



Daytona Gun Airsoft Installation Manual: G&G/Army Armament L85



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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 G&G L85 kit has been designed to fit and function within G&G and Army Armament L85 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:

- 3mm hex wrench
- 2.5mm hex wrench
- 2mm hex wrench
- 1.5mm hex wrench
- 1.27mm hex wrench
- 1cm diameter drill bit
- ½ inch step drill bit
- 3mm drill bit
- 12mm drill or mill bit
- Phillips screwdrivers – normal size and small (such as for eyeglasses)
- Flathead screwdrivers – normal size and small (such as for eyeglasses)
- Hammer
- Needle nose pliers
- Small pin punch
- Vernier calipers or other accurate measuring tool
- 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

Helpful:

- Rubber mallet
- Drill press
- Deburring tools
- 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 G&G L85 AEG, you can skip to the section of this manual dealing with installing the DGA kit.

How to Disassemble Your Donor

Primary Disassembly

1. Punch out the pin at the upper rear of the rifle using the pin punch.



2. Pull the upper receiver forward and then up to separate the receivers.



Disassembly the Lower Receiver and Removing the Gearbox

1. Pull the spring located on the left side of the gearbox above the fire selector off using needle nose pliers.



2. Punch out the pin on the receiver in the same location using the pin punch.



3. Punch out the pin behind the magazine well using the pin punch.



4. Remove the two bolts in the stock pad using the 3mm hex wrench.



5. Remove the stock pad.

6. Remove the bolt beneath the stock pad using the 3mm hex wrench.



7. Punch out the pin keeping the two halves of the gearbox together using the pin punch.



8. Pull the upper half of the gearbox up at the rear to release it, and remove it from the receiver.
9. Pull the lower half of the gearbox up and out of the receiver.



10. Unhook the trigger return spring from the trigger bar.



11. Lift the trigger bar up and out of the way.

12. Unscrew the bolt holding the pistol grip to the receiver with the 2.5mm hex wrench.



13. Rotate the pistol grip forward and down to remove it from the receiver.



14. Punch out the pin in front of the magazine well using the pin punch.



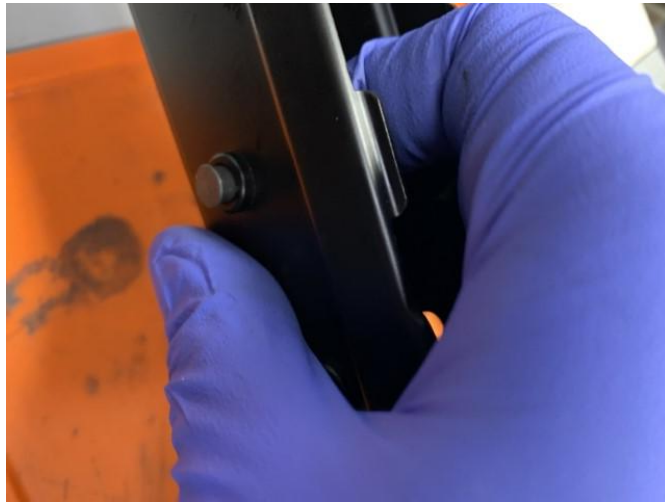
15. Pull the block up and out of the receiver.



16. Remove the bracket from the rear of the receiver.



17. Push the cosmetic pin out of the receiver.



18. Pull the AEG trigger adaptor out of the trigger bar.



19. Remove the screw holding the fire selector to the receiver using the 2mm hex wrench. Pull the selector lever from the receiver, being careful not to lose the detent bearing.



Disassembling the Upper Receiver

1. Unscrew the bolt holding the sling mount to the handguard using the flat head screwdriver.



2. Remove the handguard.
3. Unscrew the bolts holding the carry handle to the receiver using the flat head screwdriver.



4. Slide the carry handle off of the receiver.
5. Unscrew the barrel retaining bolt using the 2.5mm hex wrench.



6. Slide the AEG inner barrel group out towards the rear of the receiver.
7. Unscrew the fitting inside the support bracket using the 2mm hex wrench.



8. Slide the outer barrel forward out of the support bracket.
9. Unscrew the two screws holding the plate on the outer barrel using the Phillips screwdriver.



10. Pull the outer barrel out of the upper receiver.
11. Unscrew and remove the three bolts beneath the barrel support bracket with the 3mm wrench.



