Converting a Tokyo Marui G36C into an SL-9

Welcome

This guide will show you how to convert, step-by-step, a Tokyo Marui G36C airsoft electric gun (AEG) into an SL-9 rifle.

It is also possible to convert a Classic Army G36C AEG, but apparently the parts are more difficult to fit and extra work may be required. This guide is only designed for the Tokyo Marui AEG so your mileage with other guns may vary.

What will I need?

- A modicum of intelligence
- A Tokyo Marui G36C airsoft electric gun, preferably working!
- The STAR Airsoft SL-9 conversion kit
- A set of hex keys (allan keys) ranging from very small to very large
- A set of screwdrivers, preferably including some precision screwdrivers (also known as jeweller's screwdrivers)
- A charged mini-type or AK-type (stick) battery for testing
- Some form of glue, for attaching the "HK" logos to the stock
- Some weak lemon drink.

Where can I get the various parts from?

Intelligence I can't help you with. The G36C can be purchased from almost all dedicated airsoft retailers. To save money I would advise importing from overseas retailers (Hong Kong retailers such as RedWolf Airsoft or WGC Shop.

You should be able to buy the SL-9 conversion kit and the battery from these retailers also.

If importing scares you, then you can purchase the items from UK retailers such as <u>Airsoft Armoury</u> or <u>ZeroOne Airsoft</u>. Incidentally, ZeroOne Airsoft sell various pre-built SL-9 models so if you don't fancy getting your hands dirty that is another option.

The hex keys and screwdrivers can be found at any hardware store, as can the glue.

Weak lemon drink can be purchased from most supermarkets, but for further advice on this you may wish to contact Simon Quinlag.

How much time will this take?

How long is a piece of string? I was given an estimate of three hours by some of the good folk over at Arnie's Airsoft but in reality it took me closer to four and a half hours. I would have been quicker, but I was writing down the steps taken and taking photographs so that I could produce this guide.

It is also very much dependent on your experience with disassembling AEGs. Before undertaking this project, I had never taken apart any AEG before.

Sounds easy! What if something goes wrong?

It was easy, but even so problems can occur. That's where the intelligence comes in, it is handy for being able to work out what's gone wrong.

I can't take any responsibility for anything that does go wrong. If you do notice any mistakes in the guide then please do get in touch so that I can investigate and correct if required.

Step 1



The Tokyo Marui G36C at the start of the conversion process.

Converting the Tokyo Marui G36C to the STAR SL-9 is quite a painless process, even for those with little previous experience. The following pictorial guide will take you step by step through the conversion.

Step 2



Remove the hex nut highlighted in red to release the retaining pin.

On the right-hand side of the gun, on the magazine well, there is a hex nut. Remove this hex nut with an appropriately sized hex key and you can then push out the retaining pin that holds the magazine well on to the gun.

Step 3



Remove the magazine well from the gun by rotating it away from the body, as in the photograph.

Now that the retaining pin has been removed, you should remove the magazine well altogether. To do this, push the magazine release lever (as if you were ejecting a magazine) and pull the magazine well away from the body, rotating it around the pivot shown in the photograph.

Step 4



Remove the handguard.

We should now remove the handguard from the gun. The process is the same as changing the battery in the gun. Push out the retaining pin at the top of the handguard (highlighted in red above) and then pull the handguard forward, exposing the barrel assembly.

Step 5



The handguard, after removal.

Once removed, the handguard can be set aside - it will not be needed again. However, do not lose the retaining pin as we will need this later.

Step 6



Remove the three screws holding the barrel assembly in place.

To remove the barrel assembly, unscrew the three screws on the right-hand side of the gun. The screws are highlighted in red on the photograph above. You will need a small Philips screwdriver.

Be very careful not to strip the screw heads, and to keep the screws in a safe place as they will be needed during the reassembly process.

Step 7



Disconnect the gearbox from the barrel assembly.

Before actually removing the barrel assembly, we must first disconnect the electrical connection to the gearbox.

