VOOL

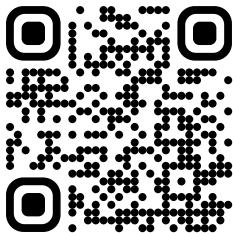**Load Management Controller**
Quick Guide

EE Soovitame enne toote paigaldamist ja kasutamist lugeda läbi terve juhend. Paigaldamise peab läbi viima autoriseeritud paigaldaja. Palun jälgige kõiki kohalikke regulatsioone.

EN We recommend to read the entire manual before installing and operating the product. The installation must be carried out by an authorised installer. Follow all local regulations.

LV Pirms produkta uzstādīšanas un lietošanas iesakām izlasīt visu rokasgrāmatu. Uzstādīšana jāveic pilnvarotam speciālistam. Ievērojiet visus vietējos noteikumus.

LT Prieš montuojant ir naudojant gaminį, rekomenduojame perskaityti visą vadovą. Montavimo darbus turi atlikti įgaliotas montuotojas. Laikykitės visų vietos reikalavimų.

FI Suosittelemme lukemaan koko käyttöohjeen ennen tuotteen asentamista ja käyttöä. Valtuutetun asentajan on suoritettava asennus. Noudata kaikkia paikallisia määräyksiä.

SE Vi rekommenderar att läsa genom hela manualen innan produkten installeras och används. Produkten ska installeras av en auktoriserad installatör. Följ alla lokala bestämmelser.

DK Vi anbefaler, at du læser hele manualen, inden du installerer og begynder at bruge produktet. Installationen skal udføres af en autoriseret installatør. Følg alle lokale regler og bestemmelser.

DE Wir empfehlen Ihnen, vor der Installation und Inbetriebnahme des Produkts das gesamte Handbuch durchzulesen. Die Installation muss von einem zugelassenen Installateur durchgeführt werden. Befolgen Sie sämtliche lokalen Vorschriften.

NO Vi anbefaler å lese hele brukerhåndboken før du monterer og bruker produktet. Monteringen skal utføres av en autorisert installatør. Følg alle lokale forskrifter.
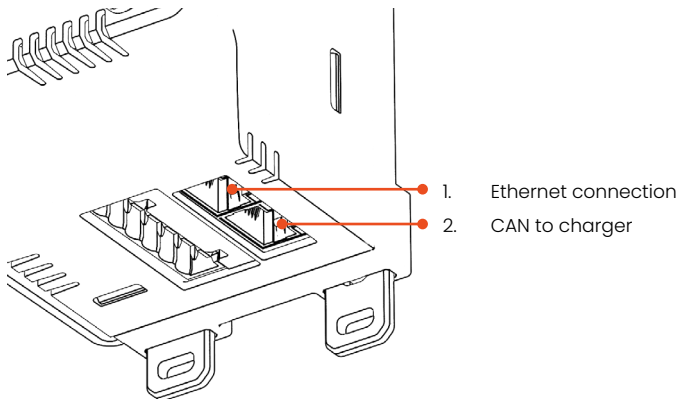

Scan the QR code for the full User Manual

⚠ Please read these instructions before installing, or maintaining the VOOL Load Management Controller (LMC).

⚠ For safety reasons, avoid installing or using the VOOL LMC near flammable, explosive, harsh, combustible materials, chemicals, or vapors.

⚠ To ensure proper installation, an authorized installer must carry out all installations. Incorrect installation can damage the electrical cabinet.

⚠ The VOOL LMC should not be used by Individuals with a lack of experience or knowledge without the supervision of a responsible party.

⚠ Turn off the power from the main switch before installing VOOL LMC.

⚠ Use the VOOL LMC only within the specified operating parameters.

⚠ Avoid inserting any foreign items into the VOOL LMC to prevent damage.

⚠ For safety reasons, avoid direct liquid showers to the VOOL LMC.

⚠ Modifying the equipment or any part of the product is strictly prohibited.

⚠ For safety reasons, do not use the equipment if it appears to be damaged.

