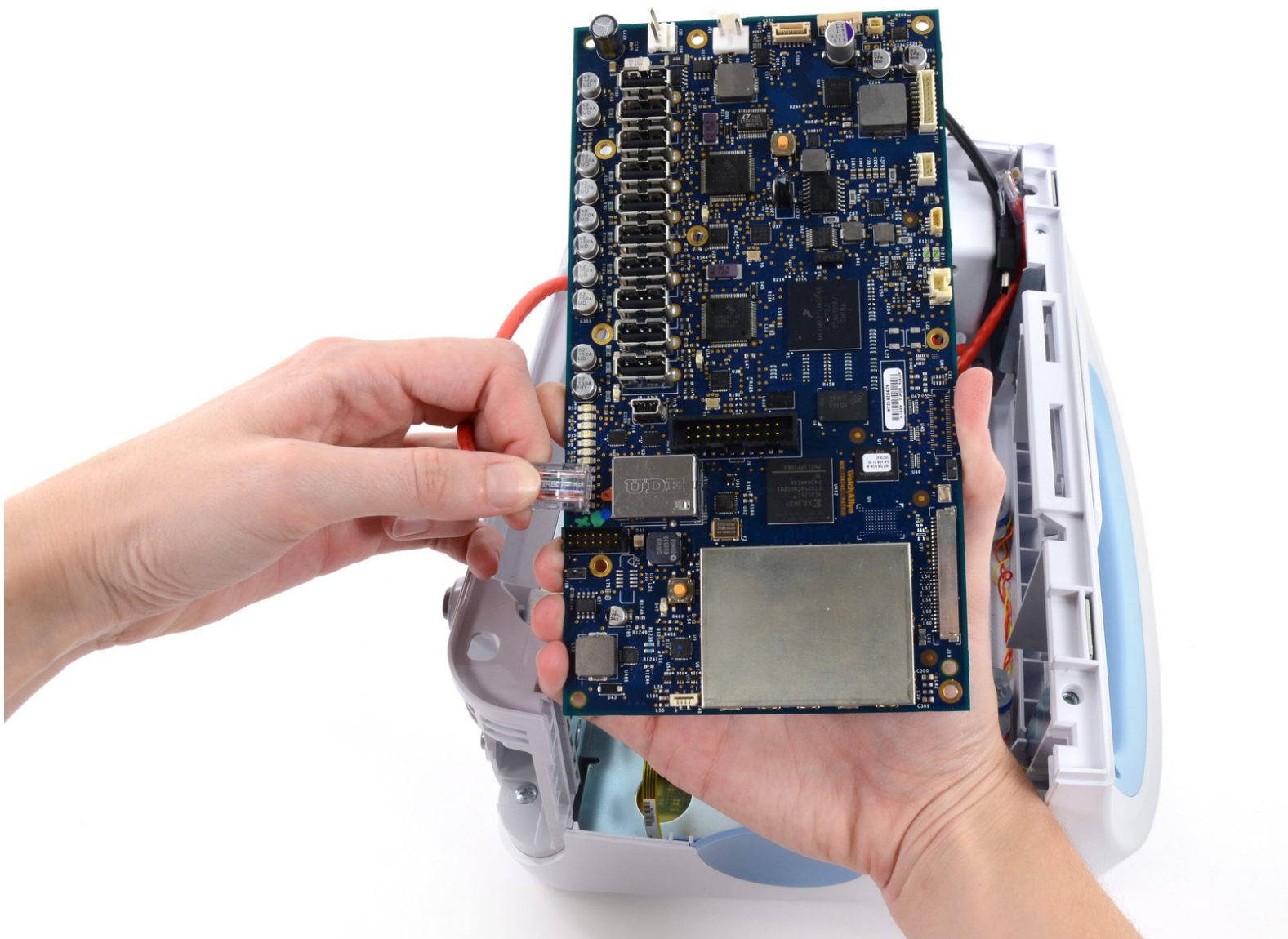




# Welch Allyn Connex Vital Signs Monitor 6000 Motherboard Replacement

Replace the motherboard in a Welch Allyn 6000 series Connex vital signs monitor.

Written By: Sam Goldheart



## INTRODUCTION

Use this guide to remove or replace the motherboard in your Welch Allyn 6000 series Connex vital signs monitor.

PLEASE NOTE: This repair guide was developed by the iFixit team based on Welch Allyn's own service manual. Neither iFixit nor this repair guide is endorsed by or affiliated with Welch Allyn.



### TOOLS:

- [6-in-1 Screwdriver](#) (1)
- [Phillips #2 Screwdriver](#) (1)
- [Coin](#) (1)
- [Spudger](#) (1)
- [Phillips #1 Screwdriver](#) (1)

## Step 1 — Stand



- Unplug the AC power connection cable.

## Step 2



- Place your thumb and forefinger on the blood pressure (NIBP) hose connector. Squeeze the side tabs until the connector releases.

**⚠ Always grasp the hose by the connector. Do not pull on the hose itself.**

- Pull the connector away from the connector port.

### Step 3



- Place your thumb and forefinger on the Pulse oximetry (SpO2 or combined SpO2/SpHb) cable connector. Squeeze the side tabs until the connector releases.

**⚠ Always grasp the cable by the connector. Do not pull on the cable itself.**

- Pull the connector away from the connector port.

### Step 4



- Grasp the temperature probe and pull it up to remove it from the monitor.



## Step 5



- Remove the cover of the temperature module by pressing the tab and sliding the cover to the right.

## Step 6



- Depress the spring tab on the temperature probe cable connector and withdraw it from the probe port.

## Step 7



- Remove the flathead screw on the USB networking door.
- Loosen the captive Phillips #2 screw securing the monitor to the stand.

## Step 8



- Holding the monitor securely, open the USB networking door.
- ⓘ You may have to lift the monitor slightly to allow the door to swing out from the stand mount.

## Step 9



- Detach any accessory USB cables from USB ports on the monitor.

## Step 10



- Slide the monitor off of the stand tray.

## Step 11 — Battery



**i** Place the monitor upside down on a clean surface.

- Insert a coin into the slot and push to open.

**i** Choose a coin that fits comfortably into the slot.

- Remove the battery cover.

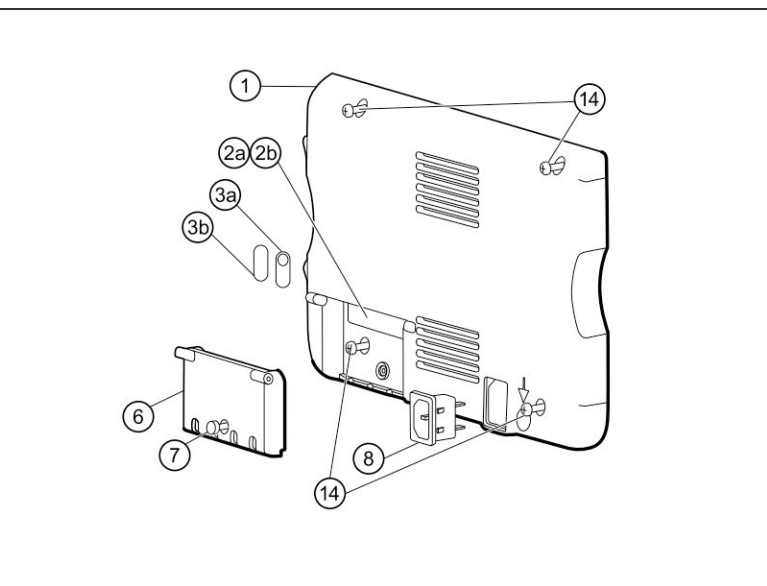
## Step 12



- Use the plastic label to remove the battery from its recess.



