

# *#BoycottBigTech*



## **MARK37.COM**

### **MARK37 Ghost Phone Getting Started Guide**

This guide is designed to facilitate your initial setup and familiarize you with your newly acquired secure communication device. We strongly advise reviewing this guide in its entirety, as it offers indispensable step-by-step instructions, valuable tips, and a comprehensive overview of utilizing your phone effectively.

PLEASE NOTE, this guide is meant to augment, and not replace, the Getting Started Guide found online at:

<https://mark37.com/ghost-phone-guide/>

**WE HIGHLY RECOMMEND YOU READ THROUGH THE ONLINE VERSION OF THIS GUIDE, IN ADDITION TO THE CONTENT BELOW, AS YOU GET STARTED USING THIS NEW DEVICE!**

We have a mountain of other articles and resources online to help with the setup and potential troubleshooting of your new device as well:

- <https://mark37.com/bigtech-alternatives/>
- <https://mark37.com/the-ghost-phone-migrating-contacts-phone-logs-texts-pictures-and-files/>
- <https://mark37.com/email-alternatives/>
- <https://mark37.com/will-my-app-work-on-the-ghost-phone/>
- <https://mark37.com/the-ghost-phone-post-activation-troubleshooting/>

If you encounter any difficulties or have questions, please don't hesitate to contact our support team at [support@mark37.com](mailto:support@mark37.com).

# TABLE OF CONTENTS

GrapheneOS.....	Page 3
Alternative App Stores.....	Page 3
What to do On Startup.....	Page 3
<i>Basic Setup.....</i>	<i>Page 4</i>
<i>Navigating the Phone.....</i>	<i>Page 5</i>
<i>System Tweaks.....</i>	<i>Page 6</i>
Installing Apps.....	Page 7
Internet & Browser.....	Page 8
VPN Services.....	Page 8
Apps Installed.....	Page 9
<i>Navigation &amp; Maps.....</i>	<i>Page 9</i>
<i>Installing &amp; Setup of Signal App.....</i>	<i>Page 9</i>
<i>Installing &amp; Setup of Telegram App.....</i>	<i>Page 10</i>
Backups.....	Page 11
Sandboxed Google Play Services.....	Page 11
Conclusion.....	Page 13

## GrapheneOS

Our phones come equipped with GrapheneOS, an Android-based operating system that prioritizes privacy, security, and open-source principles. With GrapheneOS, your device is protected against tracking and spying attempts from large technology companies and other third parties. To learn more about GrapheneOS, please visit <https://www.grapheneos.org>.

## Alternative App Stores

When using a de-Googled phone, you may need to find alternative apps that work without relying on Google services. Here are a few ways to discover such apps:

**F-Droid:** F-Droid is an open-source app store that hosts a collection of free and open-source apps. It provides a wide range of apps that do not depend on Google services. You can visit the F-Droid website (<https://f-droid.org/>) and explore the available categories to find alternatives to popular apps

**Aurora Store:** Aurora is a powerful and privacy-focused client for the Google Play Store, designed to provide users with an alternative way to download and update Android apps. It functions similarly to the official Google Play Store but offers a significant advantage – it respects your privacy and allows you to use the Play Store anonymously.

Why You Should Use Aurora Store vs Google Play Store:

1. **Privacy Protection:** Unlike the Google Play Store, which collects extensive data about your app usage and device, Aurora Store removes many of the invasive trackers and permissions associated with Google services. When you use Aurora Store, your app installations and updates happen without exposing your identity to Google.
2. **Anonymous Access to Apps:** Aurora Store enables you to "log in" anonymously, spoofing your account details to protect your privacy. For instance, if you log in as "John Doe" once, the next time you log in, it will automatically generate a different account name like "Jane Doe," without ever revealing your real identity.
3. **Trackers and Permissions Transparency:** Aurora Store allows you to view the number of trackers and permissions required by each app before installation. This helps you make informed decisions about which apps you want to download, ensuring you understand the data they might access.