If you look into the magazine well of the gun you should see a standard Tamiya connector somewhere - you may have to fish around to get access to the connector.

Disconnect the connector, being careful not to pull any wires out of anywhere like I did!

Step 8



The barrel assembly after removal.

Pull the barrel assembly out by pulling it away from the gun whilst gently pulling down.

It may take some work, but it should come free fairly easily.

Put the barrel assembly to one side - we will need this during reassembly.

Step 9



Remove this screw to gain access to the gearbox.

We are now going to remove the lower part of the gun to gain access to the gearbox. The only thing holding it in at this point is a hex screw on the rear of the gun.

You will need to fold the stock to the right-hand side of the gun to get to the screw, if you haven't already.

Remove the hex screw highlighted in red on the photograph.

Step 10



Remove the gearbox and pistol grip.

Now that the screw has been removed, we can pull the gearbox and pistol grip away from the upper receiver of the gun.

Hold the pistol grip and gently pull the gearbox away from the upper. You may need to rotate and jiggle the assembly a bit to get it to come away.

Step 11



Remove this pin.

We now want to take the gearbox itself out of the pistol grip.

The retaining pin highlighted in the picture needs to be removed. Push it out using a thin screwdriver or similar object.

Step 12



Remove this screw.

The only thing left that is holding the gearbox in place is a single screw on the base of the pistol grip.

Unscrew the screw (it's the largest screw on the base plate, and is highlighted in red above). **Keep the screw safe** as it will be used during the reassembly process.

Step 13



Take the gearbox out of the pistol grip.

Move the fire-selector switch to the semi-automatic position as shown on the picture.

Now the gearbox should be removed by gently lifting it out of the pistol grip, jiggling both the gearbox and the pistol grip until it comes loose. It can be fiddly.

Watch for a small plastic part with a spring on it that may fall out of the pistol grip once the gearbox has been removed. If you refer to your G36C parts diagram (in the manual) the part in question is number GC-32.

Step 14



The gearbox, pistol grip and part GC-32.

Once the gearbox has been removed, you can put it to one side for use during reassembly.

DO NOT lose part GC-32. It is in the lower left of this picture, and has a spring on it that should also be kept.

Step 15



Remove this small grub screw on both fire selectors.

We now need to remove the fire selector switches. To do this, we need to take out the small grub screw on the underside of each switch.

The screw is highlighted in the picture above. You will need a thin hex key to remove the screws.

Once both screws have been removed, the fire selector switches can be gently pulled away from the pistol grip. Be very careful removing the left-hand switch, as there is a small spring on it that must not be lost!

Step 16



Rotate the fire selector plates until they are clear of the silver "pin".

To get the rest of the components of the fire selector mechanism out, you need to rotate the fire selector plates (the black circles with "teeth" in the photograph) so that the teeth are not interlocking with the teeth on the silver "pin" in the picture.

The plate arrangement should look similar to the photograph when you are finished.

Step 17



Remove the silver "pin" in the fire selector mechanism.

You can now remove the silver "pin" from the fire selector mechanism, as shown above.

Once you have removed this silver pin, you can then take out the two black fire selector plates. Keep the black plates and the silver pin safe as they will be required later.

Step 18



Push out the pin holding the magazine release lever in place.

We now need to remove the magazine release lever.

Push out the pin that is holding it in place, highlighted in red above. Keep the retaining pin safe as it will be used later.

Step 19



Remove the lever itself, being careful not to lose the spring behind it.

With the retaining pin removed, you can now remove the magazine release lever itself.

There is a spring underneath it that should stay put, but be careful that it doesn't shoot across the room. Take the spring out too and put both the spring and the lever away for use during reassembly.

Step 20



Remove the G36C carry handle.

Unscrew the three screws highlighted in red above, making sure to keep the screws and the little bits of plastic attached to them safe.

Once the screws are removed, you can pull the carry handle forward to remove it.

This carry handle will not be used again (unless you really like the style of it compared to the carry handle included in the SL-9 kit) so you can set it to one side.

