



Canon EOS 5D Mark III Main Board Replacement

This guide should help you get to the brains of your favorite workhorse Canon camera.

Written By: Matthew Zeller



INTRODUCTION

Seeing as there aren't any good guides online for the **Canon 5D Mk III** disassembly, I decided to make one that would allow me to get to the main PCB. *I have fixed about a dozen of these in the past two years.*

The 5D Mk III has been around since 2012, is a workhorse DSLR in the Canon lineup of cameras, and yet, no detailed guide exists. Hopefully, this one will help you to navigate well enough to delve into the rest of the camera parts as well.



TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [2.5 mm Flathead Screwdriver](#) (1)
- [Probe and Pick Set](#) (1)
- [Spudger](#) (1)



PARTS:

- [CG2-3158](#) (1)

Step 1 — Naked Camera



- First things first, remove all the rubber hand grips from around the camera to have access to all external screws. Don't worry, these can be put back without any loss of stickiness.
- Remove the plastic around the viewfinder by squeezing the sides and lifting towards the top of the camera.

Step 2 — Eye piece



- Once that's removed, you will see 4 screws that need to be removed.
- ⚠ The top screws are a different size from the bottom screws, so keep the top separate from the bottom.
- ⚠ Before you proceed, be sure to label exactly where each screw you remove should go. You'll notice the plastic container near the top of the picture. There are 5 more like it with tape labels stating where the screws go. There are a lot of different sizes holding this camera together and meticulous planning is necessary. This is very important!

Step 3 — Right side back plate screws



- Next, remove the silver screw.
- Then the two black screws.

Step 4 — Bottom of back plate



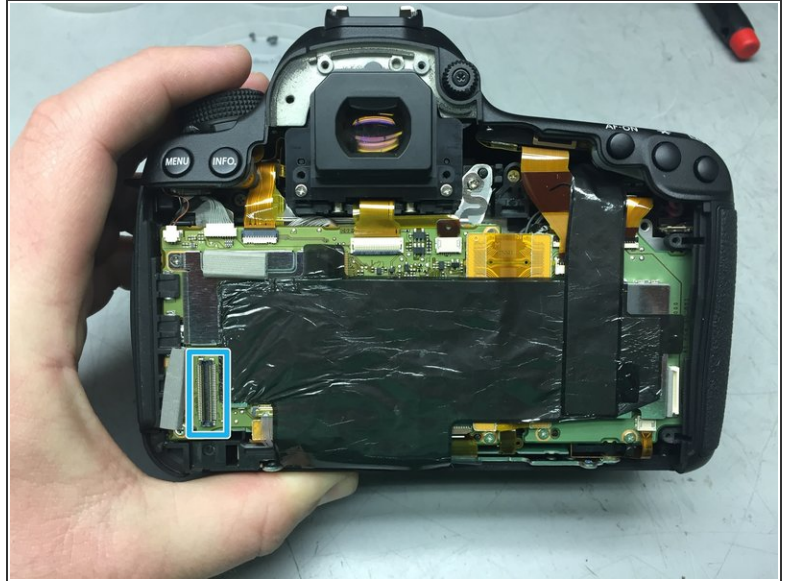
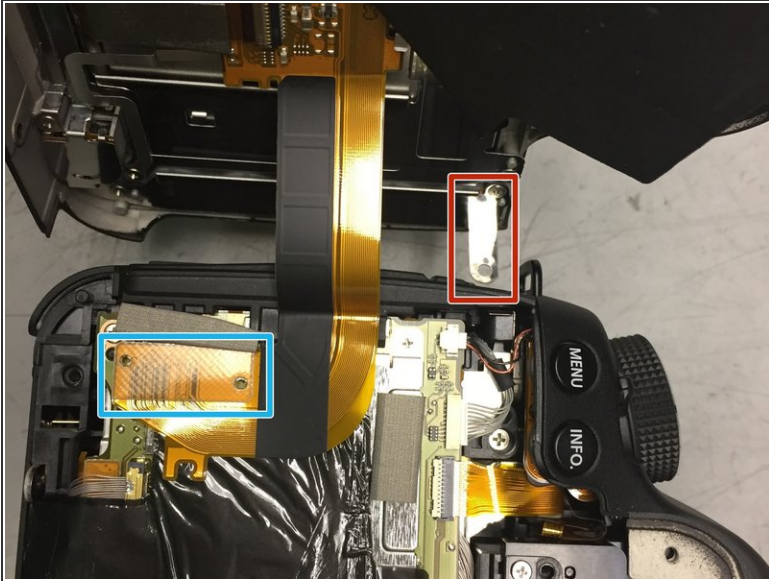
- Turn the camera so the bottom is now on top and take out the three screws holding on the bottom of the back plate.
- ⓘ One of the screws is just outside my picture. It's indicated here by an arrow.

