Daytona Gun Airsoft Installation Manual: Classic Army SA58/FAL

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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 Classic Army SA58 kit has been designed to fit and function within Classic Army AEGs only. While it may be possible to modify the kit and/or the donor of a similar spec rifle from another brand, this is neither recommended nor supported and will likely require additional fitting and tuning beyond what this manual specifies.

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:

- 5mm hex wrench
- 3mm hex wrench
- 2.5mm hex wrench
- 2mm hex wrench
- 3mm drill bit
- 10.5mm drill bit
- Phillips screwdrivers – normal size and small (such as for eyeglasses)
- Flathead screwdriver
- Hammer
- Narrow round file
- Rotary tool or hand file
- Small pin punch
- Semi-permanent thread lock, such as Loctite 243
- Power drill
- Vise or clamp
- New AEG inner barrel, if you are not re-using the stock one from the donor
- Cotton swabs

Helpful:

1. Rubber mallet
2. Drill press
3. Deburring tools
4. Center punch

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 a CA SA58, you can skip to the section of this manual dealing with installing the DGA kit.

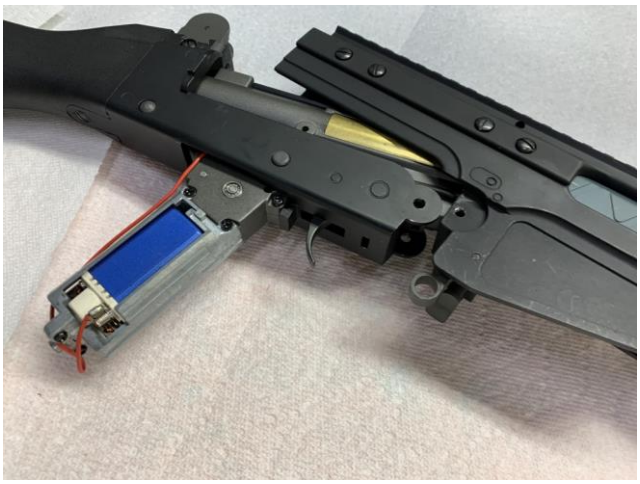
How to Disassemble Your Donor

Primary Disassembly

1. Unscrew the bolt on the base of the pistol grip using the 3mm hex wrench.
2. Pull the pistol grip down and off and remove the trigger guard.

3. Unscrew the large bolts with the flathead screwdriver on both sides of the receiver between the magazine well and trigger.

4. Pull the upper receiver forward and off of the lower receiver.

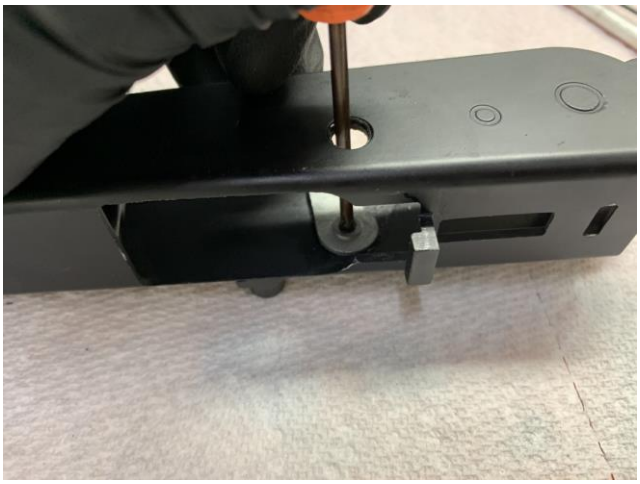


Lower Receiver Disassembly

1. Lift the gearbox up and out of the lower receiver.

2. Punch out the selector cover with the pin punch on the right side of the lower receiver.

3. Insert the small Phillips-head driver through the cover hole and unscrew the bolt holding the selector lever to the lower receiver.



Upper Receiver Disassembly

1. Slide the inner barrel group out the back of the upper receiver.
2. If you intend on re-using the inner barrel from the donor, disassemble the hop up unit and retain the inner barrel.

3. Unscrew the six bolts on the left side of the upper and the four on the right side using the flat head screwdriver lift the dust cover off the receiver.

