



February 24, 2021 - BQ Aquaris X2 3/32GB - X2 4/64GB - X2 PRO 4/64GB

IMEI & Baseband Fix Package Contents - Flashing Instructions - Credits - References

Repository <https://t.me/s/bqrepo> - Yandex Mirror <https://disk.yandex.com/d/UaAQsZtdU3rzEA?w=1>

## 0.0 Disclaimer

*The usual stuff :*

*This package might be most suitable for experienced users but everybody is welcome to use it at his own risk.*

*Flashing / Rooting your phone and using software tools aren't anyway trivial procedures. Therefore, please read carefully all the instructions & follow them if You choose to go on.*

*If You can't understand the instructions, stop & search on Google/Forums/XDA/etc. and / or ask for help.*

*All the mentioned software & tools belong to their respective owners/developers. Neither I nor the owners / developers might be held responsible if you damage your device.*

## 0.1 Preliminary Steps



**As written in the unbrick guide, You should follow the instructions of this guide ONLY if You're experiencing IMEI and/or baseband issues, such as :**

**> Missing IMEI codes in Settings \ About Phone and/or after dialing \*#06#**

**> Missing Baseband version in Settings \ About Phone advanced infos**

**> Phone stuck in Flight/Airplane Mode**

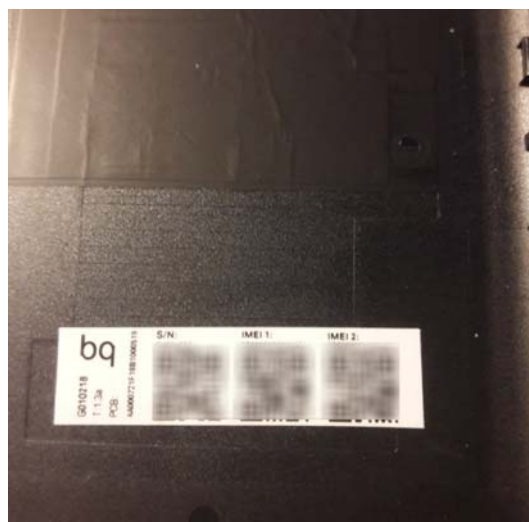
In such cases You'll need to follow next steps in order to enable OK phone calls and/or mobile data connections.

**Therefore, first check that You have written down your phone's original IMEI 1-2 codes.**

.As written also in the unbrick guide, You can retrieve them from a label on the outside of the phone packaging.

Otherwise, if you can't find the box, you can still retrieve them from a sticker on the internal side of the backcover.

The backcovers of Aquaris X2 and X2 PRO aren't glued to the chassis. Therefore, if required, users can easily remove them - even with the help of a plastic card (*no special tools required*).





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## 1.1 Fix IMEI / Baseband - IMEI + QCN

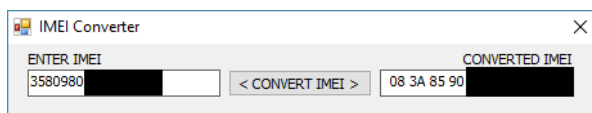
### Pre-Requirements :

- **IMEI BASEBAND FIX PACKAGE** (online folder 2\_IMEI\_FIX)
- **QPST / QFIL tool + HS-USB/Diag Driver** (online folder 1\_FLASH\_QPST\_QFIL)
- **7-ZIP program** to extract 7z/ZIP compressed archives <https://www.7-zip.org/>

Since You should already have QPST/QFIL and 7-ZIP (required for the unbrick procedure), You only need to download & extract the compressed archive of the IMEI BASEBAND FIX package.

Once downloaded and extracted, go into the Tools subfolder and launch the **IMEI CONVERTER** program.

The usage of such program is quite straightforward = just paste your IMEI codes - one at a time - and copy the converted HEX into a text file..



Now You need to check/arrange the QCN file.

**Notice :** If You have already a QCN backup of Your device, that You've made before the brick situation, then You can skip this part & go on with the next chapter.

Otherwise, You'll need to arrange a QCN file - donated from another X2 / X2 PRO device - in order to align it with Your IMEI codes.

In case You don't have a compatible donor device (*yours or from friends*), You can use the provided X2\_template.qcn file.

Go into the Tools subfolder and launch the **HxDPortableSetup** installer. Then go into the folder where You've chosen to extract the program & launch the HxD program - suitable for Your Windows version (32bit or 64bit).

Open the QCN file (Menu File \ Open). Then click on Search \ Find \ Hex-values.

