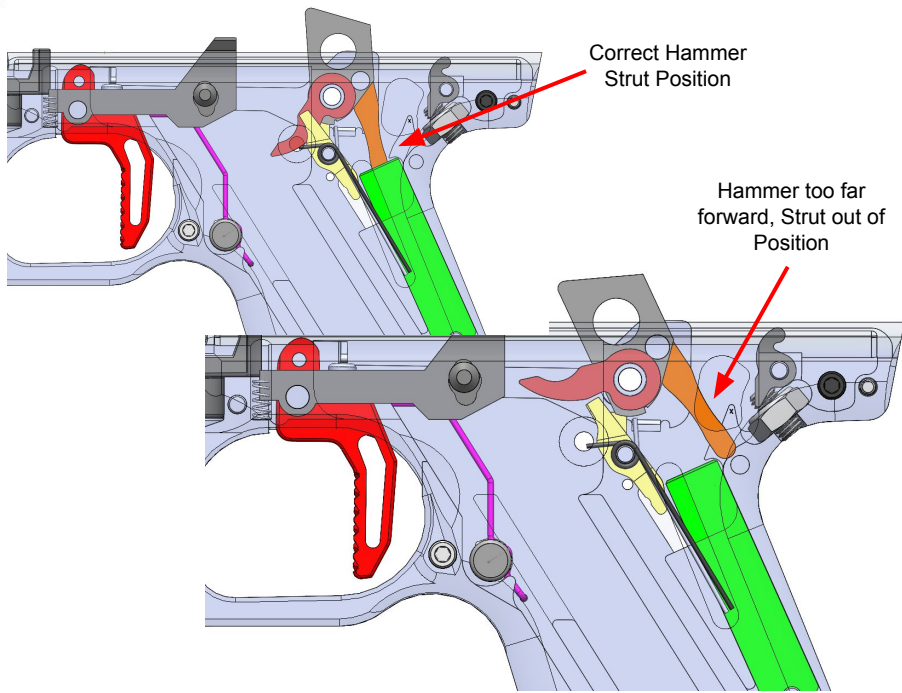
[Kraken Lower Assembly]

Step 5 - Hammer Assembly



1. Make sure the Hammer Strut is aligned in the hole of the Mainspring Housing (Highlighted in Green)
2. Slowly move the safety lever in through the Hammer Bushing until it is about ¼" from being flush with the Frame as shown.
3. The Allen Wrench holding the Sear in place can now be removed.
4. Install the Plunger and Spring into the Safety Lever
5. Continue to push the Safety Lever in making sure the post of the Safety Lever aligns with the Safety Plate inside the frame
6. Once the Safety Lever is flush with the frame you should be able to cock the Hammer and move the Safety Lever to the "Safe" position

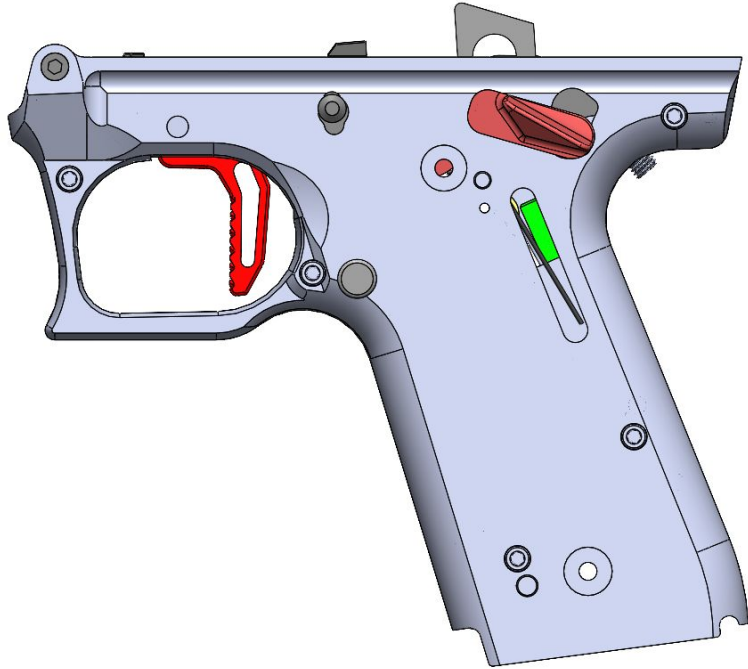
[Kraken Lower Assembly]



