



Daytona Gun Airsoft Installation Manual: Rewiring Box Magazines



Basic Information

Introduction

Many airsoft machine gun box and drum magazines won't function in stock form with the DGA engine. This is because they generally either look for the sound of the gearbox (which is gone) or an electrical signal when the trigger is pulled (also gone). This guide will show you how to rewire most magazines to use a simple pressure switch for activation.



For the User

This guide assumes some technical knowledge and ability on the part of the installer. Namely, you should know how to solder, and how to assemble a basic electrical circuit involving a MOSFET. If you cannot, then we recommend finding an experienced airsoft gun technician to do the work for you. DGA assumes no responsibility nor liability for any damage or injury incurred trying to follow the instructions contained in this manual.

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What You Need

This is a basic list, and you may find that you need additional or different tools based upon the magazine you intend to modify. This list is based on what is needed to modify an A&K M249 200rnd-style box magazine.

Necessary:

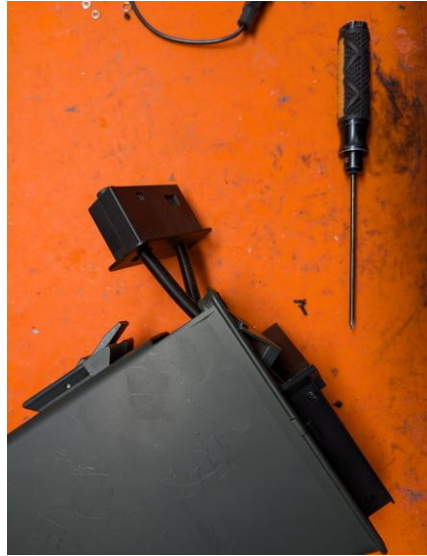
- Phillips screwdriver
- Soldering iron
- Soldering tin
- Flux
- Wire strippers
- Preferred battery connector (such as the male Deans plug used in this guide)
- Basic airsoft MOSFET (the example used in this guide is the BCA AlphaFET)
- Additional wire appropriate to the desired length of your new wiring harness
- Heat shrink
- Pressure switch (such as for a flashlight, which is what is used in this guide)

Helpful:

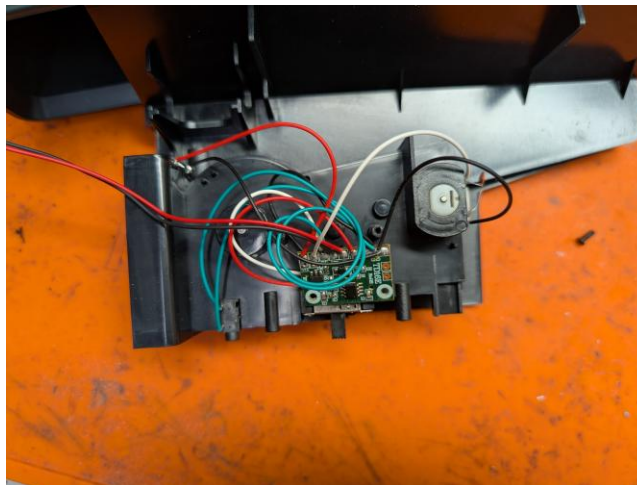
- Drill or rotary tool for making any additional cuts you may find necessary or helpful

Disassembling Your Magazine

1. Remove any cap or door that prevents you from removing the internals from the shell.
2. Remove any fittings or hardware, such as for buttons or switches, that might prevent removal of the internals.

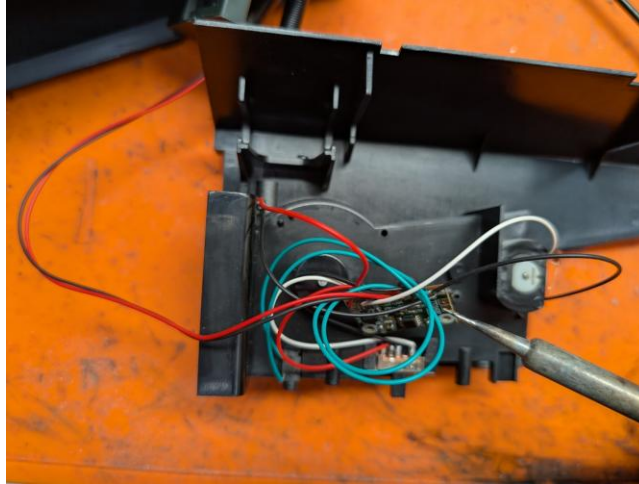


3. Pull, slide, or otherwise lift all internal components out of the magazine shell.



Disassembling the Original Internals

1. Locate any stock control board.
2. De-solder any wires, such as the ones running to the motor, that you wish to keep.



3. Remove the board from the internals (you may need to cut or de-solder additional wires to do this).
4. Remove any linking element from between the two tabs on the motor (such as the capacitor seen in the picture).