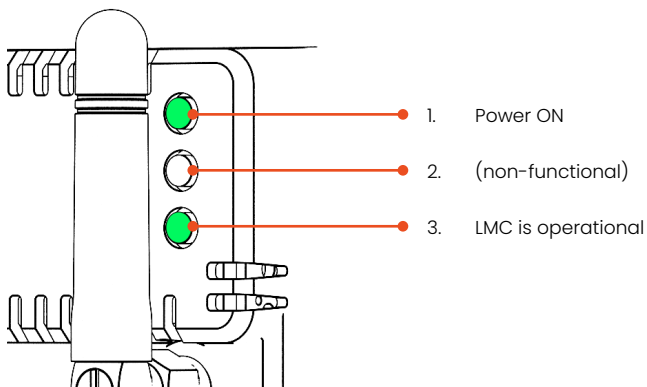⚠ The installations must comply with local regulations. Do not exceed current limitations.

Please check and update to the latest version of firmware to ensure optimal features and functionality.

VOOL

1. Connections

1. Ethernet connection
2. CAN to charger

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2. Lights

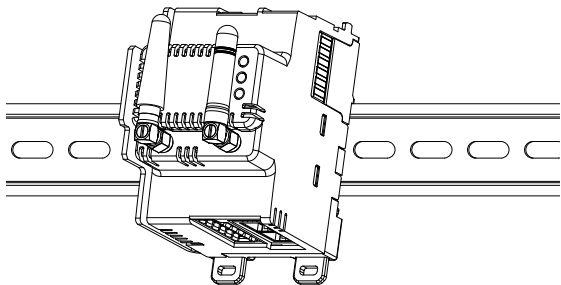
1. Power ON
2. (non-functional)
3. LMC is operational

VOOL

3. Mount the LMC on a DIN rail

Before installation, disconnect the power supply to prevent electrical hazards.
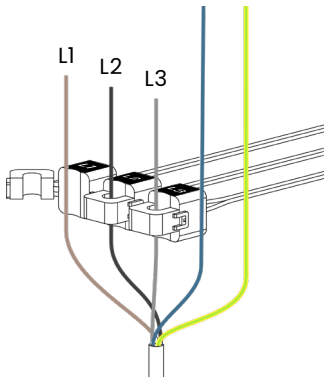
Secure the LMC on the chosen location on the DIN rail.

4. Connect Current Transformers

The LMC comes with three current transformers available in 50A, 100A, and 200A configurations.
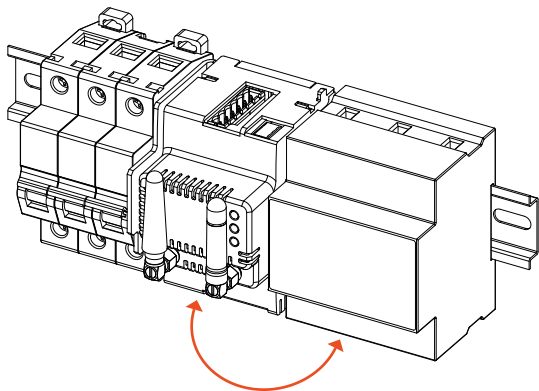They are split-core type, meaning they don't require disconnection of power cables for installation.

Before installing the current transformers on wires, ensure their socket is connected to the LMC.

VOOL

5. Install with Previously Installed Current Transformers or Multimeter

If current transformers are installed in the distribution box, ensure compatibility before connecting to the LMC.

If a multimeter that supports the Modbus protocol is available on-site, it can be directly connected to the LMC. Both devices need to be in the same LAN. Cable to be connected to LMC Ethernet port.
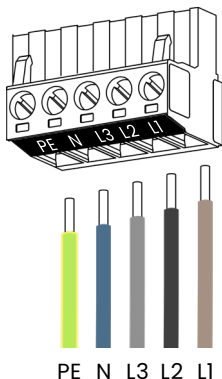
6. Connect AC Power Supply

6.1 (Three-Phase) Connect Cables to the Designated Socket and Socket to LMC

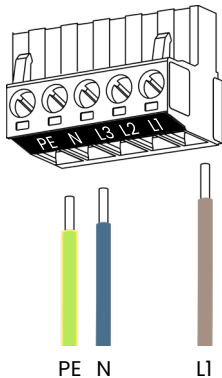Switch on the LMC and ensure that top and bottom LED light up

If any LEDs are unlit or red, refer to the troubleshooting section.