Step 5 — Remove media ports protector plate



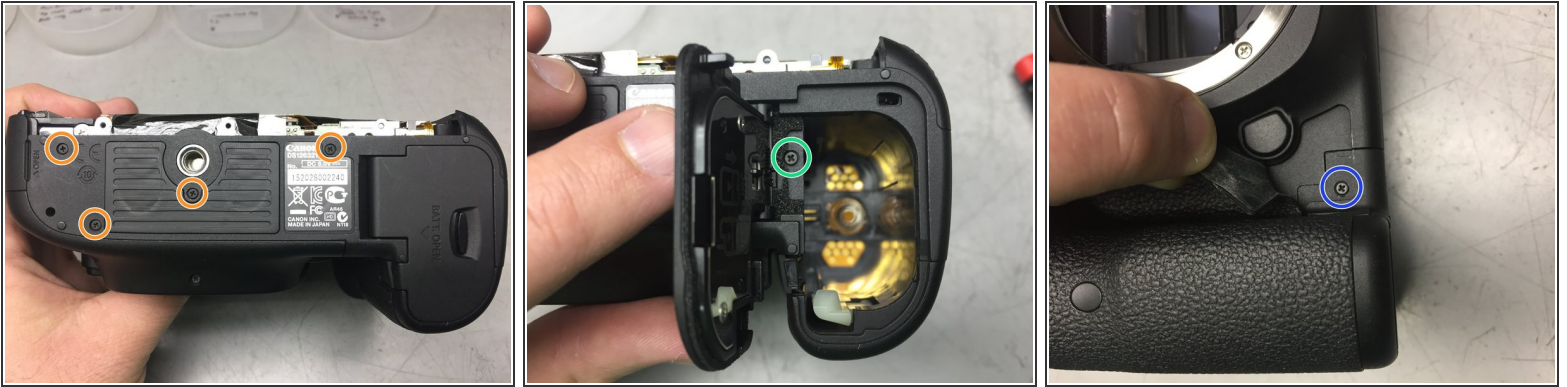
- This screw needs to be removed next. This is what holds the left side of the entire back plate to the camera and if not removed will cause a major bend in the internal bracket.
- Remove this silver screw next but keep it separate from the previous one.
- This screw holds in the battery. Must be removed before the next one.
- Last screw holding in this side plate. Removing this entire side plate will allow the main pcb to be removed easier later on. You can leave the side plate intact for now and come back to these screws later if you'd like.

Step 6 — Remove the back plate



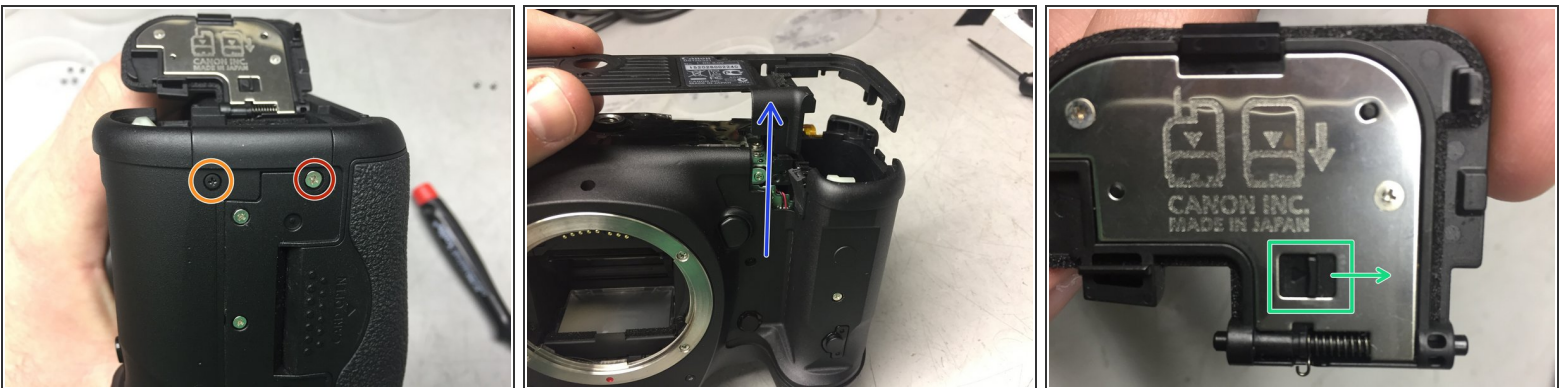
- ⚠ You can now lift straight up on the back plate and separate it from the body. Be careful to raise it gently because on the left side it is still connected with a ribbon cable to the main pcb.
- There is also a metal bracket that drives straight down into the body on the upper left. Be careful to lift straight up on the back plate until this is completely outside of the main body, then flip the whole back plate over to the left so you can reach the ribbon cable connector underneath.
 - This is a snap on connector that can be gently pried up with a small flat head screw driver or a thumbnail.

