

A7 Lite Enclosure Quick Start Guide



Rev. A02

Getting Started

Congratulations on the purchase of an Enclosure for the Samsung Galaxy Tab A7 Lite (SM-T220). Most of the Enclosures feature an eSynC adapter, which makes it possible to simultaneously charge the A7 Lite tablet while working with various USB peripherals such as printers, mice, keyboards, and even external hard drives. This mode of operation is called SimulCharge.

In addition to simultaneous charging, all eSynC products support LAVA's Recovery & Battery Modulation (i.e. RBM) technology when coupled with the LAVA Tablet Manager Application (LTM).

The A7 Lite Enclosures' extended features rely on the LAVA product working in unison with the LTM application, therefore the installation of LTM, onto the tablet, is strongly suggested prior to using the enclosure. LTM can be downloaded from the Google Play Store and is also available as part of a Software Release Package which contains the LTM.apk file and extra utilities that may be useful. The package may be downloaded in the form of a zip file from a web link that is provided by LAVA Sales/Support. You may contact LAVA by phone: +1-800-241-LAVA (5282), or email: sales@lavalink.com.

The A7 Lite Enclosures provide the following features:

- VESA 100 Capable Mounting
- Open Speaker Ports
- Back Camera Access
- Front Camera Access (please speak to LAVA rep)
- Microphone Access (please speak to LAVA rep)
- Access USB peripherals while simultaneously charging a mobile device
- Keep a mobile device connected to power 24/7
- Maintain battery health
- Manage Screen Brightness based on time of day
- Connect and access multiple USB peripherals (product specific)
- Provide a wired Ethernet connection to a mobile device (product specific)
- Power mobile device via PoE (product specific)
- Power via an unregulated DC power supply (product specific)

Your hardware purchase will include:

- A7 Lite Enclosure

Prior to proceeding with the instructions in this document, ensure you have obtained:

- Samsung Galaxy Tab A7 Lite tablet
- Phillips head screwdriver
- VESA 100 capable mounting solution (stand, mount etc.)

Note: The A7 Lite Powered Enclosure uses a power-only adapter and does not feature SimulCharge. It can be purchased with or without RBM. If you are using the non-RBM version, please skip the Software Setup section as it doesn't use LTM.

Software Setup

Required parts:

- LTM application
- Samsung Galaxy Tab A7 Lite

1a. Download LAVA Tablet Manager app

To download the LTM app from the Google Play Store, tap on the Play Store icon on the mobile device to launch it. Search for "LTM" and choose the proper app from the results. Tap on the "Install" button on the LAVA Tablet Manager app page to download and install the app. Go to **Step 2**.

