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Rooting and re-flashing your Droid Razr/Razr MAXX phone

This document will guide you through the process of rooting and installing a new Rom on your Motorola Droid Razr/Razr MAXX phone. Note that this will **not** unlock your phone to allow it to be used on carriers other than Verizon Wireless.

Contents

Introduction

Definitions

The following terms will be used regularly:

- Razr: Used to refer to both the Droid Razr and Razr MAXX phones. These phones are manufactured by Motorola and are identical except for battery size.
- Rom: A custom-designed variant of the Android operating system installed on your Razr.
- Modding/re-flashing: The process of installing a custom Rom on your Android device.
- Root: An Android device with Root access unlocked (a *rooted* device) allows you to take advantage of capabilities not normally available.
  - *Rooting* is the process of achieving Root access. It is not recommended by Motorola or Verizon Wireless.
  - With a rooted Razr, you can install new Roms and run apps that normally will not work.

- GB/ICS/JB: Android 2.3.x, 4.0.x, and 4.1.x respectively. GB is short for *Gingerbread* and is generally no longer in use. ICS is short for *Ice Cream Sandwich.* JB is short for *Jellybean*, and is the latest version of Android available for the
- OTA: Short for *over the air*, an upgrade to the stock system, delivered free from Verizon.
- Stock: The version of Android running on your phone when you bought it. Motorola uses a proprietary interface, called MotoBlur, that many users dislike. It also comes with several apps that cannot be deleted or turned off, using up memory and also affecting phone performance. Finally, it is missing several normal features in the Android operating system that many users prefer.
- Brick: A phone that has been rendered unusable due to user error during re-flashing; also refers to the process of creating a brick (bricking).

Necessary Items and Important Information

Make sure you have the following in hand:

- Your Razr, with a **fully charged battery**
- Your charging cable (or any Micro USB cable)
- A computer running Windows XP or later, or Mac OS 10.x, in some cases.
- A Micro SD card, inserted into your phone

Before beginning, please note the following **important information:**

- Each Android phone is different. **Do not** use these instructions on a non-Razr phone.
  - o The Razr and Razr MAXX are identical except for battery size. For simplicity, the term *Razr* will be used to refer to both models.
- Rooting your phone will void the manufacturer's warranty.
  - o During the re-flashing process you risk bricking your phone. Review all instructions carefully before proceeding.
  - o Neither Motorola nor Verizon Wireless will assist you with any problems encountered in this process. In addition, they may refuse to replace your phone if it is bricked.
  - o Be sure that you truly want to install a new Rom on your phone. Once you re-flash your phone, it is impossible to completely reverse the process.

Decisions and Initial Steps
1. Decide which custom Rom, if any, you would like to install, and whether you prefer Gingerbread or ICS. Each has its own benefits, so research carefully.
   a. Popular JB Roms include (but are not limited to):
      i. [Aviator](#)
      ii. [Flying Jelly](#)
   b. Popular ICS Roms include (but are not limited to):
      i. [Eclipse](#)
      ii. [The Arctic](#)
      iii. [Black Widow](#)

       c.   Although many GB Roms used to be available, most are now unsupported and will not be covered in this document.
2. Download your chosen Rom from one of the pages listed above.
       a.   Roms all come in the form of .zip packages. Never unzip these packages, or they will not be installable on your phone.
3. Your Razr phone may ship with Gingerbread still on it, but most have at least ICS built in by now. If you want to install a JB rom, you must upgrade to the latest version via an OTA download.
       a.   Go to your Razr's settings menu
       b.   Select About Phone > System Updates. The phone will check for available updates.
       c.   Follow the on-screen instructions as necessary
       d.   The update will install automatically
4. **Important:** Do not attempt to install an ICS Rom on a phone running JB, or vice-versa.

Procedure

Rooting Your Phone (ICS)

1. Before doing this procedure, verify your phone's Android version **first!** Go to Settings > System > About Phone and check that the Android Version is listed as 4.0.x.
       a.   If the Android Version is 4.1.x, your phone is running Jellybean. You cannot install ICS roms and need to follow a different root method described in the next section.
2. Download the [ICS Razr Utility](#) from DroidRzr.com.
3. Go to Settings > System > Developer Options > USB Debugging. Enable this feature and tap OK when the warning message appears
4. On your phone, go to Settings > Personal > Security and Screen Lock > Unknown Sources and select Unknown Sources. Enable this feature and tap OK when the warning message appears
5. Connect the phone to your computer using the Micro USB cable that you use to charge your phone.
6. Run the ICS Razr Utility downloaded in Step 2 of this section, and select option 3 or 4 to root your phone, depending on your version of ICS (you should know this from Step 1 of this section).
7. Any questions on the ICS Razr Utility can be answered in the forum thread linked to above.
8. **Note:** Your phone will restart several times during the rooting process. The process will also take a while. The program will notify you when the phone is rooted.

Rooting Your Phone (Jellybean)

1. Download the [Root utility](#) from the DroidRzr forum. Note that this is available for phones running JB **only!**
2. Unzip the file you downloaded.
3. Install the latest version of the Motorola Drivers, accessible from the Motorola website.
4. On your phone, go to Settings > Personal > Security and Screen Lock > Unknown Sources > OK.

