

# PARKING MANAGEMENT SYSTEM

**USER MANUAL** 



# Thank you for the confidence you have shown us by purchasing our product!

#### Please read this manual first!

Dear Customers,

We hope that all your expectations of this product will be fulfilled. Parklio™ Parking Management System is manufactured using the latest technologies and has undergone rigorous quality control procedures.

This User Guide will help you use your product quickly and safely.



Read the user manual before installing and using the parking product.

Keep this user manual at hand for future reference.

# **TABLE OF CONTENTS**

Table of content	3
1.0. Set-Up Instructions Parklio™ Parking Management System	5
1.1. Step One: Parklio™ PMS - How to start	6
1.2. Step Two: Account Settings	7
1.2.1. Info	8
1.2.2. Licenses	C
1.2.3. Subscription	10
1.2.4. Invoice Setup	10
1.2.5. Parking Managers	11
1.3. Step Three: User Settings	13
2.0. Add and Manage Productson PMS Account	
2.1. Gateway Add and Manage	14
2.1.1. Add Gateway via Parklio Connect APP	14
2.1.2. Manage Gateway via Parklio PMS	15
Details	15
System Control	16
Gateway signal	16
2.2. Barrier Add and Manage	17
2.3. Gate Add and Manage	19
2.4. Chain Add and Manage	19
2.5. Bollard Add and Manage	20
2.6. ANPR Camera Add and Manage	20
3.0. Manage the Parking lot on your PMS Account	32
3.1. Products	32
3.2. ANPR	32
3.3. Shared Access	35
3.3.1. Shared Keys	35
3.3.2. Pending Access	36
3.3.3. Weblink	36

3.3.4. ANPR access	37
3.5. Parking lot	38
3.5.1. Parking lot info	39
3.5.2. Parking Managers	40
3.5.3. Zones	40
3.5.4. ANPR Image Storage	42
4.0. FAQ	43

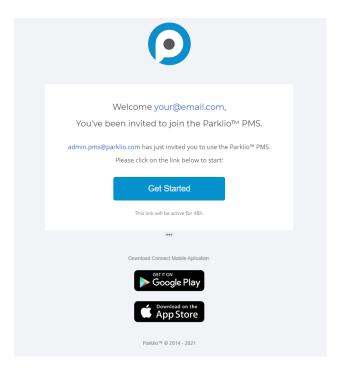
# 1. Set-Up Instructions

# Parklio™ Parking Management System

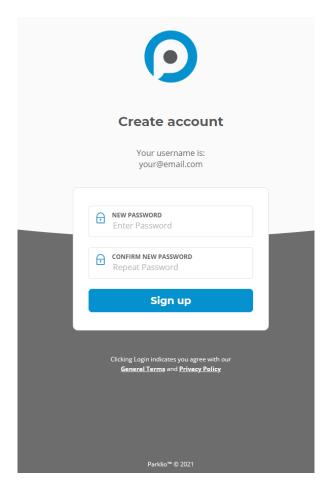
Parklio<sup>™</sup> Parking Management System (PMS) enables reliable control and management of parking lots and Parklio<sup>™</sup> Smart parking products through a user-friendly interface. Parklio<sup>™</sup> PMS is the most advanced parking management system on the market that optimizes parking lot occupancy and provides real-time information about parking state, product position, and other useful information.

# ■ 1.1. Step One: Parklio<sup>™</sup> PMS - How to start

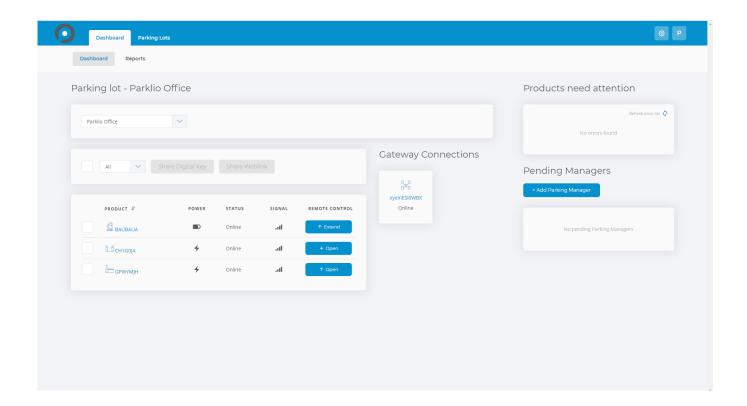
Once users have requested access to the PMS, the Parklio team will send an invitation email to them. **The Get Started** button redirects you to the PMS website.



#### Choose a password to use for future logins



#### Choose a password to use for future logins





If your Dashboard doesn't have a Parking Lot presented, contact your Administrator

# ■ 1.2. Step Two: Account Settings

To open **Account Settings,** log into the Parking Management System and click the Settings icon, found in the upper right corner.

It opens a navigation tab with options:

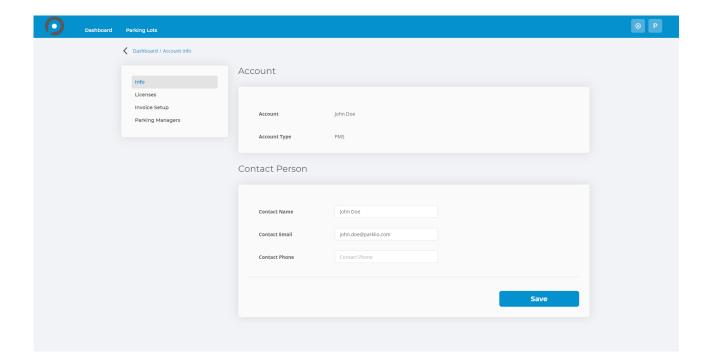


- Info
- Licenses
- Subscription
- Invoice Setup
- Parking Managers

#### ■ 1.2.1 Info

The PMS includes a specialized section for account administration that is accessible only to users with Super Admin privileges. This section provides a centralized location for managing essential account and contact information relevant to the interaction with the Parklio™ Sales team.

After clicking the Info button in the Account settings, the Super Admin is provided with two tabs: Account and Contact Person.