## Step 13 — Rear Housing



- i Open the communications door to access the lower left-hand rear housing screw.
- Remove the four Phillips #2 screws (labeled 14 in the service manual) from the rear housing.

## Step 14



- With the handle/alert bar facing you, begin to lift the rear housing from the left side, holding the right side securely.

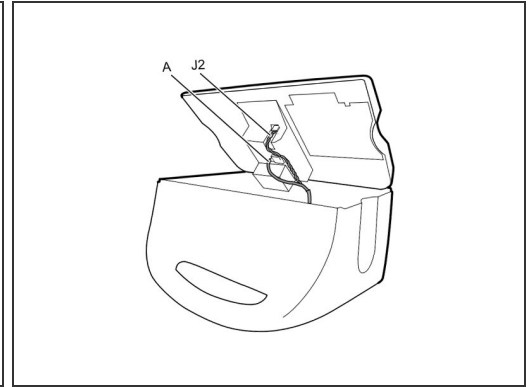
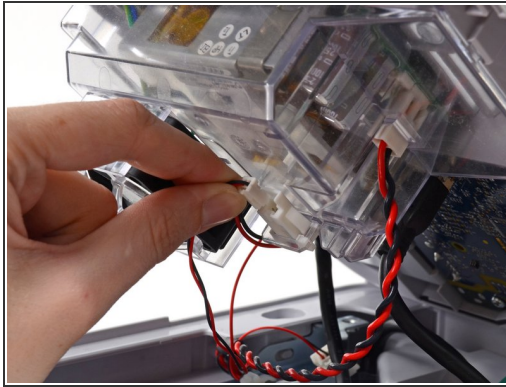
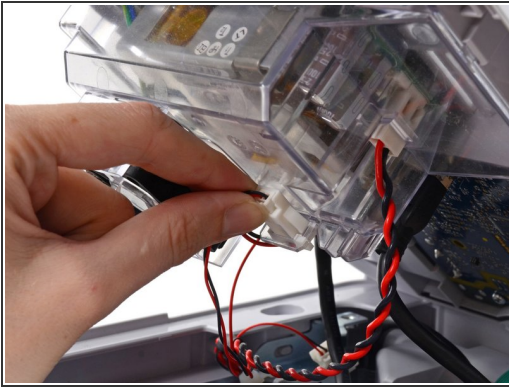
**⚠ Do not attempt to separate the rear housing from the monitor, it is still attached with several cables.**

## Step 15



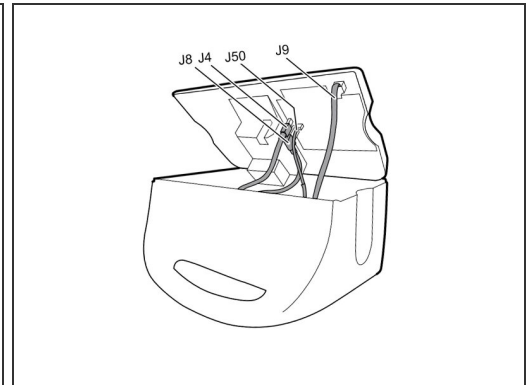
- ⓘ Support the rear housing while you disconnect the cables in the following steps.

## Step 16



- Disconnect the fan cable (labeled connector A in the service manual) from its socket in the power supply.

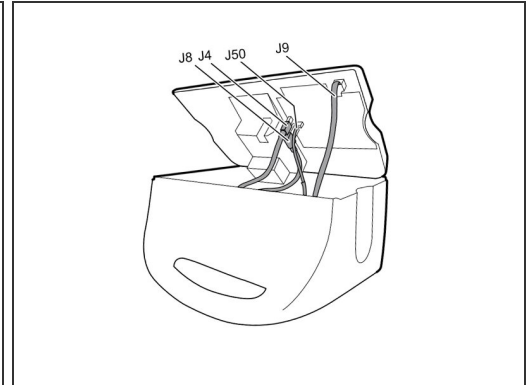
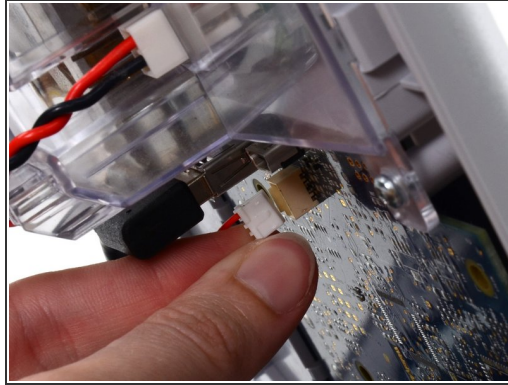
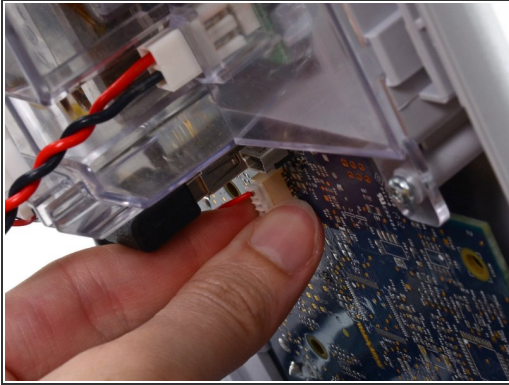
## Step 17



- Unplug the small USB connector from its socket (labeled J4 in the service manual).