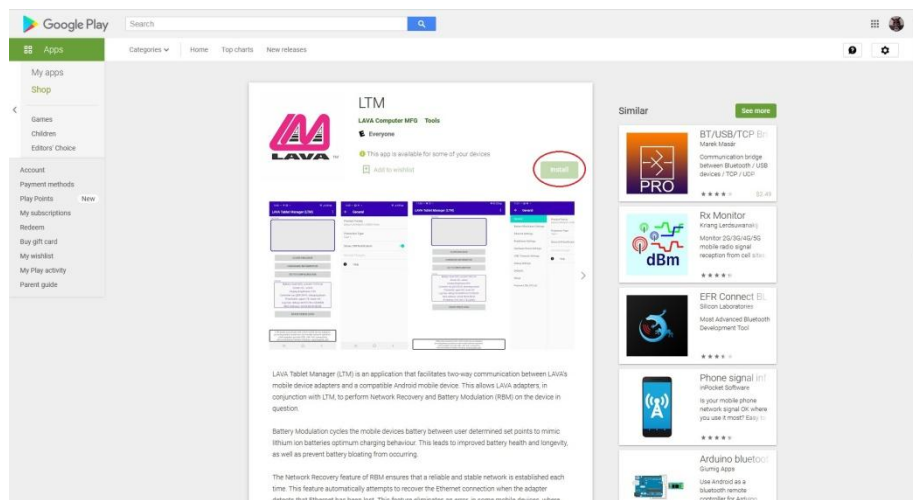


Figure 1: LTM app on Google Play Store

OR

1b. Download LAVA Software Release Package

Alternatively, the LAVA Software Release Package may be downloaded from a web link in the form of a zip file, and therefore needs to be extracted/unzipped. The zip file can be extracted from a web browser on the mobile device or a PC, using one of many online extraction tools that are freely available. If the zip file is extracted on a PC, it will need to be transferred onto the mobile device using a memory stick and an OTG adapter such as the LAVA Charge Plus USB-C for USB-C receptacles. The advantage of this method is the software can be installed on a mobile device even when it is not connected to the internet.

1.1 Allow mobile device to install apps from unknown sources

Since the Software Release Package is not downloaded from the Google Play Store, the mobile device will need permission to install apps from unknown sources.

- a) Open the mobile device Settings.
- b) Click "Biometrics and security".*
- c) In the Biometrics and security menu, click "Install unknown apps".
- d) Locate the browser application (if using mobile device) or memory stick (if using PC) you are using to install LTM.
- e) Click on the icon containing the name of the application or memory stick.
- f) Enable "Allow from this source" (Figure 2).



Figure 2: Example of web browser application being permitted to install unknown apps

***Note:** If your mobile device is operating with Android version 7 or lower, step b) will require you to click "Lock screen and security" in the mobile device Settings.

1.2 Locate the LTM.apk file

LTM.apk will be located in the Software Release Package folder in "My Files" on your mobile device.

-If the package was downloaded from a web browser, it will be located in "Downloads".**

-If the package was placed on a memory stick, it will be located in "USB storage", in which case you must move it into the "Downloads" folder.

LTM will appear in the Software Release Package folder.

****Note:** If you downloaded the software package from a web browser on your mobile device, the apk file may be located in "Installation files" as well as "Downloads".

2. Install and open LTM.apk

Click on the LTM.apk file in order to install it.

Once LTM has been installed on your device, you will receive a pop-up message providing the option to open the application.

Click "Open" (Figure 3).

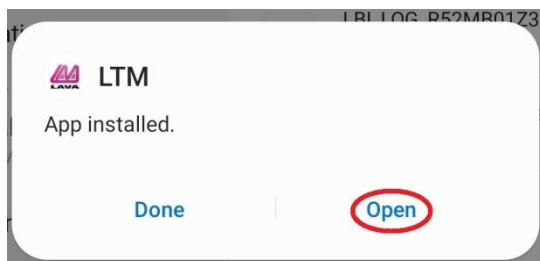


Figure 3: Pop-up message providing option to open LTM

Note: The LTM app on the Google Play Store is LTM v5.**, however the app in the Software Release Package is LTM v4.**. Both versions are exactly the same but require different installation methods to be properly loaded onto a mobile device. Therefore, if you have

version 4 installed and wish to switch to version 5 (or vice versa), you must uninstall your existing version of LTM from the mobile device first before reinstalling it. Otherwise, both versions of the app will be installed and conflict with one another. You will also need to reconfigure the app after reinstallation, so please make note of your settings in the GUI (especially Product Family and Protection Type) before uninstalling LTM.

3. Give LTM access to photos, media, and files.

When you open LTM for the first time, you will receive a pop-up message requesting permission for LTM to access photos and media on your device. Click "Allow" to grant permission (Figure 4).

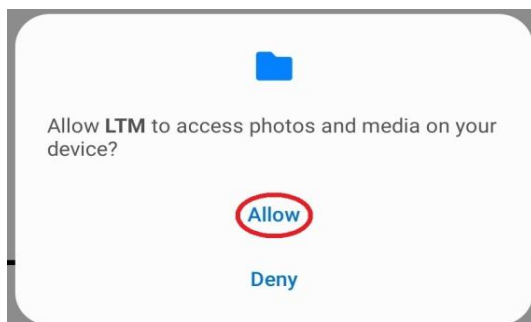


Figure 4: Pop-up message from LTM requesting access to device files

4. Configure the application settings***

a) You will receive an "LTM Startup" pop-up, which will automatically direct you to Configuration settings. Click "OKAY" (Figure 5).