#### **Account:**

- Account name
- Account type

#### **Contact:**

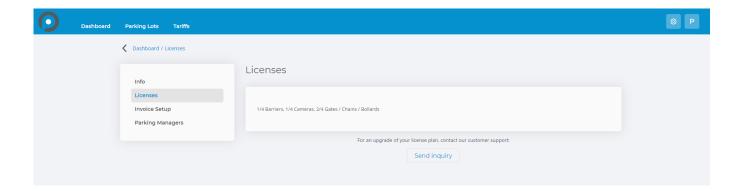
Here you can add or update the information about the person in charge of communication with the Parklio team:

- Contact Name
- Contact Email
- Contact phone

After entering or modifying the information, remember to click "Save" to ensure that the changes are applied and communicated to the Parklio™ team.

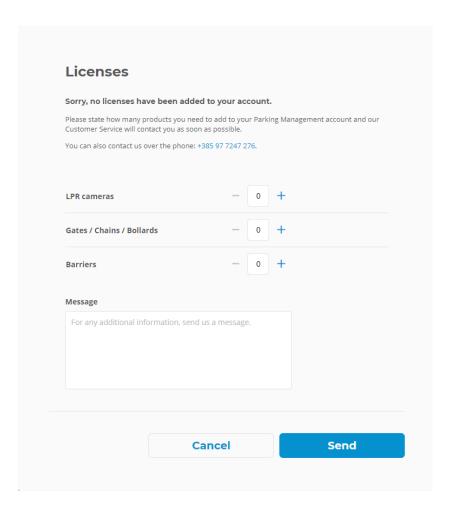
#### ■ 1.2.2. Licenses

The licenses page provides users with valuable insights to optimize their licensing configurations, displaying the products that have already been added to the account and the maximum number of products that are available to add.



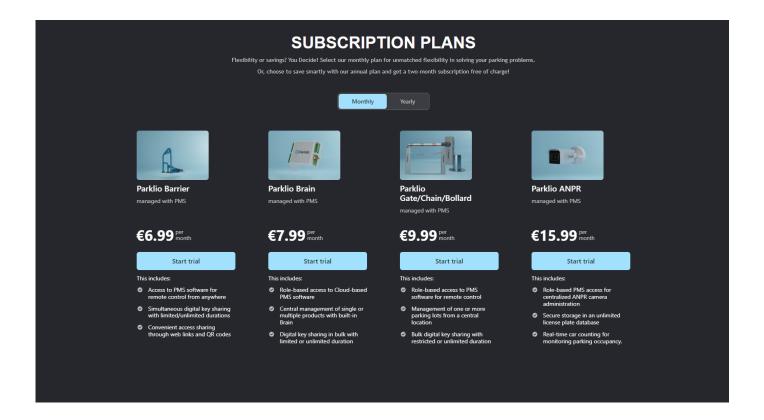
To get access to additional licenses, click the Send Inquiry button. This will open a dialog where you can specify:

- The quantity and variety of products you wish to add to your account.
- An optional message with further details for the Parklio team.



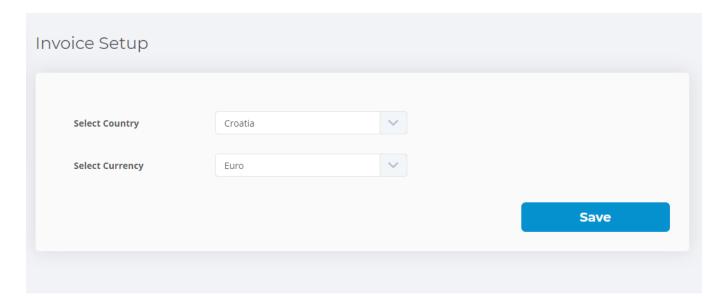
# ■ 1.2.3. Subscription

By clicking on the Subscription in the Info navigation tab users are redirected to a page with a comprehensive overview of Parklio™ Subscriptions, guiding them in selecting the most suitable Parklio™ PMS subscription plan for their parking management needs.



# ■ 1.2.4. Invoice Setup

Invoice Setup allows for setting up invoices that will be sent to the desired email. Users have the option of selecting a nation and a currency.

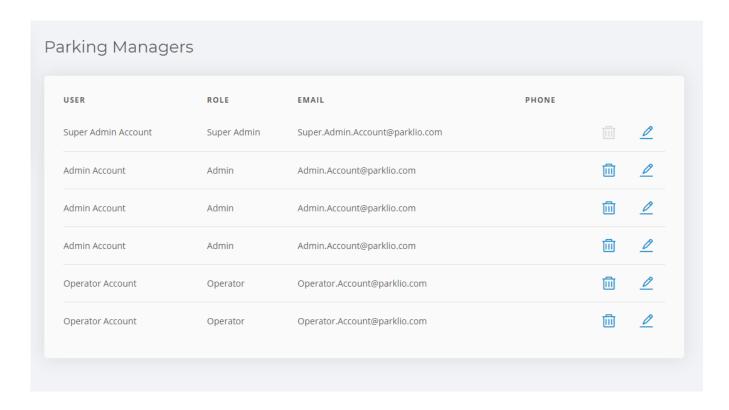


### ■ 1.2.5. Parking Managers

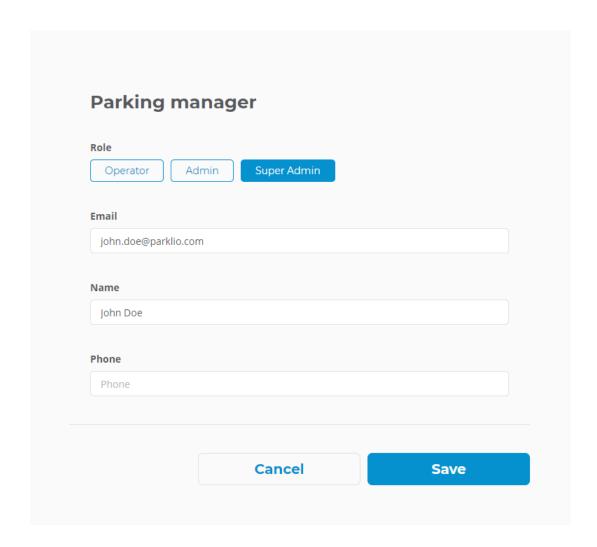
The **Parking Managers** page contains the list of all managers in the Parking Management System. It is possible to edit Manager information from the list or remove them from the System.

