

# MANUAL FOR THE TRAPLINKED SYSTEM (All Products)

Version 1.1

#### **TABLE OF CONTENTS**

#### 1 App 3

- 1.1 Install and log in 3
- 1.2 Settings iPhone 4
- 1.3 Settings Android 5

#### 2 Location 6

- 2.1 Create location 6
- 2.2 Upload floor plan 7
- 2.3 Create sub-locations 8
- 2.4 Create and assign technicians 8

#### 3 LoRa network 12

- 3.1 Set up the indoor gateway (model LG308-4G) 12
- 3.2 Set up the indoor gateway (model LPS8N-E4G) 13
- 3.3 Set up the outdoor gateway (DLOS8-4G model) 14
- 3.4 Position gateway 15
- 3.5 Position the traps 17

#### 4 WiFi network 17

- 4.1 WiFi from the customer (Plug & Play) 18
- 4.2 traplinked router and repeater (Plug & Play) 19
- 4.3 Manual configuration 22

#### 5 Devices 24

- 5.1 Move and rename 24
- 5.2 Switch on **26** 
  - 5.2.1 Switch on and set up JERRY 2 LoRa 26
  - 5.2.2 Switch on and set up JERRY 2 WiFi 27
  - 5.2.3 Switch on and set up TOM 28
  - 5.2.4 Switch on and set up JERRY 1 WiFi 31
- 5.3 Place devices in the floor plan 32

#### 6 Control 33

#### 7 Sharing 34

- 7.1 Add customer as observer 34
- 7.2 Set notifications 36

## **QUICK INSTALLATION**



## 1 App

## 1.1 Install and log in

Your first delivery includes this **insert** 

	r		·
			WELCOME TO TRAPLINKED!
1.	Scan the <b>QR code</b> and download the traplinked app		
2.	Log in to the <b>traplinked app</b> with the <b>data provided</b>	<b>→</b>	E-Mail: example-pest-controller@traplinked.com Password: examplepassword
3.	Optional: Log in to <b>the PC</b> at <u>app.traplinked.com</u> with the <b>same data</b>		

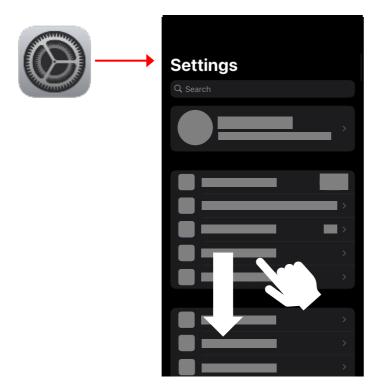
## NOTE

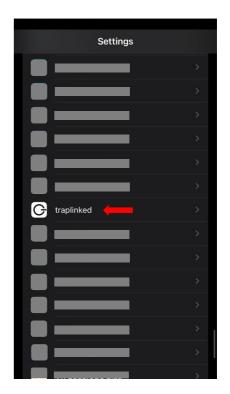
The traplinked app is updated regularly.

Activate **automatic updates** in your **iPhone** or **Android settings** to always use the latest version.

## 1.2 Settings – iPhone

1. In the **iPhone settings**, scroll down to the traplinked app

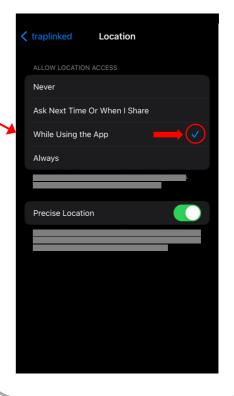




2. Activate the options "Local Network", "Camera" and "Mobile Data"

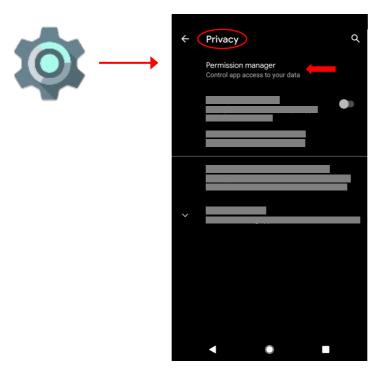


3. Allow access to your location

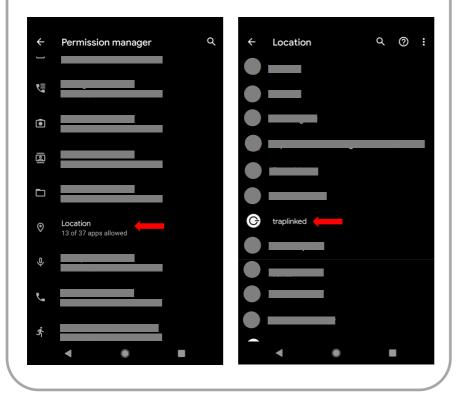


## 1.3 Settings – Android

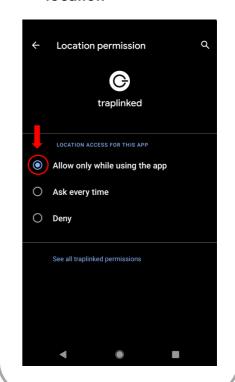
1. In the Android settings, go to the "Privacy" section and tap on "Permission manager"



