iPad Mini Screen Replacement

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On this iPad Mini we will be replacing the Digitizer and also attempting to repair the backlight on the device.

(Tape on screen is covering cracks)

First we will need to heat the device up. We use a heat plate.

The heat plate is set to 90. At this temperature we can leave the device on here a long as we want, without having to worry about causing any damage.

We'll leave the iPad on here screen up for around 5 minutes.

Once the device is heated up. We'll use a flat metal pry tool (Sesamo Tool) to get in between the digitizer and frame.

We'll slowly go along the frame lifting slightly and trying to separate the adhesive inside.

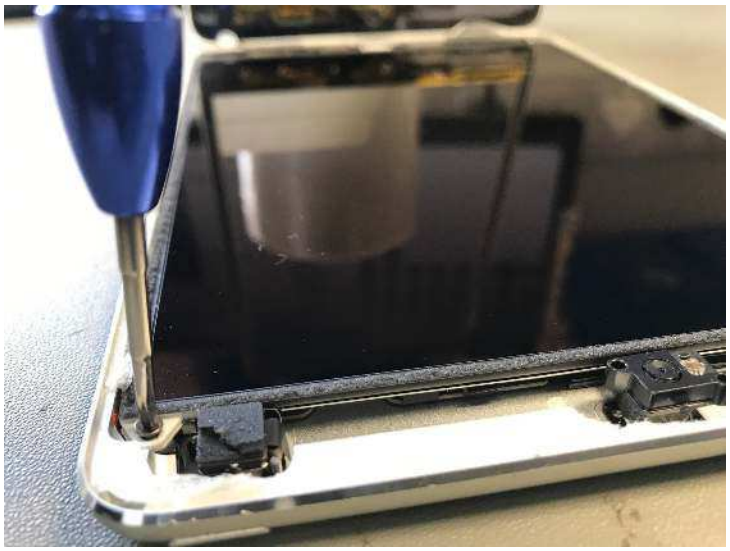
Eventually we'll be able to take hold of the screen to slowly lift it up and away from the frame.

The screen is connected at the bottom of the device near the home button.

It's worth taking note of this so you don't tear this and damage anything you may not be replacing.

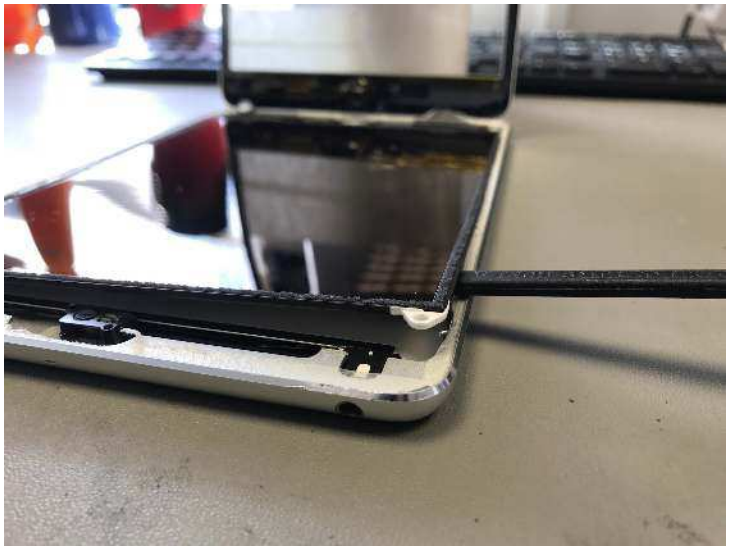
This is how the screen will come away. Make sure to be cautious when lifting screen away near the home button. As there is 2 thin flat flexes that may stick to the screen.

This is very common for novice repair technicians to break. The flex deals with Bluetooth and Wifi signal.



To remove the LCD you'll need to unscrew the 4 corner screws on the LCD frame.

Make sure to lay the screws out as you remove them to help ease refitting later on.



Once those screws have been taken care of you can then take the LCD out. Usually unless the device has been repaired before, the LCD will have some slight adhesiveness on the sides.

So just be careful when you take the LCD out not to put pressure on it.