#### Managers have different roles:

- Operator Adding products to PMS, controlling the products and managing the parking lot only if they are assigned to the lot.
- Admin Having the same operations as Operator, with the possibility of viewing reports and statistics of a parking lot. Admins can also add other Admin and Operators on the lots they are assigned.
- Super Admins Not having any restriction within the PMS. Available options are viewing, managing, editing and deleting everything in the system. It is not possible to delete yourself as a Super Admin, but another Super Admin is allowed to do it. Super Admins are assigned to all Parking Lots by default.



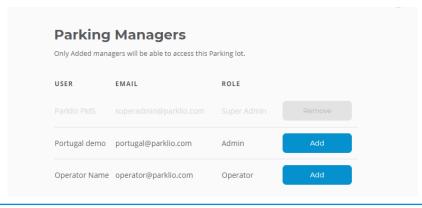
The Parking Managers tab also allows the user to remove users and edit their information. The trash icon is used to discard information, while the pencil icon is used to edit data. To save all changes, click the Save button.





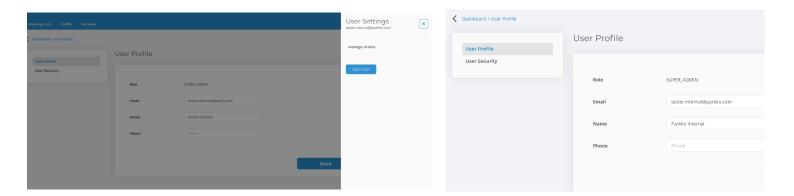
Parking Managers need to be assigned to the Parking Lot so they may administer it. To do so, follow the steps:

- Select the Parking Lot where the Parking Manager will be added.
- Click the Parking Lot link in the navigation and after Parking Managers link located in the dropdown menu.
- There will be a list of the Parking Managers who have been assigned to that Parking Lot.
- Click the "Parking Managers" button and a list of all Managers in the System will appear. It is possible to choose the user in charge of control of that Parking Lot.



# ■ 1.3. Step Three: User Settings

To edit profiles while logged into PMS, click on the icon displaying your profile name in the top right corner. Next, select 'User Settings' to access the 'Manage Profile' tab, which includes 'User Profile' and 'User Security' sub-tabs. The User Security tab allows changing the password.



# 2. Add and Manage Products

# on PMS Account

It is necessary to add parking products via Connect app before using PMS to control parking protection. Download the Parklio™ Connect App in Play Store, Huawei Store or App Store or scan the QR code.



When the app is downloaded successfully, it is necessary to use the same credentials (email and password) as those used for Parklio PMS.

To complete products installation on the account, the following steps must be taken:

- 1. Bluetooth and Location services need to be switched on.
- 2. In the main navigation, select the "Lots" link.
- 3. Enter the "Default lot" parking lot.
- 4. Follow the installation instructions shown later in this manual.

# 2.1. Gateway Add and Manage



Please keep in mind that the Gateway must be installed before other products for the configuration to be successful.

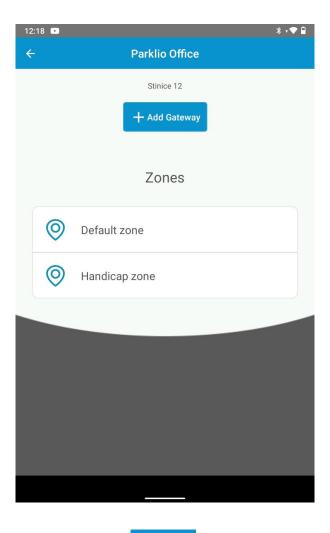
## ■ 2.1.1. Add Gateway via Parklio Connect APP



Use the instructions in the User Manual to ensure that Parklio<sup>™</sup> Gateway is correctly installed and plugged in. Download the instructions by scanning the QR code on the right.

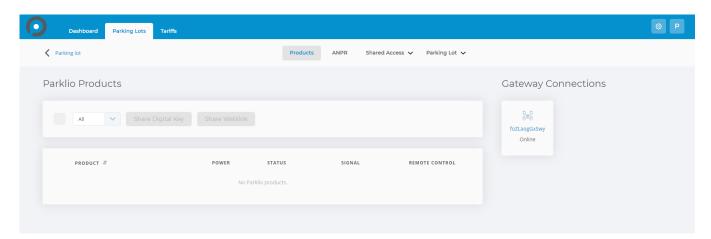


Connect the Gateway to the selected lot. Click the + Add Gateway button, choose a Gateway from the list, and then follow the instructions.



## ■ 2.1.2. Manage Gateway via Parklio PMS

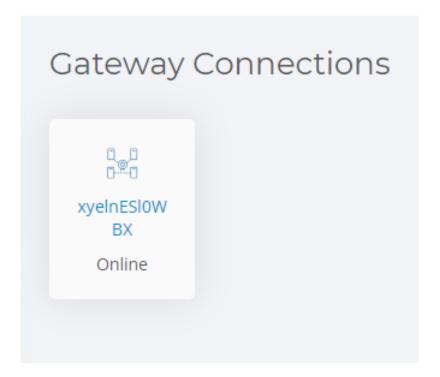
Access Gateway from the Dashboard tab or Parking Lots tab.



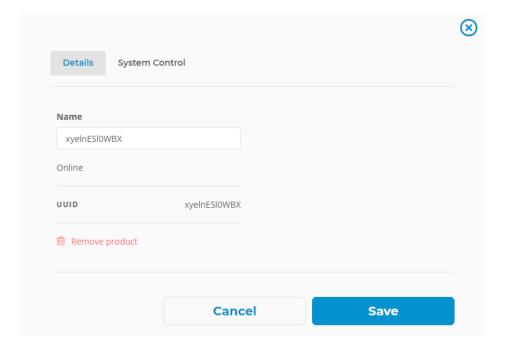
Clicking the Gateway name gives access to the Gateway control modal.

#### **Details**

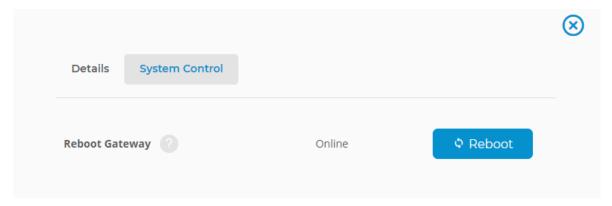
It is possible to change the name of your Gateway and get information about UUID (unique ID of your Gateway) by choosing a Gateway from the Gateway Connections.