2. Tap on "Location" and scroll down to the traplinked app



3. Allow access to your location

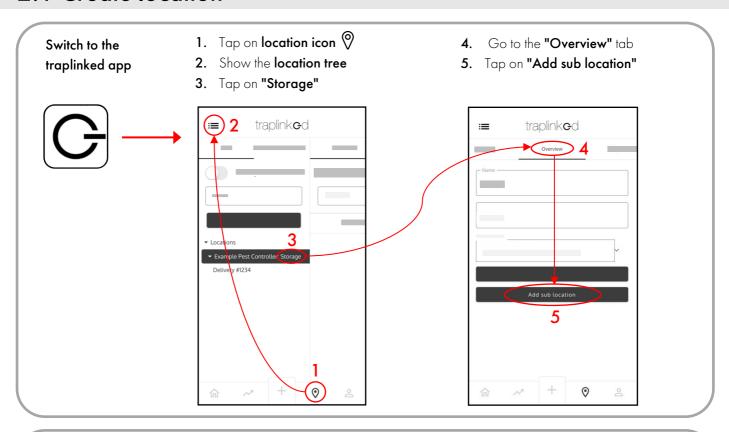


## 2 Location

#### NOTE

We recommend a thorough preparation of the setup in the office. This includes, in particular, the creation of a location (Chapter 2) as well as the preparation of the network (Chapter 3). If the equipment of the object is already clear before the setup, the devices can also already be prepared (chapter 5.1).

## 2.1 Create location



- 6. Enter a name, e.g. Supermarket
- 7. Enter the address of the location
- 8. Tap "Save"

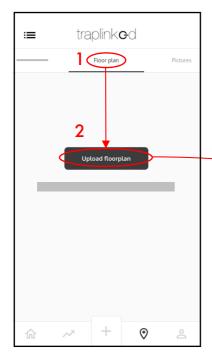


- 9. Show the location tree again
- 10. Your new location has been created



## 2.2 Upload floor plan

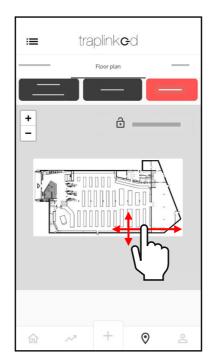
- 1. Go to the **"Floor plan"** tab in the selected location
- 2. Tap on "Upload floor plan"



3. Upload a picture of the floor planAlternatively, you can also take a photo,e.g. of the fire protection plan



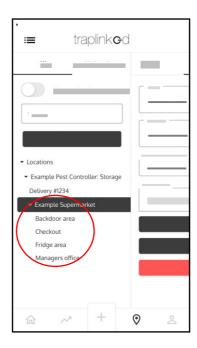
Your floor plan is **saved** and can be **moved by dragging** and **zoomed with two fingers** 



## 2.3 Create sub-locations

Create **sub-locations** for the individual areas within your building. To do this, switch back to the **"Overview"** tab and then proceed as described in step 2.1