Step 21



Remove the highlighted grub screw.

To remove the folding stock, we first need to remove the grub screw highlighted. You will need a small hex key.

Step 22



Push out the hinge pin.

With the grub screw removed, you are now free to push out the retaining pin holding the stock into the hinge.

Once the pin is removed the stock should come free easily.

Step 23



What's left of the receiver and stock.

The stock is now free. You can do whatever you wish with this stock, it will not be used again during the conversion process.

Step 24



Remove this hex screw and it's twin on the other side.

Remove the two hex screws near the back of the gun. There is one on each side, opposite one another. The screw highlighted is on the right hand side of the gun. Don't forget to take the left one off too!

Step 25



Remove this metal block.

With the two hex screws removed, the metal block in the photograph above is no longer being held in place and can be removed.

It will not be used further so can be set aside.

Step 26



Remove this screw from the magazine well.

Before we can split the G36C upper receiver into two pieces, there is just this one last screw holding it together that needs to be removed./p>

Step 27

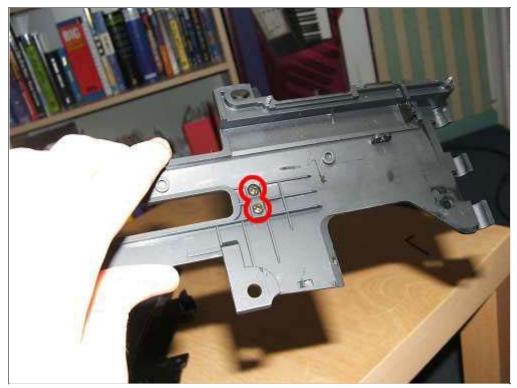


Pull the body pieces apart.

You can now pull the two pieces of the upper receiver apart.

Be careful as you do this, it can be a bit fiddly. Notice how the charging handle and it's "ejection port" mechanism are attached to the left hand side of the upper received.

Step 28



Remove these two screws.

We are now going to remove the stock "clip" that the folding stock of the original G36C folds on to.

This "clip" is held on by two screws that are attached to the right hand part of the now-split upper receiver. Unscrew them.

Be careful not to lose these screws as we will need them during reassembly.

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29

Step 29



Remove the stock "clip".

With those two screws removed you should now be able to remove the stock "clip".

My SL-9 kit came with a replacement stock "clip" but if you want to keep the original for any reason then do so.

Step 30



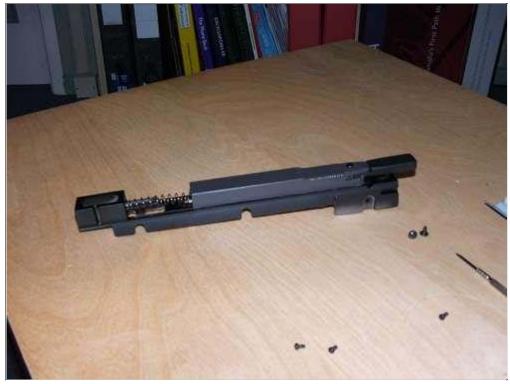
Remove these screws.

To remove the charging handle mechanism from the upper receiver, first unscrew the three screws highlighted above in red.

You will probably need to unscrew the ejection port cover to gain access to a couple of them. The two screws needed to do this are highlighted in yellow (one is hidden from view in the photograph, but you can't miss it).

Keep all screws and other parts safe!

Step 31



The charging handle mechanism.

Once everything has been removed from the charging handle mechanism, it should look like this. Keep all of the screws and other small parts together, but don't screw anything back in yet.

That's the disassembly of the G36C sorted! Now we can start building our SL-9 for proper!