**Alternative App Stores:** Besides F-Droid and Aurora, there are other alternative app stores such as APKMirror, APKPure and Aptoide. However, with F-Droid and Aurora installed, you should not need them and can simply revert to them should F-Droid and/or Aurora be unresponsive and you are in desperate need to find and install a specific app.

**Research and Online Reviews:** Conduct online research and read reviews or articles about de-Googling your phone. Many privacy-focused tech websites and blogs often review and recommend alternative apps that work well on de-Googled devices. Look for articles specifically discussing de-Googled phones or privacy-conscious app recommendations.

Remember, when replacing apps, it's essential to consider your specific needs and preferences. Some apps may offer similar functionality but with different interfaces or features. It may require some experimentation and trial to find the apps that best suit your requirements on a de-Googled phone.

## What To Do On Startup

### Basic Setup:

To ensure a smooth start with your de-Googled phone, follow these step-by-step instructions:

1. Power on your phone by pressing the small colored button located on the right side of the frame for 2 or 3 seconds. You will see a warning message stating, "Your device is loading a different operating system." This is normal and will appear each time you start or restart the device. Simply leave the phone untouched, and it will progress to the next screen automatically.
2. The Google logo will appear during the bootloader process. Please note that you are not installing any Google software on the phone. Treat it in the same way you see the Dell or HP logo when starting your laptop or desktop. We can happily ignore the Google logo.
3. Next, the GrapheneOS start screen will appear, indicating that your phone has undergone the basic setup process. However, we recommend adjusting the settings to your preferences by following these steps:
  - **Language:** Set the language to your country and preferred language. The default is English (United States). To do this, go to **Settings > System > Languages & input > Languages &** press "**add language**".
  - **Time and Date:** Set the time zone, date, and time according to your location. Initially, your phone is set to Eastern Time, so please adjust it as needed. Access the settings by going to **Settings > System > Date & time**. To set the default time zone, toggle off "**Set time zone automatically**". If you want your phone to update date and time zones automatically while traveling, make sure to toggle on "**Set time zone automatically**".
  - **Wi-Fi:** Connect to an available Wi-Fi network. Swipe down from the top of the screen and tap on "**Internet**." The list of available networks will be displayed automatically. Tap on your network to connect to it. You will be prompted to enter your Wi-Fi network password. Enter it and press "**Connect**".

By following these steps, you will ensure that your phone is set up correctly and ready for use.

## Special Notes:

1. **Wi-Fi:** When you power on your de-googled phone, the Wi-Fi will automatically toggle on. If it's turned on, the phone will connect to known Wi-Fi networks such as your home or workplace. If it's turned off, you will need to manually connect to a Wi-Fi network. We recommend keeping the toggle off to avoid automatically joining networks unless desired.
2. **VPN and Wi-Fi Scanning:** Enabling the Wi-Fi toggle will also activate Wi-Fi scanning, which means your phone will constantly search for Wi-Fi networks. This may not be preferable for everyone, especially considering privacy concerns. While a reliable VPN can provide protection, it's important to be aware of the implications of turning on Wi-Fi scanning.
3. **Inserting SIM Card:** If you have access to Wi-Fi during the setup process, you can skip inserting a SIM card. However, if you want to use cellular data for setup or ongoing usage, you will need to insert a SIM card. If it's a new SIM, you may be required to register with your service provider. Note that charges may apply depending on your data usage.
4. **Location Services:** During GrapheneOS setup, you can decide if you want apps to have automatic access to your location. By default, we disable this global location setting and recommend modifying permissions on an app-by-app basis. You will need to toggle on location for any app that requires it. This ensures that your phone's location remains off unless explicitly enabled or granted permission by specific apps.
5. **Secure Your Phone:** It's crucial to set up security features to protect your phone from unauthorized access. You can choose from options such as fingerprint or face recognition (if supported by your phone model), PIN, and/or password. We recommend setting up at least one of these security features. Upon delivery, these features will be deactivated, so please refer to the instructions further in the manual to activate and configure them.
6. **PIN Scrambling:** GrapheneOS offers built-in security features, including PIN scrambling. This feature randomly rearranges the position of numerals on the keypad each time you log in, enhancing security by preventing others from guessing your PIN by observing your keystrokes. To enable PIN scrambling, go to **Settings > Security > Scramble PIN input layout** and toggle it on.