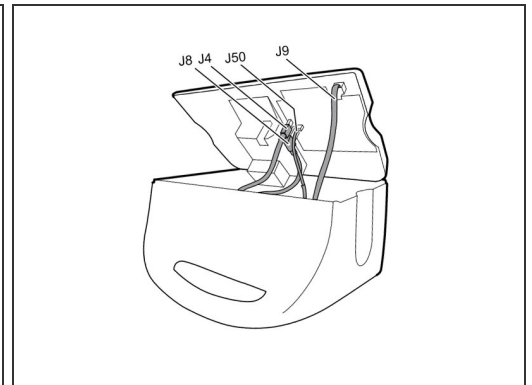
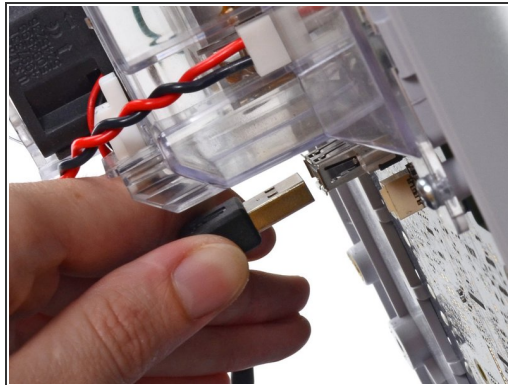
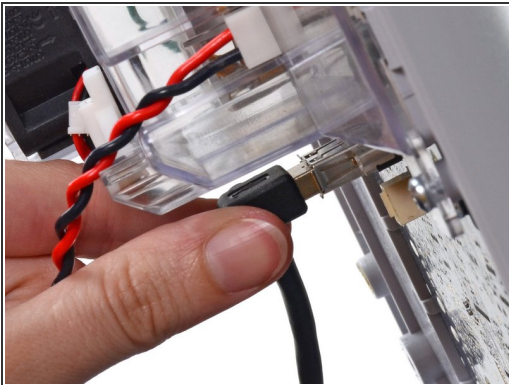
## Step 18



- Disconnect the communications power cable from its socket (labeled J50 in the service manual).

**⚠ Only** pull on the connector itself and not the socket. This connection is very tight, work the connector slowly and gently.

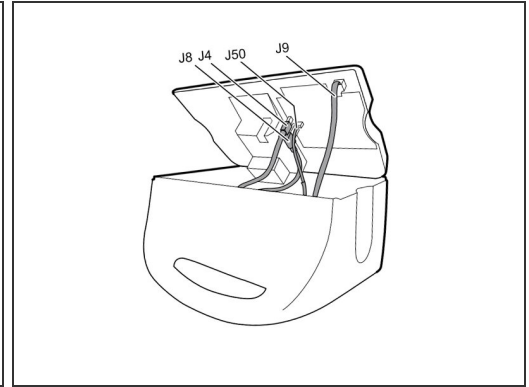
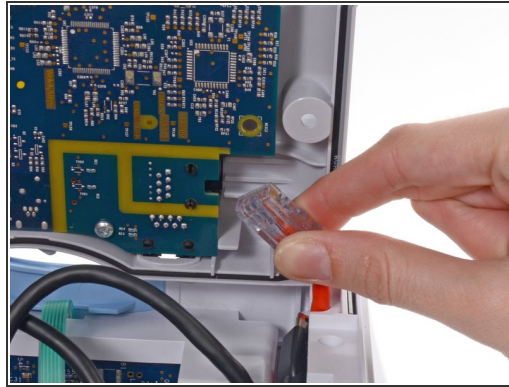
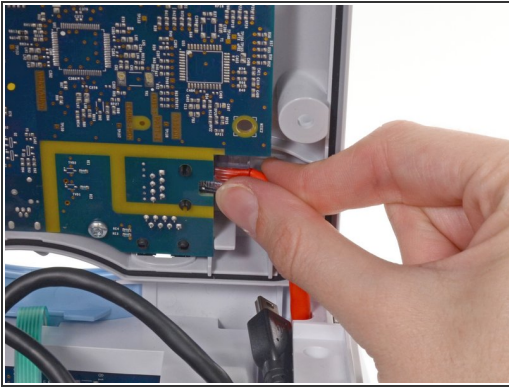
## Step 19



- Unplug the large USB connector from its socket (labeled J8 in the service manual).



## Step 20



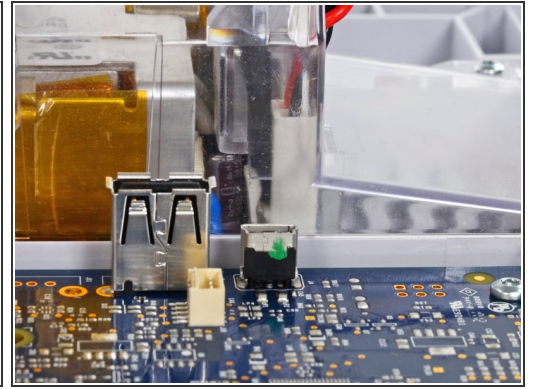
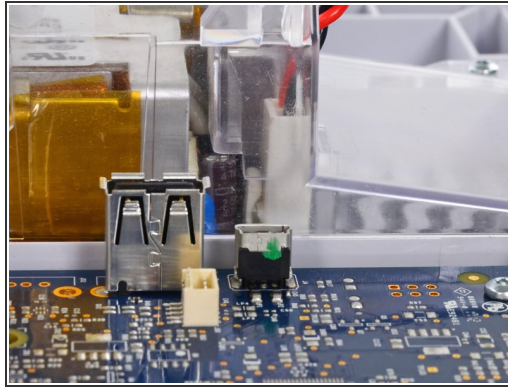
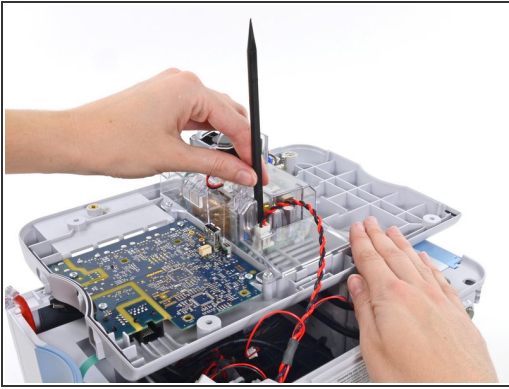
- Press the tab on the ethernet cable and unplug it from its socket (labeled J9 in the service manual).

## Step 21



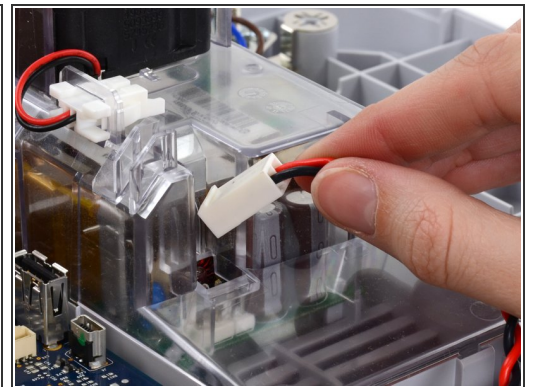
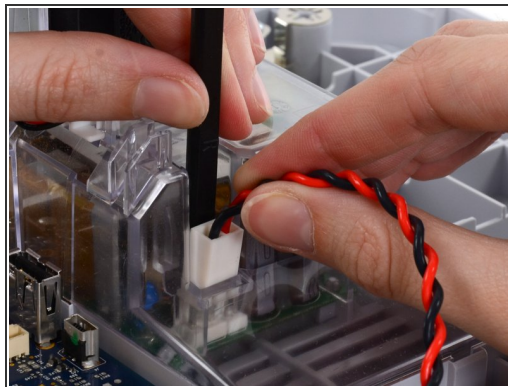
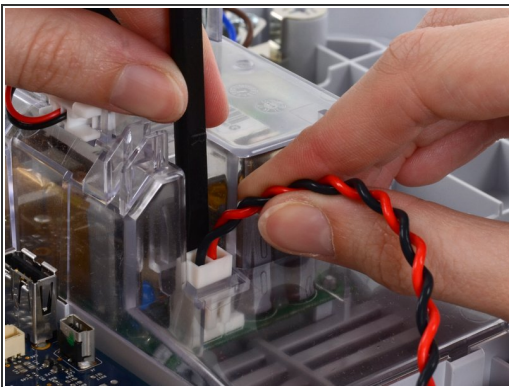
- ⓘ The following connector requires two hands to disconnect. Flip the rear case over, and lay it on its back to gain access to the power supply cable.