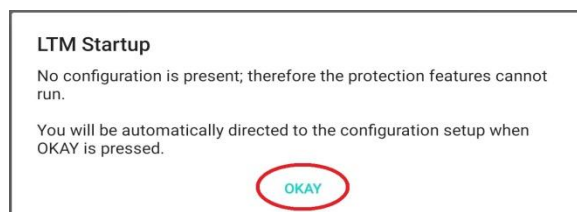


Figure 5: LTM Startup pop-up

*****Note:** *If you have used an older version of the LTM application in the past, you will be given the option to import a legacy configuration file which contains the settings that were previously used. (This does not apply to switching between LTM v4.** and v5.** as the configuration file gets deleted when the app is uninstalled.) See the LTM Advanced Utilities document in the Software Release Package for detailed instructions on importing the legacy configuration.*

b) You will see a “Configuration Not Found” pop-up.
Click “OKAY” (Figure 6).

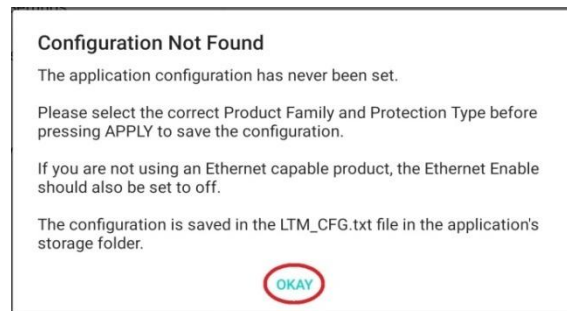


Figure 6: Configuration Not Found pop-up

c) In General Settings (Figure 7), the Product Family must be set according to the LAVA product being used (in this case, eSynC). The Protection Type must also be set according to the mobile device being used. For a list of mobile devices and their suggested Protection Types, select the link located in the Protection Type menu. Incorrectly setting the Product Family or Protection Type can lead to serious operational issues.

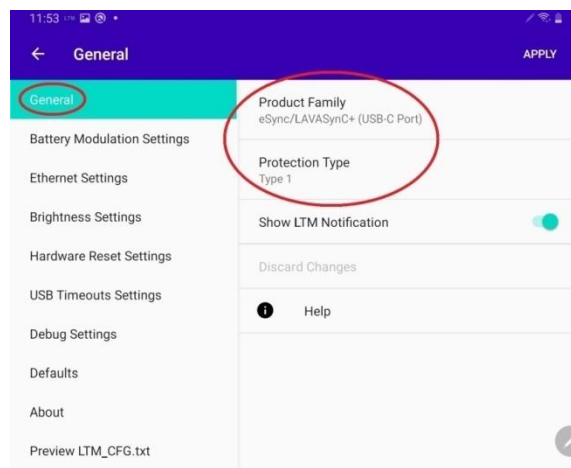


Figure 7: General Settings in the Go To Configuration menu

c) If a non-Ethernet LAVA product is being used, Ethernet Enabled should be turned off in Ethernet Settings (Figure 8).

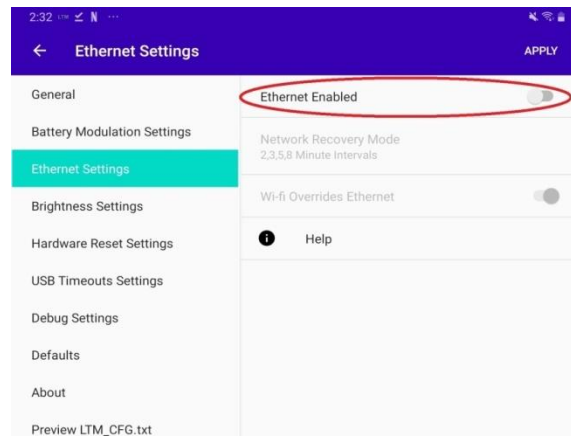


Figure 8: Ethernet Enabled turned off

5. Once you are satisfied with your configured settings, click “Apply” in the top right corner of the screen. Then, click the arrow in the top left corner of the screen (Figure 9) to return to the LTM homepage.