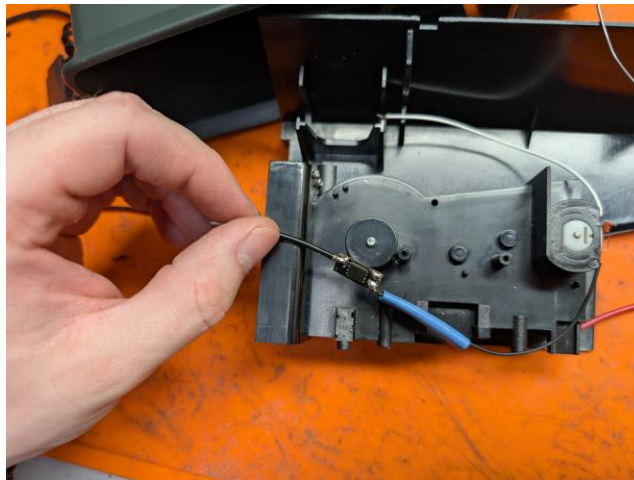
5. Install an upgraded motor in the position of the original, if you are taking this as an opportunity to do so.

Soldering the New Harness

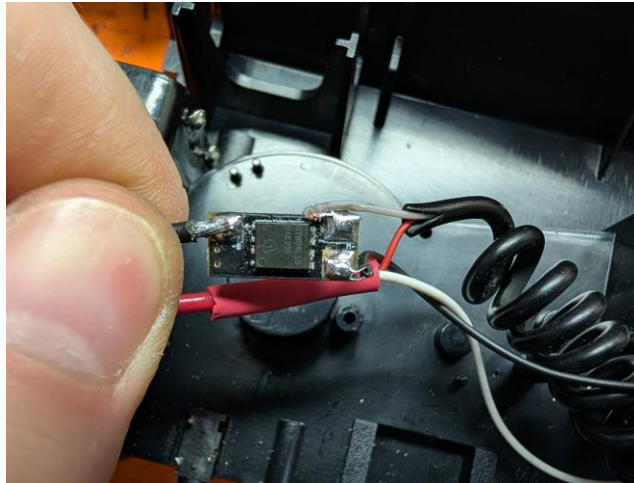
1. Measure how much additional wire you will need to add so that your new battery plug will be in a convenient location
2. Cut and strip the additional wire
3. Solder the extensions into place. Do not yet shrink the heat shrink over the connection for the positive wire.



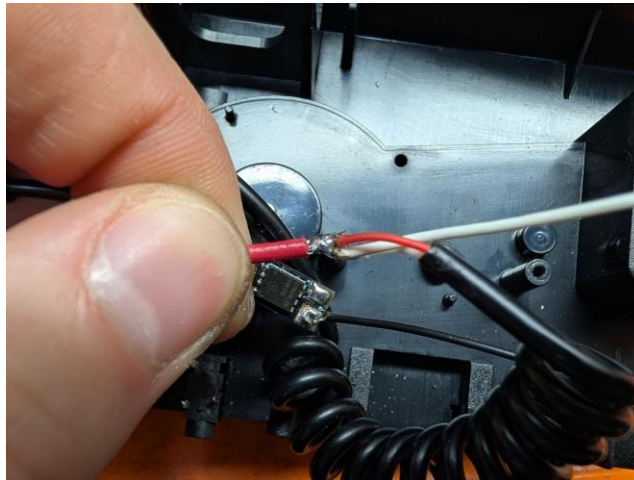
4. Place heat shrink to cover the MOSFET (do not shrink it yet)
5. Solder your preferred battery connector into place
6. Measure and cut the wire from your pressure switch. Strip the leads
 - You may find you will need to run the wires of the switch up through the magazine shell
7. Follow the instructions for your specific MOSFET. In this case (BCA AlphaFET):
 - Solder the positive motor wire directly to the positive battery connector terminal
 - Solder the negative motor wire to the marked solder pad on the MOSFET



8. Solder one of the leads from your switch to the signal or trigger solder pad on your MOSFET
 - It doesn't matter which lead you solder



9. Solder the other lead to the positive wire



10. Plug in your battery and check function. Ensure that the motor spins the correct way to wind the magazine. If it does not, you can fix this by swapping the wires between the motor tabs
11. Shrink all heat shrink
12. Reassemble your magazine