## Step 22



- The power supply cable is secured by an interlocking connector that must be held open to unplug the connector.
- ⓘ Insert the flat end of a spudger down into the power supply cover between the socket clip and the power supply connector.

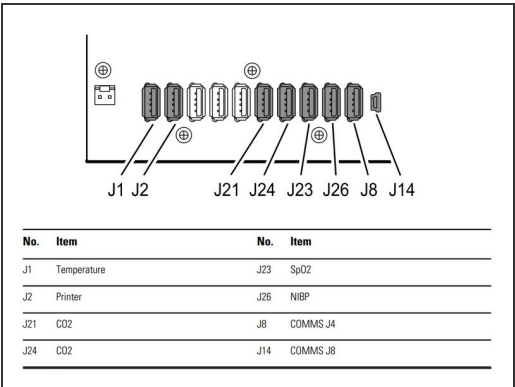
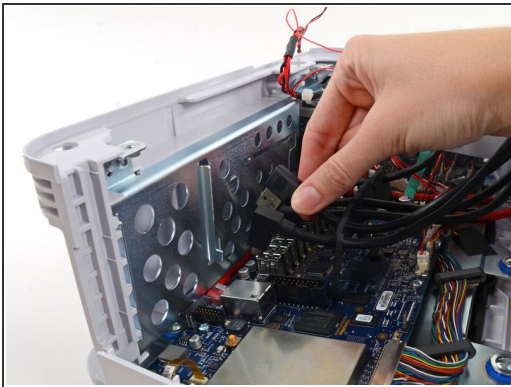
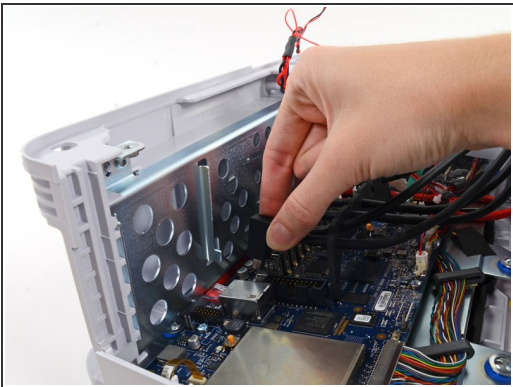
## Step 23



- Grasp the power supply cable firmly and lift both it and the spudger from the channel in the power supply housing to unplug the connector.

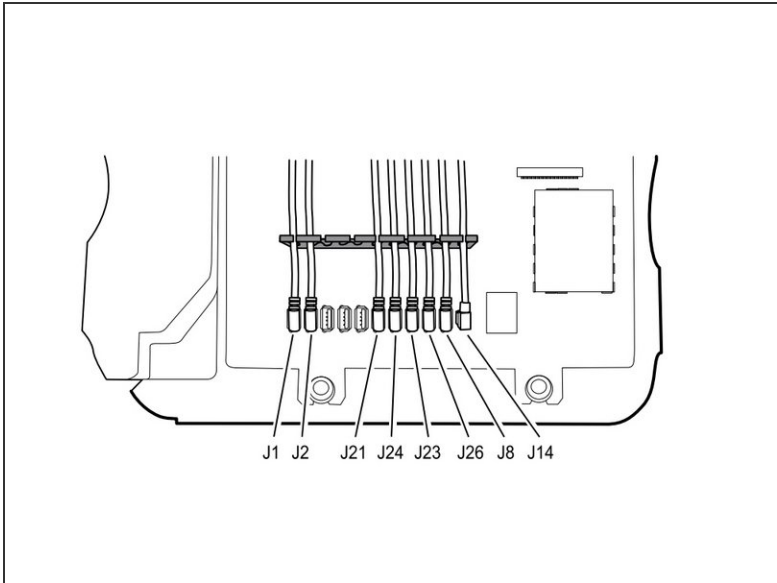


Step 24 — Motherboard



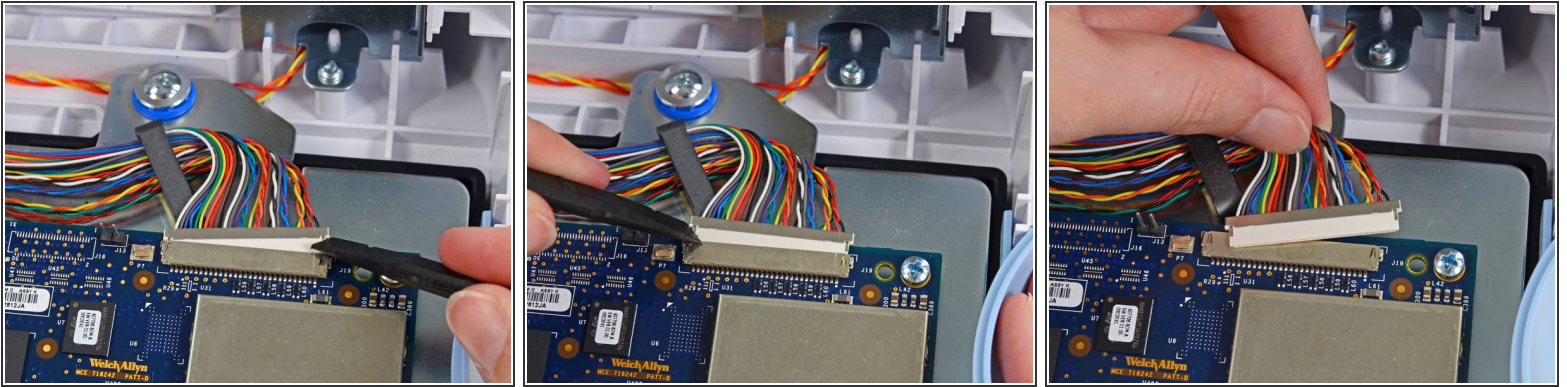
- Remove all USB connectors from their ports on the motherboard.
- ☑ Note the USB locations before removal for ease of reassembly. The locations of the USB as seen in the manual are shown in the third image. Your unit may differ depending on options.