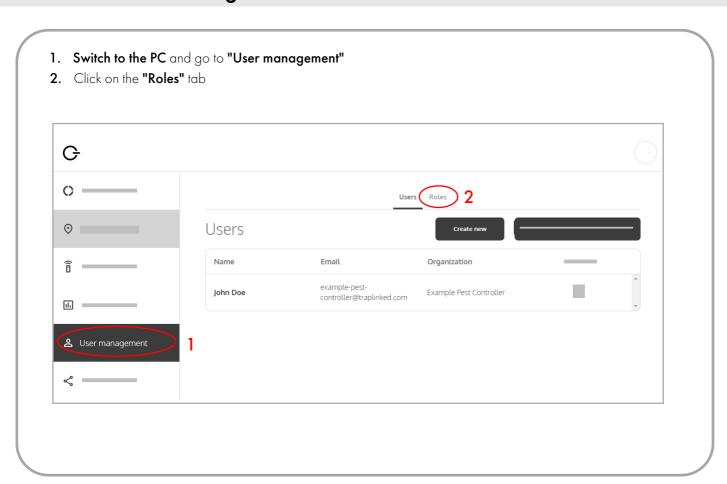


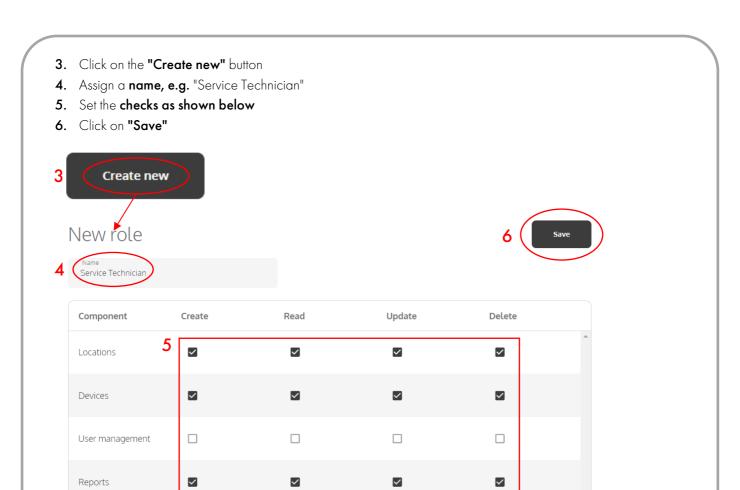


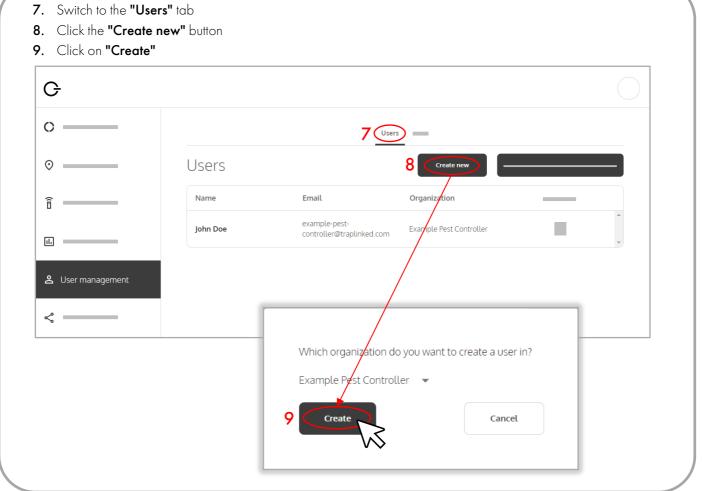
#### **A** CAUTION

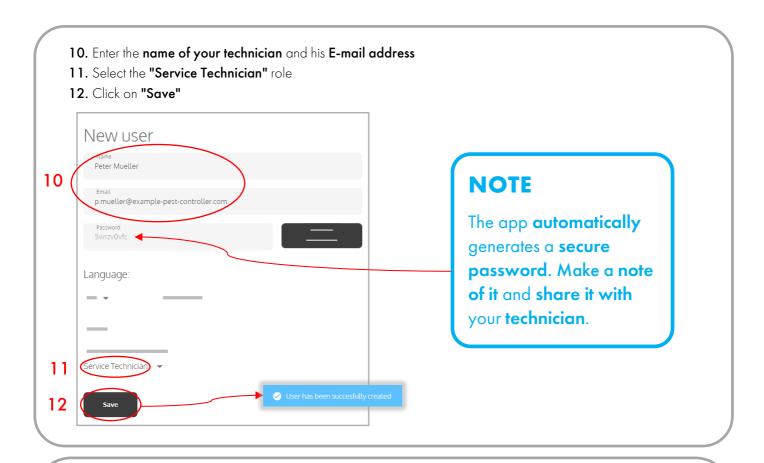
Switch back to the parent location each time before creating a sub-location.

## 2.4 Create and assign technicians

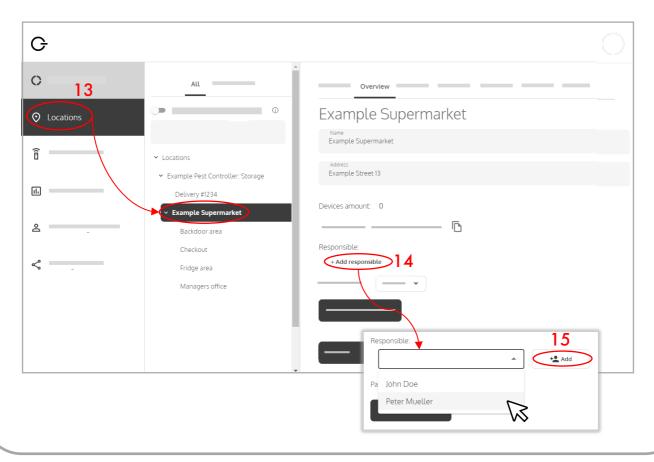


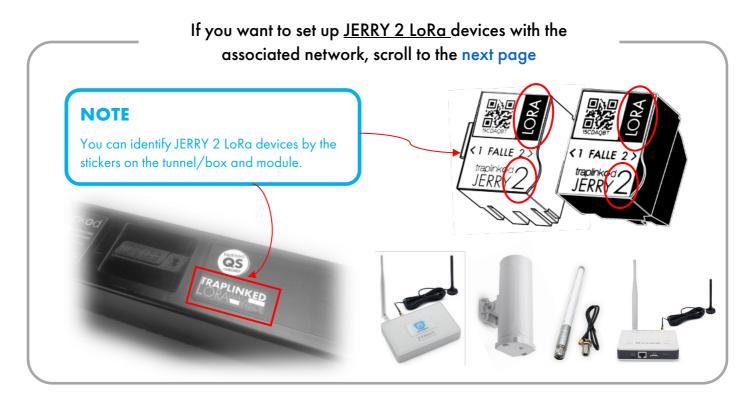


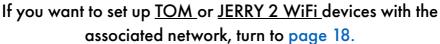




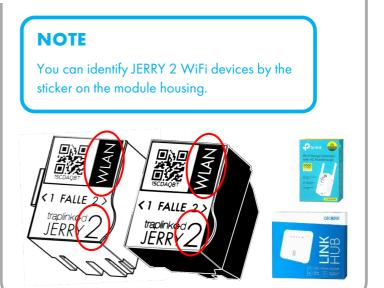
- 13. Switch to "Locations" and click on your parent location
- 14. Click on "Add responsible" and select your created technician
- 15. Click on "Add"







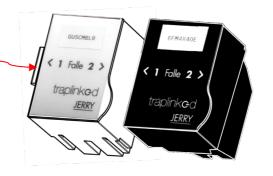




## If you want to set up <u>JERRY 1 WiFi</u> devices with the associated network, turn to page 18.

#### **NOTE**

You can identify JERRY 1 WiFi devices by the sticker on the module housing.



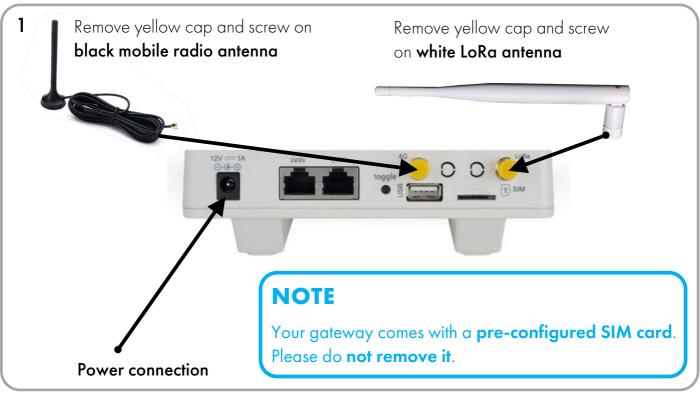




#### 3 LoRa network







2 Connect the power supply unit, plug it into a permanent power socket and attach the sticker



- **3** After plugging in, the gateway **boots up** and establishes a LoRa network
  - $\sum$  This can take up to 5 minutes

If these three **LEDs** are permanently red as shown here, the gateway is **online**:



#### **A** CAUTION

If the LED under the symbol is NOT permanently red, the gateway has no cell reception. Please reposition the gateway.



