

FNX940

Assembly Guide

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SECTION I: INTRODUCTION

I'm very pleased to share with you the FNX940, a frame for FN's hammer-fired offering. It was made possible thanks to a very generous patron who accidentally bought an FNX-40 kit instead of an FNS-40. (Oops!)

The FNX940 is one of the few hammer-fired guns you can print. It is also one of the rarest kits you can find, too, with missing parts oftentimes.

This gun was a fun challenge to work on. It shares some similarities to the FNS but has some distinct differences. For example, rather than a front rail block and integrated rails in the rear fire control, the FNX uses *plates* in place of it. In fact, this makes assembly, while simple, a little precarious- you must insert the rear fire control with the rails suspended in the frame and must pinch the front rails while letting them pivot within your grasp slightly to enter the frame.

I wish parts for these were still made. Unfortunately, disassembly and reassembly beyond the field strip into the rear fire control is a trip of torture except for those with delicate hands and patience.

I hope you enjoy the frame. (If you can find parts for it.)

Vinh Nguyen

SECTION II: TOOLS AND SHOPPING LIST

To assemble this firearm, you will need the following tools:

- Gunsmithing Punch Set
- 4.0mm Drill Bit
- Narrow, but not needle nose, pliers
- Flathead screwdriver

You can check out a recommended shopping list of Vinh's personal tooling at www.vinhstoolbox.com.

SECTION III: PARTS KIT CHECKLIST

In order to successfully build your FNX940, you will need the following parts that specifically pertain to the firearm.

You may use FNX-9 or FNX-40 part kits. **An FNX-45 part kit will not work.**

UPPER PARTS

A complete slide parts kit, or a complete slide assembly should compose of the following:

- Slide
- Recoil Spring and Guide Rod Assembly
- Barrel

LOWER PARTS

A complete lower parts kit should compose of the following:

- Left Rear Rail Plate
- Right Rear Rail Plate
- Left Front Rail Plate
- Right Front Rail Plate
- Unlock Block
- Magazine Catch
- Magazine Catch Spring
- Slide Stop Lever Spring
- Left De-cocker Thumb Piece
- Right De-cocker Thumb Piece (*not required, but strongly recommended*)
- Takedown Lever
- Trigger Pin
- Fire Control Housing Assembly
 - Two critical parts can be lost- the Safety Cam and the De-cocker Cam. Be sure your assembly has these.

The Horseshoe Spreader part is NOT required.

MAGAZINES AND ACCESSORIES

Don't forget you will also need:

- Magazine
 - *FNS-9 or FNS-40 magazine*
 - *FNX-9 or FNX-40 magazine*



SECTION IV: ASSEMBLY

In this section, we will cover the settings you should print your frame and assembling it.

SAFETY FIRST

Putting a gun together is no joke. Firearms are dangerous tools that must be treated with care and respect. **You are responsible for your safety, and those surrounding you** when you work with or operate firearms. Fellow developers or engineers cannot be responsible or liable for what you do or don't do.

As a general reminder, here are some rules to keep in mind:

1. **Always treat a gun as if it is loaded.** Remove the magazine and check the chamber yourself to verify the gun is unloaded.
2. **Keep your firearm always pointed in a safe direction.** Never point your gun at anything you don't intend to destroy.
3. **Be aware of what is in front and behind of your target.**

But specifically, for working on your firearm, you should remember the following too:

1. **Keep live ammo away.** Use snap caps or dummy rounds to verify function of your firearm. Never keep live ammo around your workspace, and certainly never mix them with your dummy ammo.
2. **A clean gun is a safe gun.** Never leave your firearms uncared for to foul or dirty up. Debris can cause malfunctions, which can be dangerous.
3. **Always read and follow directions.** Don't ignore a warning or follow instructions out of order.
4. **Use prudent judgement.** If something doesn't add up- use common sense. Stop, inspect, and re-evaluate your previous actions and procedures.

PREPARATION AND CLEANUP

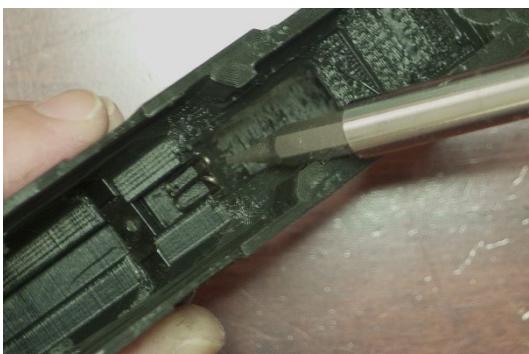


Remove all supports. Chase out the trigger pin hole with a 4.0mm drill bit.

INSTALL THE MAGAZINE CATCH AND SPRING



Insert the magazine catch and spring



Insert the magazine catch spring from the top of the frame into the channel as shown.

Be sure the angled end of the spring is pointed towards the back of the frame.

A flat-head screwdriver is recommended to slide it in.



A properly installed spring should let you depress the button from either side without much resistance.

INSTALL THE REAR RAILS AND FIRE CONTROL ASSEMBLY



Your de-cocker cam should be oriented as so in the picture to the left.