4. Unscrew the bolt retaining the recoil guide rod with the 2mm driver.

5. Pull the recoil guide rod backwards out of the receiver and remove the recoil spring.

6. Lift the mock bolt carrier up and out of the receiver.

7. Unscrew the two bolts in the magazine well using the Phillips-head driver and remove the block.

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:

- All primary body parts (upper & lower receiver, dust cover, pistol grip, trigger guard)
- Selector lever
- Large receiver bolts
- Dust cover bolts
- Selector lever bolt
- Recoil rod set screw
- Inner barrel (if you are not upgrading to a better aftermarket one)

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:

- Recoil spring and guide rod
- Complete hop up chamber with feed tube
- Barrel ring and c-clip (check inside the chamber if you cannot see it)
- Complete bolt carrier assembly
- Daytona Standard hop up rubber
- Air valve
- Airline with fitting
- Pistol grip adaptor
- Complete trigger chassis
- DGA trigger sear
- DGA trigger
- Grip bolt, trigger pin, trigger bolt, pistol grip adaptor bolt

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

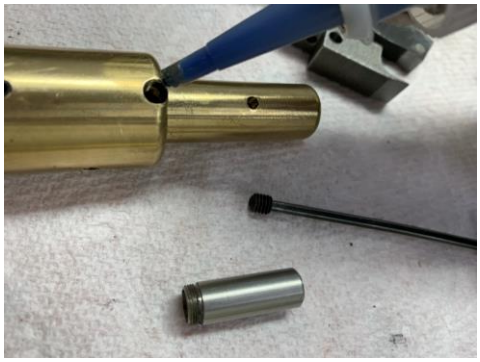
Assembling the Inner Barrel Group

Remember that you will need an AEG-spec inner barrel. This is not supplied with the kit. While you can use the original brass barrel from your donor body, DGA recommends upgrading to a high-quality aftermarket stainless steel inner barrel. Remember, the DGA hop up rubber and barrel ring 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 friction ring down so that the opening on the bucking end slides over the lip of the hop up bucking, and that the cuts on the barrel line up with the c-clip slot on the barrel ring.
    - 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.

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.
12. Unscrew the feed tube from the chamber.

Assembling and Modifying the Air Valve

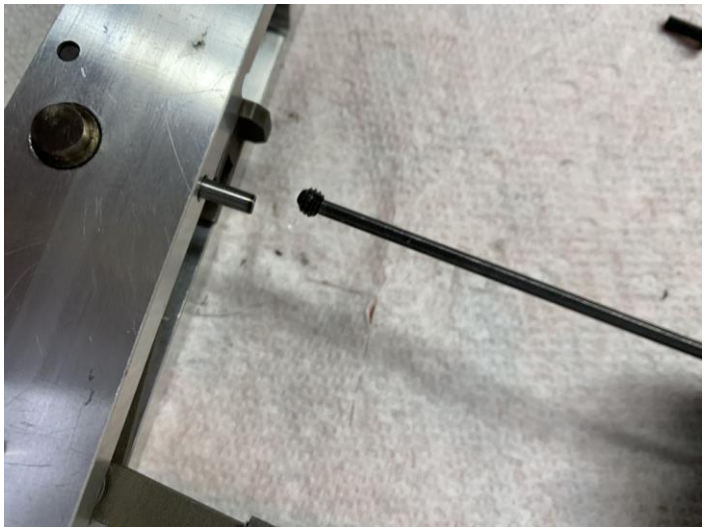
The air valve comes out of the box with a valve stem return spring installed. This can be left installed for a stiffer trigger pull. DGA recommends removing the return spring to soften the trigger pull.

1. Remove the airline and fitting from the air valve. This needs to be removed in order to test fit the valve in the receiver.
2. Unscrew the cover on the back of the air valve using the flat head screwdriver.
3. Dump the small internal spring out of the valve.
4. Screw the cover back into place. Tighten it down. Do not apply thread lock, as the o-ring provides an adequate seal as well as locking force.