## 3.2 Set up the indoor gateway (model LPS8N-E4G)



Connect the power supply unit, plug it into a permanent power socket and attach the sticker



- 3 After plugging in, the gateway **boots up** and establishes a LoRa network
  - $\Sigma$  This can take up to 5 minutes

If these two **LEDs** light up **permanently red and blue** as shown here, the gateway is **online**:



#### **A** CAUTION

If the LED above the symbol is permanently red, the gateway has no cell reception. Please reposition the gateway.

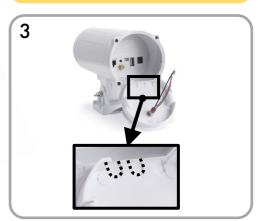
## 3.3 Set up the outdoor gateway (DLOS8-4G model)





## **A** CAUTION

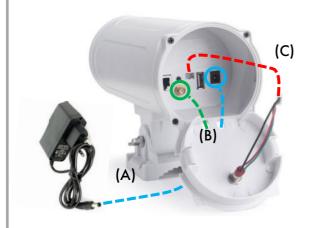
To make the gateway waterproof, hang it up with the lid facing downwards as shown in step 2!



4

Feed **power supply (A)** and the golden end of the **antenna cable (B)** through the cut-outs and **connect to jacks inside** 

Connect cable for LED (C) to jack inside and close cover again



5

Plug the **power supply unit** into a **permanent power socket** and attach the sticker



After plugging into the socket, the gateway **boots up** and establishes a LoRa network

This can take up to 5 minutes

If the LED on the bottom side is permanently green, the gateway is online



#### **A** CAUTION

If the LED on the bottom side is permanently red, the gateway has no cell reception.

Please reposition the gateway.

## 3.4 Position gateway

#### NOTE

The **correct positioning** of the gateways in your building has a great influence on the **quality** of the **LoRa network**. Therefore, adhere to the following guidelines.

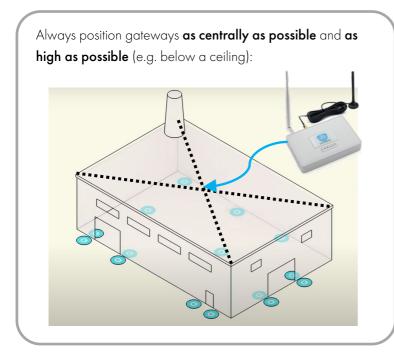
#### The following ranges from gateway to JERRY are possible:

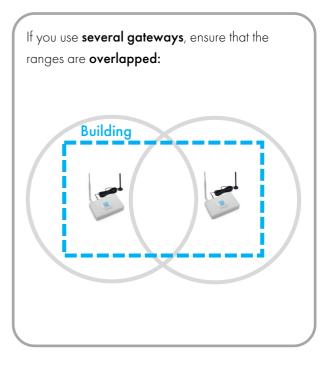
Open field (parking lots, farms)	up to <b>1,000</b> m
Light buildings (residential, office buildings)	up to <b>600</b> m
<b>Medium</b> buildings (supermarkets, department stores)	up to <b>300</b> m
<b>Heavy</b> buildings (machine parks, production halls)	up to <b>100</b> m



You can run up to **220** devices through **1 gateway**.

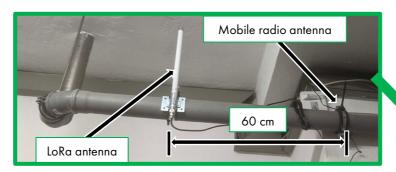
Select the **number of gateways** depending on the **size of the building** and the **ranges** given above



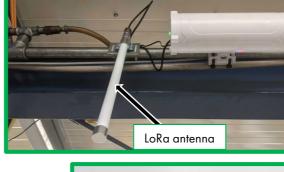


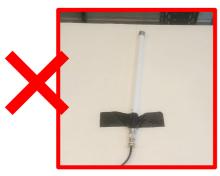
Always position the **LoRa antenna** of your gateway...

- As **high** as possible in the room
- Vertical pointing (up or down)
- As **free-floating** as possible, i.e.
  - not directly against a wall
  - not directly in front of or behind metal objects
- With at least 60 cm **distance** to **other antennas** (e.g. mobile radio antenna or other WiFi routers)











## 3.5 Position the traps

In principle, you can **position** your traps freely **within the specified ranges**.

## **A** CAUTION

In the edge area, an additional **protective plate can** possibly lead to the connection strength **not being sufficient**. In this case, do without the protective plate, **reposition the trap** or hang another gateway.



## **A** CAUTION

Once the gateway is booted, you will see a **network called "dragino**" in the **WiFi** settings of your smartphone - this is just the internal **WiFi hotspot** of the gateway and has **NOTHING** to do with the LoRa connection strength!

"Measuring" the LoRa connection strength via smartphone is NOT possible!

#### NOTE

In the case of radio-technically **demanding buildings**, e.g. with numerous thick walls/ceilings (refrigerated warehouses, highly insulated buildings), an individual approach is advisable.

Before setting up, measure the object using a field strength meter as shown in the adjacent video.





If you need further help or are unsure, please **contact traplinked support** for a joint project planning.