The **Details** tab, which may be reached by clicking the Gateway name, contains information on the Gateway's status. It is also possible to uninstall the Gateway. Only by uninstalling the Gateway from the PMS or Connect App, adding another Gateway to a different Parking Lot will be available.



## **System Control**



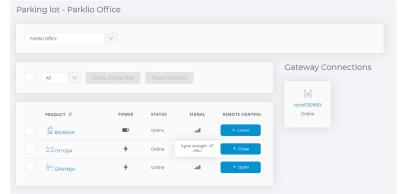
In case users experience some troubles with the Gateway, try to Reboot it via PMS. This action may take a while.



In case the Gateway is offline, it is not possible to have remote control of parking products, or reboot the Gateway via PMS. In that case, it is necessary to take the steps explained in the Gateway manual.

# **Gateway signal**

The signal between the Gateway and the device should be between -60 and -90 dBm. To check the signal strength, go to the device and put the mouse on the signal icon as shown in the photo.



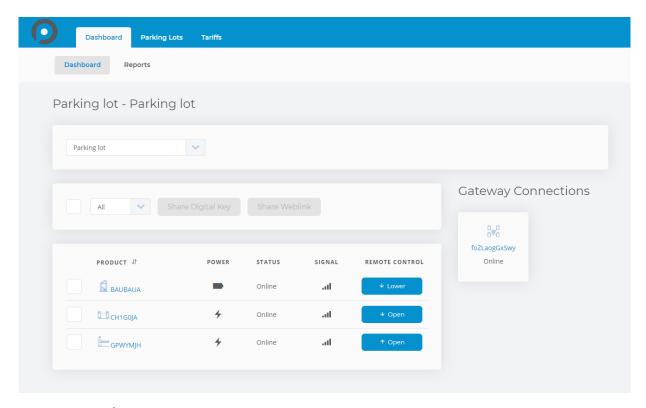
# 2.2. Barrier Add and Manage

Once the Gateway is running, it is possible to add barriers to a Parking lot.

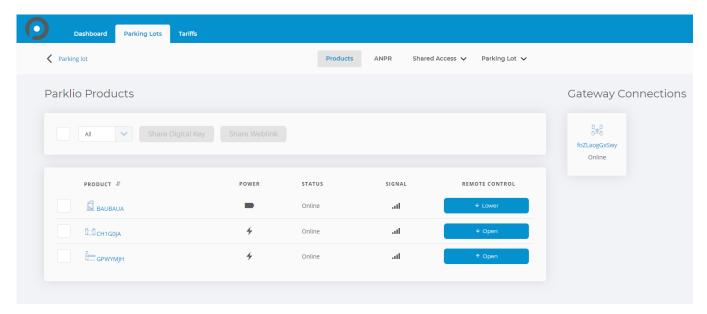
The process of adding the Barrier is the same as adding the Gateway:

- Choose the parking lot and the zone where you want to add a new device
- Click the + button on the top right of your screen
- Scan the product barcode or choose it from the list

Once the Barrier is added, it is possible to control it via Parklio<sup>™</sup> PMS or Connect app. To control barriers via Parklio<sup>™</sup> PMS, choose the Dashboard tab, pick the desired lot and control barriers by clicking the button Open/Lower in the Remote Control column

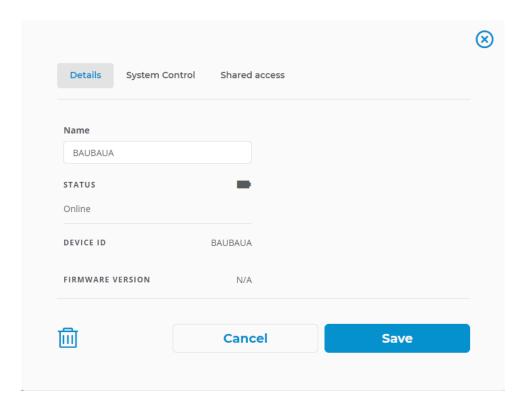


Under the **Parking Lots** menu, users can manage the barriers. The Parking Lots tab contains all of the necessary information about the parking lots. Choosing the lot shows all added barriers. Controlling parking products is done in the same way as it is done in the **Dashboard** tab.



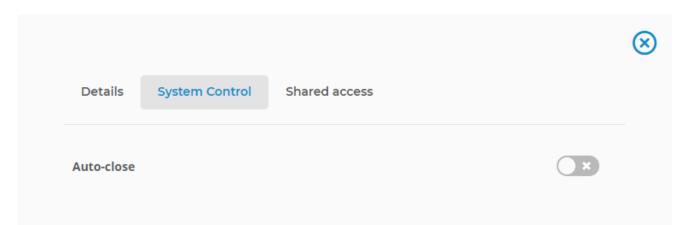
Parklio<sup>™</sup> PMS allows changing the name of the barrier as well as the auto-close option. By selecting the device name, it is possible to see who has access to it. It opens up a window with three tabs (Details, System control and Shared access).

**Details tab** is used to change the barrier's name. Also, it shows the product ID, firmware version, and battery percentage information.

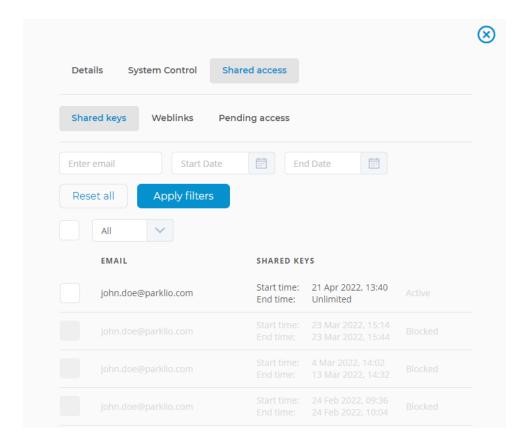


The **System Control** tab is used to control the auto-close option, which may be turned on or off. Setting the auto-close time is only possible via the Connect app (Device settings).

#### NOTE



The Shared access tab allows filtering all shared keys, Weblinks and pending keys by their email or start/end date for each barrier.



## 2.3. Gate Add and Manage

Adding Parklio<sup>™</sup> Gate to Parklio<sup>™</sup> PMS has the same procedure as adding barriers. Once the Gate has been added, PMS provides the same options as for the barrier. The only difference makes the **System control** tab where there is no auto-close option but the **Permanent-open** option.

