

Aston Martin Vantage Infotainment Upgrade

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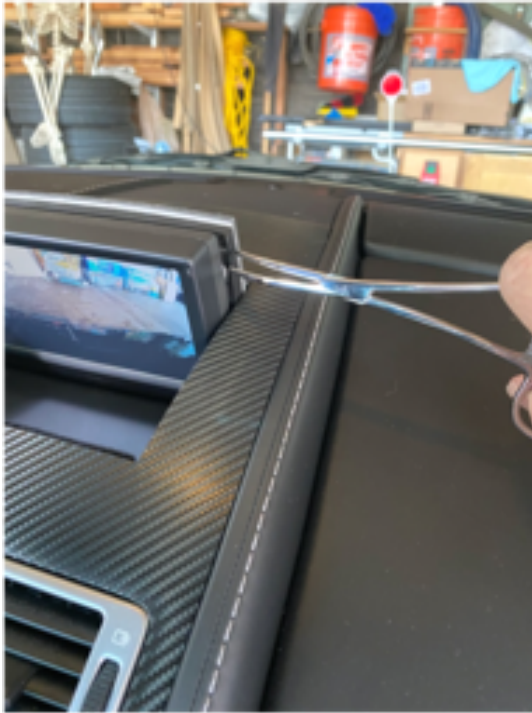
This how-to attempts to describe the sections and steps to replace the factory screen in an Aston Martin Vantage 2011 (MY2012). I've made every attempt to make this complete, clear, and concise but I welcome any edits and suggestions.

The how-to is divided into the following sections:

1. Replacing the factory screen with an LCD
 - a. Removal of the dashboard and unit
 - b. Removal of the factory screen
 - c. Addition of the new screen
 - d. Creating the new wire to carry the original sat nav feed
2. Building the housing for the new electronics
3. Wiring

1a) Removal of the dashboard and unit

Switch on the ignition to get the screen to raise. There are two spring steel clips that hold the screen to the cover. These can be unhooked by pulling them to the sides (they are tough and a pain to unclip – be patient and don't scratch anything). I used either forceps or make a hooked wire to pull them out one at a time.



Once the screen is unclipped, turn off the ignition so that screen lowers again (you need to do this otherwise you can't get the dashboard up).

Using a trim tool, lever up the dashboard working from the area to each side of the screen. There are no clips and this is just a friction fit between the panel and the rest of the dash.



Once the center panel is loose you can lift it up and slightly towards you to remove it. There are wires holding it to the car so you won't have much mobility. I tilted it so the front rests on the audio dials and the back rests against the back of the rear view mirror.



Remove the 4 Phillips head screws holding the screen unit to the dashboard.



Now you have more room to get at the two connectors to the screen unit. The blue one carries power and the grey one carries the various communications. The grey clip has a press-in tab on the right hand side – push it in and pull the clip. The blue one has a press-in tab on the underside – push it in and pull the clip. The unit is now free of the car and can be removed for the next round of fun!



1b) Removal of the factory screen

First we need to remove the back of the screen housing. This should be done carefully to avoid breaking any of the interlocking tabs. The easiest way I've found is to start near what would be the bottom of the screen if it was raised – this also means if you scratch anything here it won't show later. Using a trim tool or suitable thin and stiff tool begin to prise the two halves apart. You can use the gap around pivot points that the screen rotates on to get more space. Work around the case until the back pops free. Note that in these photos I had the screen raised and it was way harder this way so I recommend you open it from the bottom and not the way I did it this time!



For the next steps you will need the screen in the raised position. Take the unit back to the car and plug in both blue and grey connectors. Fire up the ignition and whilst the screen is raised disconnect both connectors again (it will stay up). If you're too slow the screen will drop again so either be quick at taking both connectors off or try to get the blue one off first. Then remove the unit from the car again for the next steps.

Next remove the front plastic half of the screen cover.



