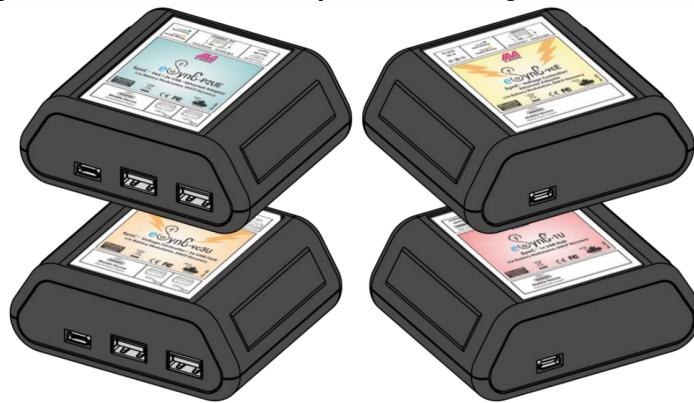




# LAVA eSynC USB C Ethernet Adapter with Voltage Converter User Guide

[Home](#) » [LAVA](#) » LAVA eSynC USB C Ethernet Adapter with Voltage Converter User Guide 

## LAVA eSynC USB C Ethernet Adapter with Voltage Converter User Guide



### Contents

- [1 Getting Started](#)
- [2 Software Setup](#)
- [3 Hardware Setup](#)
- [4 Concluding Steps](#)
- [5 Revert LTM to Configuration Console](#)
  - [5.1 Wired Ethernet Configuration \(for Ethernet-capable products\)](#)
- [6 LAVA Technical Support](#)
- [7 Documents / Resources](#)
- [8 Related Posts](#)

## Getting Started

Congratulations on the purchase of an eSynC product! The eSynC product family (formerly known as LAVASynC+) makes it possible to simultaneously charge select USB-C mobile devices 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 eSynC extended features rely on the LAVA product working in unison with the LTM application, therefore the installation of LTM is mandatory prior to using an eSynC product. 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](mailto:sales@lavalink.com).

The eSynC product line provides the following features:

- Access USB peripherals while simultaneously charging a mobile device
- Keep a mobile device connected to power 24/7
- Maintain battery health
- Modulate charging based on actual battery charge levels
- Manage Screen Brightness based on time of day
- Attach multiple USB peripherals at any time
- 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:

- eSynC device

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

- A compatible USB-C mobile device (tablet or smartphone)
- A USB-C to USB-C cable which supports **both data and charging**

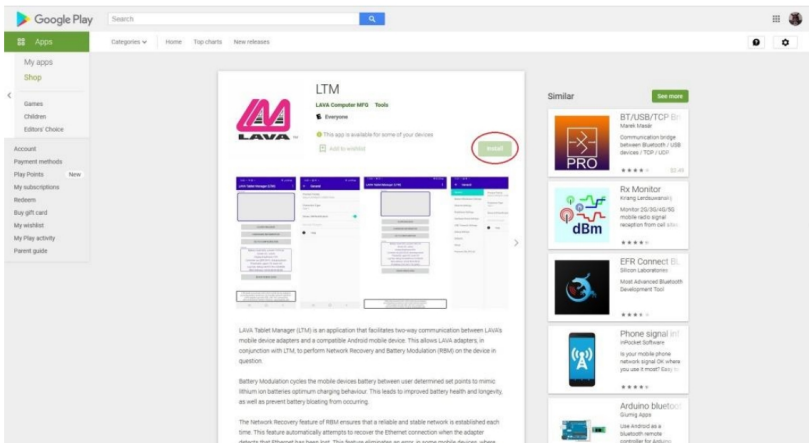
## Software Setup

### Required parts:

- LTM application
- Compatible mobile device (tablet or smartphone)