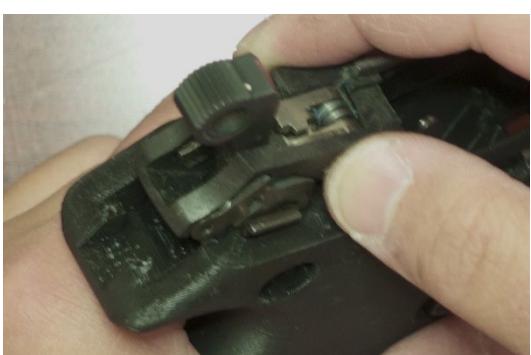


Your safety cam should be oriented as so in the picture to the left.



Stage the rear rail plates into the frame.

They should be retained somewhat and able to sit flush. They might be “loose” and fall out if you shake or move the frame too suddenly.



Insert the fire-control unit into the frame, while ensuring the rails don't fall out of place.



Ensure the fire-control unit is fully seated.



Install the left de-cocking lever.

The grooves on the bar interface with the safety cam and de-cocking cam on the fire control group. Be sure they line up!



Install the right de-cocking lever.



It should seat like so.

*(If you ever need to remove the de-cocking lever, find a thin flathead screw driver and wedge it upwards towards the center from under the arm on the **right** side.)*

INSTALL THE FRONT RAILS AND FRAME CONTROLS



Place the slide release into the frame.



Pinch together the front rails and the unlock block. Begin to insert it into the frame.

You can start by the front or the rear to pivot it into place.



Press downwards on the rails to seat it into place on the frame.



IMPORTANT! It is important to have the rails flush in the frame- there is a critical notch that ought not to be modified, as it is used to help retain the front rail.



With the rails seated in place (they shouldn't move or rock back and forth), insert the slide lock lever from the front into the rear.

Be sure the slide lock lever spring's arm is sitting on top of the slide lock.



Use a punch to align the slide lock, trigger, and slide lock lever holes against the rails and frame.



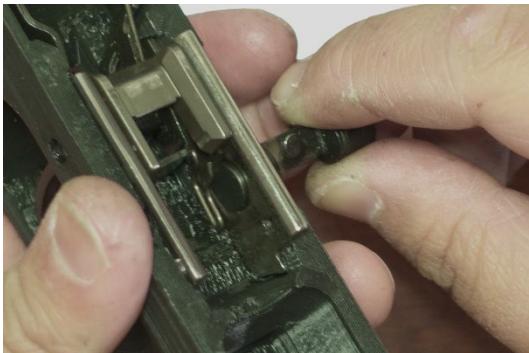
Insert the trigger pin on the side *without the notch* into the left side of the frame.

The notch is used to retain the slide lock spring.



Tap the pin through the frame, ensuring it captures the rails, trigger, slide lock, and slide lock spring.

It should be flush against the frame.



Insert the takedown lever.



Align the slide lock spring under the takedown lever.

The slide lock spring does double duty in retaining the takedown lever too. The curled part of the spring sits under the takedown lever.

ASSEMBLE THE SLIDE ONTO THE FRAME



Place the assembled slide onto the frame.

Be sure the takedown lever is in the "release" position.



Rack the slide back, and use the slide release lever to hold the action open.

Immediately flip the takedown lever into the secured position.



Pull back on the slide to release the slide lock and return the gun to battery.



Your FNX940 is assembled. Perform a function check.

FUNCTION CHECK

Verify your firearm works by evaluating each of the following functions.

BE SURE YOUR GUN IS STILL UNLOADED.

Check that your chamber is empty, and that there are no rounds in the magazine.

- Empty Magazine Slide Lock:
 - o Insert an empty magazine
 - o Pull the slide back.
 - o It should catch on the slide stop lever on an empty magazine.
- Slide Lock Releases:
 - o Remove the magazine
 - o Pull the slide back
 - o The slide lock should disengage and the slide returns to battery
- Trigger Break:
 - o With the slide in battery, pull on the trigger.
 - o The striker should release.
- Trigger Reset:
 - o With the slide in battery, and the trigger already fired, hold the trigger down, and rack the slide. Gently release the trigger.
 - o The trigger should have a tactile or audible reset. (*This may vary with aftermarket or competition triggers.*)
- De-cocker Function Check
 - o Cock the hammer
 - o Pull downwards on the safety/de-cocker lever
 - o The hammer should drop without hitting the firing pin
- Safety Lever Function Check
 - o Pull gently on the trigger to confirm tension
 - o Engage the safety lever by lifting upwards on it
 - o Pull on the trigger to confirm the tension is relieved

When you have completed the function check, the assembly process is complete.

Be sure to remove your magazine and store your firearm in a secure and safe place.

SECTION V: TROUBLESHOOTING

You may encounter certain problems with your firearm either during usage or assembly.

- Can't insert rails or locking block
 - Be sure that the pockets are entirely free of debris.
- Slide won't hold open when the magazine is empty
 - Check that the slide lock lever is engaged on the ridges of the trigger pin
 - Check that the slide lock lever spring is on top of the slide lock
- Double-action trigger pull doesn't work
 - Ensure that your rear trigger pack is seated properly and isn't binding against the frame
- Rails will not insert flush into the frame during assembly
 - Ensure dimensional accuracy of the printer you are using
- Missing right de-cocker/safety lever- is this okay?
 - That's fine, but not preferred. This is a perishable part that can be damaged during removal.