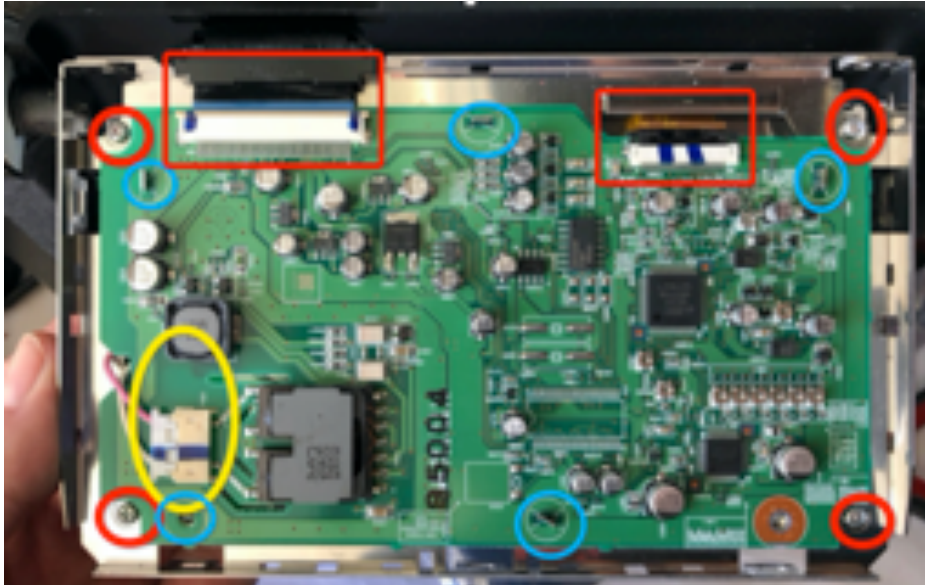
Using a small screwdriver or similar gently pry the metal housing from the back of the screen. It's a friction fit over some indentations which you can see in the photo circled.



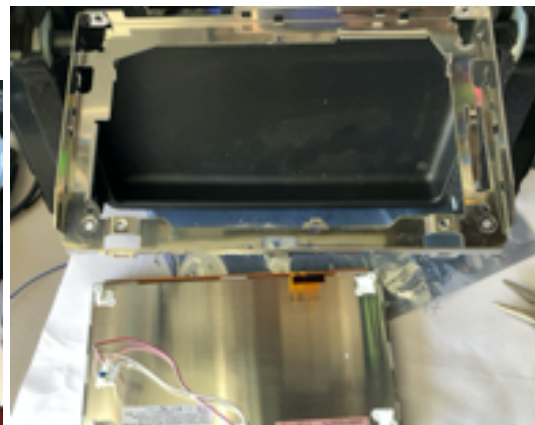
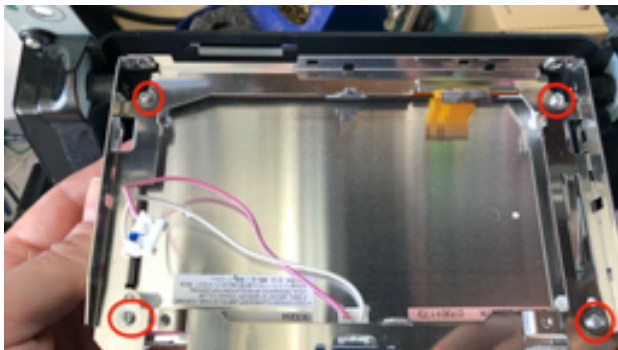
With the back removed you can see the back of the screen circuit board. I didn't take a photo of this but there is a ribbon cable between the base of the screen unit and the screen unit itself – this should be unseated. To get to it you have to remove the bottom cover of the base unit (screws circled):



This larger connector is the larger one in the following image (marked with the larger red rectangle). Once you've got this removed also unclip the smaller one (marked with the smaller red rectangle). Next unclip the two connectors circled in yellow, then twist the locking tabs circled in blue (I may have missed one so study your card carefully). Remove the circuit board and put it somewhere safe – you won't need this unless you decide to reinstall the factory unit.