By following these additional steps, you will ensure a more secure and personalized setup for your de-Googled phone powered by GrapheneOS.

## Navigating the Phone:

By default, your de-Googled Ghost phone has been setup to leverage the “3 Button Navigation” system. If you prefer to go back to the swipe navigation system, you can change it. To do this, go to **Settings > System > Gestures > System navigation**. You can also find this option in **Settings > Accessibility > System controls > System navigation**.

### *Gesture Navigation:*

- To go to the Home screen, swipe up from the bottom of the screen and remove your finger.
- To access recently used apps, swipe up from the bottom of the screen and hold your finger for a moment before releasing.
- The most recently opened app is always on the right side. Swiping to the left takes you back through your recently used apps.
- To go back within an app, swipe from the left or right edge of the screen towards the center.
- To navigate between recent apps without changing their order, swipe left on the navigation bar for the previous app and swipe right for the next app.
- To open the app drawer, swipe up from anywhere on the screen (except the navigation bar).

### *3-Button Navigation:*

- This navigation style uses three buttons at the bottom of the screen: Back (left), Home (center), and Recent Apps (right).
- The most recently used app is on the right side in the recent apps list. Swiping to the left goes back through your app history.

## **System Tweaks:**

### *Network and Internet:*

- If you have limited data, go to **Settings > Network & Internet > Data Saver** and toggle it on. Only use this if necessary, as it may slow down some apps.

### *Battery:*

- We have already adjusted the phone to display the battery percentage in the notification bar. To change this, go to **Settings > Battery** and toggle off "**Battery Percentage.**"

### *Sound:*

- Adjust the ring and notification volume by going to **Settings > Ring and notification volume** and setting it to half.

### *Display:*

- To make viewing easier, go to **Settings > Display > Adaptive brightness** and toggle it on.
- For privacy, go to **Settings > Display > Lock screen > Privacy** and select "**Don't show notifications at all.**"

- To check the phone, tap the power button instead of tapping the screen. Go to **Settings > Display > Lock screen > Tap** to check phone and toggle it off.
- To show a double line clock on the lock screen, go to **Settings > Display > Lock screen > Double Line Clock** and toggle it on.
- To avoid accidental wake-ups, go to **Settings > Display > Lock screen > Lift** to check phone and toggle it off.
- To minimize distractions, go to **Settings > Display > Lock screen > Wake screen for notifications** and toggle it off.
- Set the screen timeout to 2 minutes in **Settings > Display > Screen timeout**.
- To reduce eye strain, go to **Settings > Display > Night Light** and toggle it on. Customize the schedule instead of using sunrise and sunset times.
- Enable auto-rotate screen in **Settings > Display > Auto-rotate screen**.
- If you're using a thick screen protector, go to **Settings > Display > Increase touch sensitivity** and toggle it on.
- To customize the on-screen keyboard, go to **Settings > System > Languages & input > On-screen keyboard > GrapheneOS keyboard**. Select English (US), turn off "Vibrate on keypress," choose the "Material Dark" theme, and enable personalized suggestions.

*Security:*

- **Settings > Security > Screen lock:** Set your preferred login PIN/Password.
- **Settings > Security > PIN scrambling:** Toggle it on.
- **Settings > Security > Screen lock camera access:** Toggle it off.

Remember to secure your phone with a PIN, Fingerprint, or Password to protect against physical exploitation.

