



DAYTONA
AIRSOFT

Daytona Gun Airsoft Guide: A&K PKM Installation Manual



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Basic Information

Introduction

When properly installed, your Daytona Airsoft Systems (DGA) recoil kit provides you the ability to experience heavy recoil with no cooldown, and without expensive, heavy gas magazines to keep serviced, or batteries to keep charged.



Please note that the DGA A&K PKM kit has been designed to fit and function within the A&K PKM series of machineguns only. While it may be possible to modify the kit and/or the donor of a similar spec machinegun from another brand, this is neither recommended nor supported, and will likely require additional fitting and tuning beyond what this manual specifies. DGA offers neither support nor advice for installations into non-supported donor bodies.

The kit is not designed for, and is not compatible with, LCT machineguns of the same type.

For the User

This guide assumes some technical knowledge and ability on the part of the installer. If you are not familiar with how various airsoft systems operate, and if you have never disassembled/built an airsoft gun before, you should consider having your local gun tech do the install for you.

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What You Need

In order to install the DGA kit into your donor body, you will need the following tools:

Necessary:

- 2.5mm hex wrench
- 2mm hex wrench
- Flathead screwdriver
- Hammer or mallet
- Semi-permanent thread lock, such as Loctite 243
- 3.3mm drill bit
- M4x1 tap
- Tapping fluid
- Rotary tool with large cutter bit
- Power drill
- Vise or clamp
- Pressure switch or similar for box magazine

Helpful:

- Deburring tools



Disassembling Your Donor Body

A Note Before Starting

If you have already taken apart your donor body, or if you are already familiar with disassembling an A&K PKM AEG, you can skip to the section of this manual dealing with installing the DGA kit.

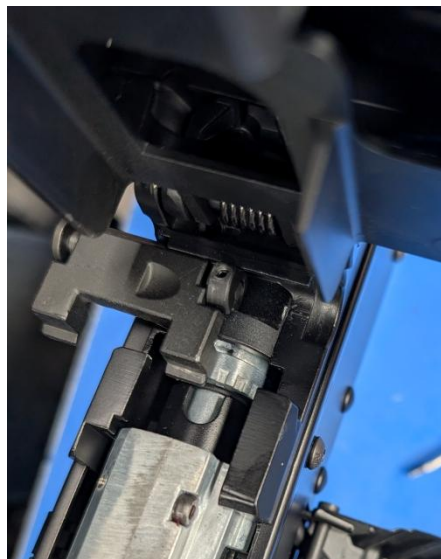
Please note that this section uses an A&K PKM as a donor exemplar. Steps for disassembly may differ slightly for different variants, such as the PKP.

How to Disassemble Your Donor

1. Open the feed tray cover, and lift up the inner feed plate.
2. Rotate the large flathead bolt using the flathead driver to unlock the barrel block.