The screws circled in red are for the screen itself and you'll remove these next. Again, put the screen somewhere safe but you won't need it for the upgrade.



Congratulations, if you've got this far you're at the turning point. You shouldn't have made any permanent changes to your vehicle so you can turn back at any time.

1c) Addition of the new screen

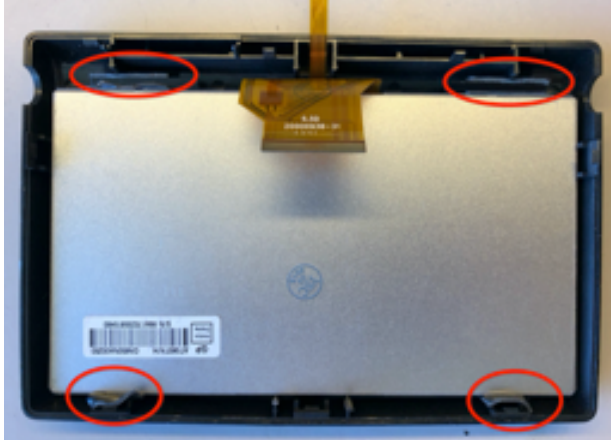
This is the type of screen I chose. I looked at a lot of different ones but this is an ideal fit to the original housing. You may want to look at different ones that are the same size – I recommend you focus on the screen brightness and get something on the brighter side (you'll thank me later).



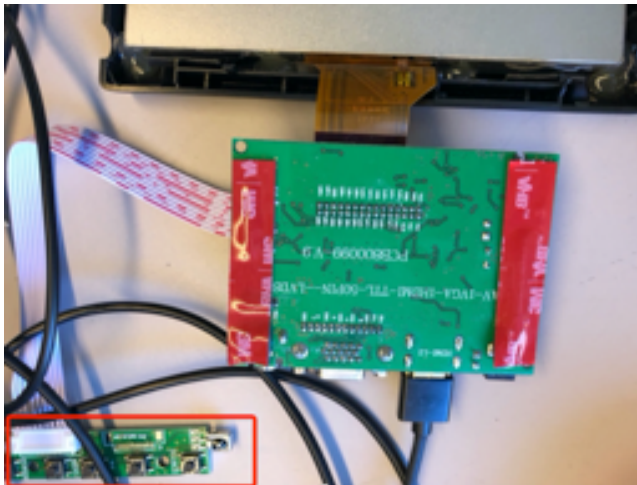
The first thing to do is to install the screen into the front plastic housing. I used this 3M tape to hold the screen in place – it's just the right thickness and very sticky. Again, this is in line with the idea of being able to undo this at any point.



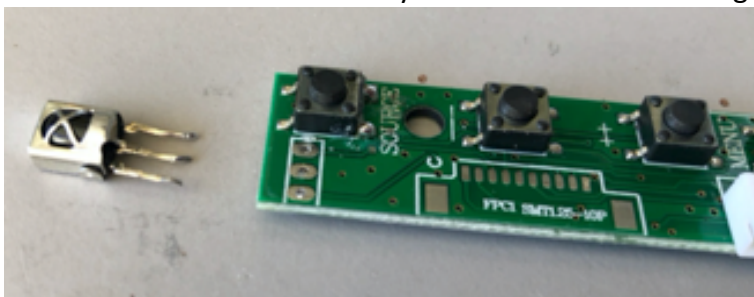
Place the new screen in place as shown below, with the locations of the 3M tape circled in red.



The next stage is to plug the screen ribbon connector into the screen circuit board. I used the same 3M tape to stick the circuit board to the back of the screen – it holds the contacts away from the screen, offers some shock protection, and is a solid way of attaching it in a non-permanent way.