#### 1. a. 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**.



**Figure1: TM app on Google Play Store**

**OR**

### 1. b. 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.

### 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. 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

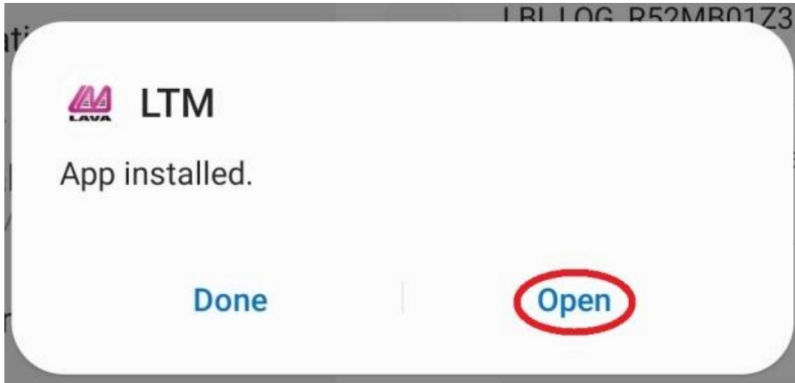
move it into the "Downloads" folder.

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**).

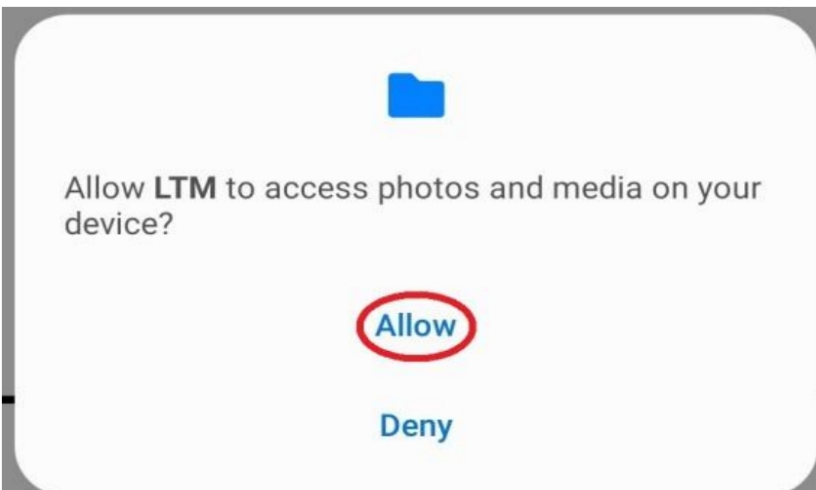


**Figure 3: Pop-up message providing option to open LTM**

**Note:** The LTM app on the Google Play Store is LTM v5.0, however the app in the Software Release Package is LTM v4.0. 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 installation, 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.

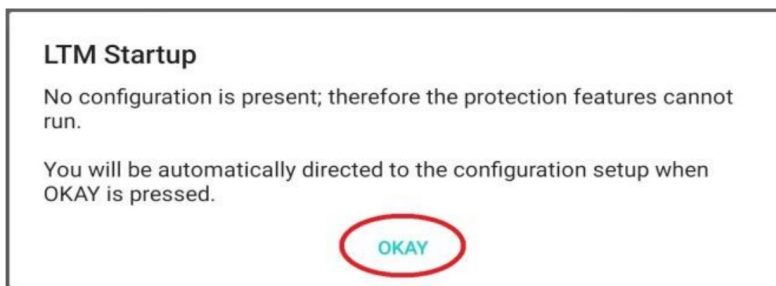
When you open LTM for the first time, you will receive a pop-up message requesting permission for LTM to access photos and media on your device. Click "Allow" to grant permission (**Figure 4**).