3. Push out and remove the barrel block towards the left side of the receiver.

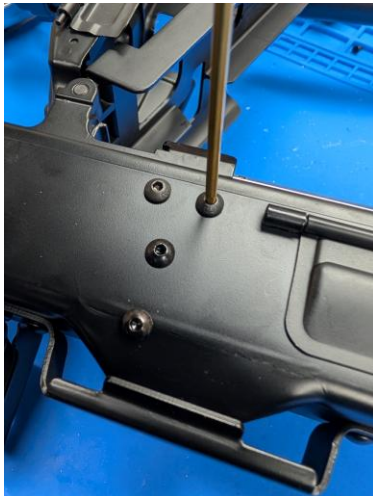


4. Pull the barrel group forwards out of the receiver.

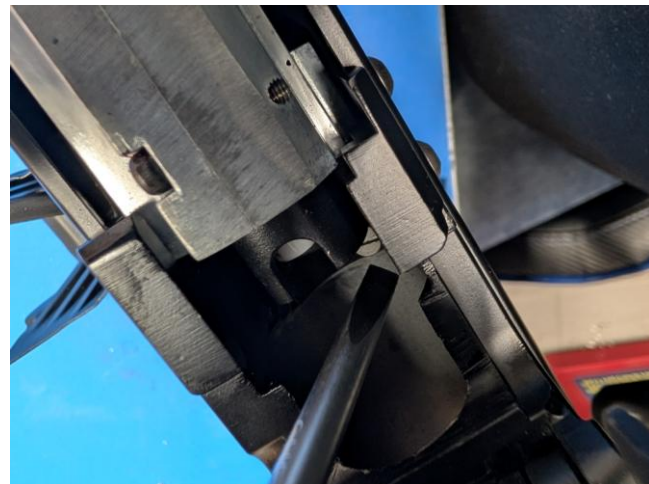
5. Remove the screw on the bottom of the pistol grip with the flathead driver and remove the pistol grip.
6. Remove the four (4) countersunk screws on the trigger with the 2.5mm driver and remove the trigger assembly
 - Removing the grip and trigger assembly is not strictly necessary for the build, but it does make maneuvering the receiver around easier. This can be skipped if desired.



7. Remove the seven (7) panhead machine screws on both sides at the front of the receiver with the 2.5mm driver.



8. Remove the two screws holding the hop up chamber sleeve into the receiver with the flathead driver and remove the chamber sleeve.
9. Disconnect and remove the wiring. You may need to cut one connector to get the wiring out.
 - You can leave the rate of fire adjustment wiring in the barrel group in place.



10. Pull the barrel trunnion forwards out of the receiver.



11. Remove the countersunk machine screw in the charging handle journal using the 2.5mm driver.



12. Pull the gearbox up and out of the receiver.

13. Remove the screw holding the charging handle in place with the flathead driver. This is under spring tension, so remove it slowly.



14. Slide the internal portion of the charging handle out of the receiver.
15. Remove the two bolts holding the stock onto the receiver with the flathead driver and pull the stock backwards off the receiver.



16. Remove the rearmost countersunk machine screw on top of the barrel assembly to remove the original inner barrel group.
 - If you are reusing the original inner barrel, you should remove it from the chamber at this point.



What to Keep and What to Set Aside

With you donor disassembled, you will have many parts. You only need to keep the items on the following list. Everything else can be safely removed.

Keep:

- Receiver assembly
- Barrel trunnion assembly
- Outer barrel assembly
- Stock
- Pistol grip and trigger assemblies
- Charging handle assembly
- All hardware
- Inner barrel spring

Installing the Daytona Kit

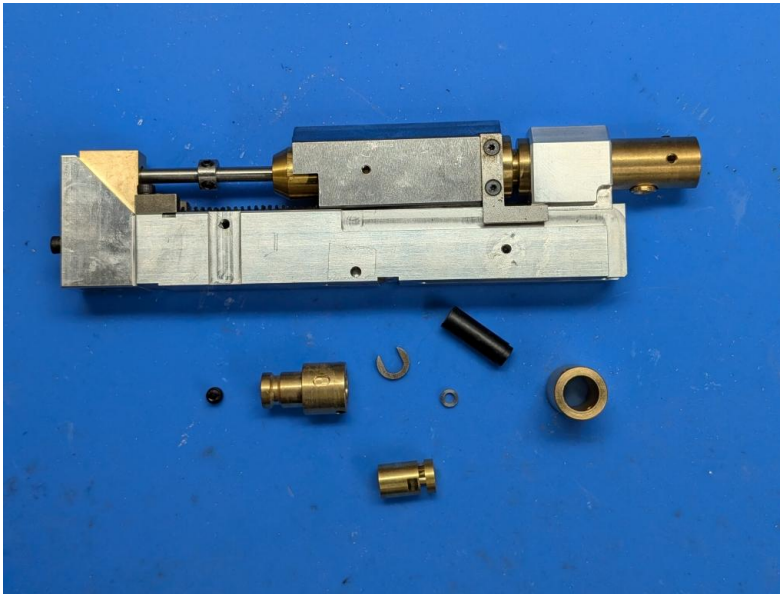
Inside the Box

If you haven't already, open the box containing the kit. Remove the packing materials and lay everything out.

Your kit should contain the following items:

- Complete engine assembly
- Hop Up Chamber
- Barrel Ring
- Barrel Ring C-Clip
- DGA Standard Hop Up Bucking
- Charging Handle Socket Head Bolt
- Charging Handle Bolt Shim
- Barrel Bushing
- DGA Airline with Fitting
- DGA QD (not pictured)

Compare the contents of your package with the above list and the images below. If you believe you are missing any parts, please contact DGA for assistance.