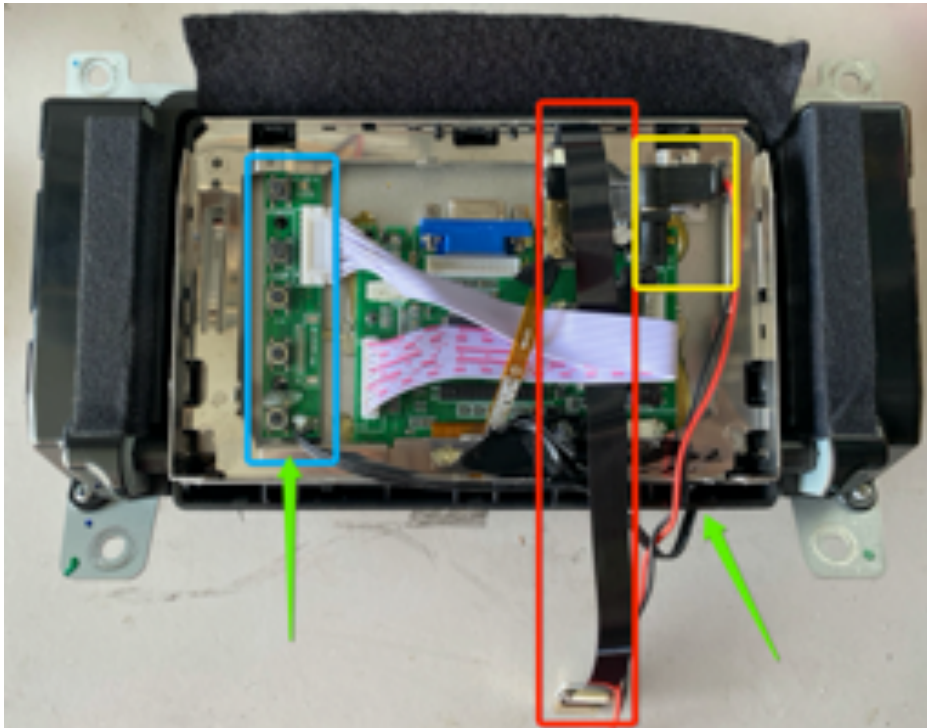


This next section is optional: moving the screen IR receiver so it's accessible when the screen is fitted together. Referring to the above photo I've put the control board in a red rectangle. The IR receiver is the silver housing at the end. Desolder it and run three strands of the 28 gauge silicone ribbon cable between it and the pads you desoldered it from. Eventually you'll run this out to the screen unit base so you control the screen brightness/contrast/etc later.



Okay, back to the rest of the build...

Put the front plastic housing containing the screen and the screen control unit back onto the metal frame. I've put a blue rectangle around the screen controls to show where they are stuck (with 3M tape) to the back of the screen. The thin flexible HDMI cable is shown in the red rectangle. This very thin HDMI cable is required in order to prevent too much strain on the motors when the screen raises and lowers. The yellow rectangle shows the power connection (there is another connector on the other end, to plug into the new box later). The green arrows show where the 28 gauge silicon wire runs from where the IR receiver was and how it runs around underneath the unit.



You won't be putting the metal case back onto the unit (it fits but it's tight and I wanted more room for ventilation). You now put the plastic rear of the housing back and it clips into the plastic front using the tabs you noted when you took the unit apart. In the following image you can see everything back together, with the HDMI cable and power cable routed through the original slot the unit had for the original ribbon cable. I've noted the power connector at the other end of the cable with the green arrow.

1d) Creating the new wire to carry the original sat nav feed

Again, to avoid making any destructive changes to the vehicle it's necessary to make a small bridging cable that goes from the original loom's grey connector to where it plugs into the screen base unit (where the original grey connector went). Most of the pins are pass-through but we'll be taking the red, green, blue, and composite sync signals from the car and sending them down to the new electronics we'll be installing. We're also taking the ground but this will be a tee so that ground also continues between the car loom and the base unit.

