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Last active

January 28, 2015

A step-by-step guide how to manually flash the Android 5.0.1 (LRX22C) OTA-Update on a Nexus 5 with modified system (custom recovery/kernel, rooted, modified framework etc.)..

 [hammerhead-from-lrx210-to-lrx22c.md](#)

```
UPDATE `NEXUS 5`
SET `VERSION`='5.0.1', `BUILD`='LRX22C', `RECOVERY`='CUSTOM', `ROOTED`=1
WHERE `VERSION`='5.0' && `BUILD`='LRX210' && `RECOVERY`='CUSTOM' && `ROOTED`=1
&& `WANNA_KEEP_USERDATA`=1;
```

A manual OTA for rooted hammerheads, quasi.

When you tampered with the Android system, you can't install OTAs; installation fails. Sometimes it's enough to flash the stock recovery to use `adb sideload update.zip`, but often, especially when you *tampered* a lot, this also fails.

Even after unrooting and flashing stock boot, recovery and cache it can fail. So one might ask whether the only way is to do a clean install using the latest factory image instead. For those who ask themselves this question: Before you do so, take a minute and read on.

This document describes how I successfully updated my Nexus 5 from stock Android 5.0 (LRX210) with TWRP 2.8.1.0 and rooted with SuperSU to Android 5.0.1 (LRX22C) with TWRP 2.8.2.0 and rooted with SuperSU - without loosing user data.

NOTE: *The steps outlined in this document assume the Android SDK to be installed on your PC and the `adb`, `fastboot` and `android.[bat|sh]` to be in your `PATH` variable! Oh, and if it burns down your house, it's not my fault. Proceed at own risk.*

Download & prepare files

- Download OTA zip from Google's servers to your PC.
<http://goo.gl/dx2JoM> (<http://goo.gl/dx2JoM>) - signed-hammerhead-LRX22C-from-LRX210.785a2f7a.zip
- Rename the downloaded zip to 'update.zip' (*without the quotes (and if you're on windows and known file extension are hidden, make sure you not end up with update.zip.zip)*).
- To the same folder, download the latest SuperSU flashable zip.
<http://goo.gl/XRK49m> (<http://goo.gl/XRK49m>) - UPDATE-SuperSU-v2.40.zip
- To the same folder, download the latest TWRP recovery image for hammerhead.
<http://goo.gl/9GrBPi> (<http://goo.gl/9GrBPi>) - openrecovery-twrp-2.8.4.0-hammerhead.img
- To the same folder, download the **5.0** factory image tgz archive from Google's servers.
<http://goo.gl/Z8TiTM> (<http://goo.gl/Z8TiTM>) - hammerhead-lrx210-factory-01315e08.tgz
- From the 5.0 tgz archive extract the `recovery.img`, `boot.img` and `system.img` files to the same directory where your downloads are located.
(**Tip:** *With 7zip, for example, you can 'internally' open the archives within the archive and extract just the files you need. The same is possible with command line tools, of course.*)

The directory structure should look like this now:

```
..
boot.img
openrecovery-twrp-2.8.4.0-hammerhead.img
recovery.img
system.img
update.zip
UPDATE-SuperSU-v2.40.zip
```

Time for the command line..

Open a terminal on your PC and `cd` into the directory where your downloaded files are located. Now go on by running the commands in the terminal as follows (*type only those lines prefixed with '>'*, but **without** actually typing the '>' '!').

Update platform tools

```
# On Windows:
> android.bat update sdk -u -t platform-tools,tools
# On Linux/Mac:
> android.sh update sdk -u -t platform-tools,tools
```

You may need to accept a license agreement. Type 'y' and hit enter.

```
Do you accept the license 'android-sdk-license-5be876d5' [y/n]: y
Installing Archives:
  Preparing to install archives
  Downloading Android SDK Tools, revision 24.0.2
  Installing Android SDK Tools, revision 24.0.2
  Installed Android SDK Tools, revision 24.0.299%
  Done. 1 package installed.</code>
```

Update adb

```
# On Windows:
> android.bat update adb
# On Linux/Mac:
> android.sh update adb
```

If adb was updated, command line will ask you to restart it. Do so.

```
adb has been updated. You must restart adb with the following commands
adb kill-server
adb start-server
```

Now, we're finally ready to go..

Time for flashing..

Connect your device (USB debugging enabled, of course) to your PC.