Assembling the Inner Barrel Group

Remember that you will need an AEG-spec inner barrel. This is not supplied with the kit. You **can** use the original barrel from your donor gun's body, but DGA recommends upgrading to a high-quality aftermarket stainless steel inner barrel. Remember, the DGA hop up rubber, barrel ring, and c-clip are designed for use with AEG inner barrels **only**.

Inner Barrel Assembly:

1. Slide the Daytona hop up bucking onto the correct end of the inner barrel.
2. Push the barrel ring down so that the opening on the bucking end slides over the lip of the hop up bucking.
 - Sometimes you may find it difficult to slide the barrel ring down the barrel, over the bucking, or both. Careful removal of some of the inner material of the barrel ring with a file and/or drill can be done to correct the spacing.
3. Push the c-clip down into the slot of the barrel ring. Hammer it gently into place with a mallet if necessary.

Hop Up Chamber Assembly

1. Remove all set screws from the hop up chamber using the 2mm and 2.5mm hex wrenches.
2. Place a drop or two of thread lock onto the threads for the hop up adjustment screw.
3. Screw the hop up adjustment screw back into place using the 2.5mm hex wrench. Look into the inside of the chamber and keep turning the screw until you see it protrude into the chamber.
4. Absorb the excess thread lock on the bottom of the adjustment screw with a cotton swab.
5. Back the adjustment screw up so that it no longer protrudes into the chamber.
6. Clean any excess thread lock on top of the screw as well as in and on the chamber with cotton swabs or paper towels.
7. Push the inner barrel group into the chamber, leading with the bucking. Make certain that the window of the inner barrel faces upwards.
 - Do not shove or force the inner barrel group into the chamber. Too much force can deform the bucking, leading to jams, feeding issues, and poor accuracy.
8. Apply some hop up using the 2.5mm hex wrench while looking down the barrel. Apply enough so that you can clearly see the protrusion of the mound into the chamber.
9. Rotate the barrel clockwise or counterclockwise until the mound is dead center within the chamber.
10. Apply thread lock to the two set screw holes on either side of the chamber.
11. Insert and tighten the set screws using the 2mm hex wrench to lock the inner barrel group in place within the hop up chamber.



Outer Barrel Assembly

1. Slide the DGA barrel bushing down over the muzzle end of the completed inner barrel assembly. Ensure that the slot on the bushing faces upwards.



2. Tighten the two set screws on the barrel bushing using the 2mm driver.
3. Slide the inner barrel spring down over the inner barrel so that it rests against the barrel bushing.
4. Install the DGA inner barrel group into the PKM outer barrel.
5. Install and tighten the countersunk screw with the 2mm driver, ensuring that the screw enters the slot on the DGA barrel bushing.



Installing the Airline

The air valve comes out of the box with a valve stem return spring installed. This can be left installed for a stiffer trigger pull. DGA recommends removing the return spring to soften the trigger pull.

1. Install and tighten the air line in the air valve. Apply a small amount of thread lock. Do not overtighten.



The airline fitting should be FINGER TIGHT only. Overtightening may break the fitting. DGA is not responsible for fittings broken through overtightening!

Modifying and Installing the Charging Handle Assembly

Drilling and Tapping the Charging Handle

1. Mark the charging handle lever at 60mm from the muzzle end of the lever.



2. Place the lever in a vise or clamp.
3. Drill a hole all the way through the lever at the marked location using the 3.3mm bit.
4. Tap the drilled hole for M4x1 threads using the M4x1 tap.