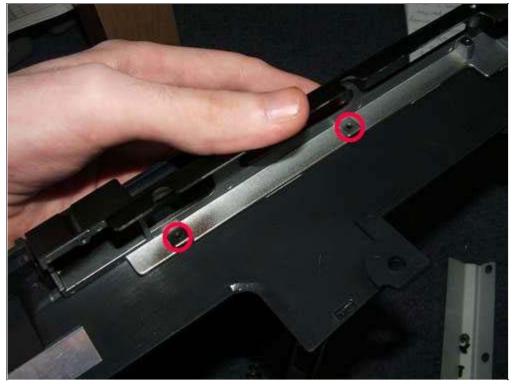
Step 32



Split the SL-9 upper receiver into two halves.

Take the SL-9 upper receiver out of the box and carefully split it into two halves in a similar way to the way you split the G36C upper receiver earlier in the tutorial. **Be very careful not to break anything!**

Step 33



Begin screwing the charging handle mechanism into the SL-9.

Take the charging handle mechanism and screw the two highlighted screws back into the left hand side of the SL-9 upper receiver.

Step 34



Put the spring back over the charging handle guide rod.

If it isn't already, put the charging handle spring back over the guide rod as shown in the picture.

Step 35



Put the charging handle back on to the mechanism.

Place the charging handle itself back on to it's mechanism, by pushing it far enough back on the spring to allow the two screw holes on the bottom of the handle to poke through the "rails" in the mechanism body.

Step 36



Screw the ejection port cover back in place.

Screw the ejection port cover back in place with the two screws highlighted, thus holding the charging handle in place on it's mechanism also.

Step 37



Screw the stock "clip" back on.

Using the two screws removed in <u>step 28</u> you can now screw the stock "clip" back on to the SL-9 upper receiver.

My kit came with it's own stock "clip" with a textured finish, but if you want to use the original G36C stock "clip" I can't see any reason why it will not fit.

Step 38



Fit the two halves of the upper receiver together.

We have now finished assembling the upper receiver of the SL-9, so you can fit the two halves together by lining up the various pins with their corresponding holes and pushing firmly.

Be careful not to bend any of the pins, and your finished upper receiver should look like the one above.

Step 39



Put the magazine release lever in to the stock.

We can now concentrate on putting the relevant components back in to the thumbhole stock that came with your SL-9 kit.

First, the magazine release lever. Take the spring from the original G36C magazine release lever and insert that back into the space provided, as shown in the picture above.

You can then pin the lever itself on to the stock by lining the holes up and pushing the retaining pin through. Make sure you get the lever the right way around - there is a small bit of plastic sticking out from one side that sits inside the spring to keep everything in place.

Step 40



Put the silver "pin" from the fire selector assembly back.

Probably the bits that people find most fiddly, we are now going to put the entire fire selector assembly back in to thumbhole stock, starting with the silver "pin".

Put the silver "pin" back into place, using the photograph above as a guide.

Step 41



Put the two selector plates back.

You should now put the two black selector plates back (the vaguely wheel shaped objects with teeth on them)

Make sure that they go in the correct sides of the stock. You should also make sure that the teeth on both plates interlock with the teeth on the silver "pin".

Lastly, make sure that each plate is at the same "position" on both sides - you can do this by looking at the bits that stick out from the holes in the stock - the straight edge of each should be in the same position on both sides.

Step 42



Put the two selector switches back.

The last thing to do with the fire selector assembly is to put the selector switches themselves back on.

Line up the straight edge of the hole in the fire selector switches with the straight edge of the bits of the selector plates that stick out.

Secure the switches to the selector plates by screwing in the small grub screws in to the highlighted hole on the switch.

The selector switch on the left hand side of the stock should have a small spring on it! This is very important, as it needs to fit in to one of the three small "dimples" on the stock! It is this that controls the three "click" positions of the fire selector!

Step 43

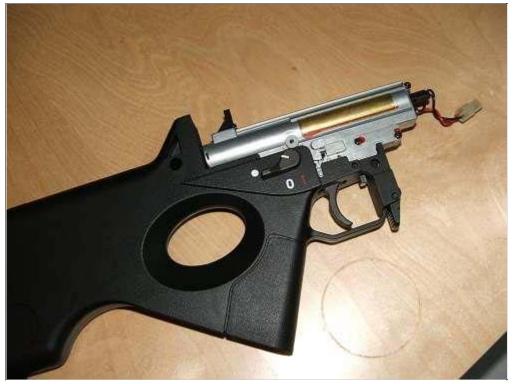


Put part GC-32 back in to the stock.