Step 25



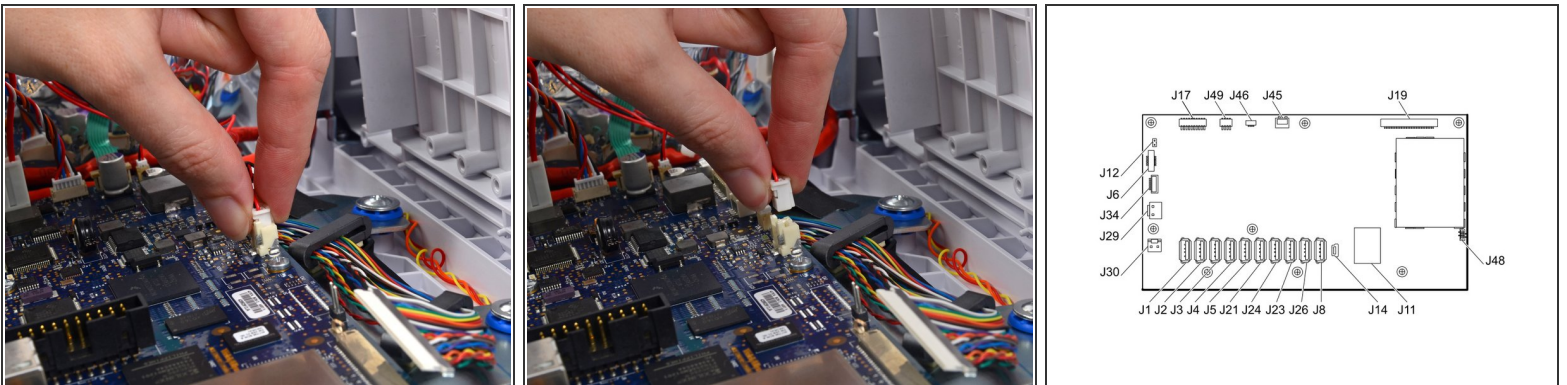
- Fold the USB cable bundle out of the way.
- ☑ When reassembling, position each cable to extend approximately 1.5 inches past the separator as shown.

## Step 26



- Use the flat end of a spudger to "walk" the LCD cable connector (labeled J19 in the service manual) out of its socket.
- Press first on one side of the connector, then the other to push it free. Be sure to press the connector itself, **not** the socket on the motherboard.
- Pull the cable straight out of its socket.

## Step 27

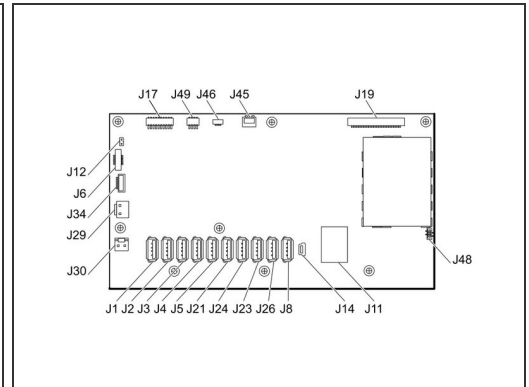
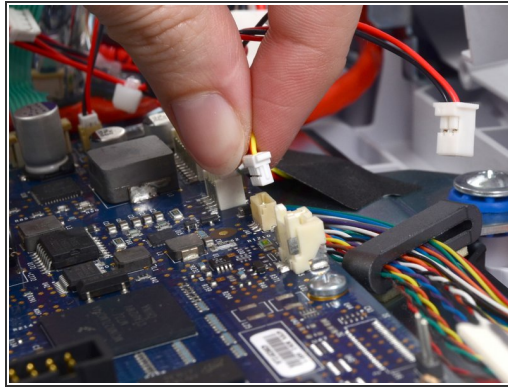
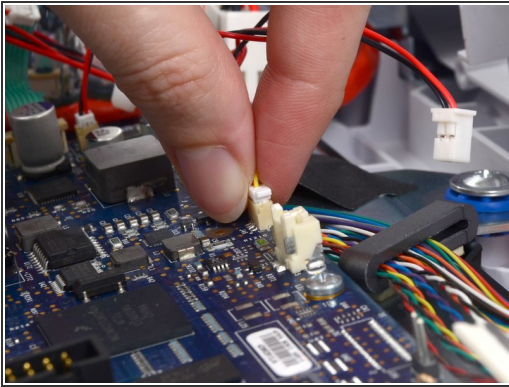


- Pinch the fan cable connector (labeled J45 in the service manual) and pull straight up to remove it from its socket.

**⚠ Be sure to pull only on the connector itself, not the socket on the motherboard.**

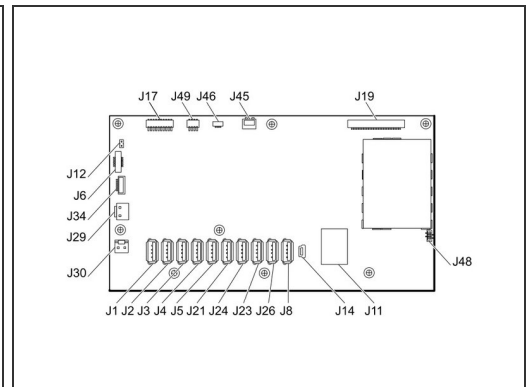
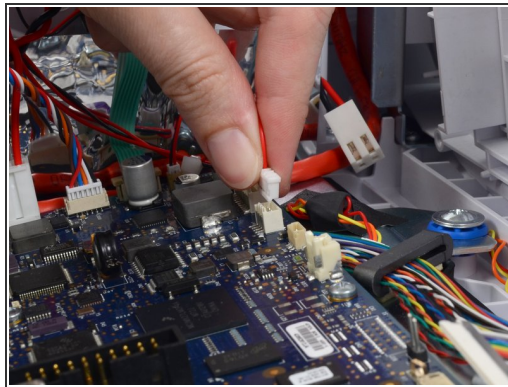
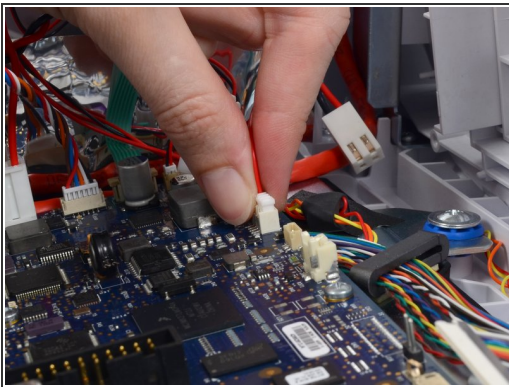