PE N L3 L2 L1

6.2 (Single-Phase) Connect Cables to the Designated Socket and Socket to LMC

Switch on the LMC and ensure that top and bottom LED light up

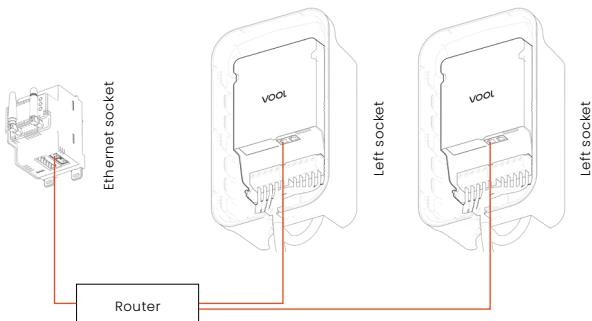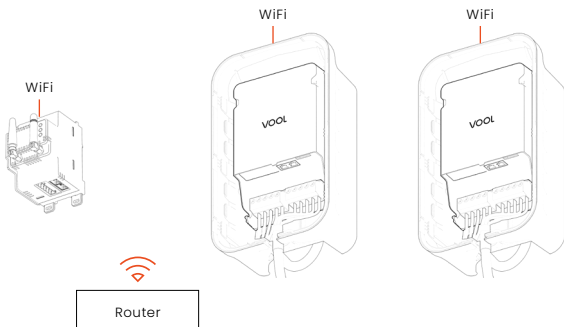If any LEDs are unlit or red, refer to the troubleshooting section.

PE N L1

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7. Connecting LMC to Chargers

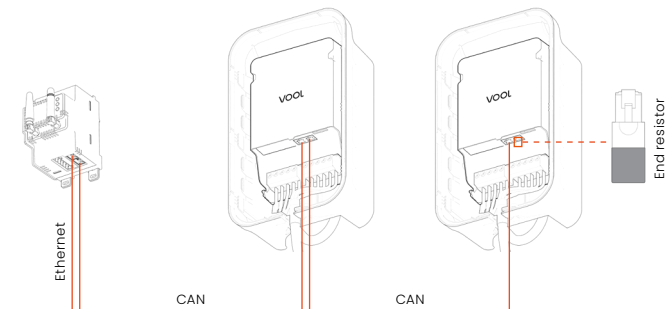Chargers can be connected to LMC if they are in the same local area network or connected via CAN connection.

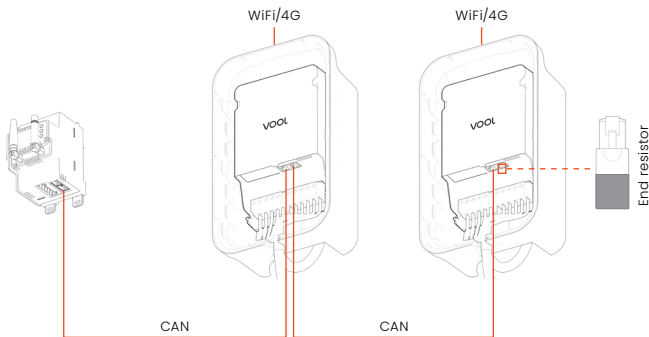## 7.1.1 Charger(s) and LMC in same LAN connected with cables.

7.1.2 Charger(s) and LMC in same LAN connected via WiFi

7.2.1 Charger(s) and LMC connected via CAN. LMC connected to web via ethernet. Last charger on the line to be equipped with end resistor to provide reliable communication between devices.

Ethernet

CAN   CAN

End resistor

7.2.2 Charger(s) and LMC connected via CAN. All devices connected to web via wifi or 4G. Last charger on the line to be equipped with end resistor to provide reliable communication between devices.

WiFi/4G   WiFi/4G
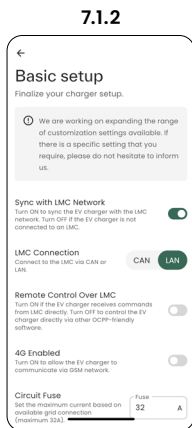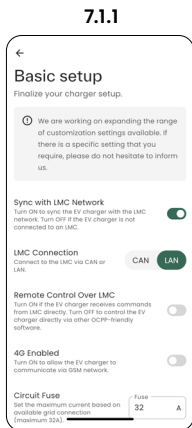
CAN   CAN