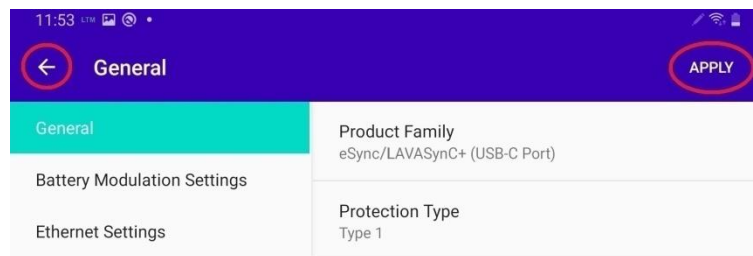


Figure 9: Buttons to apply changes and return to home screen

6. Proceed to the “Hardware Setup” section of this document.

Note: For information regarding additional recommended features and applications that can be used with LTM, see the LTM Advanced Utilities document.

Hardware Setup

Required Parts:

- A7 Lite Enclosure
- Samsung Galaxy Tab A7 Lite tablet
- Phillips head screwdriver
- Ethernet cable for PoE or 9-36 VDC power supply (depending on embedded adapter power type)

Setup Procedure:

For PoE units: Select A7 Lite Enclosures can be powered using a PoE Switch or Injector, connected to the Ethernet Port.

For VC units: Select A7 Lite Enclosures can be powered using a 9-36V power supply with a 2mm center positive barrel jack connector. The attached power supply and wiring are responsible for providing short circuit protection.

Note: For VC units, when connecting the LAVA product to the supply, ensure the wiring is such that the center pin is positive. If the polarity is reversed, the damage to the LAVA product is immediate. Application of the wrong input voltage violates LAVA's Manufacturer Warranty.

1. The enclosure will ship with four screws screwed in to hold the two parts of the enclosure secure and in place during shipping. First remove these screws with a Phillips head screwdriver in order to remove the back plate (which has the SimulCharge adapter attached). The remaining screws will be taped to the inside of the back plate. A USB-C cable will also be snaked through from the attached adapter. Do not unscrew the adapter from the back plate or try to remove the USB-C cable. Also take note of the orientation of how the back plate was screwed into the frame as this is the correct orientation. You will not be able to properly reassemble the enclosure if one of the parts is incorrectly oriented.
2. Remove the bag of screws from the back plate.
3. It is recommended that the Samsung Galaxy Tab A7 Lite tablet is turned off prior to installation as this prevents accidental reconfiguration or launching of apps during the install process (pocket dialling).
4. Connect the tablet to the USB-C cable. Don't exert too much pressure on it as this can break the connector or board interface if you force it too hard. Make sure the cable lays flat against the back plate so it won't be in the way when you put the enclosure back together. If the cable is twisted, the tablet likely won't seat properly and could cause a bulge when the enclosure is assembled.

5. Once the tablet is plugged into the adapter, you can reassemble the enclosure. Place the back plate face down on top of the frame and fit the tablet snugly inside it. Take caution as you push the tablet into the frame. There are sponge tabs in the frame's corner to keep the tablet from moving and protect it from minor impact. However, if you press too hard, the tablet might catch the edge of one of these tabs and cause them to not fit properly when the enclosure is fully assembled.
6. Next, take the four screws you had removed and screw them into the corner holes. This way, you can see if there are any bumps because something is sitting wrong on the inside. Then, screw in the remaining screws and continue to ensure the back plate lies flat against the frame.
7. The back of the enclosure's adapter has four large screw holes. These are VESA 100 holes that allow you to attach the enclosure to a standard VESA mount. Follow the instructions provided by the mount to attach the enclosure. LAVA does not provide the VESA screws for mounting.
8. Once the enclosure is mounted, you can remove the white paper covering the frame. It is used to protect the enclosure from scratches during shipping. It is recommended that this paper is removed after final install on the VESA mounting as this prevents any accidental scratches or dings that may occur during this process.
9. The enclosure has a hole over the power button. Feed a small stick into the hole to turn on the tablet.
10. Once the product is powered, the Yellow eSynC status LED light will start blinking, indicating that the unit is receiving power.
11. You will also receive a pop-up message regarding opening LTM once the USB connection is established. You will receive this pop-up every time unless you click "Always open LTM..." Click "OK" (
12. Figure 10).

