



LG G Watch Teardown

Teardown of the LG G Watch on July 7, 2014.

Written By: Sam Goldheart



INTRODUCTION

The first of the Android Wear teardowns are here: Say hello to our little LG G Watch and [Samsung Gear Live](#) friends! Join us as we journey inside two of the newest smartwatches.

Can't get your fix fill from the teardowns? Come say hello on [Facebook](#), see iFixit's internal workings on [Instagram](#), or learn about repair on [Twitter](#)!

[video: <https://www.youtube.com/watch?v=Kw3di0v04wQ>]

TOOLS:

- [T5 Torx Screwdriver](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [Tweezers](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Spudger](#) (1)
- [iOpener](#) (1)

Step 1 — LG G Watch Teardown



- Tired of dull black-n-gray, we picked up a white an' [goooooold](#) teardown unit with the following specs:
 - 1.65" IPS LCD
 - 400 mAh battery
 - Qualcomm® Snapdragon™ 400 processor with 1.2GHz CPU
 - 512 MB RAM / 4 GB Flash
 - 9 Axis (Accelerometer/Compass/Gyro)
 - Bluetooth 4.0

Step 2



- Here it is, in all its marbelous white gold glory.
- Speaking of which: If your smartwatch committed a crime and was in a police lineup, could you identify it?
- Left to right we have the [Samsung Gear 2](#), [Samsung Gear Fit](#), LG G Watch, and [Samsung Gear Live](#).

Step 3



- Everyone knows this watch as the G Watch (we're pretty sure because this watch is for upper-case Gs only—no lower-case Gs need apply), but the official model is LG-W100.
 - We agree that "G Watch" is a much catchier name.
 - More importantly, we spot some T5 screws that will allow for easy, adhesive-free access. Thanks, LG! Things could have been a lot worse for this little guy.
 - We were pretty darn sure the G Watch was utterly buttonless—until we found this cute little paperclip-actuated reset switch on the back.
- The only other feature in this slick square is the most important one: a microphone allowing you to basically be Dick Tracy anytime, anywhere.

Step 4



- The included charging dock is crazy easy to use. It even works one handed.
- It's so easy, even an [infomercial actor](#) could manage it.

Step 5



- Every watch needs to have an exit strategy. Just like batteries, straps eventually wear out, and (just like batteries) should be user-replaceable.
- The LG G Watch has a more [traditional](#), but trickier, strap removal process than the [Samsung Gear Live](#) (and [Gear 2](#)). Instead of pulling a built-in pin, you'll need to compress the spring with a thumbnail, [precision tweezers](#), or a handy [Swiss Army Knife](#) blade.
-  Think of it like a tiny [toilet paper roll holder](#). It helps, we promise.

Step 6



- Alright, alright, back to those not-so-dastardly T5 Torx screws. Let's see what treasure they guard.
- For all of our T5 Torx screw unscrewing needs, we've got our pro-styles [Pro Tech Screwdriver Set](#).
- We remove the four screwy fasteners and use an opening pick to disengage a couple of retaining clips.
- Presto-blamo—we're inside!
- When we open these ring-box-like devices, it's almost like we're being proposed to: "Dearest iFixit, [will you marry me?](#)"

Step 7



- This watch splits apart very similarly to the [Gear Live](#):
 - Rear half has the battery, vibrator, and some other fidgety doodads
 - Front half has the main board and display
- First treasure extracted: a springy metal retaining clip that secures the battery. It also hosts a chunk of rubber that connects the reset button to the microswitch on the motherboard.
- Next victim: the vibrator. This particular unit connects via simple spring contacts, unlike the soldered-to-a-board-connected-to-the-main-board approach the [Gear Live utilizes](#).