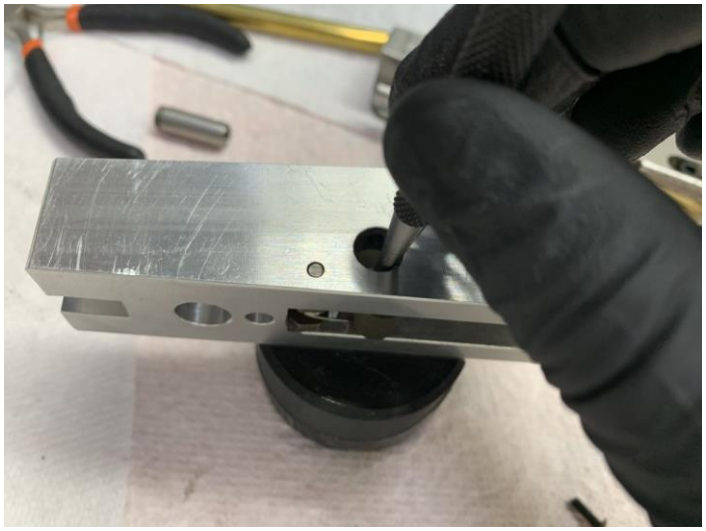
5. Put a small amount of thread lock onto the threads of the airline fitting.
6. Screw the airline fitting into the bottom of the air valve. Tighten, but do not overtighten, the fitting using needle nose pliers or a small wrench.

Prepping and Installing the Trigger Chassis

1. Unscrew the set screw holding the selector tension rod with the 2mm driver and remove the tension rod.



2. Push the selector arm and cam out of the trigger chassis. Use a pin punch if it is tight.



3. Join the trigger to the trigger sear using the 3mm driver.

4. Insert the trigger and sear into the bottom of the trigger chassis and install the trigger pin.

5. Insert the trigger chassis into the lower receiver. Make sure the selector holes are flush. Tap with a mallet if necessary.

6. Drop the selector cam down into the trigger chassis and then install the selector arm, paying attention to the flat surfaces on both.

7. Drop the selector tension rod back into its hole and reinstall the set screw. Avoid overtightening.

Modifying and Installing the Selector Lever

1. Clamp the donor selector lever so that the side that faced the receiver faces up.
2. Widen the original hole and ensure that the hole passes through the lever using the 3mm bit.

3. Remove the pointed portion of the selector so that it is circular. Use a rotary tool or file.

4. File a semi-circular divot into the selector lever as pictured.

5. Install the selector lever onto the receiver and secure it with its original bolt.

You may also need to grind or file a small amount of material from the lower receiver to allow for full and proper travel of the selector lever.

Please note this picture was taken without modifying the selector lever. You must modify the lever for safe and full-auto to function. The selector should function like a real one, with 180* of throw.

6. Adjust the tightness of the selector retention rod set screw to your preference.

Installing the Pistol Grip Adaptor

1. Place the pistol grip adaptor onto the bottom of the receiver.

2. Install the adaptor bolt from the top side of the trigger chassis and tighten with the 3mm driver.

Modifying and Installing the Pistol Grip

1. Clamp the pistol grip so that the base plate faces up.
2. Drill a hole in the base plate using a 10.5mm drill bit. We recommend deburring the hole.

3. Slide the pistol grip onto the pistol grip adaptor. Reinstall the trigger guard.
4. Install and tighten the pistol grip bolt using the 5mm driver.

5. Insert the air valve and thread the airline through the hole in the pistol grip.

Assembling the Upper Receiver

Installing the Barrel Group

1. Loosen the two set screws on at the front top and bottom of the DGA chamber.
2. Slide the inner barrel group into the upper receiver. Tap it into place with a mallet if necessary.