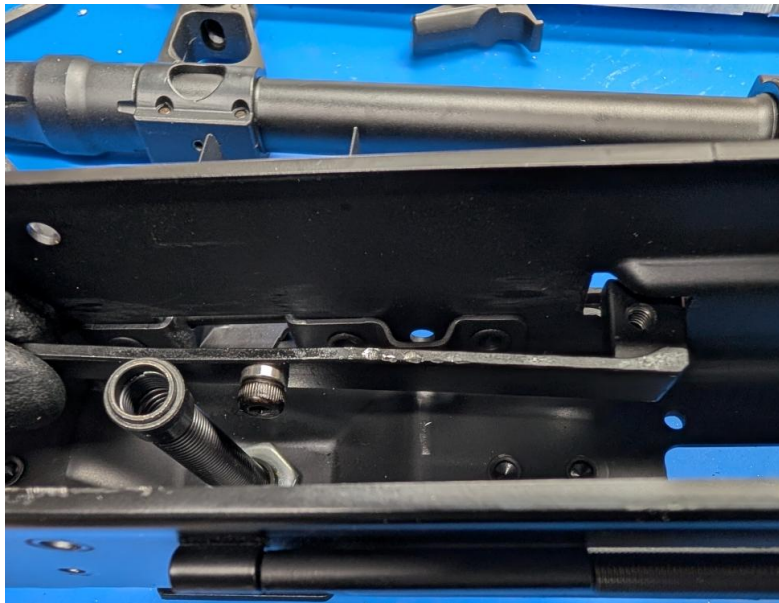


Assembling and Installing the Charging Handle Assembly

1. Place the DGA charging handle shim on the included socket head screw,
2. Install and tighten the screw assembly into the tapped hole. The screw head should be on the opposite side of the charging handle latch.



3. Slide the charging handle lever back into the receiver from the inside.



4. Reinstall the charging handle latch and latch spring with the flathead driver.

Installing the Engine into the Receiver

The engine needs to be placed into the receiver prior to installing the stock. However, the engine should not be fully tightened yet so that the barrel group can be properly installed and aligned.

1. Holding the engine, slide the airline through the hole in the rear trunnion of the receiver.
2. Slide the engine down into the receiver, lining up the tapped hole in the side of the engine with the screw hole in the receiver within the charging handle journal.



3. Install, but do not tighten, the countersunk screw in the charging handle journal and the panhead screw on the lower right front of the receiver.



Modifying and Installing the Stock

These instructions are for PKMs with a wooden stock. If you have a PKM with a polymer stock, you only need to remove the bottom cover from it to slide the airline through and reinstall the stock.



Modifying the Wooden Stock

1. Check the distance between the receiver and the first hole in the lower stock tang.



2. Make a mark on the underside of the stock to that that distance. You will need to account for the interior portion of the stock that slides into the receiver as well.

3. Place the stock in a vise or clamp.



4. Grind, cut, or file a slot in the bottom of the wooden stock to the previously-measured distance. It also needs to be wide enough to accommodate the airline.



Installing the Wooden Stock

1. Test fit the stock first, ensuring that it cannot damage or pinch the airline.
2. Make any additional modifications necessary to the stock.
3. Slide the stock into the rear of the receiver.



4. Reinstall the rear bolt set only, tightening it with the flathead driver.



Reinstalling the Trigger Assembly and Pistol Grip

This step is only necessary if you decided to remove these parts during the donor disassembly phase.

1. Place the trigger assembly onto the receiver.
2. Reinstall and tighten all four (4) countersunk screws with the 2mm driver.



3. Slide the pistol grip back into place.
4. Reinstall and tighten the pistol grip screw with the flathead driver.



Reassembling the Receiver

1. Slide the barrel trunnion into place in the front of the receiver.
 - Ensure that the Bowden feed tube is properly seated.



2. Reinstall and tighten all panhead bolts holding the barrel trunnion in place.



Final Assembly

1. Remove the M4 set screw on top of the brass feeding block at the front of the engine.
2. Slide the complete barrel assembly into the barrel trunnion at the front of the gun.



3. Reinstall and tighten the M4 set screw to lock the barrel group in place.
4. Push the barrel block back into place and rotate the bolt with the flathead driver to lock it.
5. Remove, add some thread lock to, and tighten the bolts holding the engine in place (in the charging handle journal and just above the box magazine shelf).



6. Push the DGA QD fitting onto the end of the airline.



Box Magazine Modification

Please [see this article](#) on the [DGA Help Centre](#) for rewiring your box magazine for use with your new DGA A&K PKM build.



Congratulations, you have completed all major installation steps for the DGA A&K PKM kit.

If you haven't already, you should lubricate the moving parts of the engine. DGA recommends *GetSome* brand lubricant, available from our website.

If you encountered any issues during your install, or your gun is not working correctly, please reach out to DGA Support.

Please check the website for more guides on troubleshooting and maintenance.

We also invite you to join the Daytona Airsoft Systems Group on Facebook to speak directly with other DGA enthusiasts as well as DGA employees.