Step 8



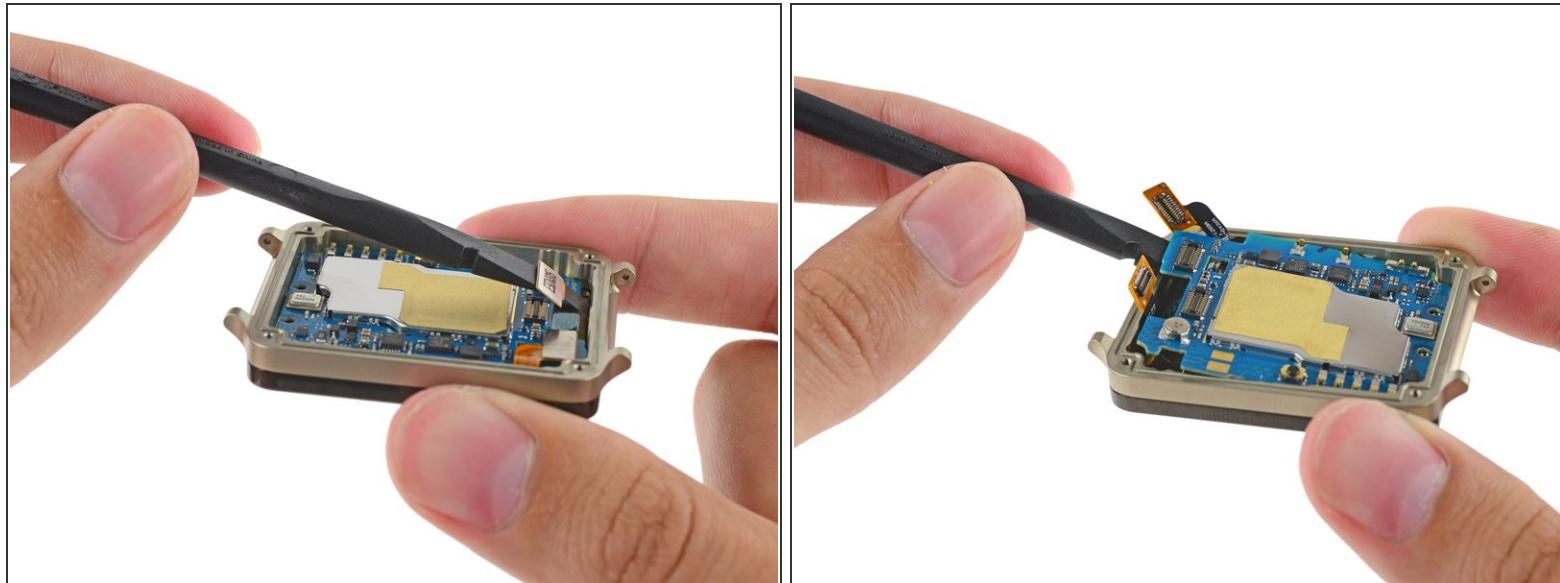
- Time to leave the nest, battery. Tiny strips of double-sided tape hold it securely, but offer little resistance to our spudger. [We likey](#).
- The 3.8 V, 400 mAh battery holds a 33% edge over the [Gear Live's 300 mAh battery](#). Both watches tout "Always-on" screens, so [perhaps it can use the extra juice](#).
- Our battery recommends we refer to user's guide. Let's see what's inside:
 - *"Do not attempt to repair or modify or remanufacture the product. It is equipped with an internal rechargeable battery, which should be replaced only by LG or an authorized LG repair center."*
-  Okay sure. Just gonna leave [this right here](#). If you can't open it, you don't own it.

Step 9



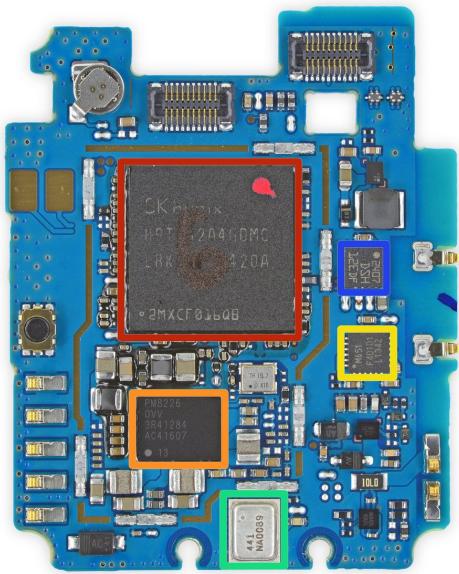
- A small rubber gasket runs around the perimeter of the LG G, earning it the advertised [IP67](#) rating.
- *(i)* This means the device is both dust tight, and can withstand immersion in 1 meter of water for up to 30 minutes.
- **⚠** Don't take it SCUBA diving, but feel free to leave it on while you wash the dishes, or maybe even take a shower—if you're feeling [daring](#).