12. Unscrew the fitting retaining the mock bolt assembly with the 2mm hex wrench.



13. Unscrew the grub screw beneath the mock bolt assembly with the 1.27mm hex wrench.



14. Unseat the mock bolt from the recoil spring and guide rod.



15. Remove the entire mock bolt and recoil assembly from the upper receiver.

16. Remove the recoil guide rod and spring from the metal bracket.



17. Pop the plastic receiver hole covers out of the upper receiver using the small flathead driver.



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 major body parts (receiver, grip)
- Pins
- Handguard
- Outer barrel
- Selector lever
- Inner barrel, if re-using for your Daytona build
- Bolt catch lever

All AEG-specific components such as the gearbox and hop up chamber may be set aside.

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 and adaptor with feed tube
- Barrel ring and c-clip
- Complete bolt carrier assembly
- Daytona Standard hop up rubber
- Air valve and rod
- Air line with fitting
- Barrel group bracket
- Lower receiver support bracket
- Magazine well adaptor
- Complete trigger chassis
- Trigger bracket
- Charging handle
- Selector rod
- Trigger rod
- Trigger bar adaptor plate

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 barrel from the donor body, 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, 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.
3. Install the c-clip into the slot on the barrel ring. You can tap it down 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.
12. Install the feed tube. Remember to use a small amount of thread lock.



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.



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

Installing the Trigger Bracket

1. Remove the short bolt from the trigger bracket assembly using the 3mm wrench.



2. Slide the trigger bracket into the lower receiver behind the trigger and below the trigger bar.
 - The set screw in front adjusts total trigger pull distance, while the bolt in the rear pre- or de-loads the trigger. Do not adjust these yet.



3. Line up the hole for the short bolt with the rectangular hole on the bottom of the receiver.



4. Re-install the short bolt into the trigger bracket assembly with the 3mm hex wrench.
5. Hook the end of the trigger guard into the slot in front of and above the trigger and rotate the pistol grip back into position.



Modifying the Lower Receiver

Drilling the Trigger Pin Hole

1. Pivot the trigger bar up out of the lower receiver.
2. Place the end of the trigger bar on a drilling-safe surface.
3. Enlarge the circular hole at the end of the trigger bar with the 3mm drill bit.



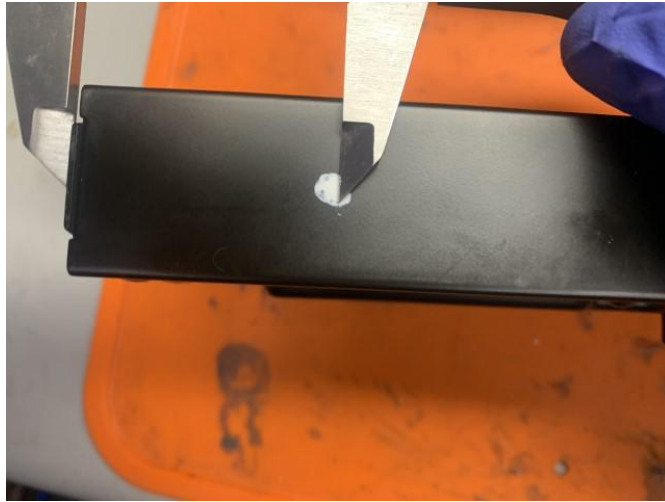
Installing the Trigger Spacer Plate and Trigger Pin

1. Unscrew the bolt catch level pin from the trigger spacer plate.
2. Place the spacer plate in the receiver so that the hole in the plate lines up with the mounting hole for the bolt catch lever.
3. Place the Daytona bolt catch lever pin in the mounting hole on the external side of the receiver for the bolt catch lever.
4. Slide the donor bolt catch lever onto the pin and secure it with the included machine screw and locking washer.
5. Place the Daytona trigger pin on the enlarged mounting hole from the previous section.
6. Secure the trigger pin with the included machine screw and locking washer.



Drilling the Airline Hole

1. Mark a spot 42mm from the rear of the lower receiver.



2. Clamp or otherwise secure the lower receiver with the bottom facing upwards.
 - A vise with rubber boots is recommend. Remember to not overtighten your clamp, since doing so could result in bending the walls of the lower receiver inwards.
3. Drill out the marked spot using the half-inch step drill bit. The hole should be at least twice as wide in diameter as the airline.
 - Use a center punch to avoid the bit chattering on the receiver. Deburr the hole afterwards.



Installing the Trigger Chassis

1. Remove the set screw on the top of the trigger chassis over the fire selector hole with the 2mm wrench and dump out the fire selector tension bar.



2. Pull the fire selector out of the trigger chassis.
3. Remove the set screw from the fire selector with the 1.5mm wrench and pull the threaded end of the assembly.