## Step 28



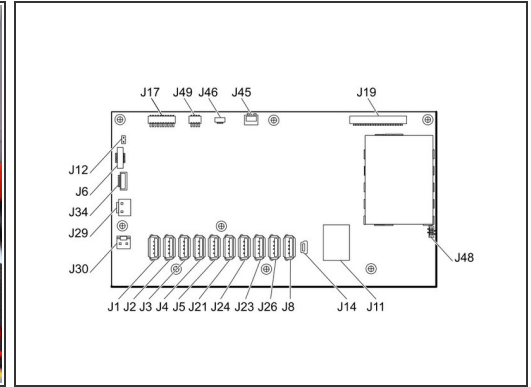
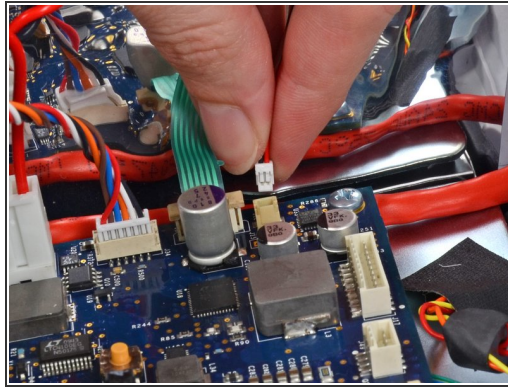
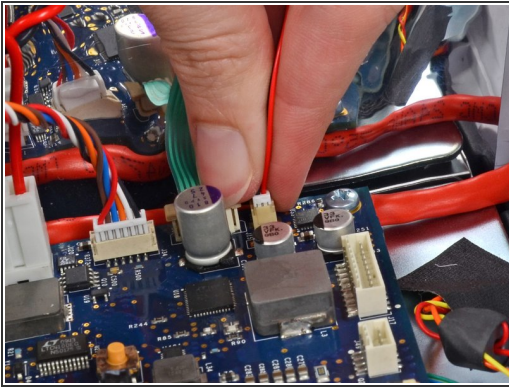
- Pull the light bar cable connector (labeled J46 in the service manual) straight up out of its socket.

## Step 29



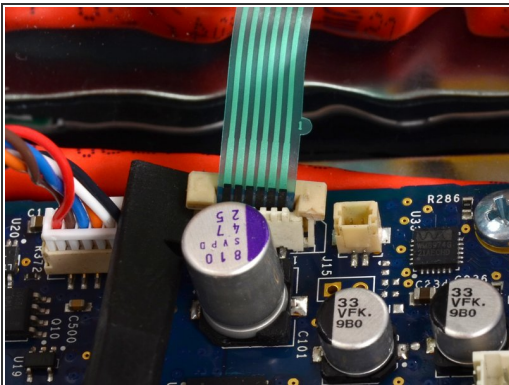
- Remove the communications board cable connector from its socket (labeled J49 in the service manual).
- ⓘ If you have a printer unit in your model, remove the printer power cable at this time, it is labeled J17 in the service manual.

## Step 30



- Carefully remove the speaker cable connector (labeled J12 in the service manual) from the motherboard.

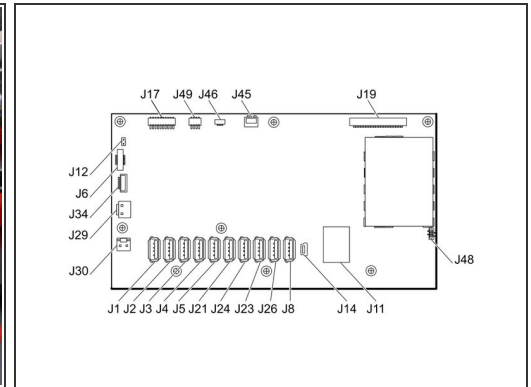
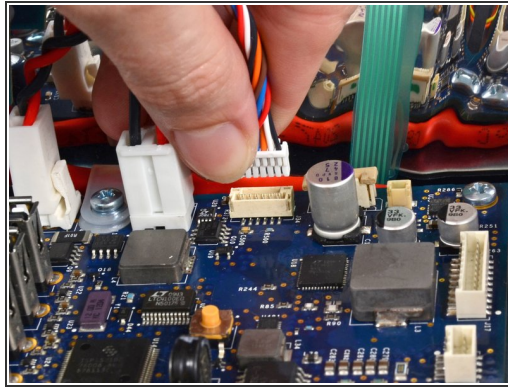
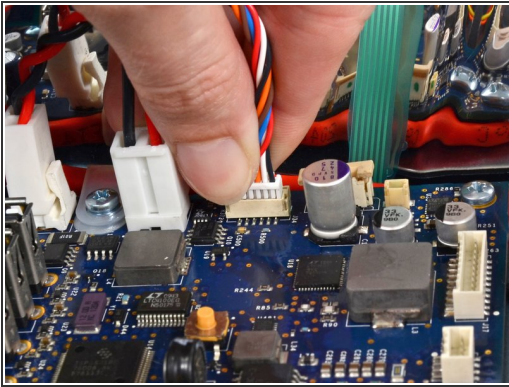
## Step 31



- Lift the ZIF collar securing the power button cable (labeled J6 in the service manual) with the flat end of a spudger to loosen its grip.
- Pull the power button cable straight up from its socket.

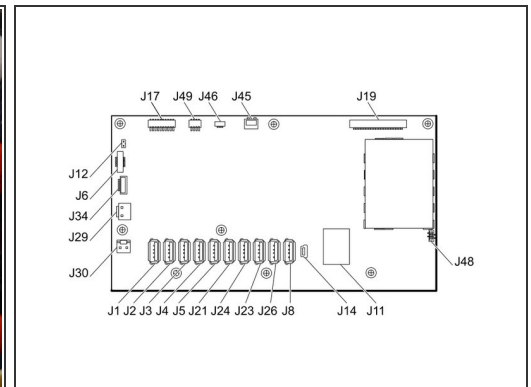
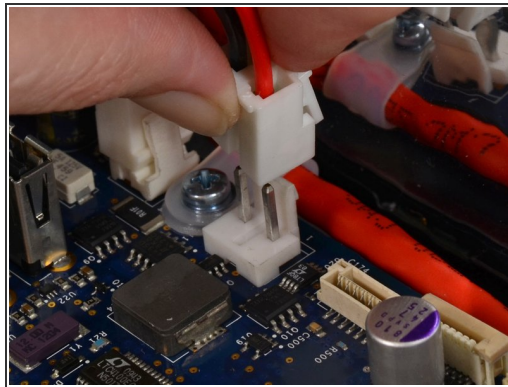
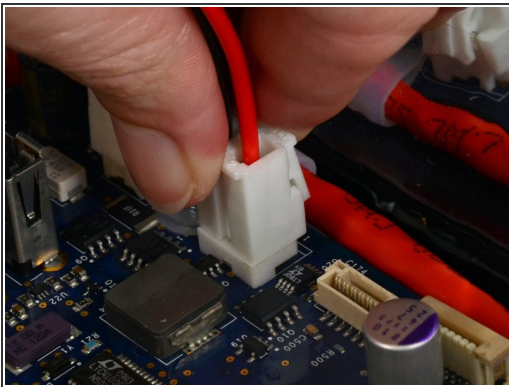