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

## 4. Configure the application settings\*\*\*

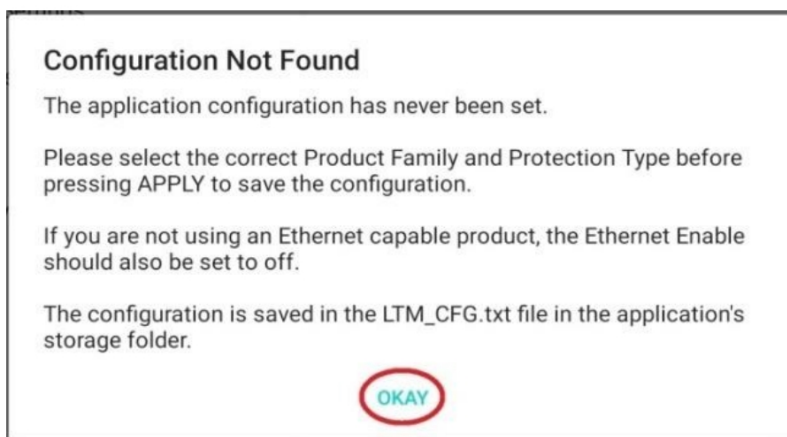
- a) You will receive an "LTM Startup" pop-up, which will automatically direct you to Configuration settings. Click "OKAY" (**Figure 5**).



**Figure 5: LTM Startup pop-up**

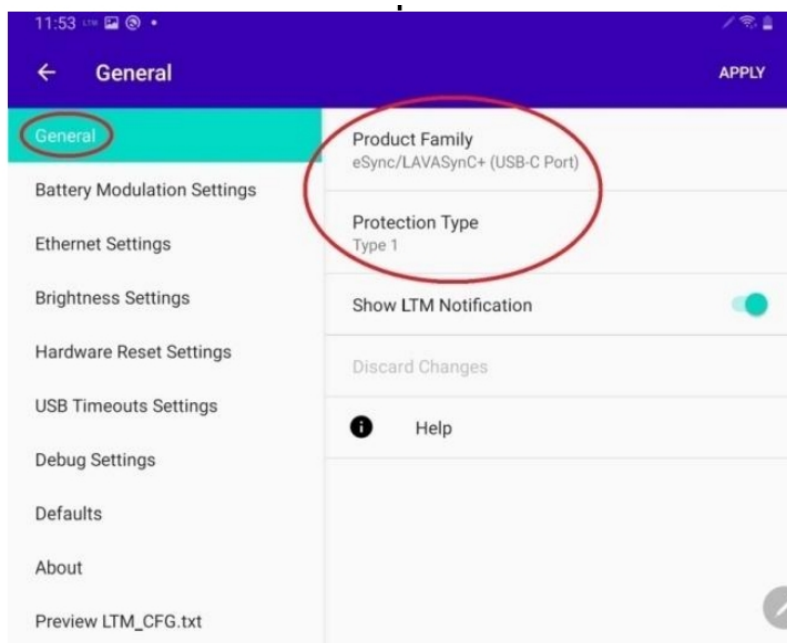
**\*\*\*Note:** If you have used an older version of the LTM application in the past, you will be given the option to import a legacy configuration file which contains the settings that were previously used. (This does not apply to switching between LTM v4. \*\* and v5. \*\* as the configuration file 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**).



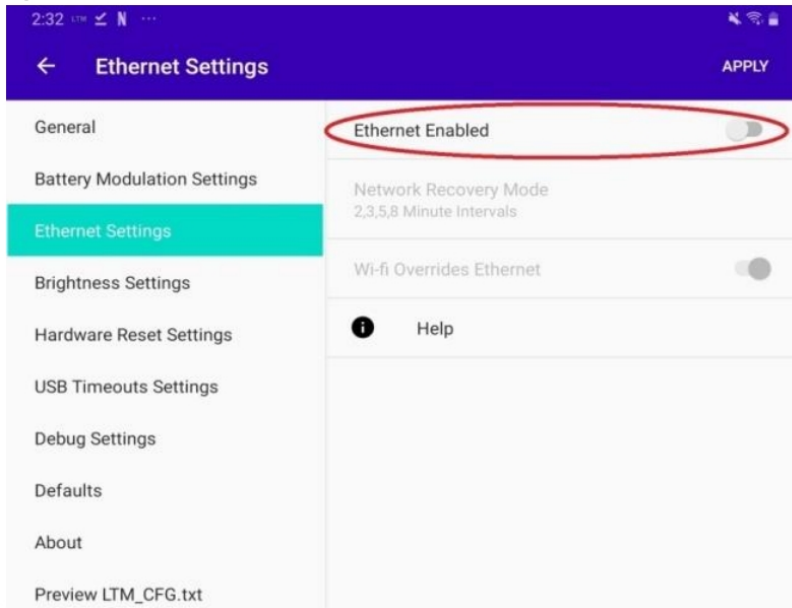
**Figure 6: Configuration Not Found pop-up**

- **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 setting 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.