## Installing Apps

When it comes to installing apps on your phone, there are multiple options that range from Reckless to Extremely Cautious. This topic is covered in detail, along with answering the question, "Will \_\_\_ app work on the device?" within our article referenced below:

<https://mark37.com/will-my-app-work-on-the-ghost-phone/>

## Internet & Browser

For best privacy and security, it's important to consider the following components: DNS servers, web browsers, and search engines. While they may seem separate, they are interconnected, and the choices we make in these areas can greatly impact our privacy. To fully benefit from using a de-Googled phone, it's crucial to make the right decisions in these aspects.

### Internet & Browser Recommendation

Brave Browser (Browser, Web Search, VPN, Video Conferencing)

We firmly believe that Brave is hands down the most private and secure browser available. We also believe the team at Brave is 100% mission aligned and on the front lines of the war to keep our information private and anonymous around the world. Their AI tool "Leo AI" is also aligned with their mission and extremely powerful. A great alternative to ChatGPT!

How does Brave measure up to other browsers? See for yourself at <https://privacytests.org/>

There are other options, such as Freespoke and Firefox, but as you dig through the Privacytests.org matrix above you'll see that they simply don't match up to what Brave can do right out the gate without any tweaking of settings.

## VPN Services

Mullvad VPN Service: Our #1 recommended VPN

To install the Mullvad VPN, it's recommended to choose a server location that is relatively nearby to ensure better internet speeds, unless you have a specific reason to use a server in another country.

1. Upon opening the app, you may need to create a Mullvad account. Look for the "Create account" option at the bottom of the screen and follow the instructions to set up your account.
2. Take note of your Mullvad account number as you will need it later.
3. To use the Mullvad VPN service, you need to purchase credit for the desired time and payment method. Look for the "Buy Credit" option within the app and follow the prompts to make your purchase.
4. Once you have credit, you can select a server location. It is recommended to choose a server from a nearby location to ensure better internet speeds. Select your preferred country from the available options.
5. After selecting a server, tap "OK" to establish a connection with the VPN.
6. Wait for the "Secure Connection" notification, which confirms that your connection is encrypted and secure. The notification will also indicate the city you are connected to.
7. If you wish to customize your Mullvad VPN settings, tap on the Settings icon (usually



represented by three vertical dots) at the top right of the screen. From there, you can access preferences and adjust settings according to your preferences.

8. To ensure a consistent VPN connection, you can enable the "Auto-connect" option in the app's preferences. This will automatically connect you to the VPN whenever you use your device.
9. For added security, you can enable the "Always-on VPN" and "Block connections without VPN" options in your phone's settings. To do this, go to your phone's Settings, navigate to "Network and Internet," then select "VPN." Find the Mullvad VPN in the list of installed VPNs and toggle the "Always-on VPN" and "Block connections without VPN" options to the "ON" position.
10. To avoid receiving notifications about the VPN status, you can disable notifications specifically for the Mullvad VPN app. Go to your phone's Settings, select "Apps" or "Applications," then choose "All apps." Locate the Mullvad VPN app in the list and tap on it. Look for the "Notifications" option and toggle it to the "OFF" position.

## Apps Installed on Your Device

A complete list of the apps you have installed on your Ghost Phone, and what each of them does, can be found at <https://mark37.com/blog/current-apps-installed-on-the-ghost-phone/> .

As we sometimes update the apps installed, we've chosen to keep this list up to date in a single location via the link above.

## Navigation and Maps with Magic Earth

Although there are a few navigation and mapping apps on the device, Magic Earth is our top recommendation. Download the maps in the areas you need (state/country) for offline use, works very well with or without cell service if you have maps downloaded to the phone.

This free App features the necessities such as lane assistance, turn-by-turn navigation, 2D, 3D, and satellite map views, route planning, the ability to use your phone as a dashcam, notification about speed cameras, and current speed limits. There are many more positives too that can be seen at their website [www.magicearth.com](http://www.magicearth.com).