Back at your terminal, go on by running the commands as follows (*type only those lines prefixed with '>'*, but **without** actually typing the '>' '!').

```
# Make sure the device is recognized
> adb devices

# Boot into bootloader mode
> adb reboot bootloader

# In bootloader mode, make again sure the device is recognized
> fastboot devices

# Flash stock LRX210 recovery image
> fastboot flash recovery recovery.img

# Flash stock LRX210 system image
> fastboot flash system system.img

# Flash stock LRX210 boot image
> fastboot flash boot boot.img
```

When the last flash is confirmed, use the volume rockers to choose 'Recovery mode' and confirm with the power button.

When you see the little Android lying with the red triangle warning sign on it, hold the power then press the volume up button to get to the recovery options.

When you got to the recovery options, select 'apply update from ADB' using the volume rockers again and press the power button to choose it. When the device says it's awaiting commands, type from the PC's command line:

```
adb sideload update.zip
```

When OTA update successfully installed, select 'reboot bootloader' from the recovery options again using the volume rockers and press the power button.

Back in bootloader mode, type from the PC's command line:

```
fastboot flash recovery openrecovery-twrp-2.8.4.0-hammerhead.img
```

When the flash is confirmed, use the volume rockers to choose 'Recovery mode' and confirm with the power button.


Now in the TWRP recovery menu, choose 'Advanced' > 'adb sideload'. Check both option, clear 'Dalvik-Cache' and 'Clear Cache' and swipe the bar to start sideload mode. When the device says it's awaiting commands, type from the PC's command line:

```
adb sideload UPDATE-SuperSU-v2.40.zip
```

When done, confirm to reboot system. Finished. Mission completed.


You're now on 5.0.1 with your custom recovery, rooted and can pick up from where you left.

PS: First boot, as always, will take some minutes.

 [\(jonmcoe\)](#)

jonmcoe [\(jonmcoe\)](#) commented [December 19, 2014](#)


it works - thanks. really screwed me up that TWRP doesn't work with this.
Nexus 5 stock recovery menu is actually pretty easy - hold power, tap volume up
<http://www.android.gs/how-to-boot-recovery-mode-for-google-nexus-5/>
(<http://www.android.gs/how-to-boot-recovery-mode-for-google-nexus-5/>)

 [\(hhgggit\)](#)

hhgggit [\(hhgggit\)](#) commented [December 20, 2014](#)

"Try it a couple of times until the recovery options appear. (It may work at the first try, but sometimes it may require like 38 attempts. Just keep trying. ;))"

I had tried it hard for many times but it went the unexpected ways that either showing the laying down android robot or staring the normal system.

 [\(Deloz\)](#)

Deloz [\(Deloz\)](#) commented [December 20, 2014](#)

thank you very much, success for Nexus 5 from 5.0. to 5.0.1!


if you are doing `adb start-server`, and it show " failed to start", you can use `adb nodaemon server`, and open a new CMD window(Windows), and use the `adb` command.

if you are doing `adb sideload update.zip`, and it show "You need adb version 1.0.32 or above", please use the newest version adb in sdk tools directory. you can download sdk tools from google website <http://developer.android.com/sdk/installing/index.html?pkg=tools>, and add the `tools` directory to operator system PATH

while it show "5.0.1 error in sideload package.zip status 7 ", just redo the mission.

if not show TWRP recovery menu, just redo `fastboot flash recovery openrecovery-twrp-2.8.2.0-hammerhead.img`


there are all my do.

 [\(dannywillems\)](#)

dannywillems [\(dannywillems\)](#) commented [December 20, 2014](#)


When I try "adb sideload update.zip", it stopped at 61% and show my N5 : "[...] has unexpected contents E.Error in /sideload/package.zip status 7" when it verifies current system.

I redo it 3 times, and always the same.

 [\(davrux\)](#)


davrux [\(davrux\)](#) commented [December 20, 2014](#)

Just tried and it works. Thanks!

 [\(davehardy20\)](#)


davehardy20 [\(davehardy20\)](#) commented [December 21, 2014](#)

Worked like a charm, thanks you very much!!

 [\(noname2062\)](#)

noname2062 [\(noname2062\)](#) commented [December 21, 2014](#)

Instructions are perfectly laid out. Everything worked great! Couldn't get SU to sideload, but I suspect issue is on my end I suppose. Thanks again


 [\(banasiak\)](#)

banasiak [\(banasiak\)](#) commented [December 23, 2014](#)

Excellent instructions, thanks! I just swapped out the appropriate files and this procedure worked fine for the 2013 Nexus 7. Also couldn't get TWRP to start the SuperSU sideload, but maybe I wasn't being patient enough. I just did a...


```
adb push UPDATE-SuperSU-V2.40.zip /sdcard
```

...and installed it manually via TWRP.