Step 10



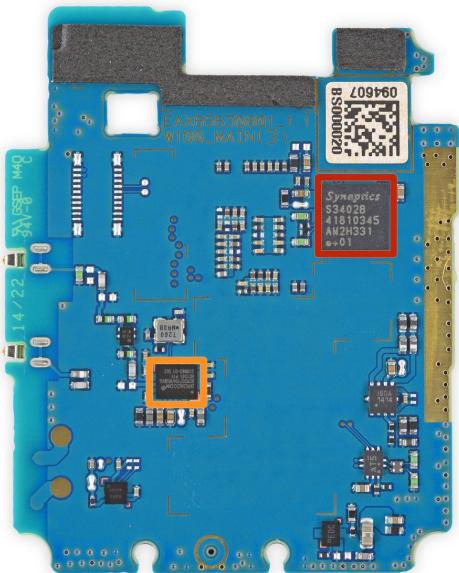
- Thanks to the spring contacts between the two halves of the LG G, we need only dispatch two connectors: display data and digitizer cables. They're easily released with our handy spudger.
- Just as easily, the motherboard is popped up out of the hefty metal bezel securing the display assembly.

Step 11



- Chips up front:
 - SK Hynix H9TU32A4GDMC 512 MB DRAM—the Qualcomm APQ8026 System on Chip is layered beneath
 - Qualcomm PM8226 power management IC
 - InvenSense [MPU-6515](#) 6-axis accelerometer + gyroscope
 - InvenSense INMP441 Microphone
 - 2407 DSH 12EDF

Step 12



- Not much back here:
 - Synaptics [S3402B](#) ClearPad 3400 series touchscreen controller
 - Broadcom [BCM20715](#) Bluetooth 4.0 controller

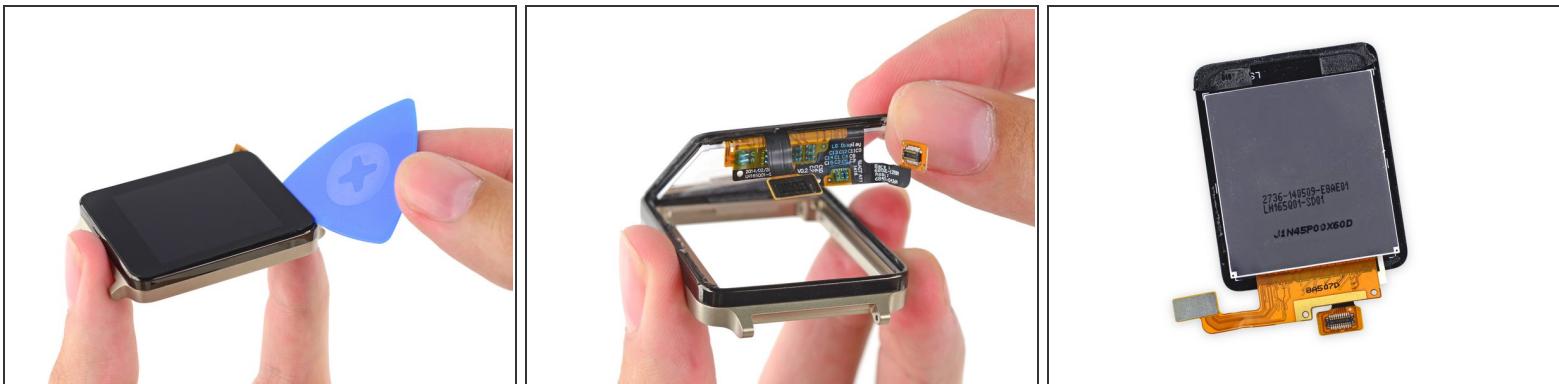
Step 13



- We're gonna need some heat to separate the display glass from the metal bezel, so it looks like it's time to drop an [iOpener](#) on our G-unit.

 We like to [drop it like it's hot](#).

Step 14



- After three solid minutes of watching the video in the previous step, and congratulating each other on its fabulous humor (while the iOpener did its thing), the display adhesive is soft enough to relinquish its grip.
- A little gentle pressure from the back of the LCD gives our opening pick just the edge it needs to sneak in and separate the display from the watch bezel.

Step 15



- LG G Watch Repairability Score: **9 out of 10** (10 is easiest to repair)
 - Screws and spring contacts mean the rear case is super easy to remove.
 - The battery is held in with a single Phillips screw and minimal adhesive, making replacement easy.
 - Not the easiest watch band to remove, but an old standard that shouldn't pose much of a threat to band-replacers.
 - Clean design with few fragile cables and connectors means a more robust, repair-ready device.
 - A fused display assembly, glued into the front of the device, makes screen replacement a little difficult and costly.

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