## How to Install and Setup Signal - The Secure Messaging App

Signal is a highly secure messaging app that allows you to manage both encrypted and conventional texts seamlessly. It even supports encrypted voice calls, making it an excellent all-in-one messaging service for most users. Here's how you can install and configure Signal on your device:

### **\*\*Registering and Configuring Signal:\*\***

1. Insert your SIM card into the phone; Signal needs this to register the new device.
2. Open the Signal app and follow the setup/registration process. If you have a backup to restore,

select the "RESTORE BACKUP" button when prompted.

3. After registration, Signal will show some action confirmations. Tap "use as default SMS app," then select Signal in the dialogue and tap "SET AS DEFAULT."

4. Tap "Import system SMS" to import your existing SMS messages.

5. Tap the "x" in the top right corner of the "Invite your friends!" action confirmation.

6. Tap "Optimize for missing Play Services," then tap "ALLOW" in the "Let app always run in the background?" dialogue.

Congratulations! You now have Signal configured on your device, providing you with a secure and private messaging experience. Enjoy communicating with peace of mind knowing your messages are encrypted and protected.

## How to Install and Setup Telegram – Another Secure Messaging App

Telegram is one of the most popular messaging services in the world and is focused on speed and security. Its core functionality is the same as most other messaging apps. You can message other Telegram users, create group conversations, call contacts, make video calls, and send files and stickers.

There are several ways of installing Telegram onto your phone. You can choose directly from their website at telegram.org, from the Aurora Store, or via F-Droid. We highly recommend using the FDroid 'FOSS' version, as it eliminates trackers present in the other versions.

The F-Droid version is an unofficial fork that removes any proprietary dependencies, like:

- GSF (Google Services Framework), so it doesn't depend on Google for notifications.
- Google Vision face detection and barcode scanning (Passport)
- Google Wallet and Android Pay integration
- Google Voice integration and replaces some aspects with FOSS equivalents
- Location sharing with OpenStreetMap (osmdroid) instead of Google Maps
- Google Play Services GCM replaced with Telegram's push service

**NOTE:** You will not be able to create a new Telegram account from the FOSS Telegram app that is pre-installed on your Ghost Phone. This will unfortunately need to be done from a device running the non-FOSS version of the app (laptop or your current Google Android or iPhone). You can also install sandboxed Google Play Services on your Ghost Phone, download the full Telegram app from Aurora, setup your account, activate your account from the FOSS version of the app, and then remove the full Telegram app and uninstall Google Play Services. See the very last section of this Guide for how to go about installing sandboxed Google Play Services on the device.

## Setting up Backups

**(\*\* We consider this a high priority task to prevent the loss of data \*\*)**

For a detailed How To Guide on how to Backup your device, please reference our post found at <https://www.mark37.com/resources> .

## Google Apps & Using the Sandboxed Google Play Services Environment

It is possible to install Google Apps & Google Play Services on your Ghost Phone, and GrapheneOS has made it simple to do so. However, we strongly recommend that you avoid installing Google Apps & Services on your Ghost Phone at all costs. Before doing so, we highly recommend that you consider all options and the actual necessity before proceeding. Ask yourself questions like, can it be done through a web browser, or is it just an inconvenience like not being able to do mobile check deposits?

If you have a Gmail email account, for example, the mobile web interface found via [www.gmail.com](http://www.gmail.com) is extremely simple and easy to use and a FAR better option than installing the Gmail app on the device, should you need to check or manage your Gmail email account.

If after careful consideration and looking at all options, however, you still must have Google Apps & Services on your phone, it can be done, and doing it with GrapheneOS is probably your safest option. GrapheneOS installs apps in sandbox environments, so all apps must be given permission to access anything outside that sandbox they run in. Google Apps & Services installs just like any other app, so it can be run quite securely and safely if you are extremely careful about your permission settings.

There are two ways to do this. The first and best option is to create a second user account in which you install Google Apps & Services and only run the apps needing such in this account. We call this a sandbox account. This will be the safest, most private way to use Google Apps & Services on your device. This way, if you ever were to accidentally give any apps using Google Apps & Services permission to access all of your files or any some access to other apps, you are not in danger of giving Google access to the private information stored on your phone but only to what information and data that is stored in this sandboxed user account. It is for this reason we suggest never storing pictures, files, or any other personal data you are not willing for big tech or anyone else to get their hands on inside this sandbox account.

