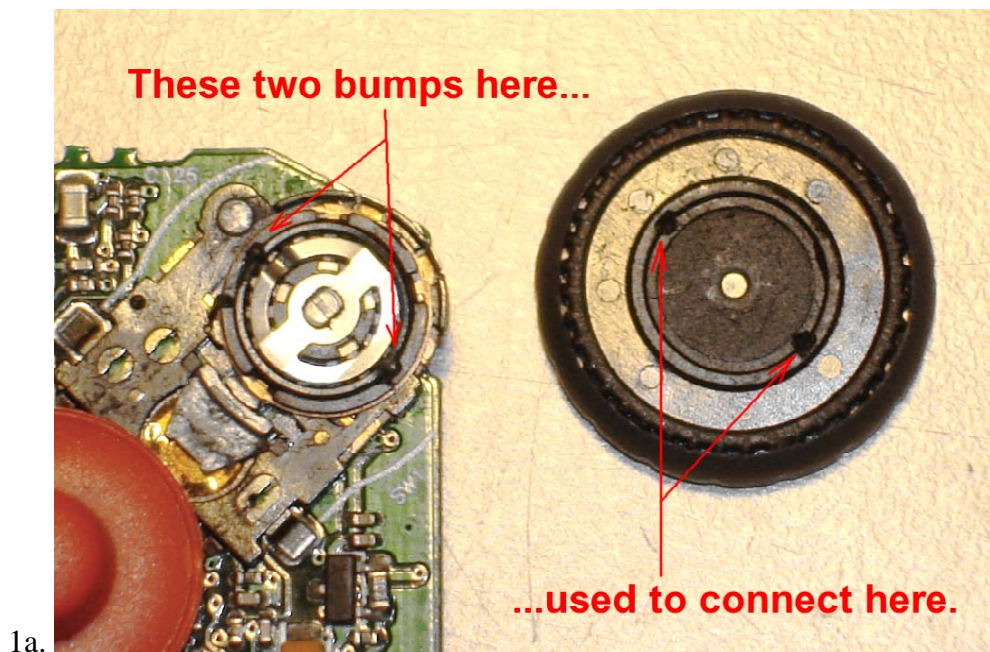


One of the few weaknesses of the Karma's physical design is the scroll wheel. The plastic wheel is held to the scroll mechanism beneath by two tenuous plastic joints. A otherwise harmless drop or bump of the player can break the wheel off. Luckily it is relatively easy to re-attach the wheel to the scroll mechanism. I have played a bit with replacing the whole scroll mechanism, but have had no success. Therefore at this point my recommendation is to re-attach the scroll wheel.

Below is my step-by-step wheel repair guide, exactly as I have done numerous times now

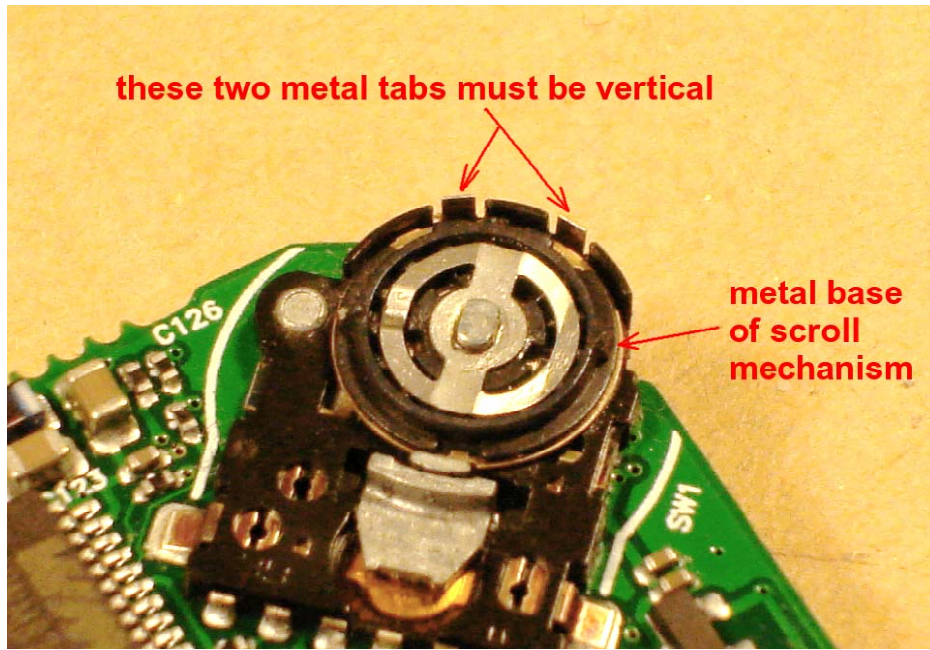
STEP 1: GET READY

Disassemble your player to the end of Step 6, as described in the Karma Limbo Disassembly Guide (rev 2). Familiarize yourself with the plastic wheel and the mechanism it attaches to. Take note of the plastic bumps that used to connect the two pieces as one (1a). That's right, there was only those two little plastic tabs connecting the wheel to the scroll mechanism! When you re-attach the wheel, you will want to make sure you align these in order for the wheel to fit back on correctly.