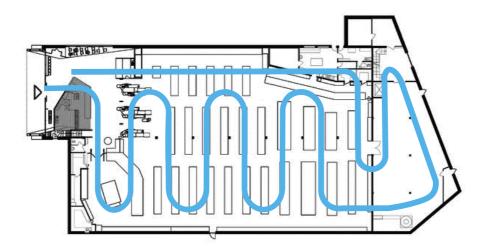
#### 4 WiFi network

## 4.1 WiFi from the customer (Plug & Play)

#### **A** CAUTION

Both JERRY and TOM work **exclusively** with **2.4 GHz WiFi networks**. **Ask your customer** to assure you that his WiFi network really transmits at 2.4 GHz.

- 1. Your traps are already **pre-configured** to the customer's WiFi data (name and password). You do not have to do anything to the traps
- 2. Log in to your customer's WiFi on your smartphone
- 3. Walk the entire building and check if there is sufficient WiFi connection everywhere



## **A** CAUTION

The WiFi connection within a building can deteriorate situationally, e.g. due to closing doors or filling shelves. Therefore, make sure that the connection does not fall below 2 bars anywhere during your walk-through.

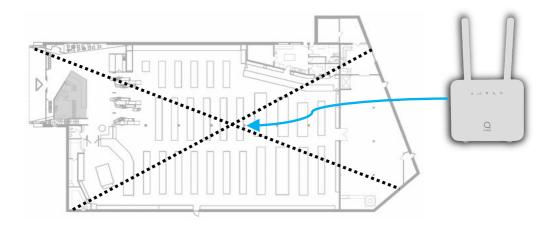


## 4.2 traplinked router and repeater (Plug & Play)





- 1. Your traps are already **pre-configured** to the WiFi data (name and password) of the supplied routers and repeaters. **You do not have to do anything to the traps**
- 2. Find a central location in the property with a permanent power outlet that is as high as possible. Areas that are difficult to access are ideal to ensure that no one unplugs the router



**3.** Screw on both antennas, plug in the router and attach the sticker

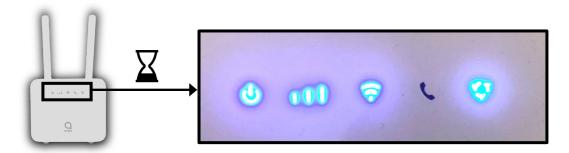


After plugging into the socket, the router  $boots\ up$ 

## $\nabla$

This can take up to 5 minutes

If these four **LEDs** light up **solid blue** as shown here, the router is **online**:



#### **A** CAUTION

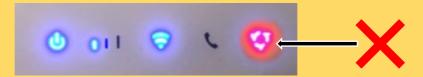
For a long-term stable network, the router should show **at least two bars** of cellular reception.



#### **A** CAUTION

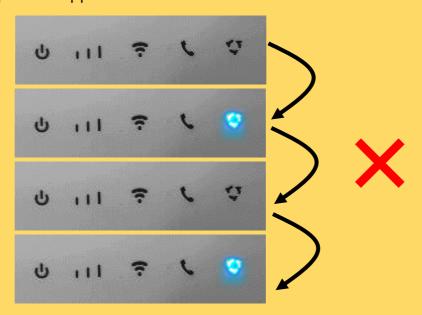
If the rightmost LED is red, the router has no cell reception.

Please reposition the router.

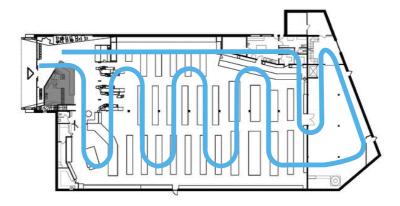


#### **A** CAUTION

If the **LED on the far right flashes blue**, there is a **problem** with the **SIM card**. Please contact the traplinked support.



- 4. Log in to the router's WiFi on your smartphone
- 5. Walk around the building and check if there is a sufficient WiFi connection everywhere



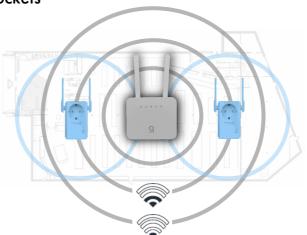
## **A** CAUTION

The WiFi connection within a building can deteriorate situationally, e.g. due to closing doors or filling shelves. Therefore, make sure that the connection does not fall below 2 bars anywhere during your walk-through.



**5.** If the **WiFi connection** is **not sufficient** in some places, position **one** to a maximum of **two repeaters** as indicated **below**. These should also be plugged into **permanent power sockets** 





## **A** CAUTION

Make sure that the **router** is **really online before you plug in the repeaters**. Check this with your smartphone. Only place the repeater in places where the router's reception measured with **your smartphone has at least two bars of signal strength**.

## 4.3 Manual configuration

## NOTE

**Manual configuration** allows you to integrate your JERRY and TOM devices into **any** WiFi network. You must be on site to do this.

#### **A** CAUTION

JERRY and TOM only work with 2.4 GHz WiFi networks. Ask your customer to assure you that his WiFi network really transmits at 2.4 GHz.

Connect via
 your iPhone or Android
 settings with the WiFi
 network

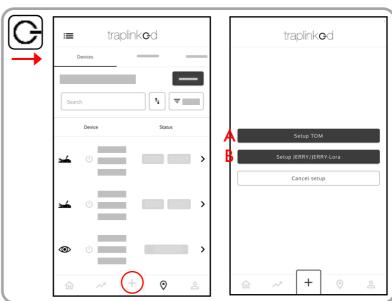
#### **A** CAUTION

**Location access must be enabled** as described in chapter 1.2 or 1.3.

- Switch to the traplinked app and tap the "+" button
- **3. Select** which **type** of device you want to configure





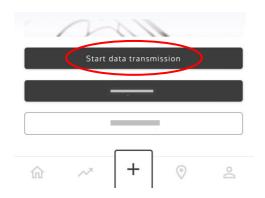


#### 4. Follow the instructions in the app

## **A** CAUTION

Make sure that you do not make any typing errors when entering the password.