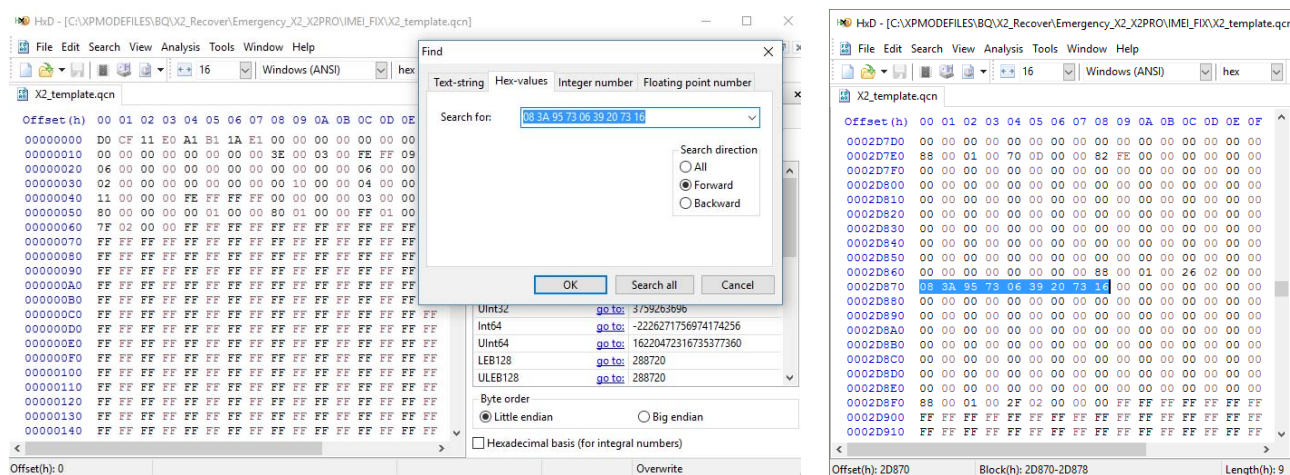
You'll have to search the dummy IMEI codes and replace them with the HEX, You've copied from IMEI CONVERTER.

**IMEI 1 - dummy value**

08 3A 95 73 06 39 20 73 16

**IMEI 2 - dummy value**

08 3A 95 73 06 39 20 73 97



Once You've replaced both IMEI codes, save the file (menu File \ Save as) with a different name - e.g. newqcn.qcn .



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## **1.2 Fix IMEI / Baseband - Flashing Partitions**

Reboot Your phone into bootloader mode (*through ADB commands or combo button VOLUME DOWN + POWER power-on procedure*).

Once in bootloader mode You'll have to use the fastboot commands to flash the 4 partition/image files, that You find inside the extracted IMEI\_BASEBAND\_FIX folder.

Follow this sequence of fastboot commands

```
fastboot devices
```

```
fastboot flash boot_a patched_vsmart.img
```

```
fastboot flash fsg fsg
```

```
fastboot flash modemst1 modemst1
```

```
fastboot flash modemst2 modemst2
```

```
fastboot reboot
```

Then, wait until your phone normally reboots into system.

## **1.3 Fix IMEI / Baseband - Diag Mode + QCN repair**

Once again in system, connect your phone to the computer & open the Device Manager (*Start \ Run \ devmgmt.msc*).

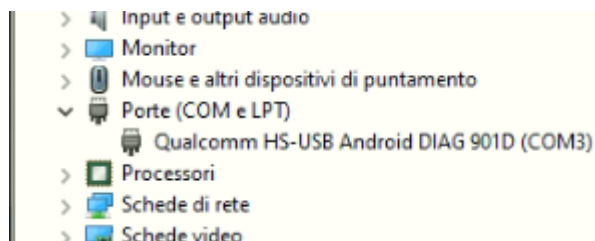
Then, open a command window and launch the following commands.

```
adb devices
```

```
adb shell
```

```
su
```

```
setprop sys.usb.config diag,adb
```



Once the computer detects the phone in DIAG mode, You'll notice it from the Device Manager - Ports list..

Otherwise, if the computer detects the phone, but as Android with an exclamation mark, unplug / connect again the phone & repeat former commands.

If not working yet, manually update driver for such Android item, and choose All Devices/Manufacturers - Qualcomm - Qualcomm HS-USB Android DIAG 901D.

**Notice :** in case of any other issue while enabling DIAG mode, the Hovatek forum provides a very helpful step-by-step guide - <https://forum.hovatek.com/thread-22399.html> (You can find a copy of such guide inside the **2\_IMEI\_FIX** online folder).

Once DIAG mode has been enabled, go on & launch QPST \ QFIL tool.