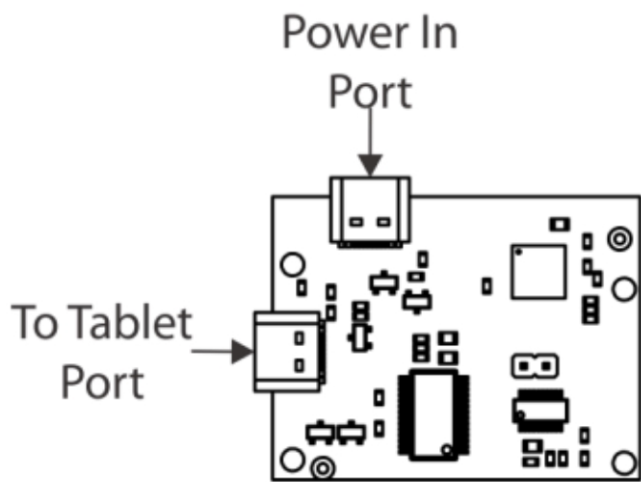
**Note:** For information regarding additional recommended features and applications that can be used with LTM, see the LTM Advanced Utilities document.

## Hardware Setup

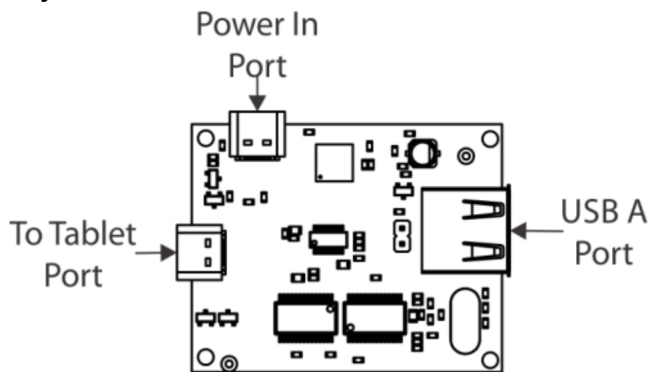
### Required Parts:

- eSynC product
- USB-C to USB-C cable that supports both data and char in
- Compatible mobile device (such as tablet or smartphone)
- USB Charger & Charging Cable capable of 5V, 2A (such as the one included with the mobile device)