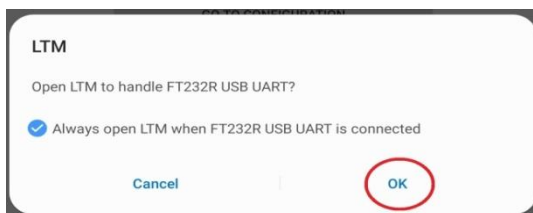


Figure 10: Pop-up message received upon connecting LAVA product to mobile device

13. The Green eSynC status LED light will be illuminated, indicating that a USB connection has been established with the mobile device.
14. To verify that LTM has detected the hardware connection, consult the “STATUS” window on the LTM homepage on your mobile device. Prior to connecting your LAVA product, the “STATUS” window will say “CONTROLLER NOT DETECTED” (Figure 11).

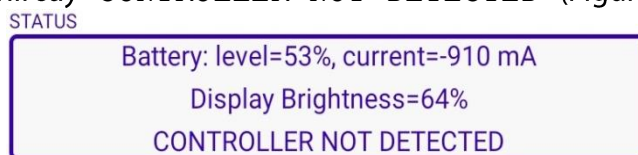


Figure 11: STATUS window prior to connection of the LAVA product

Once you see “Controller detected” in the STATUS window (Figure 12), the LTM application has successfully detected the LAVA hardware.

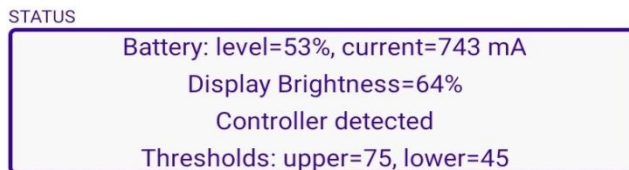


Figure 12: STATUS window upon detecting a connection to the LAVA product

If your product is functioning properly, “Controller detected” will be replaced by a “Controller ran @hh:mm:ss” (hour:minute:second) time which will update approximately every 30 seconds (Figure 13).

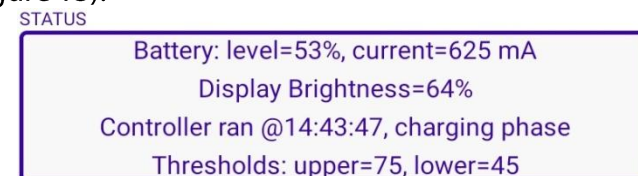


Figure 13: STATUS window once the product is functioning properly with LTM

15. After establishing a connection with the mobile device, the Yellow eSynC status LED light will begin blinking on and off to indicate whether the A7 Lite Enclosure is in a charge cycle (eg. Yellow LED is mostly on and briefly off) or discharge cycle (eg. Yellow LED is briefly on and mostly off). The STATUS window on the LTM home screen will also indicate if it is charging or discharging, with a message that says “charging phase” or “discharging phase” (Figure 13).
16. Plug your Ethernet cable and peripherals into the A7 Lite Enclosure (if applicable).

Concluding Steps

Step 1. Enable Screen Brightness Management (optional)

If you would like to install or learn more about the Screen Brightness Management feature, refer to the “Advanced LTM Settings” document. This step is **strongly** recommended, but optional.