The second option is to just install Google Apps & Services in your primary account. This is not very good or recommended at all, but still better than using a Google Phone. All apps in GrapheneOS are sandboxed to prevent cross-app tracking, so it does help with privacy and tracking, but only if you are very careful in managing your permission and never make a mistake. Installing Google Apps & Services in this account can be done fairly safely, but only if you are managing permissions properly. For this guide, we will only provide instructions here for installing Google Apps & Services in a sandbox

account, which is the only way we recommend it be done.

Go to **Settings > System > Multiple users**.

In here toggle **Allow multiple users** to **ON**. Then tap **Add user**. You can read the pop-up and press **OK**. Next you will be given the option to add a profile photo and give the account a name. I suggest naming this account Sandbox but you can give it any creative name you wish.

The next screen gives you the ability to control how this account is used. Here you can choose what type of apps can be installed if any. You can disallow calls and SMS messaging here if you like also. I would allow installing apps as the purpose of this account is to install apps that you do not want in your primary user account. One thing we should do here is install The Aurora store. To do this click on **Available apps** and check Aurora Store. You may also check any other apps you wish to have installed. I would be very careful of installing any other apps as you are wanting to only use this account for apps requiring Google Apps & Services. Once you have made your choices press **Switch to New user**. Next tap **Set up now**.

The next steps are used for setting up the Account.

- Press **Start**
- Choose your language and press **Next**.
- I suggest leaving Location Services **unchecked** and only allowing location services as need in the account.
- Next set up your Finger print, Face ID or Pin. Depending on what want to use and your device's options.  
Once you are at Restore Apps press **skip**.
- Then press **Start** and you will be in the Sandbox account.

Now we can begin the process of installing Google Apps & Services.

**Swipe Up** from the bottom to display all the apps in you sandbox account. In the right top corner you should see an icon that looks like a box labeled **Apps**. Click on it. Then at the bottom of this page you will see **Google Play services**. Open this and you will see three items listed under **Dependencies**. We will install all three. To install the items press the button near the top that says **Install**. It will begin downloading the dependencies. After a moment a pop up will appear. Here will need to leave **Network permissions** checked and press **install**. Two more pops will appear after the first and you will do the same with them first pop up.

Once the installation is complete you can go to the home screen. You will see the Google Play store in your list off Apps now. But I suggest you do not use it but instead wish the Aurora Store for downloading your needed apps unanimously.

You can now safely download and use apps requiring Google Play services safely separated from your main account. You do need to be aware though that any data, personal info used in any app on this account can likely be accessed by Google and possible other third party entities that Google has partnerships with. Although these apps can not share data with each other this only prevents the apps themselves from sharing data with each other and the creator of those apps from seeing any data from others and any cross app tracking. Google still has a tunnel into each app that is using its services and any data, files or sensors you have given that app permission to access.

## **CONCLUSION**

We hope this document as provided you with the information you need to started successfully using your Ghost Phone and to make informed decisions on operating your phone in a secure & private way. If you have any questions or need more support, please email us at [support@protonmail.com](mailto:support@protonmail.com).

As mentioned in the very beginning, if you have not already, please also read through the guides found online at:

<https://mark37.com/ghost-phone-guide/>

<https://mark37.com/bigtech-alternatives/>

<https://mark37.com/the-ghost-phone-migrating-contacts-phone-logs-texts-pictures-and-files/>

<https://mark37.com/email-alternatives/>

<https://mark37.com/will-my-app-work-on-the-ghost-phone/>

<https://mark37.com/the-ghost-phone-post-activation-troubleshooting/>

Thank you again, we look forward to assisting you with your new Ghost Phone!

~ **The Team at MARK37.COM**