5. Tap on "Start data transmission"



- 6. When the process is complete, you will receive the message "X of X is successfully set up"
- 7. Tap "Confirm" and then "Done"



8. Switch off your device after successful completion

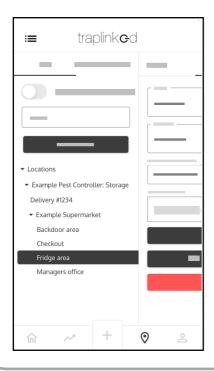




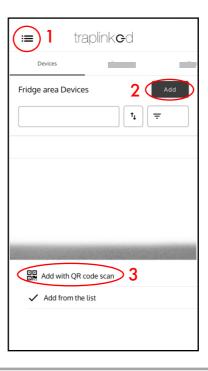
#### **5** Devices

## 5.1 Move and rename

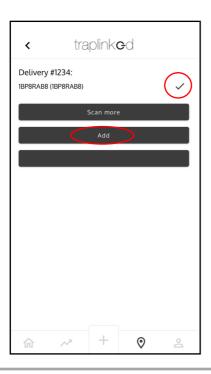
1. Go to the respective sub-location



2. Switch to the "Devices" tab, tap "Add" and then "Add with QR code scan"



3. Scan the QR code of the device. Press the device number to set a check mark. Tap on "Add"



4. Your device appears in the sub-location



#### **5.** Tap the device



**6.** Switch to the "Settings" tab and tap on the "Name" field



#### 7. Enter a device name

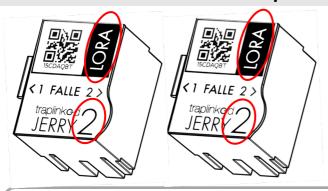


#### 8. Tap "Save"



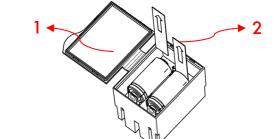
#### 5.2 Switch on

## 5.2.1 Switch on and set up – JERRY 2 LoRa

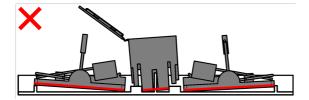


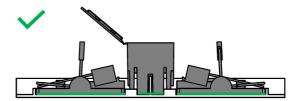
#### **A** CAUTION

Always switch on devices **exactly** where you want them to be later.



- 1. Open the cover of the module
- 2. Remove both battery disconnect strips
- 3. Make sure that the JERRY module and the snap trap(s) are seated straight





4. Arm the snap trap(s)

5. Press the on/off button. The device flashes blue

#### **A** CAUTION

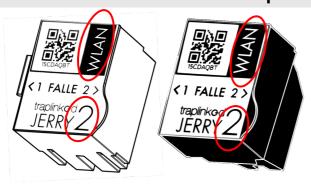
If your device flashes **any color other than blue, turn it off**. Check if the module and snap traps are seated correctly. Switch the device on again.

**After switching on,** the device establishes an encrypted **connection** to the LoRa network. This process usually takes no longer than **1 minute**. After that, your device appears as online in the traplinked app.



6. Close the lid of the module, close the tunnel/box and carefully place the device at the control point

## 5.2.2 Switch on and set up – JERRY 2 WiFi

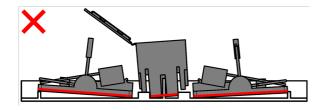


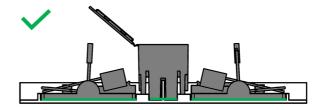
#### **A** CAUTION

Always switch on devices **exactly** where you want them to be later.

1 2

- 1. Open the cover of the module
- 2. Remove both battery disconnect strips
- 3. Make sure that the JERRY module and the snap trap(s) are seated straight





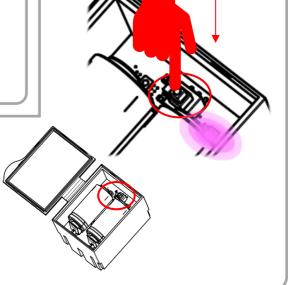
4. Arm the snap trap(s)

5. Press the on/off button. The device



flashes magenta

If your device flashes **any color other than magenta, turn it off**. Check if the module and impact traps are seated correctly. Switch the device on again.



**After switching on,** the device establishes an encrypted **connection** to the WiFi network. This process usually takes no longer than **20 seconds**. After that, your device appears as online in the traplinked app.



6. Close the lid of the module, close the tunnel/box and carefully place the device at the control point

## 5.2.3 Switch on and set up - TOM

#### **A** CAUTION

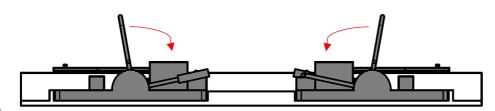
Always switch on devices **exactly where you** want them to be later.

Use your smartphone to make sure that there are at least 2 bars of WiFi signal at the installation location of your TOM.



Remove the protective cap from the camera

2. Arm the snap trap(s)



#### NOTE

Only necessary for TOMs in snap trap mode.