End resistor

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For LAN connection wireless and ethernet connection can be combined meaning that devices located on the same site can be connected to the same LAN via cable or wifi. If LAN loses connection to web, but locally remains active, devices will not visible from VOOL portal, but load management remains funtional.
If LAN goes offline for any of the devices, then these devices is no longer part of load management. By default if charger is configured to be part of load management then after disconnection from LMC charging will not start.
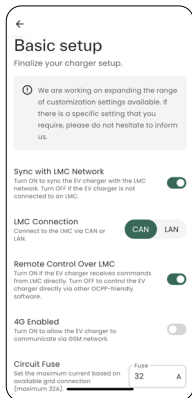
For CAN connection if only LMC is connected to web as shown on 7.2.1, then after disconnection none of the devices will be visible from the web. LMC remains operational and manages load management also offline.
For CAN connection if all devices are connected to web as shown on 7.2.2, then only the disconnected devices will not be visible from the web. LMC remains operational and manages load management also offline.
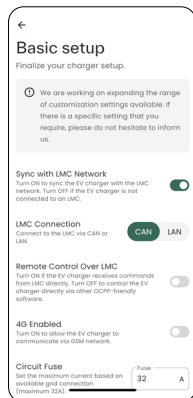
7. Setting up LMC in VOOL portal

7.1.1

7.1.2

VOOL

7.2.1

7.2.2

8. Connect to the VOOL Network

For online connectivity there are three options: Ethernet, wifi and 4G

1. Connect the Ethernet cable with internet connectivity to the Ethernet port on the LMC for to bring the device online.
2. To setup wifi in the LMC: After powerup LMC creates a Wifi hotspot with following name: "LMC ID123456789". Connect to the hotspot, enter password Vool1234 and configure WiFi hotspot name and password to connect LMC to internet. If the browser window does not pop-up automatically then enter random domain address to browser and LMC wifi setup window will open.
3. Your LMC is already equipped with hardware to support 4G connectivity (contact support@vool.com for more details).

VOOL

9. Add the LMC in the VOOL Portal

To add the LMC to the VOOL Portal, navigate to https://app.vool.com/. And log in. You can access the VOOL Portal via mobile phone, tablet, or PC. Click "Add a Device"

- Add a new site or select existing
- Add device
- Select manufacturer - VOOL
- Enter or scan serial and PIN
- If device is connected online it will appear in the list of devices.

After connecting the device(s) online make sure they are added to the same site in VOOL portal. On the site setup it can be chosen which chargers are connected to LMC.

10. Adjust LMC Settings in VOOL Portal

- Find the LMC device in your account.

- Set the fuse rating in amperes and other settings from here.

- During the installation of the Load Management Control (LMC) system, you must match the current setting with the main fuses' size and capacity to ensure proper calibration of the DLM system and avoid potential damage.

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11. Multipoint or Multilevel Load management

*If you are installing multiple LMCs for multi-residential, or commercial properties, contact directly support@vool.com for detailed instructions

Once you have set up the LMC, you are ready to add chargers or link LMC with existing chargers on the site.

VOOL

Warranty Information

To the extent allowed by local law, VOOL declares that it takes no responsibility for any indirect, incidental, special, or consequential damages arising from or relating to the VOOL LMC or adapter.

Including, but not limited to transportation, loss of the charger, reduction of the vehicle value, loss of time, income, personal or commercial property, inconvenience or annoyance or emotional stress or harm, expenses that are made for towing, bus fares, vehicle rental, service call charges, gasoline expenses, lodging expenses and incidental expenses such as telephone calls, emails, etc.

Regardless of the nature of your claim, whether it is based on contract, tort, breach of warranty or conditions, misrepresentation, or any other law, these limitations and exclusions will still apply. This includes the situations where damages were reasonably foreseeable.

Laws and Dispute Resolution

In compliance with local laws, VOOL requests that you notify them in written form of any manufacturing defects within a reasonable timeframe and during the coverage period specified in the VOOL LMC Limited Warranty. This will allow us to perform any necessary repairs. If you have any disputes that require resolution, please send a written notification to:

support@vool.com or Telliskivi 51b, 10611, Tallinn, Estonia

The following information must be provided:

- The date of purchase.
- Your name and contact information.
- Detailed information about the problem you are experiencing.
- Details about the attempts you have made to resolve the issue.

If any disputes or arguments arise between you and VOOL about the VOOL LMC Limited Warranty, VOOL will try all possibilities to reach for agreeable resolution.

Hereby MultiCharge OÜ declares that VOOL LMC complies
with 2014/53/EL, RoHS and CE requirements

For more information, support,
or inquiries, please reach out to us at

info@vool.com
+372 56567172
Telliskivi 51b, Tallinn
ESTONIA

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