Step 7 — Remove the bottom plate #1



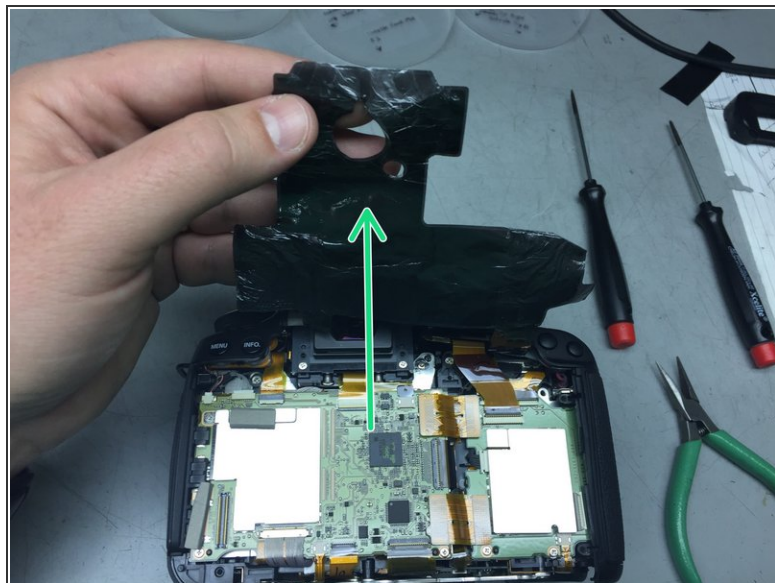
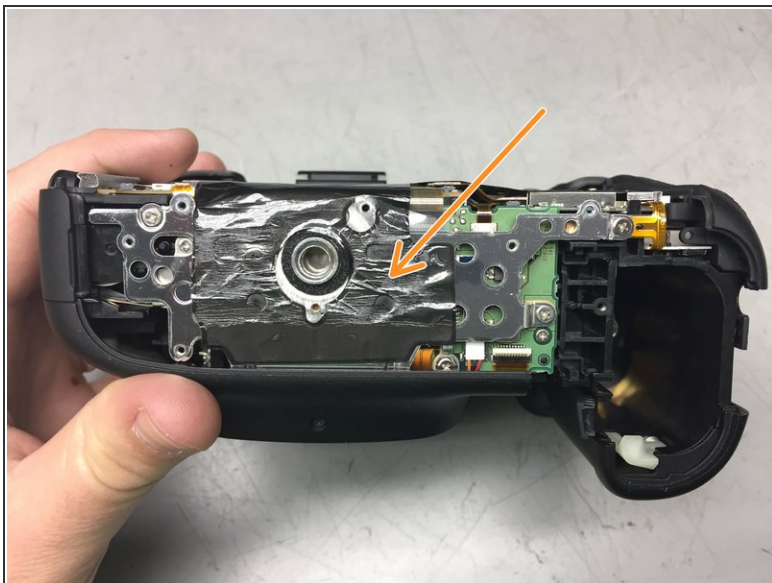
- Remove these four screws from the bottom plate.
- Remove this screw from underneath the battery door.
- Remove this screw from the bottom front right. If you haven't removed the rubber grip material yet, now's the time to just take it off.

Step 8 — Remove the bottom plate #2



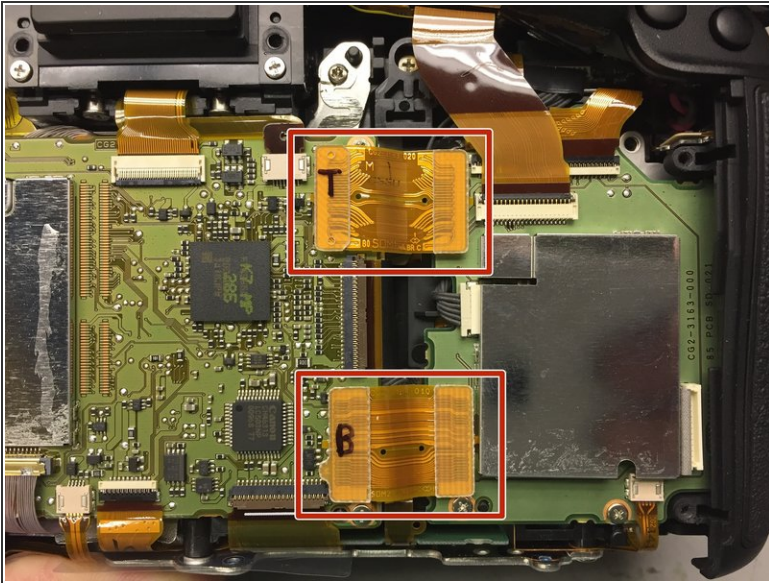
- Remove this screw.
- Finish by removing this silver screw.
 - You can remove the battery door at any time if you feel it's in your way. It's not necessary, but it may help. There's a small raised black ridge that can be slid to one side to remove the battery door.
- It's a tight fit, but wiggle the plate gently and pull straight up and out from the camera body to remove the bottom plate.