3. Install the feed tube using a small amount of thread lock.

4. Insert a magazine into the rifle to properly align the feed tube and chamber.

5. Remove the magazine.

6. Tighten the top and bottom set screws on the chamber with the 2mm driver.

Installing the Bolt Carrier and Recoil Assembly

1. Drop the bolt carrier into the upper receiver.

2. Insert the recoil spring into the rear of the bolt carrier.

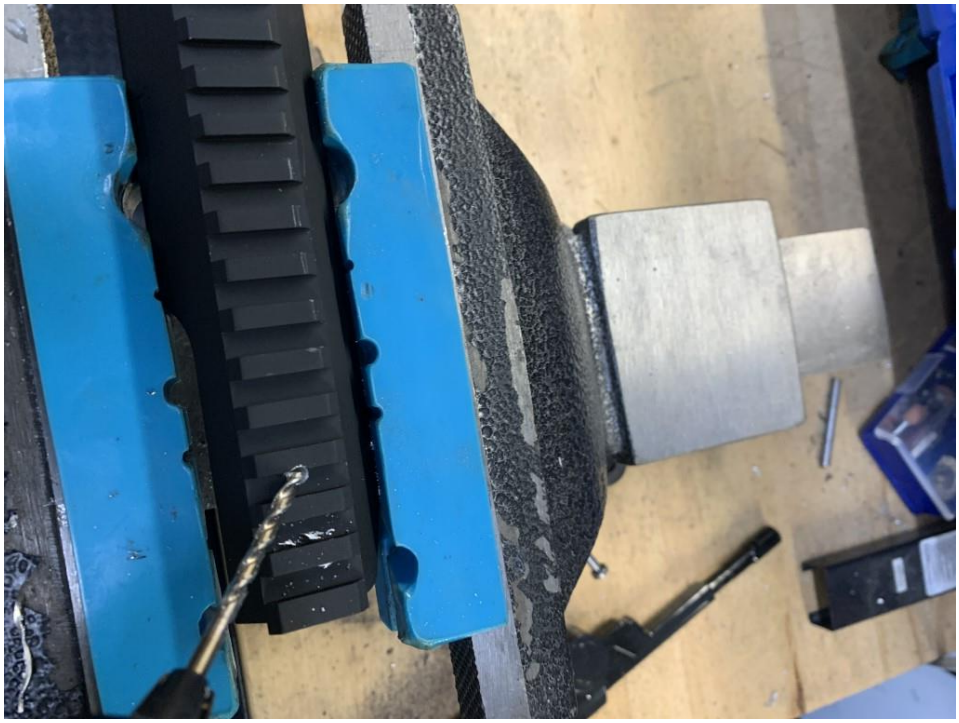
3. Insert the recoil rod into the upper receiver through the rear, passing through the recoil spring. Ensure that the flat surface faces the bolt hole in the upper receiver.

4. Reinstall the recoil rod set screw.

Drilling the Hop Up Adjustment Hole

1. Clamp the dust cover.
2. Mark a spot using a center punch or other tool towards the rear of the third slot into the rail.
    - If your rifle does not have a picatinny rail, you can measure the location of the hop up hole from the rear of the forward-most dust cover bolt hole.

3. Drill a hole in the marked spot using a 3.5mm bit.

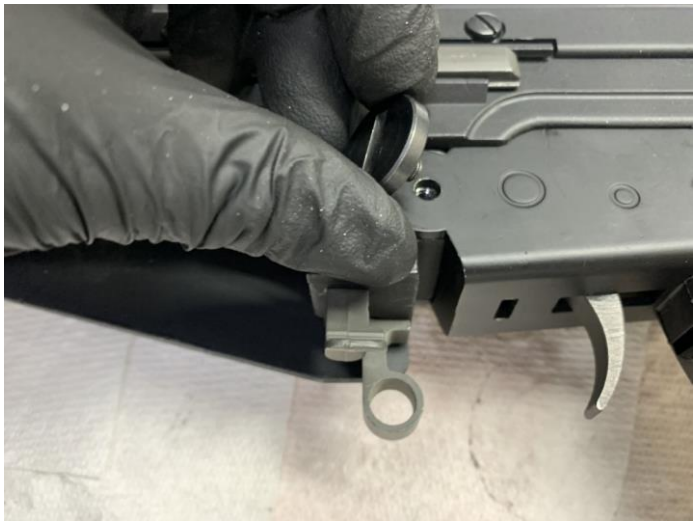


4. Reinstall the dust cover and tighten all bolts.

Final Assembly

1. Lift the air valve up from the lower receiver and slide it onto the airshaft.

2. Slide the upper and lower receivers together.
3. Reinstall and tighten the two main receiver bolts with the flathead driver.



Congratulations, you have completed all major installation steps for the DGA Classic Army SA58 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.