 [\(ericntd\)](#)


ericntd [\(ericntd\)](#) commented [December 23, 2014](#)

Works like a charm, thanks mate!

 [\(deadmantfa\)](#)


deadmantfa [\(deadmantfa\)](#) commented [December 23, 2014](#)

Thank you, Great Job, keep up the great work brother

 [\(xhcnb\)](#)


xhcnb [\(xhcnb\)](#) commented [December 26, 2014](#)

IT WORKS!!! Thanks a lot!

 [\(onedyle\)](#)


onedyle [\(onedyle\)](#) commented [December 26, 2014](#)

Thank you so much. Works perfectly.

 [\(robrich\)](#)


robrich [\(robrich\)](#) commented [December 28, 2014](#)

@jonmcoe is right, it's trivial to get into stock recovery: power then volume up. PR from <https://gist.github.com/robrich/f6c9f5bb7d483871feece> (<https://gist.github.com/robrich/f6c9f5bb7d483871feece>)

 [\(eyecatchup\)](#)


eyecatchup [\(eyecatchup\)](#) commented [December 29, 2014](#) Owner

@robich yes, I also recognized this now (after I've read @jonmcoe's comment). True, it's actually trivial. As long as you follow the correct instructions. I'm not sure why, but all guides, I've been gone through so far, explained it wrong - as they suggested that you'd need to do it simultaneously?! Anyway. To get it right for this guide, I'd like to "merge" your "PR". Now, either I'm blind or dumb (or it's cause I'm on mobile)... But, is there any real PR functionality for gists? Or were you suggesting your version as "PR" PR?

 [\(eyecatchup\)](#)


eyecatchup [\(eyecatchup\)](#) commented [December 29, 2014](#) Owner

Updated gist.

 [\(NimoTh\)](#)

NimoTh [\(NimoTh\)](#) commented [December 30, 2014](#)

Why don't you directly get, unpack and flash the 5.0.1 recovery, system and boot? Why the detour via old 5.0 images?

 [\(eyecatchup\)](#)


eyecatchup [\(eyecatchup\)](#) commented [December 30, 2014](#) Owner

Of course, you could also *dirty flash* the respective 5.0.1 partitions. That's one solution.

However, from my flashing experience (*which dates back to the GRF39K for the Nexus One*), I found to have *less corrupted flashes (meaning that the procedure resulted in anything between boot loops and, at best, permanent FCs)* when I dirty flash the current version's required partions, applying the official OTA, and flashing back my custom recovery and install the latest SuperSU zip.

It might be totally up to my side and upstream dirty flashing might be as "safe" as this method. Who ever knows!? Anyway, both methods are equally valid and should both work the same. Just for said reason, I use the, let's say, "less-straight-forward way".

But, to be fair, if everything is set up, it's actually also not that much of a work. ;) (*PS: And a guide, as detailed as this, for the other method, BTW, is probably just as "long" as this guide.*)

 [\(DIGINEX\)](#)

DIGINEX [\(DIGINEX\)](#) commented [January 09, 2015](#)

From the command lines on updating the platform-tools, I get an error "please consider trying to update again without a package filter" and the confirmation message you've displayed doesn't even shown up.


Then went over through adb update and, followed the kill-server and start-server respectively. Then the rest of the flashing commands went smoothly till the sideload began from stock recovery.

```
"adb sideload update.zip"
```

Protocol Error within the command terminal and displayed, "You need to update to ADB 1.0.32 to sideload from this device".


From the SDK UI, the Android SDK tools and Android Platform-tools have been updated to latest. What really hinders the ADB from getting updated, The first command "android.bat update sdk -u -t platform-tools,tools" went running from cd to path "C:\Program Files (x86)\Android\android-sdk\tools"

Thanks.

 [\(lahwran\)](#)


lahwran [\(lahwran\)](#) commented [January 10, 2015](#)

I used this to update from 4.4.4 ... and somehow ended up on 5.0.0? what? retrying the guide again, since presumably it goes from 5.0.0 to 5.0.1...

 [\(DIGINEX\)](#)

DIGINEX [\(DIGINEX\)](#) commented [January 10, 2015](#)


My ADB issue is solved at last, Please fix the TWRP version to 2.8.1.0 from 2.8.2.0, as it may not push out of the curtains for most of the users. I panicked at very similar point and end up spending a few hours figuring up this!