STEP 2: PREPARE WHEEL & MECHANISM

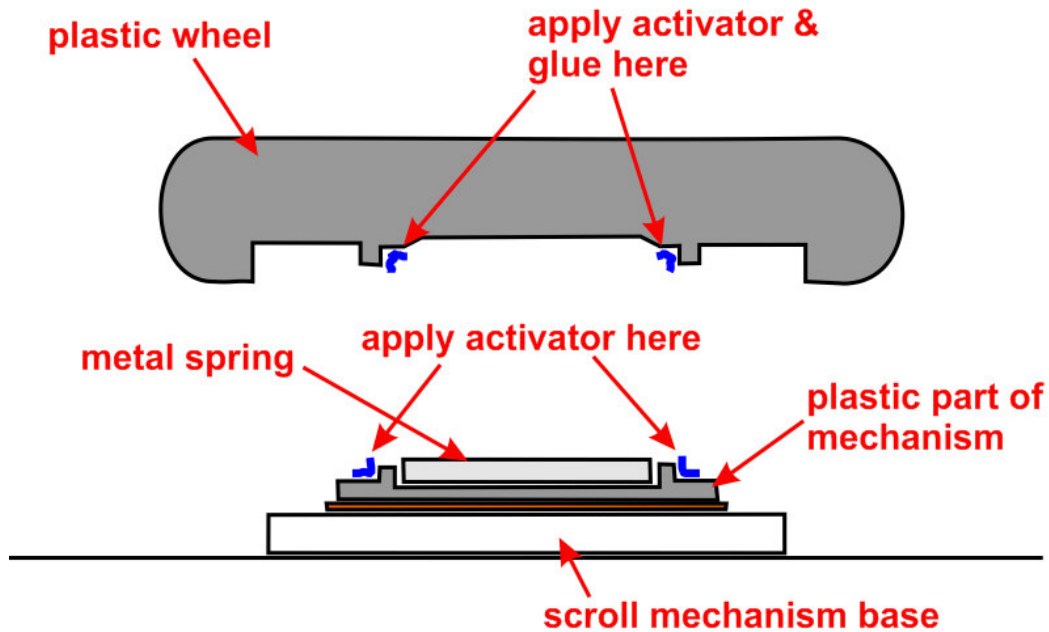
Clean the wheel and mechanism with a knife or screwdriver, to ensure that you are starting with clean plastic surfaces. If there is any residue of past glue'ings, make sure you remove all of it. Even if it takes 15-20 minutes and you have to use a needle or something, get all that old glue out of there. Also make sure that the metal contacts in the upper right are positioned correctly (2a) in a vertical orientation.. If they are bent inwards, and happen to touch the rotating part of the scroll mechanism, it will cause an electrical short that resets the player.



2a.

STEP 3: APPLY GLUE ACTIVATOR

The glue that I recommend is a specially formulated cyanoacrylate (super glue) for plastics made by Loctite. Admittedly I have only ever tried regular “Krazy Glue” and this one, but this one seems to perform well enough for my purposes. The glue comes in two parts: an activator, and the glue itself. The activator is in the form of a magic-marker type applicator. Apply the activator liberally to all the mating surfaces of the wheel and mechanism (3a).



3a.

STEP 4: APPLY GLUE

This is a critical step as sloppy application of the glue WILL result in the permanent gumming up of your wheel mechanism. About a minute after you applied the activator, you should start to apply the glue to the mating surfaces of the wheel (see 3a above). If at this point you don't have 15 minutes to dedicate to the procedure, do not start applying the glue because once you start there is no going

back or stopping in the middle. With the wheel in a vertical orientation (4a), very slowly apply the glue to the wheel. I find rotating the wheel while steadily applying the glue works best. Apply just enough glue to cover the mating surfaces on the wheel. Do not apply glue to the wheel mechanism (on main board).

Warning: It is better to use a bit too little glue and have the wheel break off during use than to put too much and permanently wreck your wheel.