### eSynC BM OEM

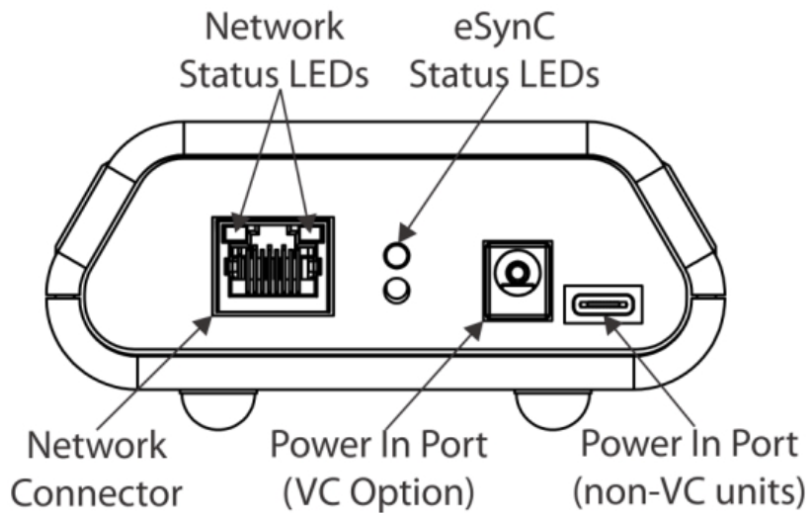


#### eSynC 1U OEM

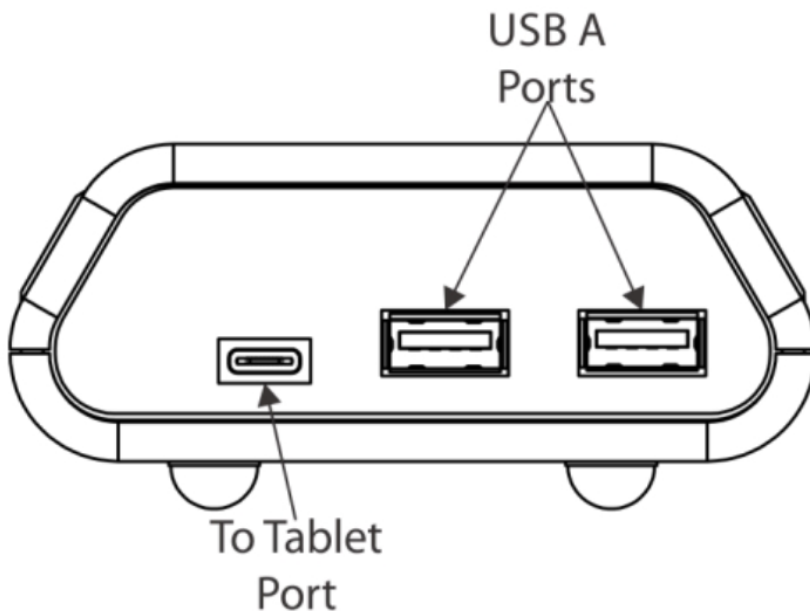


#### eSynC Non OEM Variants

- Front of Device



- Back of Device



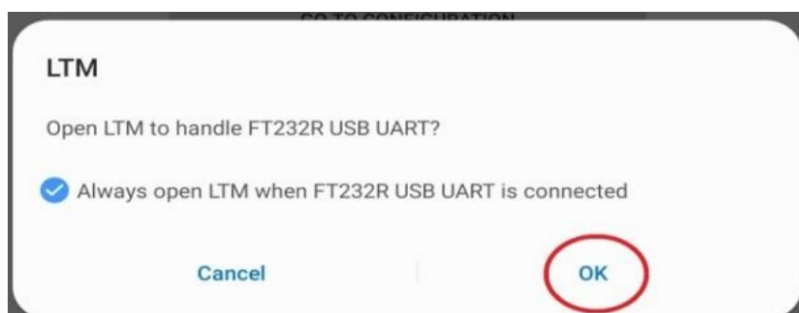
**Figure 10: Typical connection of eSynC to mobile device**

#### Setup Procedure:

1. Plug the USB Charger into an AC power source and connect the USB-C connector into the eSynC port marked “USB-C Power Adapter”.
  - **For PoE units:** Select eSynC devices can be powered using a PoE Switch/Injector connected to the Ethernet Port.
  - **For VC units:** Select eSynC devices can be powered using a 9-36V (12W or better) power supply, with a 2 mm center positive barrel jack connector, connected to the port marked “9-36 VDC In”. The attached power supply and wiring are responsible for providing short circuit protection.

**Note:** If using either PoE, or the VC power input, **do not** plug a power supply into the port marked “Aux 5V Input”.

**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.
2. Once the product is powered, the Yellow eSynC status LED light will start blinking, indicating that the unit is receiving power.
3. Plug one end of the USB-C to USB-C cable into the mobile device. Plug the other end into the eSynC port marked “Mobile Device”.
4. Once the LAVA product is powered and connected to your mobile device, you will receive a pop-up message regarding opening LTM when a USB is connected. You will receive this pop-up every time you connect your mobile device to a eSynC product, unless you click “Always open LTM...”. Click “OK” ( **Figure ii**).