When we removed the gearbox from the pistol grip during the disassembly process, a small part will have probably fallen out. If you remember, this was part GC-32 in your manual.

This part should now be reinserted into the thumbhole stock in the place provided - see the highlighted part of the photograph above.

Step 44



Put the gearbox back in to the stock.

We are now ready to put the gearbox back - the meat of the gun.

Set the fire selector to the semi-automatic position and insert the gearbox. You will probably need to pull the trigger backwards to get it to pop through to the trigger guard, and a bit of jiggling of the gearbox and fire selector switch will be required.

This can be quite fiddly to do, but you should get it back in place after a short while.

Once the gearbox is in place you should move the fire-selector switch through it's three positions and ensure that everything is in working order.

Step 45



Screw the gearbox securely into place.

To secure the gearbox in place, we simply need to replace the screw that we removed in $\underline{\text{step }12}$.

Put the screw back in and screw it tight, taking care not to strip the heads on the screw.

Step 46



Secure the upper receiver on to the stock.

We are almost there now!

Take the upper receiver, and secure it to the thumbhole stock.

The upper is secured in two places - a retaining pin near the magazine well (highlighted in yellow) and a retaining pin near the back that is secured with two large hex screws.

The retaining pin and screws that go at the back (highlighted red) are included in your SL-9 kit.

Step 47



Replace the barrel assembly and electrical connection.

Now that the upper receiver is secured to the stock, we can replace the barrel assembly that we removed from the G36C in <u>step 8</u>.

Reinsert the barrel assembly, taking great care not to get any electrical wires caught as they could be damaged. It can be very fiddly, and you may have to reroute a wire or two, but it isn't too difficult.

VERY IMPORTANT: Make sure that the wires coming from the gearbox DO NOT get in the way of the barrel assembly or nozzle on the gearbox!!! Otherwise you'll be shooting through your wires and everything will get very jammed and very broken very quickly!

Once the barrel assembly is in place, reconnect the electrical connector on the rear of the barrel assembly to the one on the gearbox.

Step 48

Before we continue, it may be wise to carry out a quick test.

Connect a charged battery up to the battery connector at the front of the barrel assembly, making sure the fuse is still connected also.

Double check that there are no BBs anywhere (there shouldn't be because we've not put any BB loading bits back yet!) and fire off a shot in semi-automatic mode.

The gearbox should cycle normally. Mine didn't, and I had to take everything apart back to this step only to find one of the wires had come out of the connector near the gearbox.

If your gearbox doesn't cycle, double check that all electrical connectors and wires are plugged in, are not caught on metal, and are all connected to each other.

Step 49



Replace the three barrel assembly retaining screws.

Once you have tested everything successfully, set the fire selector switch back to the safe position.

Replace the three barrel assembly retaining screws highlighted in the picture. We removed these in $\underline{\text{step}}$ $\underline{6}$.

Remember that each screw has a corresponding hexagonal nut that holds the screw in place!

Note: The more observant amongst you will notice that the magazine well is already in place in the above photograph! Don't get confused, I simply carried out some steps in a different order, and have just reorganised them a bit for this guide to make it more logical!

Step 50



Replace the magazine well and pin it into place.

We can now replace the magazine well. Hook it over the pivot at the front of the magazine well (as shown in the photograph) and rotate it upwards until it slots into place.

You can then use the original retaining pin and hex nut (from <u>step 2</u>) to secure the magazine well in place. The pin goes through the holes highlighted in red.

If you have difficulty pushing the pin back through, make sure that the four "notches" on the pin, near it's head, line up with the "notches" on the hole.

Once the magazine well is secured, get a G36 magazine (or the short SL-9 magazine included with the kit) and test that magazines can be inserted and removed.

