MH-MK2 Series Motherboard Replacement Guide

Tools needed:

- Philips Screw driver
- Needle nose pliers

Average time to complete process:

- 15 – 20 mins

This tutorial assumes that previous trouble shooting with a USCutter Technical Support Representative has determined your MK2 motherboard to require replacement. Your cutter should be un-plugged from power throughout this process. There are a variety of issues that would require a motherboard replacement, all of them stemming from hardware failures only. The most common causes for motherboard replacement are:

- Jerky or inconsistent movement of the carriage or feed-rollers when “jogging” or changing the home origin on the cutter.
- Grinding sound when “jogging” the feed-rollers or carriage* or no movement at all
- Unidentifiable characters (gibberish) displayed on the cutter’s LCD screen
- Flashing lights on the menu and/or carriage arm jumping up and down repeatedly

*A grinding sound when jogging the carriage left could also be a physical obstruction where the carriage bracket is making contact with the circuit board under the menu. This can be the result of the carriage having come off the track.
**STEP #1:** Determine that you do in-fact have the MK2 generation of the MH series.

The motherboard in the first generation of the MH series cutters is not located in the same place as the motherboard in the MK2. As shown in the picture below, an MK2 model cutter will have stickers on the left end-cap identifying it as such. Alternatively, if the LCD screen displays, “Welcome to use USCutter” when you power it on, you have the MK2. The first generation MH series cutter will only display “Speed X Force X”.

![Picture of MK2 Cutter](image)

**STEP #2:** Remove the right side End-Cap.

There will be a total of 6 machine screws that you will need to remove; 4 on the inside wall of the end-cap, 2 on the side of the end-cap itself.

![Step 2: Remove End-Cap](image)

Remove the two philips screws on the front...

...Remove the two philips screws from the back
The last two screws are located on the side of the end-cap. This will require the use of a pair of needle nose pliers or a small wrench.

Remove the two screws from the sides of the COM port.
**STEP #3**: Remove End-Cap.

**STEP #4**: Remove the connecting cables/wires from the motherboard.

There are a total of 8 connections we’re going to un-plug from the motherboard. These are identified below:
**STEP #5:** Remove the defective motherboard.

Now that you have the cables and wires disconnected from the motherboard; roll the cutter on to its “back” and remove the two screws holding the board to the cutter as shown in the image to the left.

**STEP #6:** Install the new motherboard!

Set the defective motherboard aside and re-attach the new motherboard to the cutter. Reconnect the wires and cables ensuring a solid connection, then re-assemble the end-cap.

- *If* your new motherboard is missing some of the connection ports, it’s ok. Simply reconnect the wires and cables to the locations that correspond to where they were on the original motherboard.