3. Press and hold the on/off button for approx. 4s. Release the button as soon as the device flashes white





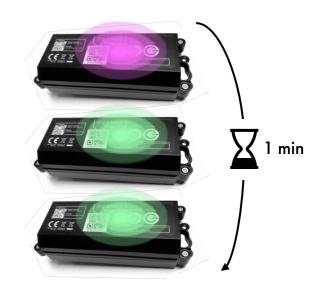




After switching on, the device connects to the WiFi network and sends a first image. This process usually takes no longer than 1 minute. Your TOM device then appears as online in the traplinked app.

#### **NOTE**

- Magenta flashing after switching on indicates that the WiFi network has been found by the device.
- 2. Green flashing means that the device has successfully connected to this WiFi network.
- 3. Renewed green flashing means that the device has successfully sent a first image.





Online



Online

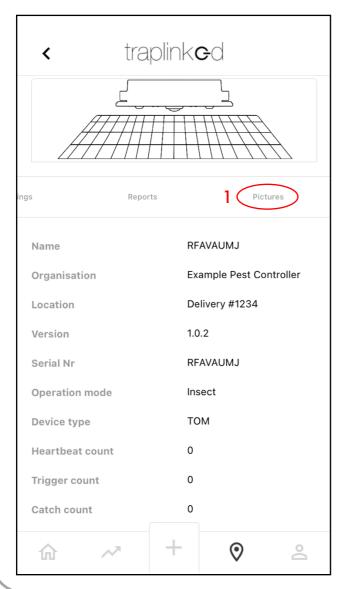


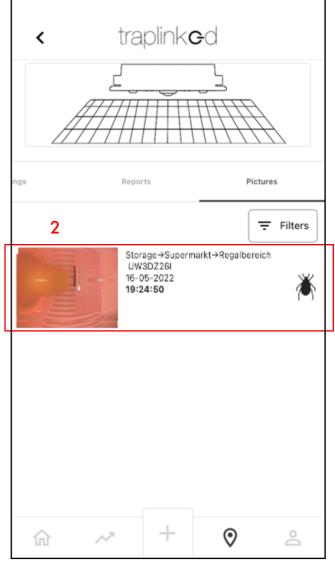
Online

## **A** CAUTION

Your device is not flashing green, but colored or red? Please check whether the WiFi connection is strong enough. If you are using a traplinked router, make sure that it also has cell reception.

4. Switch to the "Pictures" tab in the device view of the respective TOM device and check the first image







#### Movement mode

#### NOTE

Make sure that there are no areas with "public traffic" in the picture, such as aisles in a supermarket.





Insect mode

#### NOTE

Make sure that the backing film of the adhesive surface has been removed and that it is completely in the image.

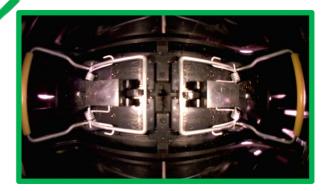




Snap trap mode

#### NOTE

Make sure that **all snap traps** in the picture are armed.

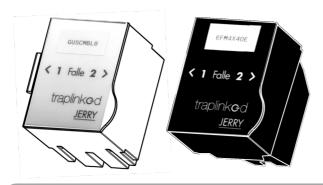


## NOTE

In the first 20 minutes after switching on, TOM checks whether the WiFi connection on site is also permanently stable. During this time, the movement detectors are not yet switched on.

After these 20 minutes, the movement detectors are automatically activated.

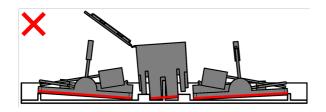
## 5.2.4 Switch on and set up – JERRY 1 WiFi

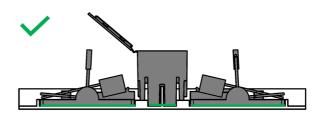


## **A** CAUTION

Always switch on devices **exactly** where you want them to be later.

- Open the cover of the module
   Remove both battery disconnect strips
- 3. Make sure that the JERRY module and the snap trap(s) are seated straight





4. Arm the snap trap(s)

5. Press the on/off button. The device flashes green slowly several times and then stops flashing



If your device starts to flash green constantly and very quickly, switch it off. Check that the module and snap traps are seated correctly. Make sure that the WiFi connection strength is sufficiently strong. Switch the device on again.

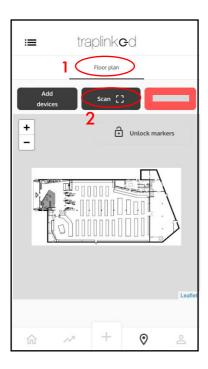
After switching on, the device establishes an encrypted connection to the WiFi network. This process usually takes no longer than 20 seconds. After that, your device appears as online in the traplinked app.



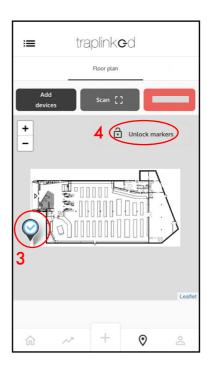
6. Close the lid of the module, close the tunnel / box and carefully place the device at the control point

## 5.3 Place devices in the floor plan

- Go to the "Floor plan" tab in the parent location
- 2. Tap "Scan"



- 3. Scan the QR code of the device, this appears at the bottom left of the floor plan
- 4. Tap on "Unlock markers"



- 5. Move the device with your finger
- 6. Tap on "Unlock markers"



## NOTE

Devices can alternatively also be selected from a list. To do this, tap on "Add from list".

#### 6 Control

#### NOTE

Both TOM and JERRY devices check in the first 20 minutes after switching on whether the network connection on site is also permanently stable.