**NOTE**: The Auto-close options need to be set when programing the Gate as it is shown in the User manual for the Gate:

https://parklio.com/assets/support/gate/Parklio-Gate-UM.pdf

# 2.4. Chain Add and Manage

Adding Parklio<sup>™</sup> Chain works similarly to adding a barrier. PMS provides the same options as for the barrier. Parklio<sup>™</sup> Chain doesn't have the System control tab.

**NOTE**: Read more information about Parklio<sup>™</sup> Chain:

https://parklio.com/en/parking-protection/chain

## ■ 2.5. Bollard Add and Manage

Adding Parklio™ Bollard works similarly to adding a barrier. PMS provides the same options as for the barrier. The only difference is that Parklio™ Bollard doesn't have the System control tab.

**NOTE**: More information about the Bollard can be found on this link: https://parklio.com/en/parking-protection/bollard

#### ■ 2.6. ANPR Camera Add and Manage

To add and manage ANPR Camera, take the following steps:

#### 1. Camera SADP and HIK setup:

#### Step 1

If the network has a firewall enabled you may need to enable the camera to access the remote hosts it needs. The list of services is provided below:

ноѕт	PROTOCOL / SERVICE	PORTS
lpr.parklio.com	ТСР	6011
lpr.parklio.com	ТСР	7660
lpr.parklio.com	ТСР	7333
lpr.parklio.com	ТСР	7334
lpr.parklio.com	UDP	7332

Please be aware that the hosts may resolve to multiple IP addresses which may change at any given time.

To set up the camera a PC / MAC is required. The computer must be on the same network as the camera. For example: connect the camera to the same router as the computer or connect the computer directly to the camera via ethernet cable. For initial camera setup the SADP tool is required. It can be downloaded on the link below by typing and searching for SADP on the search bar:

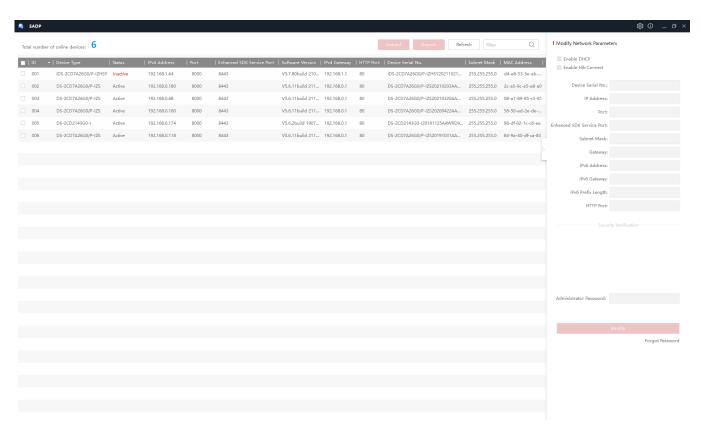
https://www.hikvision.com/europe/support/tools/hitools/

On the link write SADP in the search bar and download the file. SADP software is used for searching for online devices on the same network. It supports viewing the device information, activating the device, editing the network parameters of the device and resetting the device password, etc.

Note: On Windows machines the SADP tool can display a .dll missing error on startup. This can be resolved by installing vcredist\_x86.exe:

https://aka.ms/vs/17/release/vc\_redist.x86.exe

Open the SADP tool and search the network for available devices:



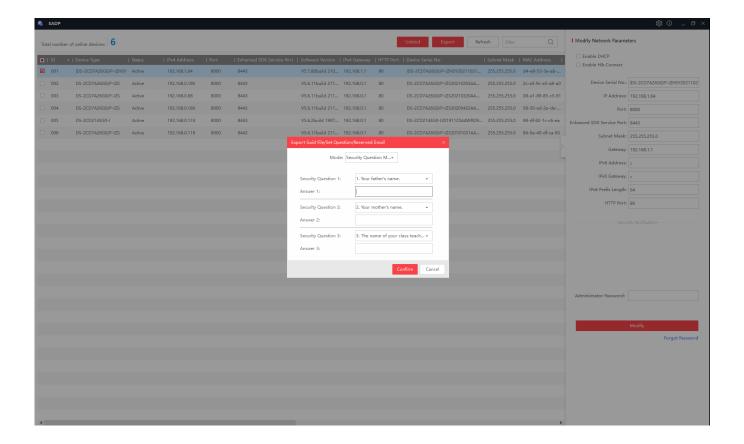
To activate the camera click on the check mark of the inactive camera after which the Activate the Device window will open on the right.

The first step is to set up the camera password.

Note: This password is only used for the HIK software and is not used for the Parklio PMS.

Once the password is set up click on activate which will activate the camera

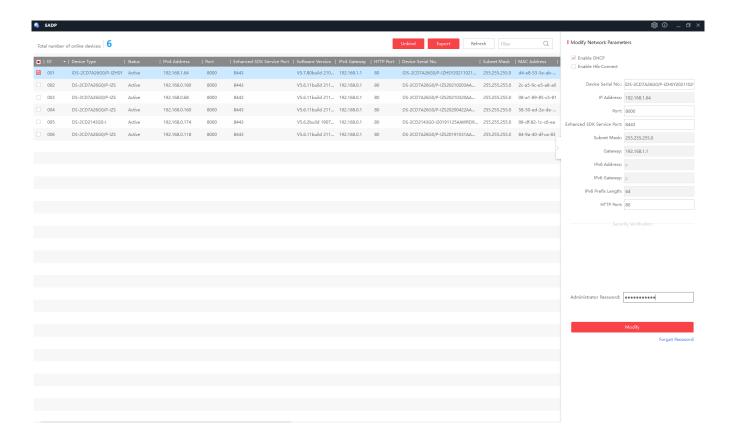
After this a window will open where there will be a choice between setting security questions or an email address to recover the password in case the password is lost.



Once the recovery method for the password was chosen the necessary fields need to be filled out and after doing that the changes need to be saved by clicking on confirm.

Note: When clicking on the confirm button it is necessary to exit this window because it does not automatically close after confirming.

After this Enable DHCP and enter the password that was made in the Administrator Password tab and click on Modify.



Note: If a static IP address is required it is possible to setup a static IP address and network parameters in the SADP tool by disabling DHCP and entering network parameters.

After this, refresh the SADP software by clicking on the refresh button.

Note: In case the Ipv4 address is set to 0.0.0.0 refresh the SADP software by clicking on refresh or disconnect and reconnect the ethernet cable from the camera and refresh the SADP software.