**Figure 11: Pop-up message received upon connecting LAVA product to mobile device**

- Once the USB-C cable is attached, the Green eSynC status LED light will be illuminated, indicating that a connection has been established with the mobile device.
- 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 12).

STATUS

Battery: level=53%, current=-910 mA  
Display Brightness=64%  
**CONTROLLER NOT DETECTED**

**Figure 12: STATUS window prior to connection of the LAVA product**

Once you see “Controller detected” in the STATUS window (Figure 13), the LTM application has successfully detected the LAVA hardware.

STATUS

Battery: level=53%, current=625 mA  
Display Brightness=64%  
Controller ran @14:43:47, charging phase  
Thresholds: upper=75, lower=45

**Figure 13: 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 14).

STATUS

Battery: level=53%, current=625 mA  
Display Brightness=64%  
Controller ran @14:43:47, charging phase  
Thresholds: upper=75, lower=45

**Figure 14: STATUS window once the product is functioning properly with LTM**

- After establishing a connection with the mobile device, the Yellow eSynC status LED light will begin blinking on and off to indicate whether the eSynC product 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 14).
- Plug your peripherals and/or Ethernet cable into the eSynC product (if applicable).

## Concluding Steps

### 1. 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.

### 2. 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”.

4. **d)** If the application disappears from view, it has been set to Background Mode successfully.

## Revert LTM to Configuration Console

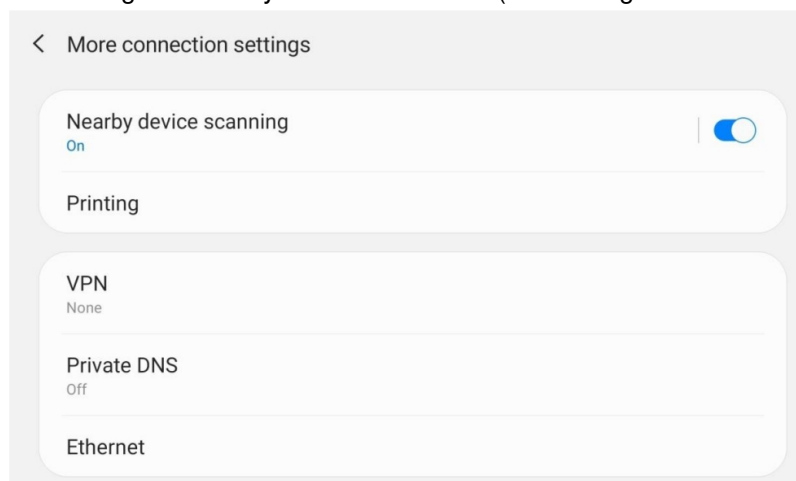
When LTM is in Background Mode, it cannot be opened by simply clicking the application logo on the mobile device home screen. There are two ways to revert the application into Configuration Console:

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.

## 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.

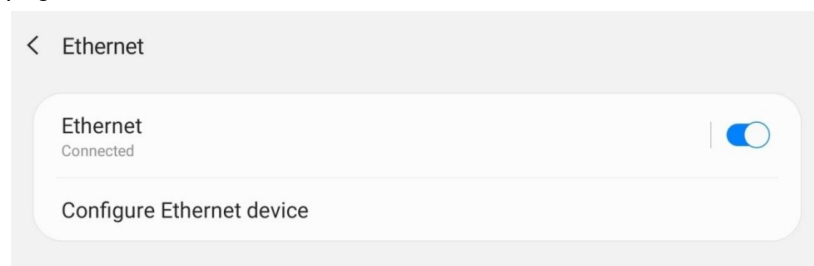
After establishing a connection with the eSynC product, the Ethernet configuration option should be available on the Settings Menu of your mobile device (i.e. Settings > Connections > More connection settings > Ethernet).