Step 51



Attach the SL-9 carry handle and screw it into place.

Take the carry handle from the SL-9 kit and attach it to the upper receiver.

You will need to slide it on from the back until it slots over the front AND back of the upper receiver.

Once it is in place, screw it into place using the holes highlighted. My SL-9 kit came with a sling pin for the frontmost hole, which I used instead of the original screw from the G36C carry handle.

Don't forget to also put on the "Pac-Man ghost" shaped bits that fit into the gaps in the carry handle, as these help to hold the screws into place.

Also, if you do not like the SL-9 carry handle you should be able to use the original G36C carry handle (or indeed, any G36 series carry handle!) to get a different look.

Step 52



Attach the outer barrel and handguard.

Remove the flash hider from the barrel assembly if you haven't already. It unscrews **clockwise**, which you won't be used to!

Take the outer barrel from the SL-9 kit, and unscrew the thicker section of it from the thinner section - again, this unscrews **clockwise**.

Screw the thinner part of the outer barrel on to the barrel assembly, in place of the flash hider. As you have probably guessed, you need to screw the barrel on **anti-clockwise**.

You can now attach the handguard to the gun, slotting it over the barrel and hooking it up to the remaining pivot near the magazine well. Once the handguard is attached, secure it in place with the retaining pin highlighted in red, from the original G36C.

You can now screw the thicker part of the outer barrel on to the thinner part that should be sticking out slightly from the handguard.

Step 53



Attach the rear butt plate.

Take the butt plate components from the SL-9 kit, and insert it into the rear of the stock.

Secure it in place from both sides by using the screws shown from the SL-9 kit.

Note: If you want to shorten or lengthen the butt plate, you can unscrew the butt plate and then remove or add the spacers as required, before screwing the butt plate back on to the stock.

Step 54



Attach the cheek piece.

Take the cheek piece bits from the SL-9 kit, and place it on to the top of the stock.

Secure it in place from using the longest screws shown from the SL-9 kit. This can be quite fiddly as you have to line it up right and this can be quite difficult when you can't see what you're doing!

Note: If you want to raise or lower the cheek piece, you can unscrew the cheek piece and then remove or add the spacers as required, before screwing the cheek piece back on to the stock.

Converting a Tokyo Marui G36C into an SL-9 The Finished Product!

Step 55



Et, voila!

And there you have the finished SL-9!

I've put a scope on the top rail of mine just to show you what it looks like with a scope.

In this photo, I've also not yet got around to putting on the "Heckler & Koch" logos that came with the kit. You can put these on, but the ones in my kit didn't have any form of self-adhesive so I superglued them on to the stock with Loctite.

To use the gun, simply connect up a battery like you would on the G36C (i.e. remove the handguard and put a stick battery in to the handguard before connecting it up and replacing the handguard) and then put in a loaded magazine, and fire away!

The SL-9 will take most G36 magazines, from the "short" 20 round one included with the kit to the 400 round high capacity magazines.

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Converting a Tokyo Marui G36C into an SL-9

Credits

Guide written by: <u>Gareth 'GazChap' Griffiths</u> Photography by: <u>Gareth 'GazChap' Griffiths</u>

A big thanks to <u>Tokyo Marui</u> (website is in Japanese) for producing the G36C, and <u>STAR Airsoft</u> for producing the SL-9 Conversion Kit.

An even bigger thanks to Will and Yams at <u>AirsoftGuide.co.uk</u> for producing the second volume of their DVD series. Without it, I wouldn't have had a clue how to take my G36C apart!

Disclaimer

I take **NO RESPONSIBILITY** for anything that happens whilst you follow the instructions presented here. This includes (but is not limited to) property damage, personal injury or death.

I found the conversion process surprisingly easy given that I've never taken apart an AEG before, but even so problems can occur and you are dealing with an electrical system and a gun. If you shoot yourself in the eye or electrocute yourself and then shoot yourself in the eye, that's your problem not mine.

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