

KAP9 Assembly Guide

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SECTION I: INTRODUCTION

I bought the Kimel AP9 kit thinking it would be a simple geometry reconciliation for the existing TEC9/AB10 frame from Freemendontask and CtrlPew. I was wrong.

It was much more involved than I initially thought, but the payoff is worth it. The KAP9 is a much easier gun to assemble than the TEC9/AB10, which is an exercise in self-mortification. Everything is condensed into a few parts that only require mere insertion- no clenching the hand on springs or whatnot.

Some changes made to the frame include clearances for the trigger pack to seat. The trigger pack includes the ejector built-in, which eliminates the need for you to modify it as compared to the parent model. In addition, the magazine fitment and seating had to be slightly modified for proper feeding. (This was the tricky part.)

While not as common as TEC9/AB10s, Kimel AP9's do appear at an infrequent basis on auction sites. I hope this frame remix gives these kits new life for anyone who is fortunate enough to purchase one.

Vinh Nguyen

SECTION II: TOOLS AND SHOPPING LIST

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

- Gunsmithing Punch Set
- 5.5mm Drill Bit
- E-Clip Insertion and Removal Tool (*optional, but helps*)

You can check out a shopping list of recommended parts and tools to keep at your desk 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.

Note that Intratec TEC9/AB10 part kits will NOT work. This frame is specifically designed for Kimel AP-9 part kits.

PARTS

A parts kit should compose of the following:

- Upper Receiver Assembly
 - *Kits should leave this intact. There is no reason to disassemble it.*
- Trigger Pack
 - DO NOT DISASSEMBLE this.
- Trigger Safety Lever
- Trigger Safety E-Clip
- Receiver Retention Pin

In addition, you will also need:

- Glock Magazine Release
 - *You can print this with the files included.*
- Glock Magazine Release Spring

The Horseshoe Spreader part is NOT required.

MAGAZINES AND ACCESSORIES

Don't forget you will also need:

- Magazine
 - *Glock-patterned*

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.

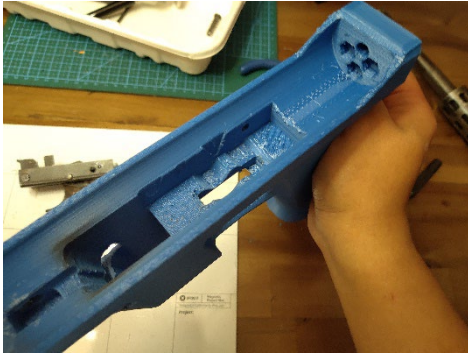
As a general reminder, here are some rules to keep in mind:

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.

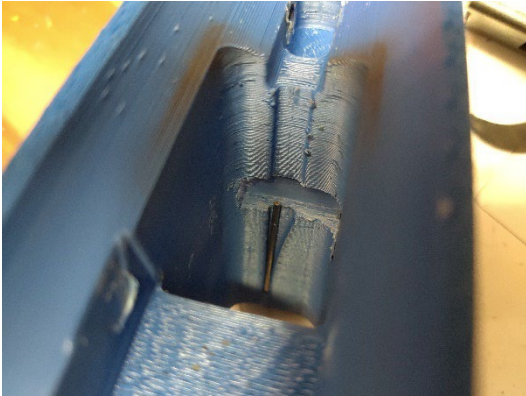
PREPARATION



Remove all debris and supports from your print.

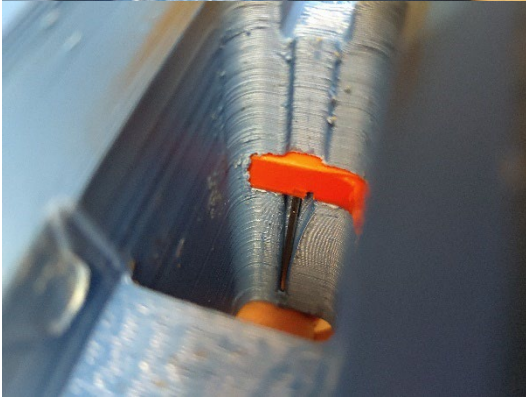
Chase out the front pin hole with a 5.5mm drill bit.

