

How to install your new Harmony One Front Cover/Touch Screen

Important! Before you begin working on your Harmony One, you must discharge any static electricity you may be carrying around. Ideally, you should wear an anti-static wrist strap as you work. If you do not own an anti-static device, at least touch a grounded appliance (the metal on the back of a computer tower works well) before you begin working. The components inside the Harmony One are sensitive to static electricity so it is very important to take these precautions!

Before you get started, familiarize yourself with the parts pictured below.



"Rubberized" Back Plate

Disassembly Procedure



1. Remove the battery compartment cover. There are four screws in this area that need to be removed. Two are immediately visible on either side of the serial number sticker. Remove them with a small Phillips head screwdriver and set them aside. There are also two hidden screws *under* the sticker (if there is no sticker, all four screws are visible). To remove the sticker, use an x-acto blade or razor to get underneath one of the corners and peel it up gently. Once you get it started, you can use tweezers or small pliers to peel it off. If you are careful, you can lift the sticker and still be able to re-apply it later. Remove the two screws and set them aside.



2. Now it is time to remove the black 'rubberized' back plate. This looks like soft rubber but it is actually a hard piece of plastic. Start at the top using a pry tool and pry up the left corner. Then, move to the top right corner and pry that up as well. Once the two top corners are free, you can move the pry tool to the middle and, like a lever, bury it deeply and pull gently forward, prying the back plate towards you. This is not an exact science and you may need to experiment and pry in a few different places. You may also pry at the sides and use your hands to keep the piece from locking itself back in its side groves. There is a tab in the middle/center of the plate that will offer some resistance so the plate may come free suddenly. The only thing you need to really be aware of is that, on some Harmony One's, there is a sticky piece of double-sided tape at the very bottom of the plate (just below the raised dot). So, if the plate seems to come free but appears stuck in this area, use your pry tool to 'peel' the plate off of the tape, or simply use your hand and pull from the side. Once the plate is off, we can move to the next step.



3. Removing the plate will expose three screws; one at the top left and two at the bottom on either side. These screws are the same size as the ones you already removed. So, use your Phillips head screwdriver and place these screws with the others.



4. Now it is time to separate the two clamshell halves of the Harmony One. A triangle pry tool is best for this work and you should not use a screwdriver or any other kind of sharp tool. If you do not have a pry tool, then a hard guitar pick works well. Start with the remote face-up in your hand and take the pry tool and place it into seam of the clamshell casing at the top right-hand corner. Then, simply slide down the seam, with the pry-tool angled slightly. Do this action quickly and firmly. Then, rotate the remote so that the front of the remote is facing you. Insert the pry-tool into the seam by the Off button and slide down the seam as you did before. Note that you may need to do this more than once in order to pop all of the tabs. Once it appears that the front cover is free, do not lift the front cover off! There is too much risk of pulling the touch screen ribbon cable and detaching the delicate leads from the inside surface of the front cover. To help prevent this, turn the remote upside-down and lift the back cover up and off of the front cover. Do this gently and carefully! Watch for the small plastic 'window' that covers the learning port at the back of the remote. This can sometimes fall out of the back cover slot. So, make sure you do the disassembly in a place where you will be able to find this almost invisible piece should it fall!

When you are done, the back cover of the Harmony One can be set aside and you are left with the front cover touch screen and logic board.



5. Turn the remote so that the logic board is face up. There are two screws that need to be removed so that the front cover can be separated from the logic board. They are near the bottom of the remote on either side.

These screws are shorter than the screws you removed previously so do not mix them up.

6. Now, the only other thing that needs to be done before the logic board can be removed from the front cover is to unclip the touch screen ribbon cable. If present, gently remove the piece of clear tape that is covering the connector. Flip the black connecting clamp up and back. **Do it gently and carefully** since it can sometimes detach from the connector and be difficult to put back on. Slide the ribbon cable out.