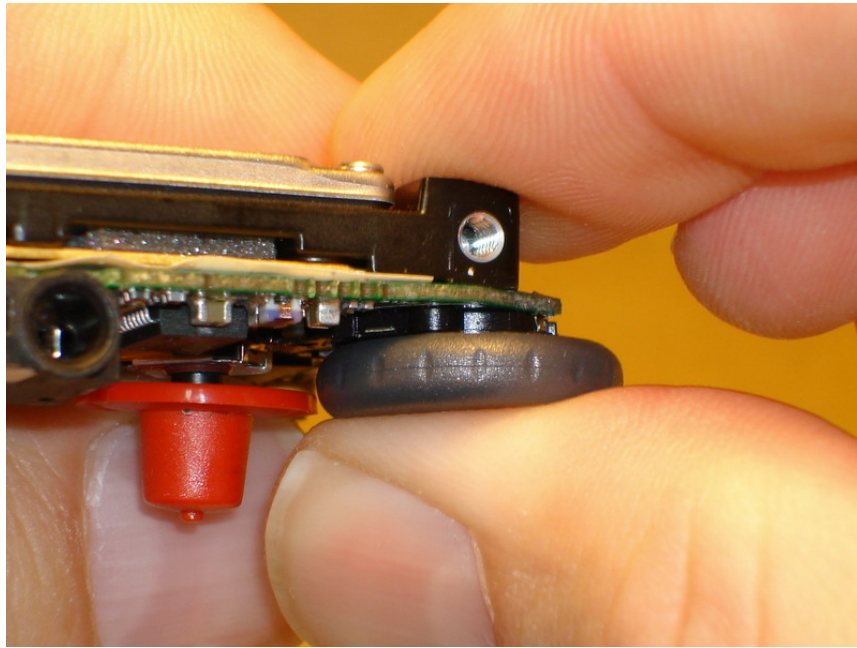


4a.

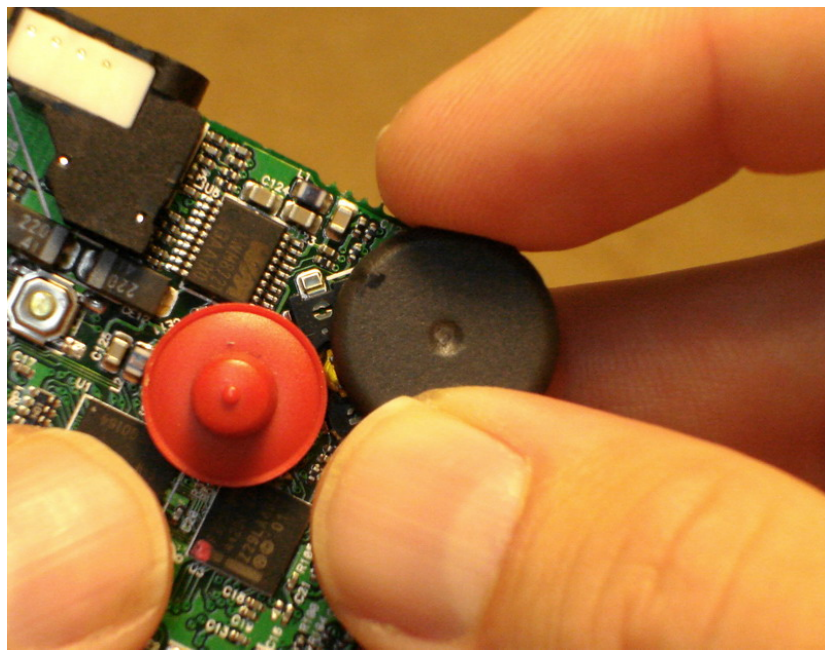
STEP 5: ATTACH THE WHEEL

Immediately after you have applied the glue, align the tabs on the mechanism with the notches in the wheel, and quickly put the wheel into position. Make sure you get it pushed down square and level with the board (5a); you will have a couple seconds to reposition the wheel if you need. If the wheel is not seated correctly after 5 seconds, take it off and wait 15 min. for it to dry before starting again at Step 2. While pressing the wheel down firmly on its mechanism, count to ten. After the ten-count, spin the scroll wheel for about 5 seconds (5b). Apply pressure again to the wheel for a ten-count (5a), followed by a 5 second wheel spin (5b). Repeat the pressure-spin process 3 or 4 times, then you can set the main board down for 30 sec. After 30 sec, spin the wheel again. After another 30 sec, spin it again. After another minute, spin it again. After 5 minutes, spin it again. Leave it now for 10 minutes to cure, and spin it again to confirm it still works.

Warning: If you choose not to spin the wheel during the glue curing process (as described above), the wheel and its mechanism will surely become a single unmovable mass. There will always be dripping glue off the wheel, so spin the wheel!



5a.



5b.