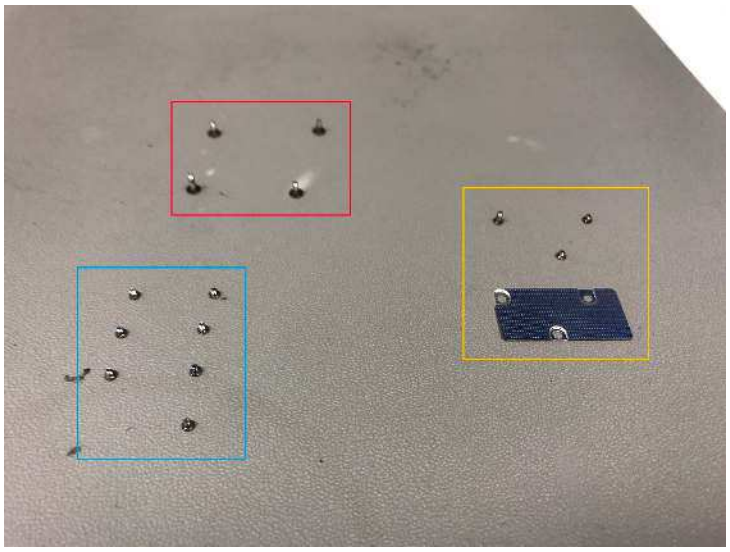
Once the LCD is lifted up, you won't be able to remove it completely just yet.

You'll need to remove the metal back plate first.

There are 7 screws in the back plate you'll need to remove.

Once the screws are removed the plate will lift up and slide out.

Again make sure to lay your screws out when you take the screws out, this will help you in the long run.



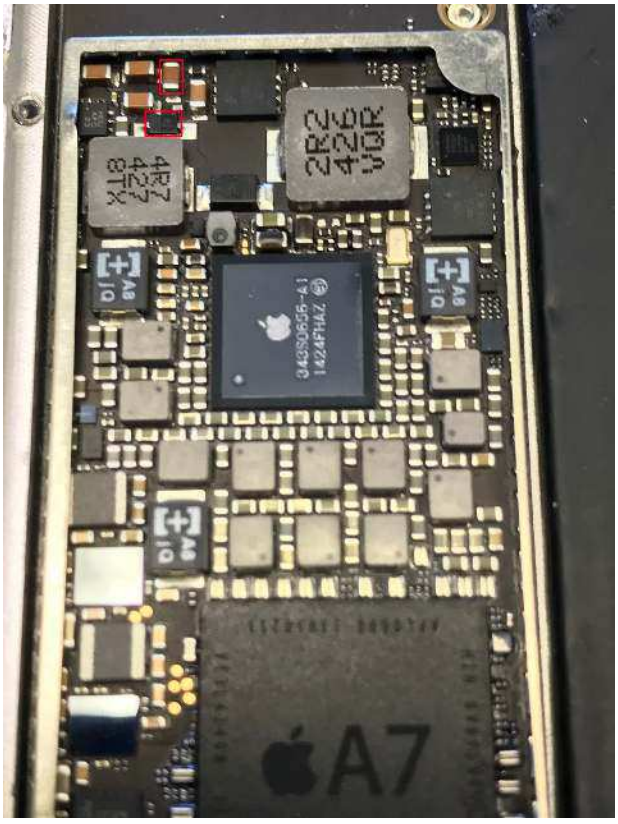
This is how I lay my screws out when I repair. Even though I know where each screw will go it generally just makes it quicker.

RED - LCD Screws
BLUE - Metal Back Plate Screws
ORANGE - Metal Flex Plate Screws & Plate

With the screen assembly and LCD removed we can now, if needed, give the metal frame a clean. We usually use isopropyl alcohol and a metal pry tool to scrape away all the glass and adhesive from the frame.

Due to the backlight being blown we needed to take a look at the capacitor that controls the backlight and see if it's killed the capacitor and needs replacing.

To do this we need to remove this metal plate that is covering all the capacitors and diodes.



With this metal plate removed we can locate the capacitor and diode. The brown component that is highlighted is the capacitor. This had blown at some point. Causing the diode which is also highlighted to blow also.

After replacing these 2 components the backlight was back in action and working without any faults.

With the hard part done we can now fit the metal plate back on and move on to added adhesive to the metal frame.

We use white double sided adhesive tape. We find that using tape is more reliable than using any type of glue.

When taping the frame I make sure to leave gaps where components are going to fit. For example the home button will need a space so that you don't end up taping the button up.