Step 2. Set LTM to Background Mode once ready for deployment

- a) The LTM and hardware setup process is now complete. Once you have verified your setup and you are satisfied with your configuration, you may set the LTM application to Background Mode.
- b) On the LTM homepage, press the Overflow menu (3 vertical dots) in the top right corner.
- c) Select “Background Mode”.
- d) If the application disappears from view, it has been set to Background Mode successfully.

Revert LTM to Configuration Console

When LTM is in Background Mode, it cannot be opened by simply clicking the application logo on the mobile device home screen. There are two ways to revert the application into Configuration Console:

1. Close all active applications on the mobile device. Once they have been cleared, clicking the LTM app once will launch it in a visible state.
2. Click the LTM logo several times within a few seconds.

Note: Any time you make a change to a setting in the LTM app, it is recommended to power cycle the LAVA product. Disconnect the enclosure from the power source and then reapply power.

If you are using the non-RBM version of the A7 Lite Powered Enclosure, you can ignore this section as you will not have LTM installed on the tablet.

Wired Ethernet Configuration (for Ethernet-capable products)

Depending on your mobile device and network configuration, you may need to enable or reconfigure the wired connection settings on your device.

After establishing a connection with the eSynC product, the Ethernet configuration option should be available on the Settings Menu of your mobile device (i.e. Settings > Connections > More connection settings > Ethernet).

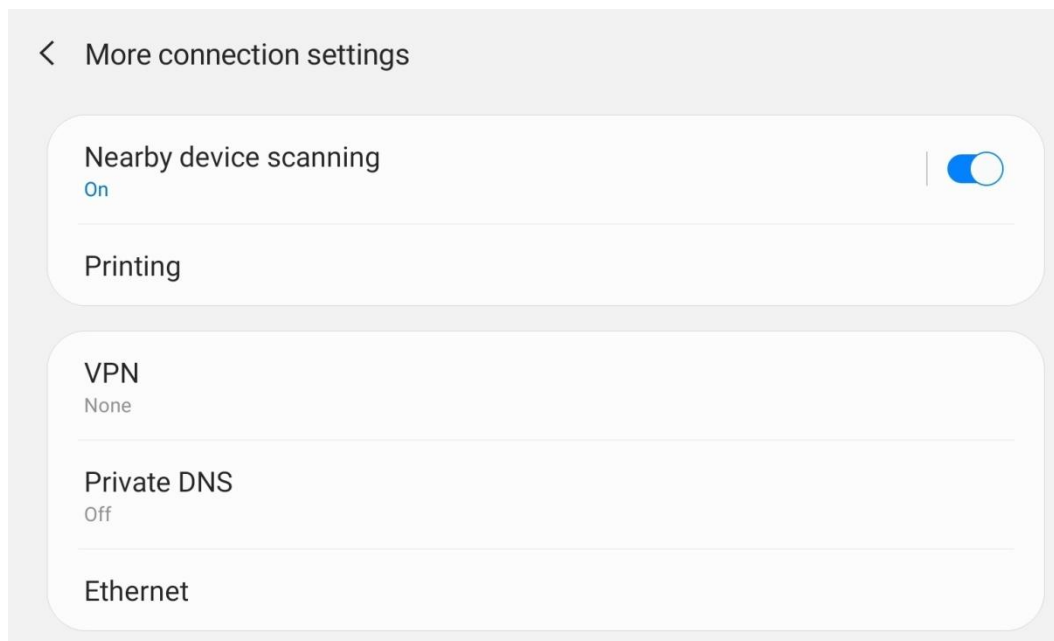


Figure 14: More connection settings on mobile device

After establishing a connection with the A7 Lite Enclosure, if the Ethernet option is greyed out or unavailable, the mobile device likely does not support a wired connection. If this is the case, there is likely nothing that can be done to enable this feature on your mobile device.

Assuming that the Ethernet option is available, it may be necessary to enable or disable the wired connection on your mobile device. This can be done by ensuring the Ethernet option is enabled or disabled on the Ethernet page.