## Step 32



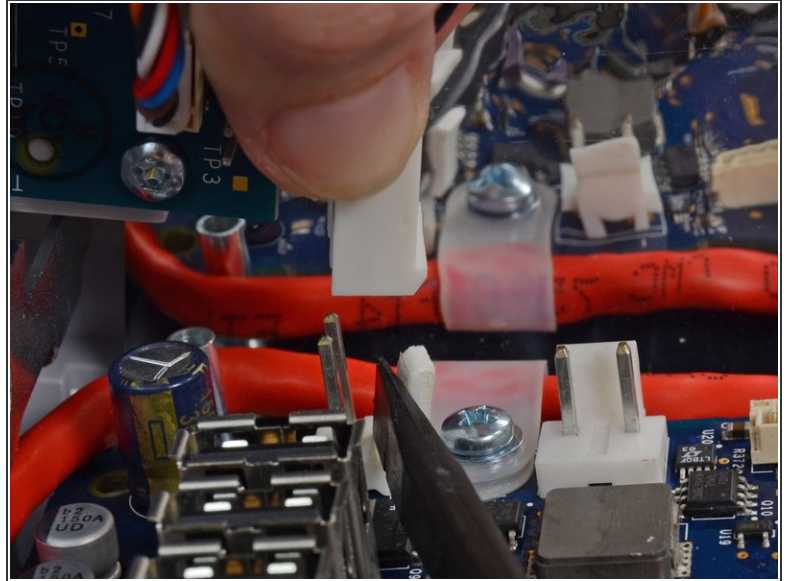
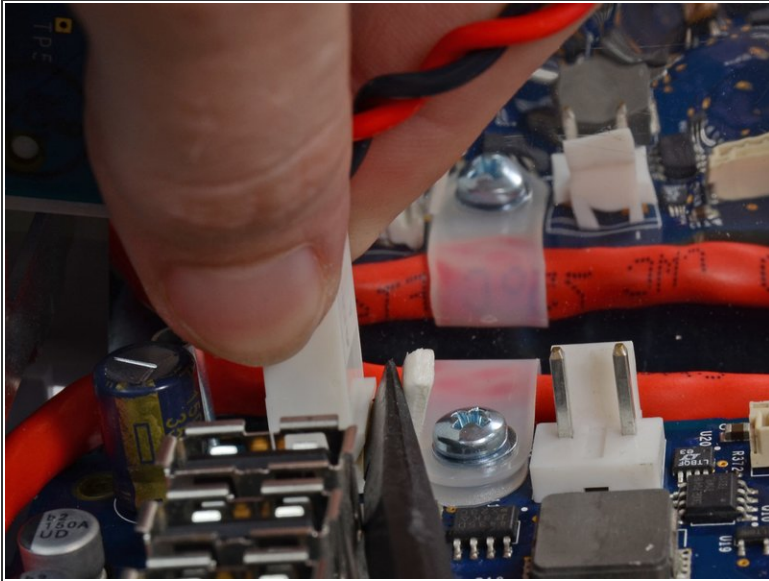
- Remove the smart-battery cable connector from its socket (labeled J34 in the service manual).

## Step 33



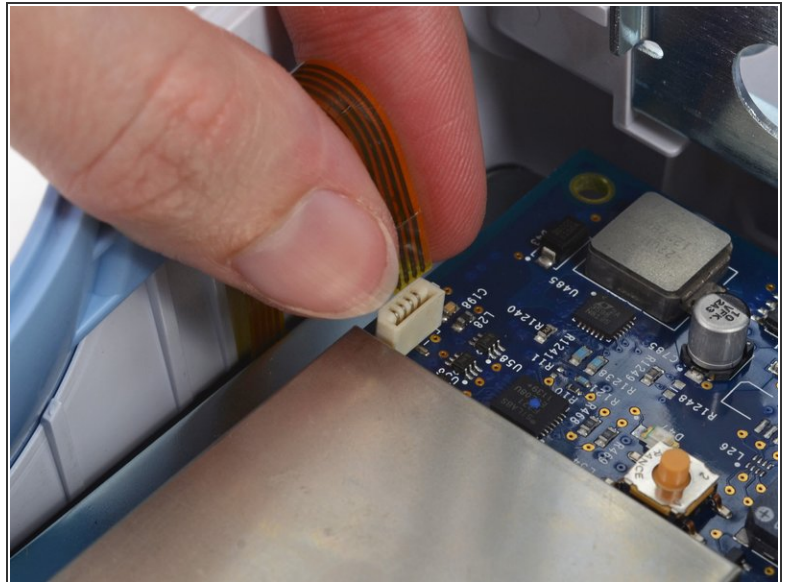
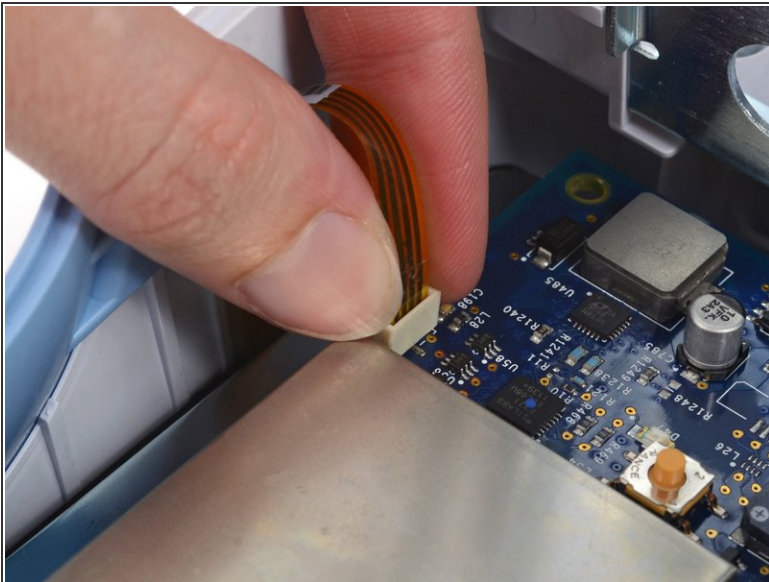
- Pinch the battery power connector and lift straight up to unclip it from its socket on the motherboard (labeled J29 in the service manual).

## Step 34



- Use the flat end of a spudger to separate the battery supply cable connector bracket from the socket (labeled J30 in the service manual).
- Pull the battery supply cable connector straight up from the board.