5. Go to Settings > System > Developer Options > USB Debugging. Enable this feature and tap OK when the warning message appears.
6. Connect the phone to your computer using the Micro USB cable that you use to charge your phone.
7. Make sure the phone's USB connection setting is set to Mass Storage by pulling down the notifications menu at the top of your phone's screen, selecting the USB connection notification, and checking the appropriate box.
8. Double click on the .bat file that was included in the Root utility zip file. This will root your phone.
9. **Note:** Your phone will restart several times during the rooting process. The process will also take a while. The program will notify you when the phone is rooted.
10. It is best to go to the Google Play store and download Titanium Backup to back your apps up to your SD card. This will eliminate the need to reinstall them from the Google Play store after you re-flash your phone.
    a. Note that re-flashing your phone will delete **all** your apps, text messages, and call history. Your media (music, photos, etc.) will stay safe.
    b. Make sure your address book is synced to your Google account to prevent your contacts from being lost!

Optional: Backing up Your Apps

1. Disconnect your phone from your computer.
2. Open Titanium Backup. If a message appears asking for superuser permission, congratulations, your phone was successfully rooted!
3. Press the checkbox button in the upper right hand corner.
    a. If you get an error message, make sure your SD card is mounted by going to Settings > Storage and mounting the SD card.
4. In Titanium Backup, go to Backup > Backup All User Apps.
5. Tap Run and then press the green check mark to back up your apps.
6. **Note:** If you choose not to back up your apps, they will be deleted in the next step and you must reinstall them from the Google Play store.

Installing SafeStrap 3.11
SafeStrap is the standard developer program used to install custom Roms on the Razr and several other Motorola devices. Its full capabilities are not described here. **Do not** use any features not described here unless you know what you are doing.

1. Download SafeStrap for Razr.
    a. **Note:** This program will effectively hijack your phone's boot process, giving you the option to load new Roms while still maintaining your phone's stock Rom. Safestrap:
        i. …allows for a dual boot between your stock operating system and your chosen Rom
        ii. …establishes a *Safe* system that duplicates your stock system, but which can be modified at will without the risk of bricking your phone

> > iii. …allows for relatively easy switching between safe and unsafe systems
> > iv. …runs immediately after the phone boots. When the Safestrap screen appears, you have 10 seconds to press the Menu key on your phone (the button farthest to the left at the bottom of your phone's screen).

2. Connect your phone to your computer, or use a Micro SD card adaptor to connect your SD card to your computer.
3. Drop the SafeStrap .apk file and your Rom's .zip file onto the root folder for your SD card (i.e. the first folder that opens when you open the SD card on your computer).
   a. The .zip file in particular should not be placed anywhere else.
4. Ensure that your phone can install apps from unknown sources (see **Rooting Your Phone**, step 4).
5. Disconnect your phone from your computer, and reinsert the SD card, if applicable. Wait for the SD card to mount.
6. Use the File explorer app on your phone to find the SafeStrap .apk file. Select the file and then choose **Install** when prompted.
7. Select **Open** once SafeStrap installs. Accept the disclaimer.
8. Press the Install button within SafeStrap to install the boot hijacker, then press the second button to reboot the phone.
9. In the future, when the phone reboots you will be prompted to choose Recovery mode, if applicable.
   a. When prompted, press your phone's Menu button to open Clockwork Recovery.
   b. If you do not wish to open Recovery, press the Search button or simply wait 10 seconds and your phone will boot normally.

Using SafeStrap 3.11 to Flash a Rom

SafeStrap 3.x is exceptional in that it is a touch-based interface, unlike earlier versions of SafeStrap. Please note that it is very easy to destroy your phone here. Do not touch anything if you don't know what it does!

1. Go to Boot Options and select a Rom Slot (slot-1 will do).
2. Select the size you want the rom slot to occupy. For day-to-day use, 2 or 3 GB is recommended.
3. Select **Create Rom Slot** and wait for the rom slot to be created.
4. Press the back button (curved arrow) and make sure that the rom slot you created is green. If it is not, select it and press **Activate**. You can now safely install your custom rom.
5. Go back to the main menu (press the back button again) and go to Install. Find your chosen Rom's .zip file and drag the slider to the right to install the rom.
   a. **Note:** In former versions of SafeStrap, it was necessary to clear the system data, cache, and Dalvik cache before flashing a new rom. This is done automatically now.
   b. By using multiple rom slots, you can in theory run multiple roms of your chosen version of Android on your Razr. If necessary, you can also switch back to the Stock system by using the Boot Options menu.
6. Once your rom has installed, tap reboot system and enjoy your cleaned up version of Android.

7. Note that it will be necessary to reestablish your Google account and re-download your apps from the Google Play store.

Appendix A: Recommended Root Apps

Now that your phone is rooted and re-flashed, you can run certain apps that are normally not usable. Some popular and useful apps include:

- Titanium Backup: Used to back up your apps to your phone's SD card, and restore backed up versions as necessary. This app can also delete apps that came with your phone but which are unwanted. Be careful when deleting/altering system apps.
- Rom Toolbox: A powerful program that can manage Roms, set up custom boot animations, and do many other things to customize your phone. Use at your own risk.
- Market Enabler: Allows your phone to "fake" various foreign Google Play stores and stores from wireless carriers other than Verizon. This is particularly helpful in countries like China that block some apps.
- Ad Blockers (many are available): Block ads within apps, but generally not within browsers. These are particularly useful when playing games while connected to the internet.

Appendix B: Help! I Screwed Up!

Bricked your phone? Lost? Dazed and Confused? Try the following forums:

XDA Developers: A key site for any Android developer or user. This is where the majority of the Android action happens online, and if you can't find help here, you'll find links to someone who *can* help you.

DroidRzr: Whereas XDA Developers does everything Android, DroidRzr is focused primarily on Motorola phones, mostly the Droid Razr.