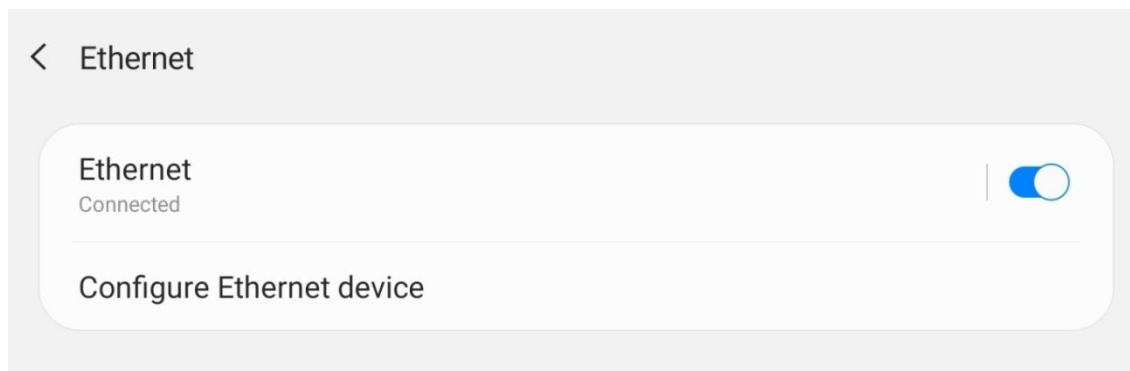


Figure 15: Ethernet enabled on mobile device

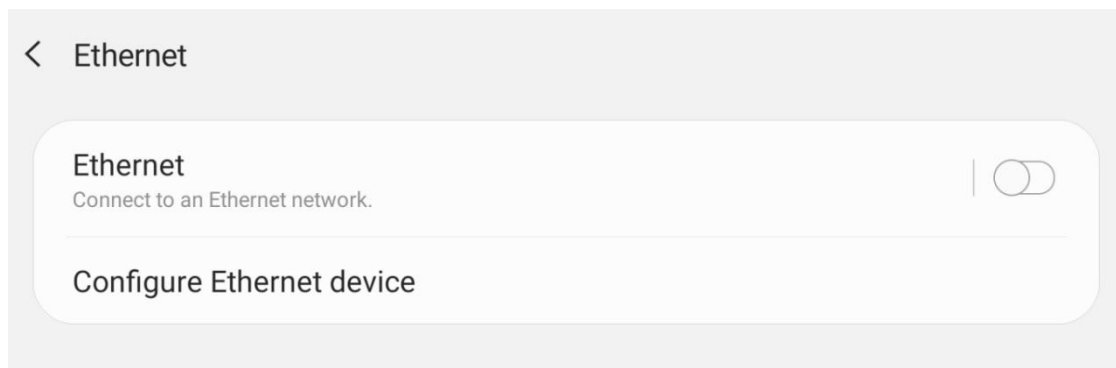


Figure 16: Ethernet disabled on mobile device

Most mobile devices will have DHCP enabled by default. If your network does not have a valid DHCP server, you will need to manually configure an IP Address for the mobile device. Check with your network administrator before using static IP settings.

To manually configure an IP Address, you will need to disable the Ethernet connection on the Ethernet page before selecting "Configure Ethernet Device". From here, you can select "Static IP" and specify the IP Address settings to be used by the mobile device.

The screenshot displays the 'Ethernet' configuration page on a mobile device. At the top, there's a toggle switch for the Ethernet connection, which is currently turned off. Below this, the 'Configure Ethernet device' section is active. A modal window titled 'Select Ethernet device' shows 'eth0' as the selected device. Under 'Connection type', the 'Static IP' option is selected with a blue dot. The 'IP address' field contains '192.168.0.35', the 'Netmask' is '255.255.255.0', the 'DNS address' is '8.8.8.8', and the 'Default gateway' is '192.168.0.1'. There is also a 'Proxy' section with 'None' selected. At the bottom of the modal are 'Discard' and 'Save' buttons.

Figure 17: Example of Static IP configuration on mobile device

Once the IP Address has been configured, you will need to re-enable the Ethernet connection in order to use the wired connection.

LAVA

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This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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