Before attempting to fit the new screen, it's always best to give the part a quick check over before fitting. Making sure there is no scratches, cracks or any marks that will affect the fitting or look of the device.

The screens we use always come with buttons pre-fitted. Some are sold without home buttons. If this is the case you'll have to reflow and solder the original button on the screen.

This is the reason we purchase all screens with home buttons pre-fitted as to cut down repair time.

Secondly we'll check the LCD, making sure there has been no damage during removal. If there is no damage, we'll go forward and check there isn't any glass shards that are going to cause some scratches when we move the component about.

Now we'll give it a quick clean. Removing all the fingerprints and any adhesive that have dirtied up the LCD.

We can now fit the new screen onto the device. I use my lens tape to hold the screen up. I'll always use something to hold the screen up as we'll need to fit the LCD next.

The LCD will fit underneath the screen. Although when the device is all fitted and down the digitizer will fit on top of the LCD where the connectors are you really have to connect the digitizer first.

Again now with the LCD fitted we still need them to stand upright as the metal back plate needs to be put back on.

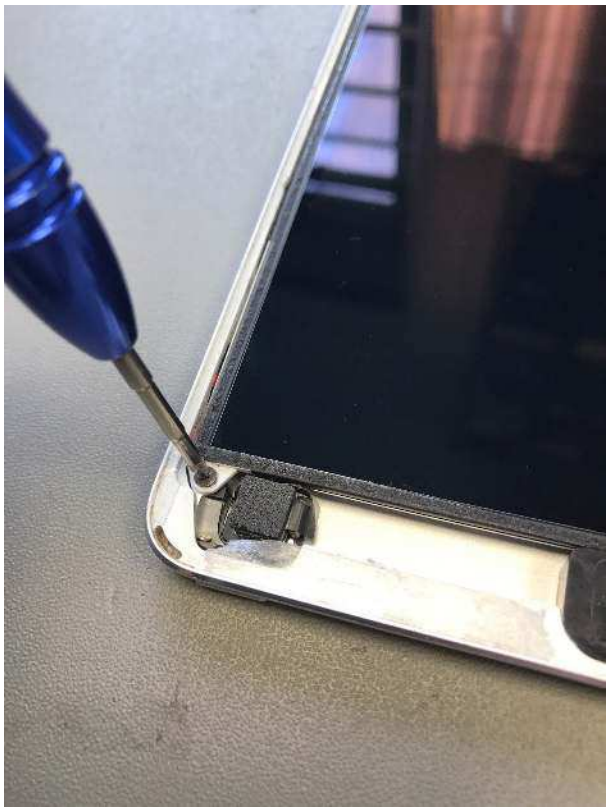
Also make sure the battery **IS NOT** connected while you fit the LCD. If you do, you'll likely kill the LCD itself.

However now the LCD and Digitizer is connected we can connect the battery flex onto the board.

With the metal flex plate screwed into place. We can fit the metal back plate down. We'll have to make sure the screw holes lineup, then begin screwing all screws in.

On this model iPad mini all metal plate screws are the same size. However if you are repairing any other model you'll have a few screws that are a different size.

It's always best to lay your screws out as you are disassembling to counter this.



Once all screws in the metal back plate are fitted we can lower the LCD into place.

You'll then have to screw 4 screws in each corner of the LCD.

Don't over tighten them. Try to make sure all the screws are nicely fitted and even. If you over tighten one screw you can cause a warp in the LCD shape.

We'll now give the screw a final clean over. This is usually the time you'll spend a couple minutes trying to remove all dust.

It can take some time but eventually you'll get a perfectly clean looking device.

I'll sometimes use a fine haired brush to help in the removal of all dust and glass.

It's not essential but very helpful at times.

Some technicians also like to use dust tape.

With all dust removed we can now fit the screen down.

I'll lower the screen down slowly, to watch to see if any dust particles float into the device.

It can be very annoying when this happens.

With the screen fitted, again we'll give it a check over before we tape the device up. Making sure it fits down properly and no dust or anything else is in between the LCD and Digitizer.

The last stage is to tape around the sides of the device to hold the screen down. This will hold the screen down while the adhesive tape is setting.

If you've got a heat gun or hot plate now would be a time to give it a quick heat to help the tape even more.