Step 5 - Hammer Assembly Troubleshooting

1. Make sure the Hammer Strut (Highlighted in Orange) is aligned in the hole of the Mainspring Housing (Highlighted in Green). Some parts are hidden for clarity
2. If the Hammer is allowed to move too far forward the hammer strut will come out of position in the Mainspring Housing and you will not be able to cock the hammer.
3. Using your finger push the hammer plunger back into the correct position above the mainspring housing while rotating the hammer towards the rear.

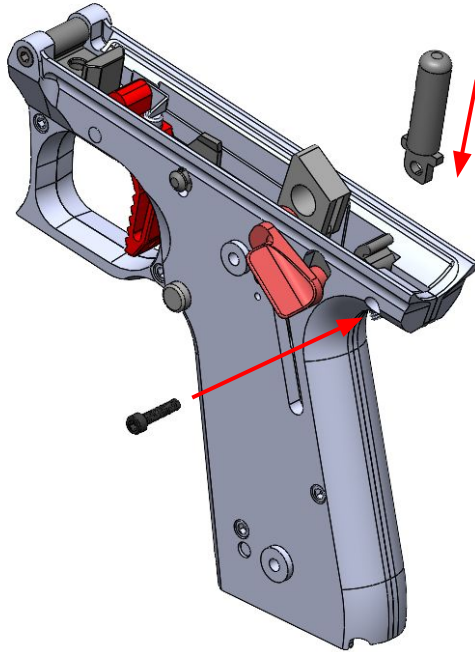
[Kraken Lower Assembly]



Step 6 - Test Function

1. If you cannot cock the Hammer at this stage the Hammer Strut is likely out of position or another component is mis-assembled. Remove the Safety Lever and Repeat Step 5 if you cannot cock the Hammer at this point.
2. With the Hammer cocked and the Safety Lever engaged, place your thumb over the hammer and try to pull the trigger. The hammer should not fall when the trigger is pulled.
3. Move the Safety Lever to the “Fire” position.
4. Place your thumb over the hammer and pull the trigger. Let the hammer SLOWLY come to rest at the end of its travel.

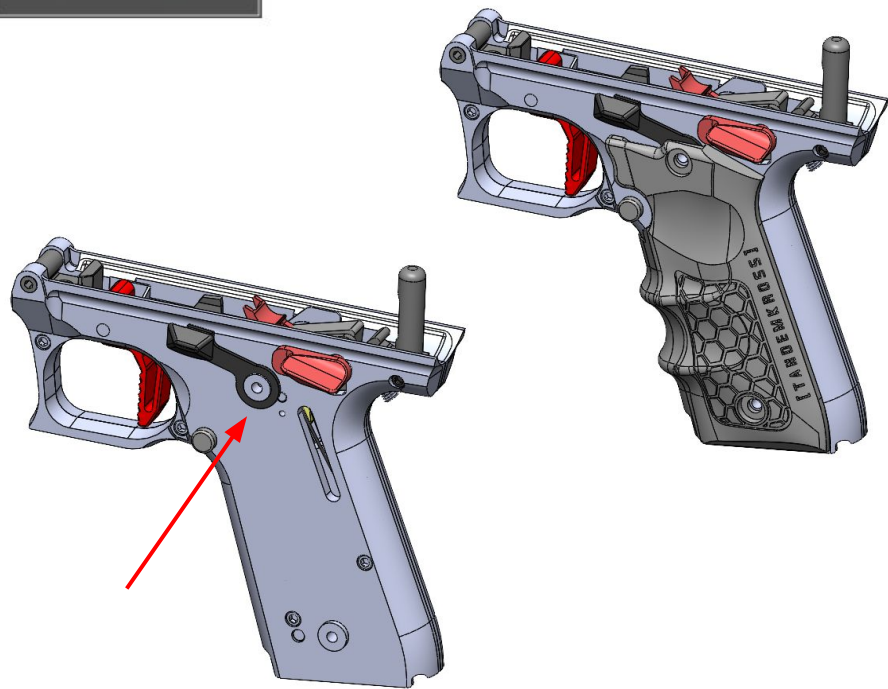
[Kraken Lower Assembly]