Step 9 — Peel back the adhesive inside covering



- i The reason we remove the bottom plate is so we can access this adhesive black covering. It starts underneath the camera and wraps all the around to the top. We won't be removing the top of the camera for this procedure.
- Gently pry this adhesive covering up until it is off of the main board at the back of the camera and drape it over the top of the camera. I always try to do this step without cutting or ripping the covering.

Step 10 — Remove internal connectors #1



! From this point on, be very careful. We will be removing or dislodging internal connectors that may be damaged if not careful and will impact the camera functions if not seated correctly when put back together.

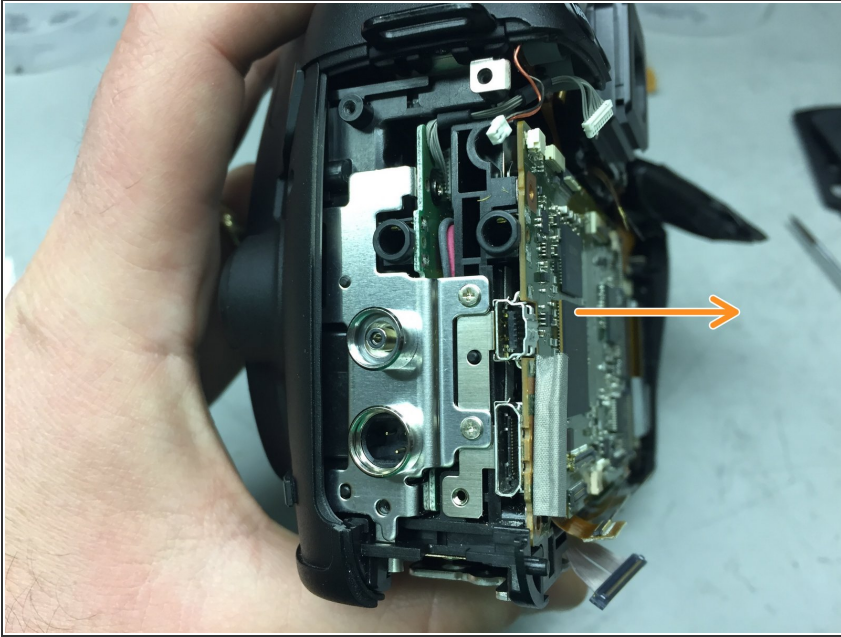
- First, label the two ribbon connectors with top and bottom and be sure which side attaches to the main board and which side attaches to the secondary board on the right. This is important because these connectors only go on one way and can not be switched.
- Next, remove each connector like you did earlier with your nail or a small flat screwdriver.
- Using that same small flat screwdriver, you will need to remove these two connectors from underneath the main pcb. Pry gently from each end of the connectors until they come loose.
- Using some tweezers or a very small set of needle nose pliers, gently remove these two connectors from the top left of the main pcb. Be careful not to pull on the wires, ONLY the white connector ends to pull them out.

Step 11 — Remove internal connectors #2



- These connectors have very small hinged flaps that must be lifted to let loose of the thin ribbon cables they're holding.
 - ⚠ The flaps can be damaged very easily if not careful! Very gently use a dental pick or your nail to pry them upwards to release the tension on the cables underneath.
- These ribbon cables may be gently pulled from the connectors with a small set of needle nose pliers. The one at the top of the board has a hole in the cable, so something very small like a tooth pick can fit in here to help pull the cable free.
- This connector must be pried up with extreme caution. You absolutely can not pull on the wires leading into the connector as they are extremely delicate and will break easily. Using a small flat head screwdriver, pry up on either end very gently until the connector pops loose.
- Underneath that connector is another that will need pried up. This one is another ribbon cable similar to the ones we've previously lifted with a small flat screwdriver.
- Remove these three screws. They are all the same size.
- Finally, remove this screw. It's a different size from the other three, so keep it separate.

Step 12 — Remove the main board



- ① If you hadn't removed the side media port plate earlier, now is the time. This allows full access to the side of the board.
- Now you can remove the main pcb from the camera body and replace if necessary.
- ① To put back together, do all of these steps in reverse order.

To reassemble your device, follow these instructions in reverse order.