7. To remove the logic board, start by lifting it up slowly and gently at the 'soft' connection at the top left (a hole in the board with a mounting post through it). Do this carefully and make sure that the touch screen ribbon cable does not get tugged *or pulled.* It may stick a little at the top, so you may need to wiggle it free from the post, but then the board can be 'rolled' to the right and removed, and this is a little safer than lifting straight up, where there is risk of pulling the touch screen ribbon cable. This is the most common error that is made during disassembly. If the digitizer connections on the inside surface of the front cover detach even slightly, the touch screen will not function properly or may not work at all. There is no reliable repair for this condition and the front cover will require replacement if this happens. Now, depending on how you removed the board, only the PCB itself will come free, or you may have lifted off the plastic button guide template and/or the rubber button pads. Either way, all these components simply go back together and sit on top of one another – no screws, glue, etc. If the plastic button guide sticks to the logic board when it comes out, or if it stays on top of the button pad, either way is fine. Just make sure that if you separate all the components that the plastic guide is re-installed in the correct way (see reassembly pictures). Page 4

Reassembly Procedure



1. Take the button pads from the old face plate and move them onto the new one. Just drop the two pads right in and pat them down, making sure that they are fully inserted. Also make sure that the on/ off button is oriented the correct way. There are two tiny holding pins (part of the front cover) that are actually inserted into the on/off button pad to help hold it in. Turn the front cover face up to verify that the button is in correctly. Now, if the white plastic button guide *is not* attached to the logic board and is just another part on the table, then place it on top of the button pads.

Make sure that the guide hole with rectangular sides is placed on the pad so it is at the top right as shown in the picture.



2. Now drop the logic board back on top of the button pad (or button guide if not attached to the board). Make sure that the post at the top of the front cover has been fully inserted into the hole in the logic board. Push down gently on the board and reach your hand around to the front and click the buttons so you can feel if the board and front cover are aligned correctly.



- 3. Re-insert the ribbon cable into the connector. Push it all the way in and close the connecting clamp slowly and carefully. If you close the clamp quickly or aggressively, it may come forward too far and actually detach from the connector. You can reinstall the clamp, but it can be difficult to do. If this happens to you, pull the ribbon cable out before you attempt to reseat the clamp.
- 4. With the ribbon cable installed, replace the two shorter screws that you removed before. *Make sure they are the shorter screws!* At this point it is a good idea to turn the remote face up and simply press the keys and test that they seem to be aligned correctly and have the appropriate tactile response.



5. With the logic board face up, take the back cover plate and align it with the board. You can verify alignment by seeing that the screw hole at the top left of the back cover is directly over the mounting post at the top of the logic board. The next part is a little tricky. What you want to do now is press the front and back pieces back together. So, holding the remote with both hands press the front and back pieces together starting at the top.



6. Once the top has been engaged (even if not completely), turn the remote face up and continue pressing the front and back together – moving down towards the middle and then the bottom. You should hear and feel the locking tabs snapping together and engaging. Once you are done, inspect the edges very closely to see if a locking tab did not engage.



There should be no gaps between the back cover sides and the front cover and the surface of the touch screen should be virtually flush with the sides. If you see any part that is raised or there is a gap at the sides, apply gentle but firm pressure at that point until the front and back covers snap together.

At this point, you can test the installation before going any further. Insert the battery and allow the remote time to boot-up. Test the touch screen. If all is well, remove the battery and continue with re-assembly.



7. Replace the three screws that firmly attach the back cover to the logic board. Then, you are ready to reinstall the 'rubberized' back piece. This piece just snaps back in. Align the piece with the back of the remote and press firmly at the top. Move to the middle and press again. You should feel and hear very definite engagement. Press firmly along the sides and length of the piece to ensure that all tabs have been engaged. Then, inspect the edges. If it appears that a side tab did not fully engage, simply press the spot sideways and it should click right in. There should not be any spaces between this piece and the body of the remote.



8. Install the remaining four screws back in the battery compartment and, if desired, re-apply the serial number sticker. If it came off cleanly there is generally enough glue to stick it back on.

Do a final test to make sure everything works as expected. Feel free to contact me if you have any questions. I'm always happy to help.

Questions? Need additional help?

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