Then double click on the Ipv4 address of the camera which will open a new window in the browser.



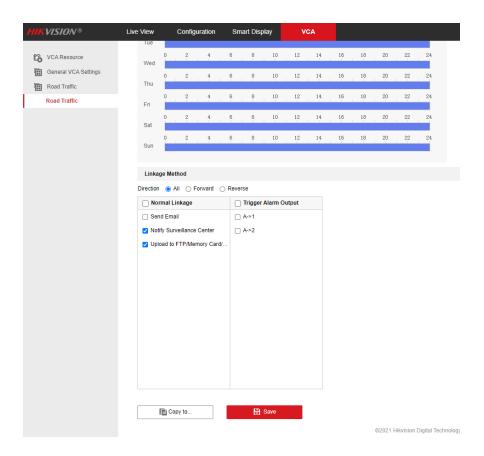
22020 Hikvision Digital Technology Co., Ltd. All Rights Reserved.

Here enter the password that was set up and in the User Name enter admin.

Note: The user name for each camera will always be set up as admin.

Once this is filled out, click on login.

From here go to VCA-> Road traffic->Arming Schedule and Linkage Method Select All and disable the Trigger Alarm Output by clicking on the checkmark next to the Trigger Alarm Output. This step needs to be done both for the Allowlist and the Other List. After that, click the Enable checkbox in order to enable vehicle detection:



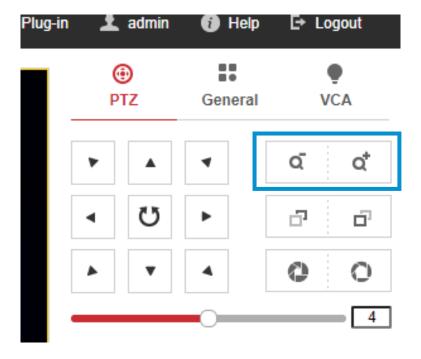
The next step is to set up the camera in a way that looks directly to the road where the license plates are to be detected. The camera should have the view of the whole lane on which the detection is going to be made.

Note: For better accuracy it is Optional/recommended to set up the zoom of the camera in a way that the image is clear. The camera/view should have a clear view of the whole lane on which the detection....

This is done by going to Live view which will open this window.



On the right side there will be a tab in which the camera view can be zoomed



After this, set the detection area. By default they will be set like this:

The next step is to set the yellow lines so that they cover the road and the blue line needs to be

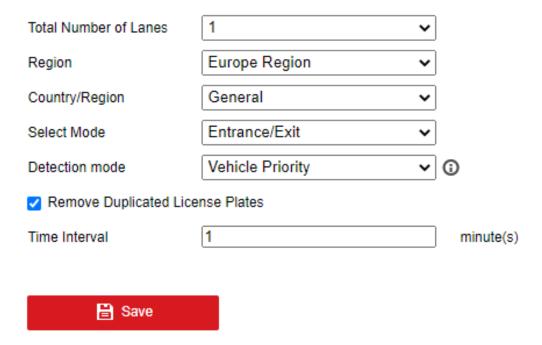
placed so that the license plate passes through it.

As it can be seen here:



Note: The Yellow and blue lines are moved by clicking and holding the dots at the end of the lines.

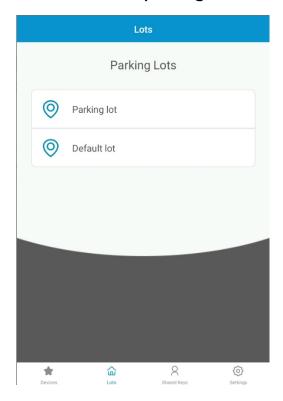
Once this is set up, the Detection mode needs to be changed to: License Plate or Vehicle detection and the Time interval needs to be set to 1 minute. After these changes are made they need to be saved by clicking on save changes.



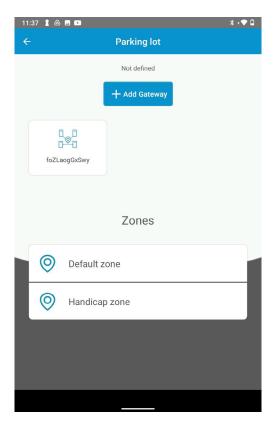
1. Open the Connect app on a mobile device or tablet.

NOTE: It is necessary to log in with the same credentials as used for PMS.

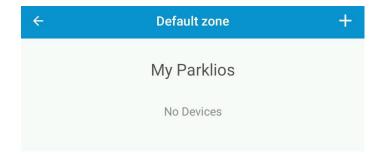
2. Press the lots tab and select the desired parking lot



3. Select the parking zone to which the camera will be added.



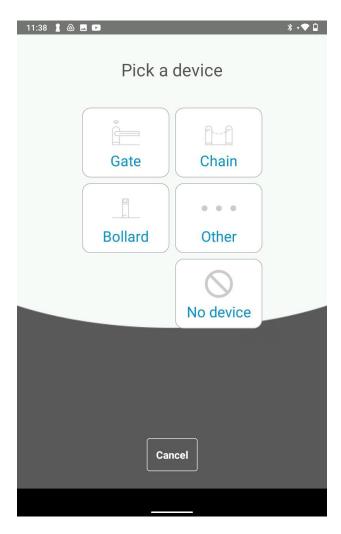
4. Click the Plus icon on the top right of the screen.



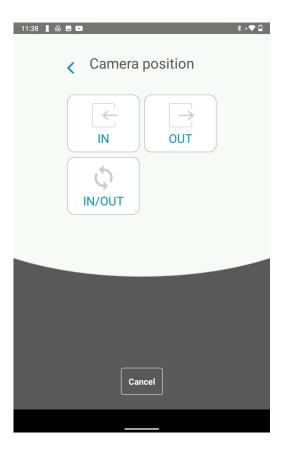
5. Scan the camera QR code that comes with the camera.

**NOTE:** In case the QR code was misplaced, send an email to <a href="mailtosupport@parklio.com">support@parklio.com</a> with the MAC address of the camera. The MAC address is located on a label on the bottom of the camera.

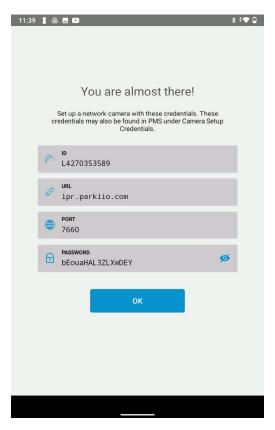
6. Select the device to connect with the camera.