[/\(nathantsoi\)](#)
nathantsoi (/nathantsoi) commented [January 14, 2015](#)
thx @eyecatchup, worked great. I put the whole thing in a bash script if anyone else needs to do this: <https://gist.github.com/nathantsoi/e36c5a2f2e94ce5ebb85> (<https://gist.github.com/nathantsoi/e36c5a2f2e94ce5ebb85>)



[/\(eyecatchup\)](#)
eyecatchup (/eyecatchup) commented [January 19, 2015](#) Owner
seems useful to me, @nathantsoi. ty



[/\(consultant1027\)](#)
consultant1027 (/consultant1027) commented [January 23, 2015](#)
Can someone confirm what (if anything) should be changed in the instructions to go from 4.4.4 to 5.0.1?



[/\(djhworld\)](#)
djhworld (/djhworld) commented [January 24, 2015](#)
@consultant1027
I just did exactly this but I played it safe by upgrading to 5.0 first, my setup was as follows

- Nexus 5 running 4.4.4
- TWRP 2.6 installed.

Disclaimer: please be careful, this worked for me but might not work for others!


Upgrading to 5.0.0

Follow the [instructions here](#) (<https://gist.github.com/djhworld/a537d132d2096f25f6bd#file-hammerhead-from-ktu84p-to-lrx21o-md>), these are a fork of the instructions above, the difference is you are downloading the 5.0.0 OTA update and 4.4.4 factory image instead of the 5.0.1 OTA update and 5.0 factory image


Upgrading to 5.0.1

Once I was on 5.0.0, I performed [everything above](#) (<https://gist.github.com/eyecatchup/ec0a852428c19705380e#file-hammerhead-from-lrx21o-to-lrx22c-md>) "as is" and it worked great!


Thanks @eyecatchup !!



[/\(Karmac\)](#)
Karmac (/Karmac) commented [February 07, 2015](#)
Awesome working perfectly! thanks!




[/\(minj2me\)](#)
minj2me (/minj2me) commented [February 16, 2015](#)
UPDATE-SuperSU-v2.40.zip was working perfectly, thank you!




[/\(DavidRamos015\)](#)
DavidRamos015 (/DavidRamos015) commented [February 25, 2015](#)
Thanks a lot, I was thinking my nexus died cause I deleted all data trying to root in last week (Sistem, Recovery,etc.)
Now it works.




[/\(leewc\)](#)
leewc (/leewc) commented [February 28, 2015](#)
This was great, thank you! Also note to some people who might get stuck on this part:
"When you see the little Android lying with the red triangle warning sign on it, hold the power then press the volume up button to get to the recovery options."
Notice that the tutorial mentions HOLD the power THEN press the volume up, if you hold power AND volume up you'll just do a force reboot. (at that time just do adb reboot bootloader again)
EDIT: also, if you happen to receive an error about not having permissions when in stock recovery:
adb sideload update.zip
loading: 'update.zip'
error: insufficient permissions for device
Just do 'adb kill-server' then 'sudo adb start-server' which if it says adb command not found then manually point to the absolute path of adb, for example mine was in /Development/android/android-sdk-linux/platform-tools/adb
good luck!




[/\(ev0rtex\)](#)
ev0rtex (/ev0rtex) commented [March 12, 2015](#)
FYI, this is actually a pretty generic process and the same process will work with future updates and even on the Nexus 6 (except that download links will vary obviously). I just installed the 5.1 update (LMY47D) on my Nexus 6 using the same procedure. The only catch is that I had to unplug/replug my USB cable whenever I entered sideload mode so that adb would detect it.




[/\(Leomosantos\)](#)
Leomosantos (/Leomosantos) commented [March 27, 2015](#)
My Nexus 5 is running Android 5.0.1, with TWRP, Xposed and ElementalX kernel. Will I be able to update to 5.1 following these steps?




[/\(jacobsin\)](#)
jacobsin (/jacobsin) commented [April 02, 2015](#)
Thanks! Works for updating from 5.0.1 to 5.1.



[/\(apporc\)](#)
apporc (/apporc) commented [April 09, 2015](#)
I have just found that, the radio is needed to be rolled back too.



[/\(singles\)](#)
singles (/singles) commented [April 23, 2015](#)
Thanks you for this tutorial. Just used it (with minor changes) to update Nexus 4 from 5.0.1 to 5.1.0. 🙌



[/\(mcampbell\)](#)
mcampbell (/mcampbell) commented [May 25, 2015](#)
This worked fantastically well. I was stuck with a "release-keys" not matching issue trying to sideload 5.1.1 over 5.1 (a problem I've had since 4.4), and finally found this page and was able to get past it.
Thanks so much for putting this out in such a straightforward manner.

to join this conversation on GitHub. Already have an account? [Sign in to comment](#) (https://gist.github.com/login?return_to=%2Feyecatchup%2Fec0a852428c19705380e)