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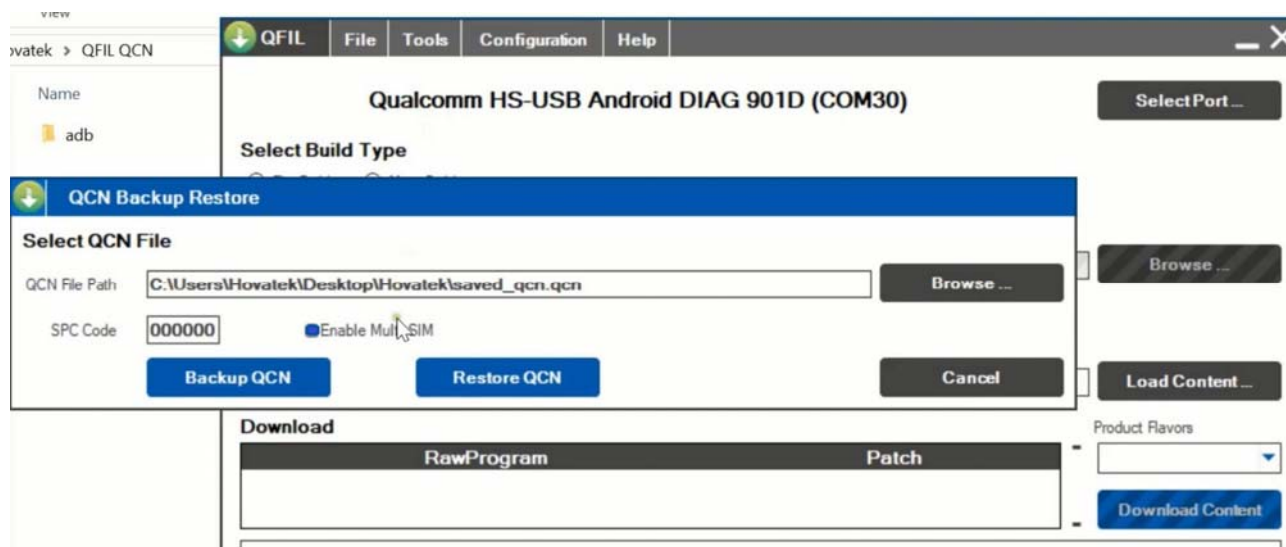
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You'll immediately notice that also QFIL detects the DIAG port.

Then go to Tools menu and click on QCN Backup Restore = it will open the QCN dashboard where You have to

- 1 - Browse & select the location + filename (e.g. oldqcn.qcn) to save your current QCN file
- 2 - Select Multi-SIM checkbox
- 3 - Click on Backup QCN



Once You've saved your current QCN, go back to the QCN dashboard and proceed to upload the QCN file (your former backup or edited file) that You've checked before (chapter 1.1 of this guide).

Therefore You have to

- 1 - Browse & select the location + filename (e.g. newqcn.qcn) related to such QCN file
- 2 - Select Multi-SIM checkbox
- 3 - Click on Restore QCN

Once You get the restore confirmation message, You can close QFIL & also disable DIAG mode through the following commands :

```
adb devices
```

```
adb shell
```

```
su
```

```
setprop sys.usb.config mtp,adb
```

In the end, reboot your phone in order to fully load/apply in NVRAM the new QCN file.

**If everything OK now with IMEI/baseband & SIM phone calls / mobile data, You can go back to the unbrick guide & follow Chapter 3 instructions (to flash the stable firmware).**



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## **2 Extra Notes**

Fixing IMEI / baseband issues isn't trivial = if You already have a QCN backup of your device - prior to the brick situation - it's simpler than working with edited files, that belong to donor devices.

Therefore, in case the provided instructions aren't effective for your specific situation, I've also provided some extra tools, that may help to fix.

If required, You can find them - *QMSL and Qualcomm Write IMEI* - in the online folder 2\_IMEI\_FIX \ subfolder Extra, together with their related guides/howtos.

We've tested also these tools, but their behaviour wasn't always flawless and fully reliable. In some cases such extra tools haven't fully fixed the issues, while the QCN restore procedure has been effective.

## **3 Credits / References**

**RAW MAIN (myself)**

**Author/publisher of the guides & software package editor. Maintainer of the unofficial repository for BQ devices.**

**Unriell**

**Provider of the 1st bricked device, that has been used to prepare & test the EMERGENCY PACKAGE.**

**Teomiglio (Matteo M.)**

**Provider of the 2nd bricked device and of the detailed workarounds to boot it in EDL mode (since his unit wasn't getting EDL mode with the Button Combo procedures).**

**Hovatek Forum**

**Provider of tools & drivers, that have been used to "revive" the bricked devices. <https://forum.hovatek.com/>**

**Van Quy Cao (vnngsmservices)**

**Provider of full EMMC dump from Vsmart Active 1 (same model as BQ Aquaris X2 PRO), that helped to assemble the Emergency Package (since full dumps from Aquaris X2 & X2 PRO weren't enough).**