INSTALL THE MAGAZINE CATCH AND SPRING



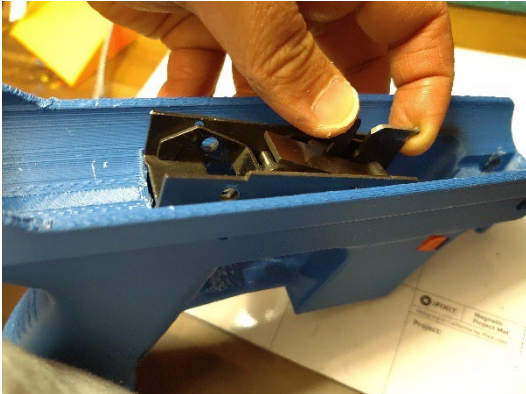
Insert the magazine catch spring into the pocket.

Your spring may need trimming or fitment depending on where you got it.

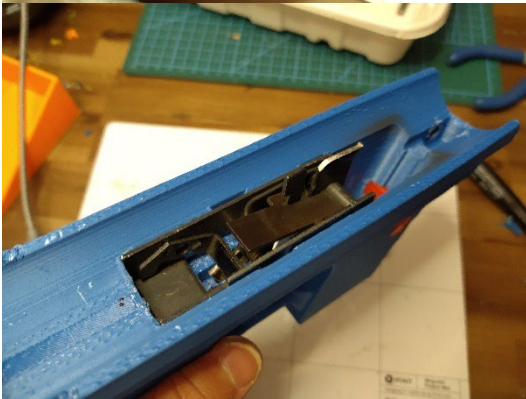


Install the magazine catch.

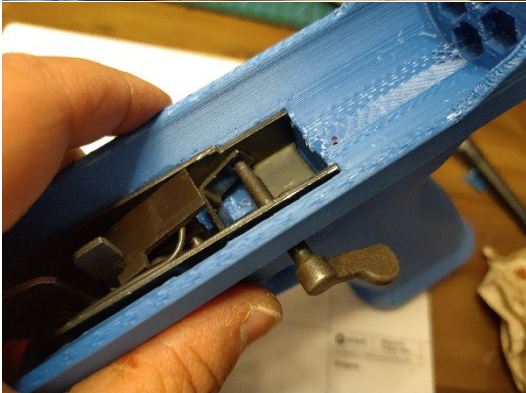
INSTALL THE TRIGGER PACK AND UPPER RECEIVER



Place the trigger pack into the frame.



Ensure the trigger pack is laying flush and flat.



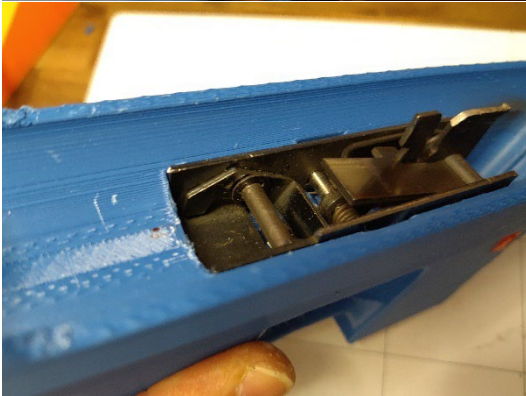
Insert the trigger pack safety.



Note the safety is keyed! Align it onto the safety lever's interface within the trigger pack.



Insert the e-clip for the safety onto the channel.



Be sure the e-clip is secured all the way as pictured.



Place the upper receiver onto the frame beginning from the rear.

Pivot the receiver down into the frame so that the front retention hole is in the frame.



Insert the receiver retention pin.



Ensure the pin is entirely secured.

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.

- Safety Check
 - Charge the firearm.
 - Engage the safety, pull the trigger
 - The striker should NOT release
 - Disengage the safety, pull the trigger
 - The striker should release
- Reset Check
 - Charge the firearm
 - Disengage the safety, pull the trigger
 - Do not release the trigger.
 - Charge the firearm
 - Slowly release the trigger
 - There should be an audible and tactile reset on the trigger.

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 receiver retention pin
 - The retention pin hole on the upper receiver may be ajar. (It's screwed into the upper!) Straighten it out and try again.
 - Worst-case, you may have to hand-fit by drilling out the conflicting geometry on the frame with a 5.5mm drill bit.
- Failure to feed
 - When shooting- soft ammunition like 155 grain 9mm may have trouble cycling. The bolt needs to return to battery with much gusto for the ejector to snap upon the brass.
 - When dry-cycling- ensure that the magazine is inserted all the way