4. Screw the threaded portion of the assembly into the G&G L85 fire selector.



5. Insert the fire selector into the receiver. Don't forget the detent bearing.



6. Drop the selector tension rod back into its hole with the narrow end upwards (or downwards if installing on an Army Armament L85).



7. Reinstall the tension rod set screw. Tighten or loosen this to taste regarding selector lever movement.
8. Pull the trigger bar into position on the trigger chassis. You can use a small flathead screwdriver to help.



9. Install the stock pad, reinstalling only the lower bolt for now.



Installing the Barrel Group Bracket and Magazine Well Adaptor

1. Drop the magazine well adaptor into the receiver in front of the trigger chassis and install the two of the 2mm bolts.



2. Slide the barrel group bracket into the receiver in front of the magazine well. Make sure to line up the holes.



3. Push the body pin through the receiver and the bracket. Use a mallet to tap it into place if stiff.



4. Slide the completed inner barrel assembly into the barrel group bracket.



5. Line up the feed tube so that it is centered in the magazine well and then tighten the two set screws on the bracket to secure the inner barrel group.



6. Install and tighten the two remaining 2mm bolts for the magazine well adaptor.



Installing the Air Valve, Bolt Carrier, and Lower Receiver Support Bracket

1. Screw the airline into the bottom of the air valve if you haven't done so already.



2. Slide the air valve rod into the trigger chassis. This is easiest with a pair of needle nose pliers.



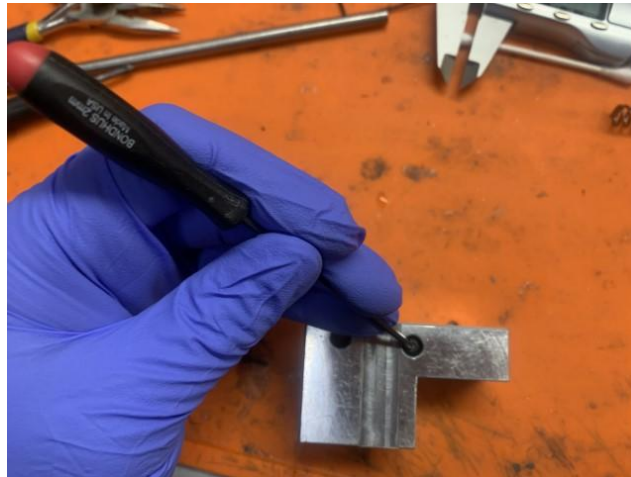
3. Slide the air valve into place. It can be helpful to depress the air valve rod with a small flathead.



4. Slide the rear of the airshaft through the air valve and install the bolt carrier.



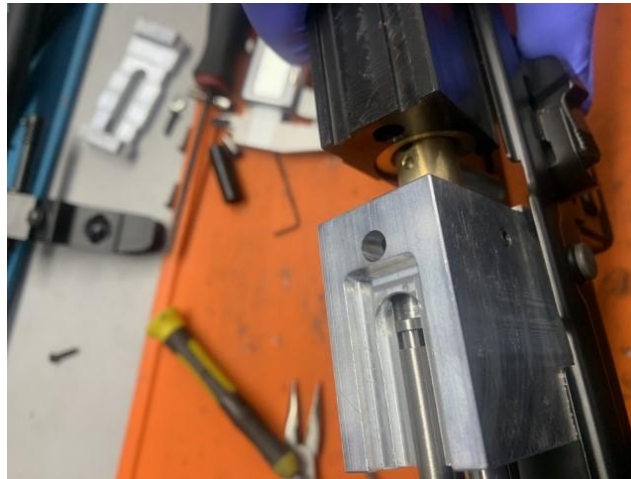
5. Remove the bolt from the side of the support bracket using the 2mm wrench.



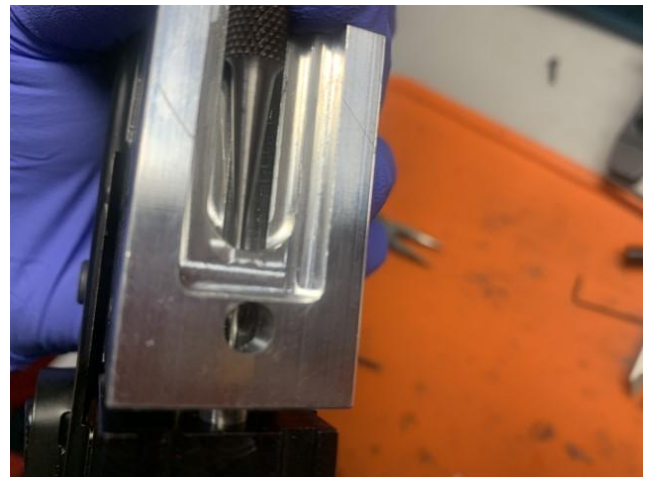
6. Slide the support bracket down over top of the air valve.