7. Select the position of the camera (Options: parking entrance, parking exit and both entrance and exit).



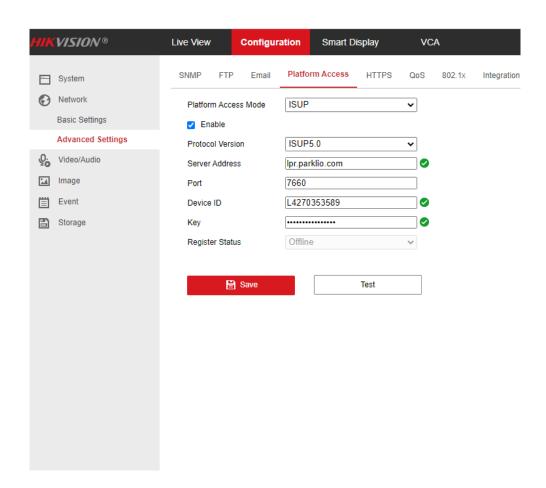
8. In the Setup credentials tab (via PMS or Connect app), it is possible to check the device ID, URL, port and password for the camera.



NOTE: Click the eye icon to show the password.

- 9. Open the SADP software and double-click the IPv4 address of the camera.
- 10. **HIK** webpage opens automatically, enter the user name and password that was set up before.
- 11. Go to Configuration / Network / Advanced Settings / Platform Access.
- 12. Click the Enable button and change the following parameters:
  - Server address with URL
  - Port with the Port
  - Device ID with the UUID
  - Key with Password

**NOTE:** All the information can be found in the app (Device Settings -> Setup credentials or in the PMS under Camera Setup Credentials).



When everything is set up, save it and test it. Once the test is finished, refresh the page to check if the camera is online.

NOTE: It will take a few minutes for the camera to go from offline to online.

When the camera has been added to the HIK software, the camera should be connected and online within Parklio™ PMS. Add the plate number and test how Parklio™ PMS is working.

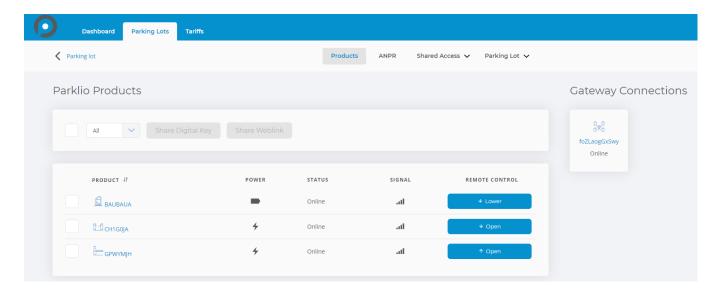
# 3. Manage the Parking lot

# on your PMS Account

#### 3.1. Products

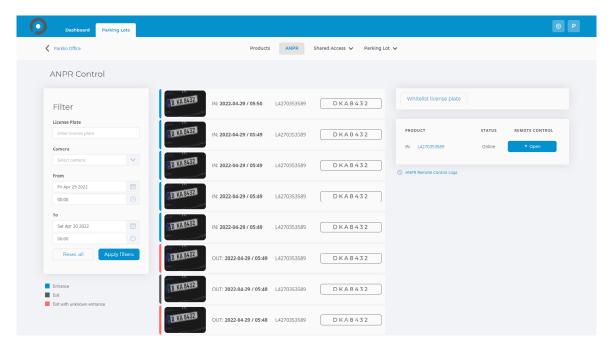
To open the Products tab, go to the Parking lot tab and choose the desired parking lot.

Under the Products tab, there is a list of all products added to the parking lot. It is possible to control products remotely and share digital keys and weblinks to give access to parking lots.



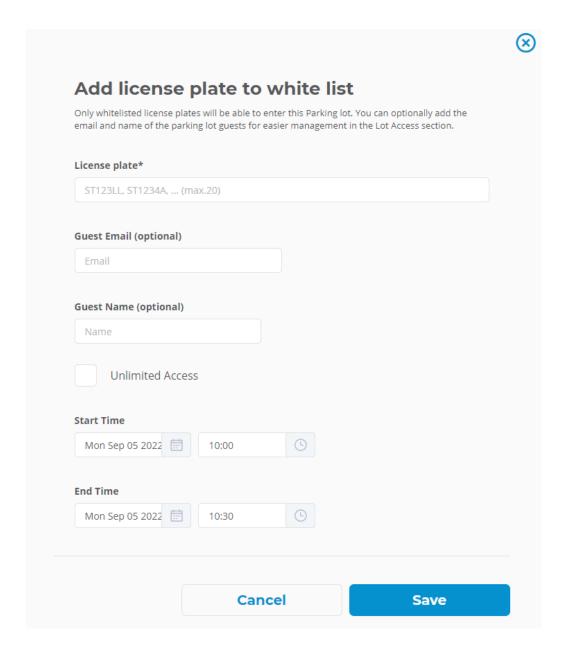
#### ■ 3.2. ANPR

To open the **ANPR** tab, choose the **Parking lot** tab and pick the desired parking lot. Click the ANPR tab to open the **ANPR Control** tab.

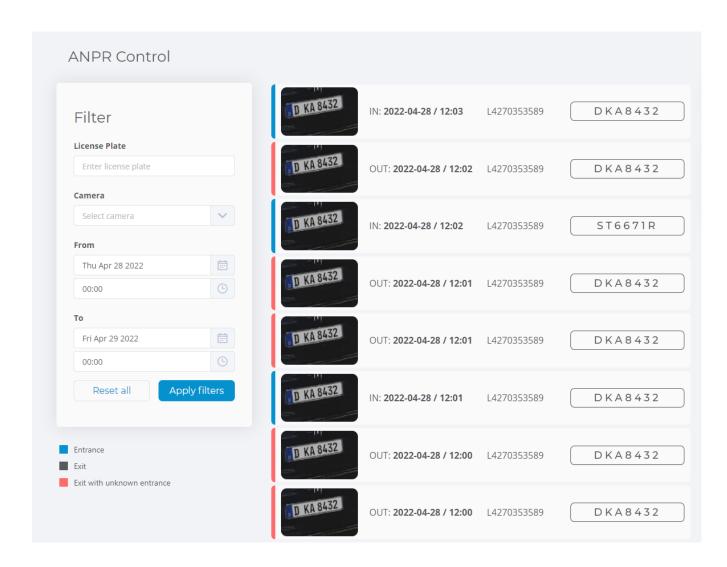


The whitelist license plate button allows adding license plates that will have available access to the parking lot. It opens a window to enter the license plate and the duration users have access. To add the plate to the Whitelist, click Save.