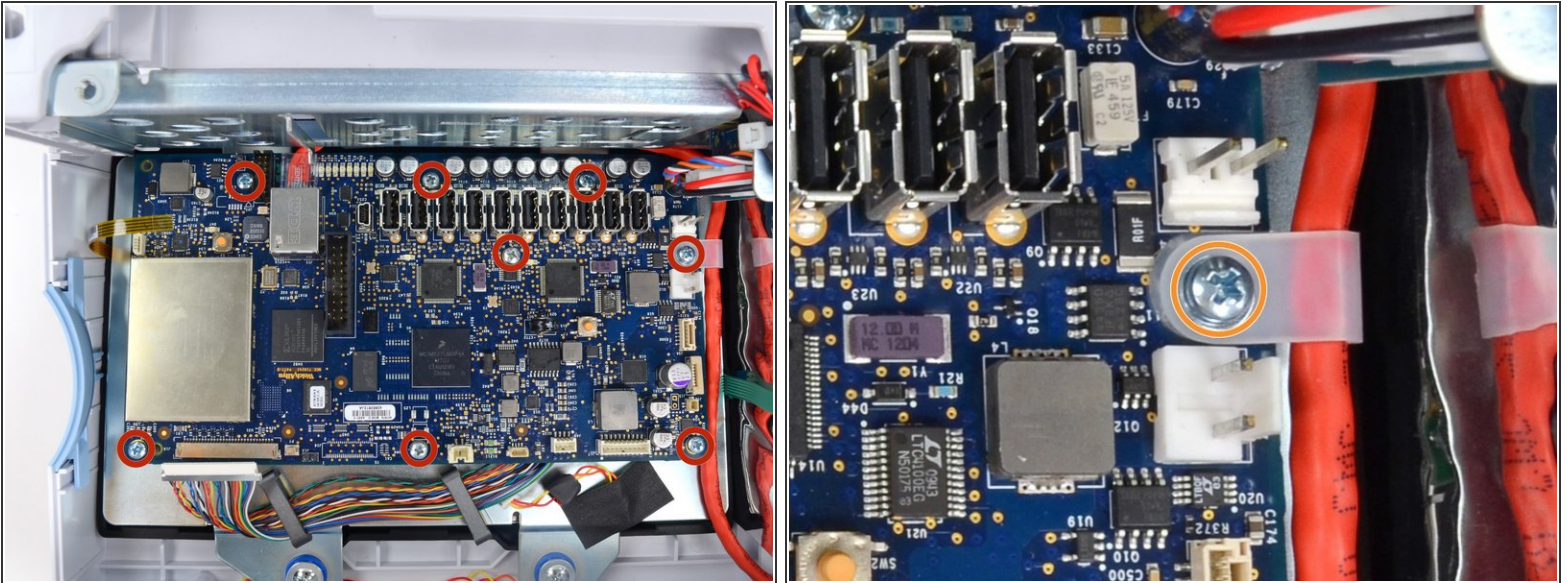
## Step 35



- Carefully pull the LCD flex cable straight up from its socket in the motherboard (labeled J48 in the service manual).

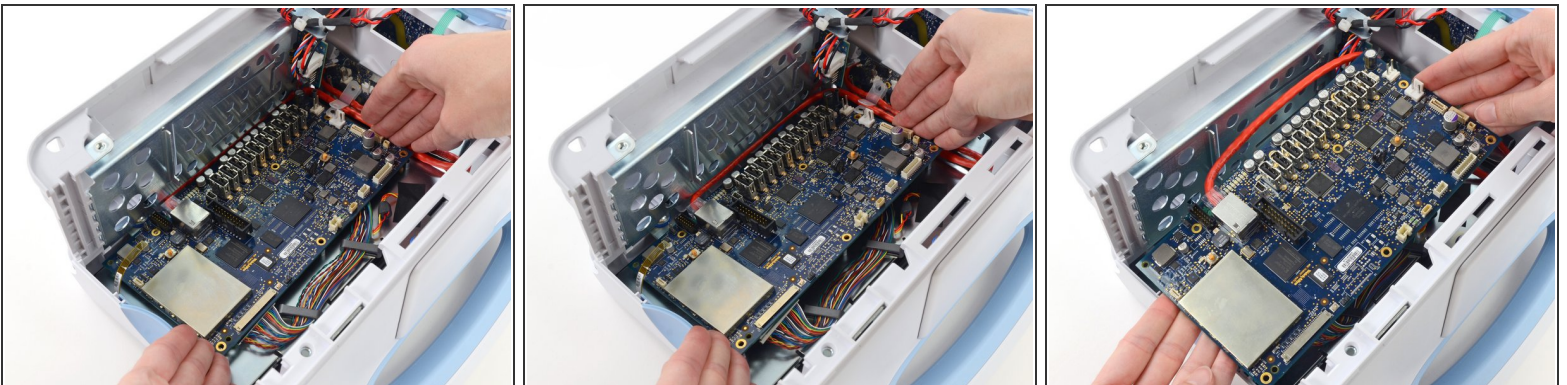


## Step 36



- Remove the eight Phillips #1 screws from the motherboard.
- The screw securing the ethernet cable bracket has a washer between it and the bracket. Take care not to lose it.

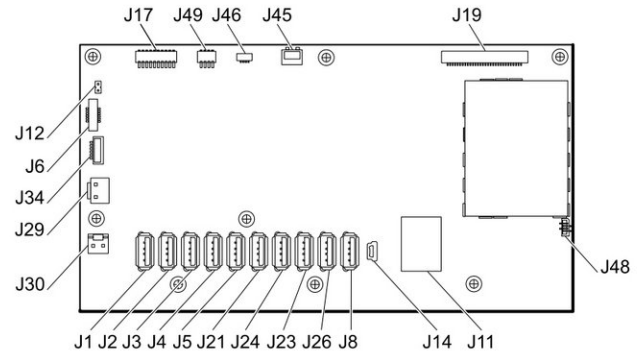
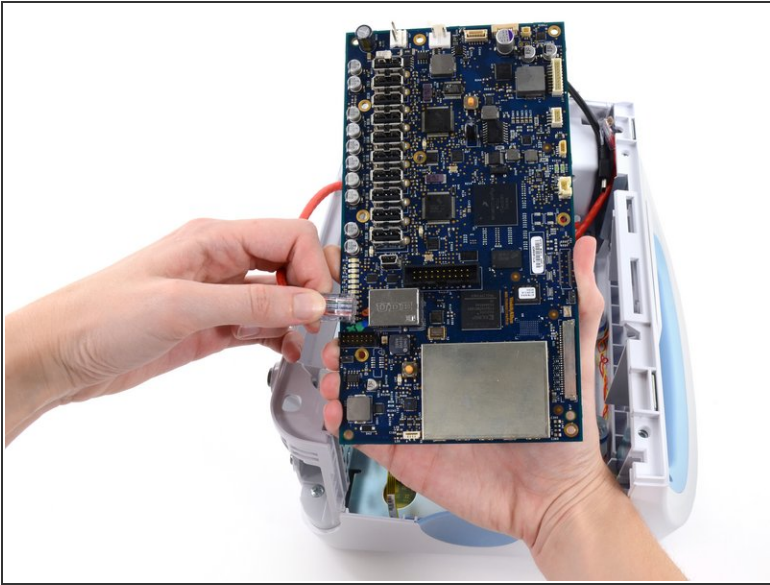
## Step 37



- Lift the motherboard from the light-bar side and pull it toward the edge of the case to free the ethernet cable connector from under the case.
- Lift the motherboard out of the case to gain access to the ethernet cable connector.

**⚠ Do not attempt to remove the board entirely as it is still connected to the monitor.**

## Step 38



- Remove the ethernet cable connector (labeled J11 in the service manual) from the mother board.

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