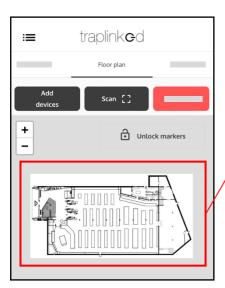
#### **A** CAUTION



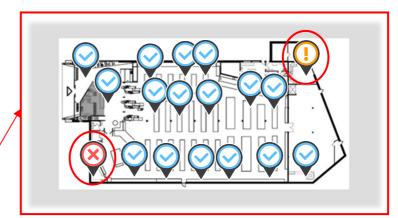
If the connection is definitely not strong enough, its status is set to "Failed".

In both cases, the respective device must be repositioned to an area with stronger reception.

1. Go to the "Floor plan" tab in the parent location



2. Check whether devices with yellow or red symbol are present



- 3. Reposition the affected devices and reboot them
- 4. Move the devices to the new position in the floor plan as well

#### NOTE

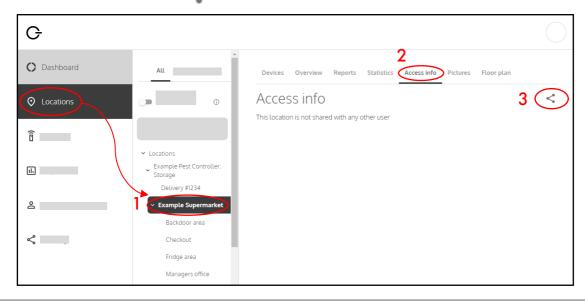
At the end of the setup, all devices should be set to "Online" (blue).



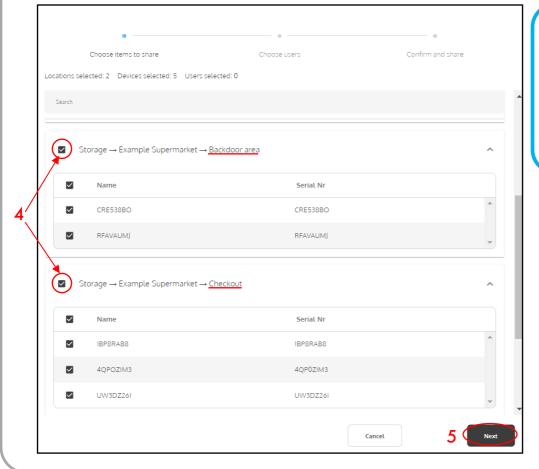
## 7 Sharing

## 7.1 Add customer as observer

- 1. Switch to the PC and go to the parent location
- 2. Switch to the "Access info" tab
- 3. Click on the "Share" icon <



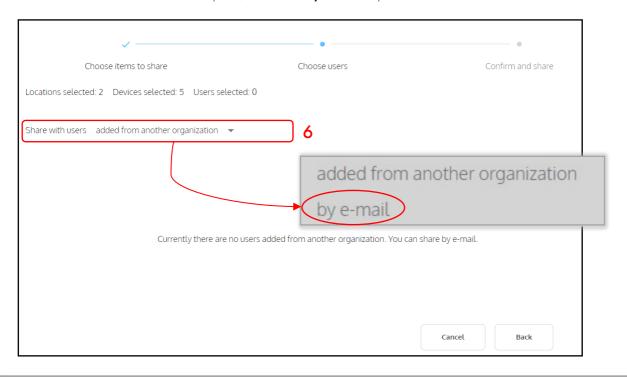
- 4. Tick all the sub-locations you wish to share with the customer
- 5. Click on "Next"



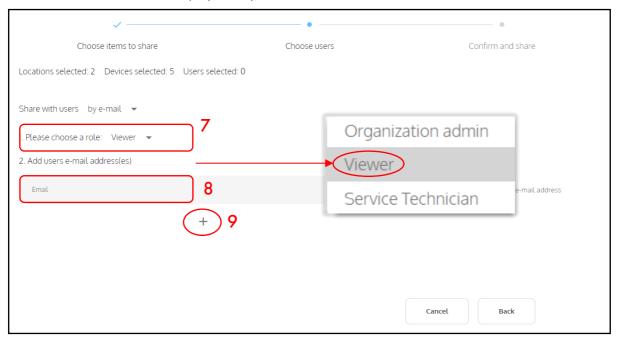
#### **NOTE**

At this point, certain areas which the customer should not see can also be deliberately excluded.

6. Under the "Share with users" option, select the "by e-mail" option



- 7. Select the "Viewer" role
- 8. Enter the e-mail address of your customer
- 9. You can also add several employees of your customer at once via the "+" button



10. Click on Share

#### **NOTE**

Your customer will now receive an email with access data for his own customer account in the traplinked app. After logging in, he sees his shared locations.

#### 7.2 Set notifications

#### **NOTE**

Both the technician assigned to the location and the end customer can individually set their notifications in their respective accounts.

- 1. Switch to the smartphone and tap on 🙎
- 2. Tap on "Account settings"



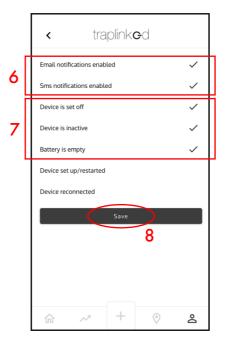
- 3. Enter your mobile phone number
- 4. Tap "Save"



5. Tap on "SMS/Email notifications"



- 6. Select the type of notifications
- 7. Choose what you want to be notified about
- 8. Tap "Save"



#### NOTE

We recommend the shown settings.

#### **FURTHER SUPPORT NEEDED?**

Call us at our support hotline 2 +49 911 477 128 50!

The traplinked manual is continuously updated and improved. The latest version is available for download as a PDF file at <a href="www.traplinked.com/anleitung">www.traplinked.com/anleitung</a> (simply scan the QR code on the right).