Step 8 - Bolt Stop Pin

1. Using a 3/32" Allen Wrench remove the 4-40 Socket Head Screw from the rear left side of the frame just behind the Safety Lever as shown.
2. Install the Bolt Stop Pin in the rear slot of the frame with the flat side facing toward the front of the Receiver.
3. Replace the Socket Head Screw in the frame to capture the Bolt Stop Pin

[Kraken Lower Assembly]



Step 8 - Final Assembly

1. Cock the Hammer and Place the Safety Lever in the “Safe” position
2. Install the Bolt Stop Thumb Piece placing the open fork end over the post of the Bolt Stop protruding from the frame.
3. Place the loop end of the Bolt Stop Thumb Piece over the top left grip screw boss
4. Install the Grip Panels or Tandemkross Hive Grips making sure not to disengage the Safety Lever during the process

[Kraken Lower Assembly]

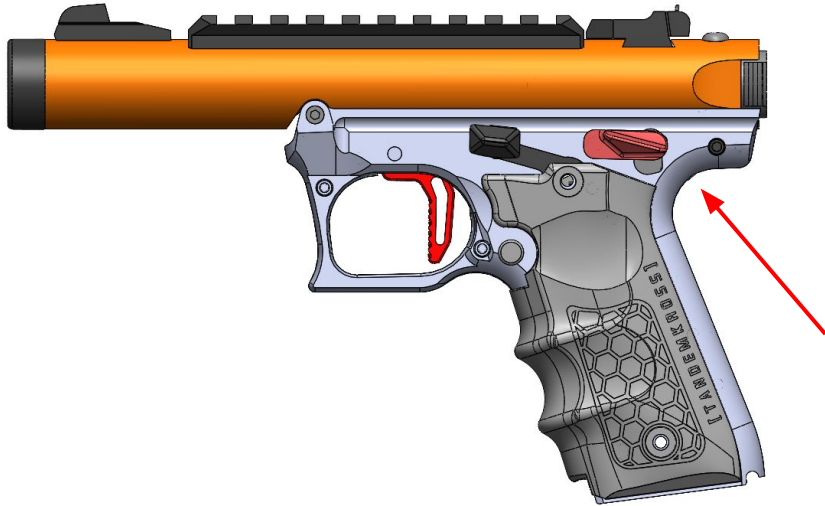


Step 9 - Upper Assembly

1. Cock the Hammer and Place the Safety Lever in the “Safe” position
2. Install the MK4 Upper Receiver as normal and rotate into position.
3. Apply downward pressure to the top of the Upper Receiver while using a 3/32” Allen Wrench to tighten the Barrel Lock Set Screw until it is approximately flush with the back of the Lower Receiver
4. Installation is complete, there should be no movement between the Upper and Lower Receiver. Pull up on the back of the Upper Receiver to make sure it is locked in position

[Kraken Lower Assembly]

Step 10 - Final Check



1. The Locking Set Screw will be roughly flush with the frame of the Kraken when the Upper Assembly is locked in place.
2. A small protrusion is normal and will not affect operation. DO NOT over tighten the set screw.
3. Make sure the firearm is clear and safe by visually inspecting the chamber. Remove any live ammunition from the workspace.
4. Cock the bolt and check for normal function. If you have the factory Magazine Disconnect installed you will need to insert an EMPTY Magazine to test for normal operation.

[Upper Receiver Removal]



Remove Upper Receiver

1. Make sure the firearm is clear and safe by visually inspecting the chamber. Remove any live ammunition from the workspace.
2. Cock the bolt and place the Safety Lever to the "Safe" position.
3. Back out the barrel tightening set screw approximately $\frac{1}{8}$ " using a $\frac{3}{32}$ " Allen Wrench which will allow the barrel lock to retract enough to tip the Upper Receiver up and forward to remove.
4. Stop backing out the barrel tightening screw once the upper receiver starts to rotate. Do NOT completely back out this screw as you may have to disassemble the entire lower receiver to get the screw back into the correct orientation.