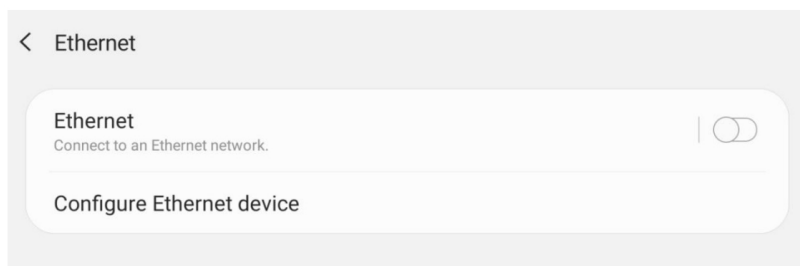
**Figure 15: More connection settings on mobile device**

After establishing a connection with the eSynC adapter, 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.



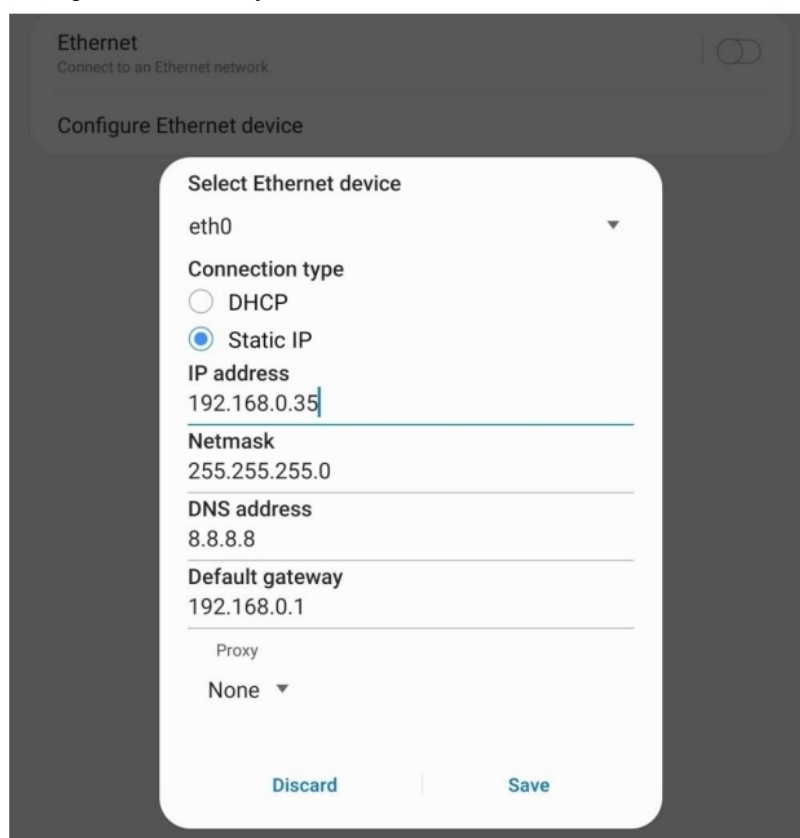
**Figure 16: Ethernet enabled on mobile device**



**Figure 17: 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.



**Figure 18: 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 Technical Support

9:00 am to 5:00 pm Monday to Friday (Eastern Time)

Tel: +416 674-5942

Toll Free (US & Canada): 1-800-241-5282

E-mail: [tech@lavalink.com](mailto:tech@lavalink.com)


Web: [www.lavalink.com](http://www.lavalink.com)



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.

Lava Computer MFG Inc. 908 Niagara Falls Blvd. #629. North Tonawanda NY 14120-2060

## Documents / Resources

	<p><a href="#">LAVA eSynC USB C Ethernet Adapter with Voltage Converter</a> [pdf] User Guide eSynC-P2UE, eSynC-PE, eSynC-vc5UE, eSynC-vc2UE, eSynC-vcE, eSynC-vc3U, eSynC-vc1U, eSynC, USB C Ethernet Adapter with Voltage Converter, eSynC USB C Ethernet Adapter with Voltage Converter</p>
---	---