7. Push the recoil rod through the bracket and into the bolt carrier.



8. Install the recoil spring. Tap the recoil rod into the rear support bracket when the spring is in place.



9. Reinstall the bolt in the side of the rear support bracket.



10. Install the upper bolt on the stock pad.

Modifying the Upper Receiver

The upper receiver of the DG L85 is more cosmetic than anything. Completing the lower receiver as described above creates a functional airsoft rifle.

Removing the Barrel Support

1. Clamp the upper receiver so that one side faces upwards.
2. Drill out the two weld spots with a bit at least as wide as the weld.

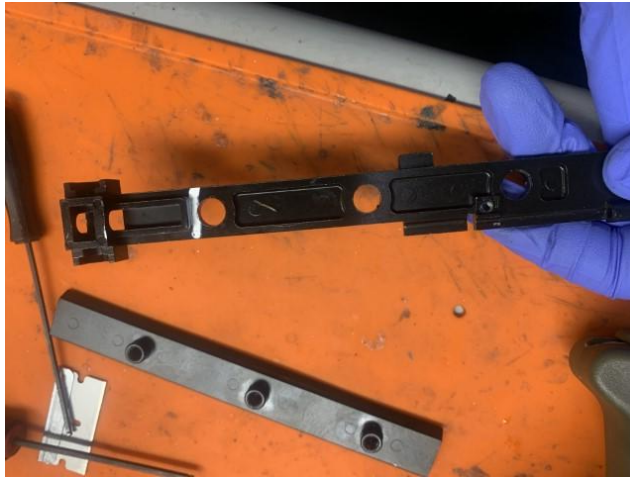


3. Flip the receiver and repeat the process on the other side.
4. Pull the bracket out of the upper receiver.



Creating the Hop Up Adjustment Hole

1. Mark a spot on the mock bolt support bracket just past the point there it widens.



2. Cut the bracket along that line.



3. Reinstall the mock bolt support bracket and top receiver rail.



4. Mark a spot using a center punch towards the rear of the third circle on the top rail.



5. Clamp the upper receiver and drill a hole in the marked spot. Use a drill or mill bit of at least 3.5mm.



Modifying and Installing the Outer Barrel

1. Mark the outer barrel just in front of the hop up support yoke.



2. Clamp the barrel. Make sure that the yoke and the mark you made are not covered by the clamp.
3. Cut the yoke off the outer barrel. An angle grinder is a good tool for this task.



4. Slide the outer barrel back into the upper receiver and reinstall the two retaining bolts.



5. Reinstall the handguard and carry handle.

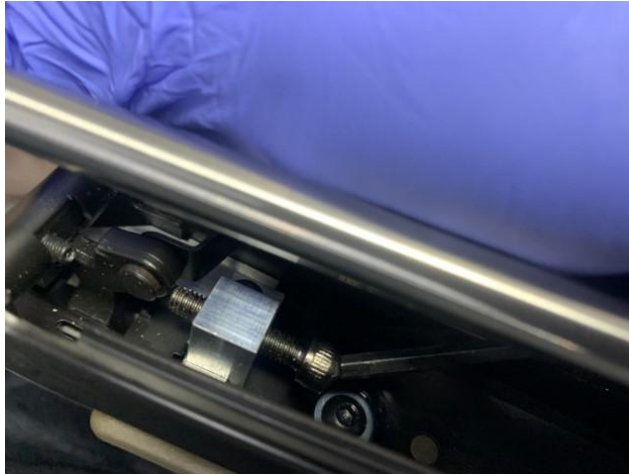


Final Assembly

Adjusting the Trigger

Before putting the gun fully together, you can take the opportunity to adjust your trigger.

1. Install a QD fitting on the airline and plug the gun into an air source.
2. Advance the trigger to your taste by tightening the rear bolt.



3. Tighten or loosen the front set screw with a 2mm hex wrench to adjust the trigger stopping point.
 - You want to make sure that you can both fully depress the air valve stem and fully resetting on a complete trigger pull.



Installing the Upper Receiver

1. Slide the upper receiver onto the lower receiver, ensuring that you keep the tracks on both joined.



2. Line up the holes at the rear of the receiver and push the body pin through. Tap it in with a mallet if it is stiff.



Installing the Bolt Handle and Finishing the Build

- Place the bolt handle over the hole in the bolt carrier and tighten the retaining bolt down with the 4mm hex wrench.





Congratulations, you have completed all major installation steps for the DGA G&G L85 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.