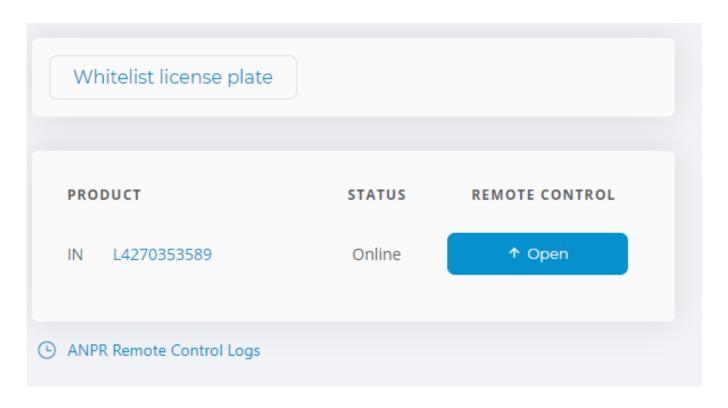
NOTE: Entering the email and name for each license plate is optional.



There is also a filter that allows sorting license plates based on the license plate number, detection time, and detection camera.



By clicking the Open button on the ANPR tab, users may manually control the parking device. The device instantly opens.



#### ■ 3.3. Shared Access

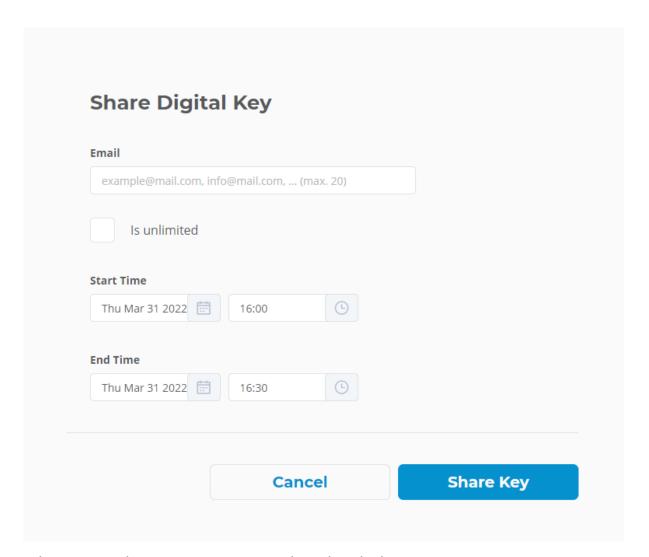
The **Shared access** tab is used to share keys and weblinks. It is also possible to provide access to new vehicles by entering their license plate numbers into the database. To go to the Shared access tab, go to the Parking lot tab and choose the relevant parking lot.

### ■ 3.3.1 Shared Keys

To share digital keys, choose the parking lot and the list with added Parklio<sup>™</sup> products appears. To share keys, it is necessary to choose a parking product to which the user wants to provide access.

The **Share Digital Key** button opens a screen where users may specify who has parking lot access and the period of the active key. It is possible to set keys for an unlimited amount of time. To send the email and provide others parking lot access, click the **Share Key** option.

NOTE: Email invitations might end up in spam.



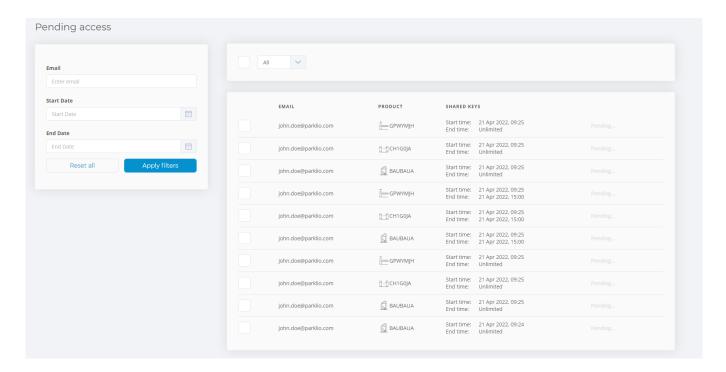
Sharing keys using the Connect app is quite similar.

Open the app, choose the product, click the **Share key** icon, and enter the required details.

**NOTE**: When sharing keys via the app, it is not possible to share a key for an unlimited period.

## ■ 3.3.2. Pending Access

The **Pending Access** tab is used to access all previously shared keys to resend keys or block them. It is possible to send or block multiple keys at once. Click the key to block or resend them. It is also possible to filter shared keys based on their status: pending, activated, blocked, expired, invalid, or deleted. The keys may be filtered by date and email address on the left side. The **Pending access** tab may be accessed through **Shared access**.



#### 3.3.3. Weblink

Sharing web links is done for one-time users only. For everyone using parking lots only once, it is possible to share web links. It is not necessary to install the app, instead, it is possible to send a web link.

Select a product and then click Share Weblink. It shows a window similar to the one that appears when sharing a digital key regularly.

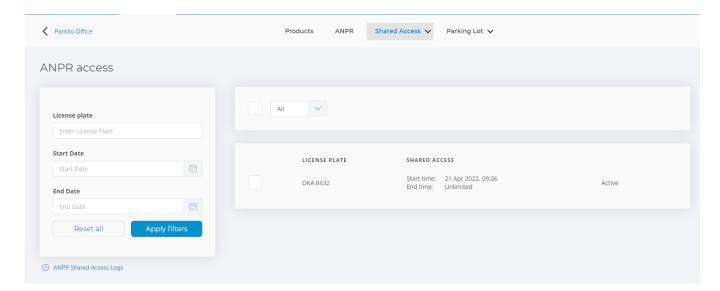
A web link can only be shared via Parklio<sup>™</sup> PMS, while a digital key can be shared from both Parklio<sup>™</sup> PMS and the Connect app.

**NOTE**: Check to see whether the email invitation was filtered as spam.

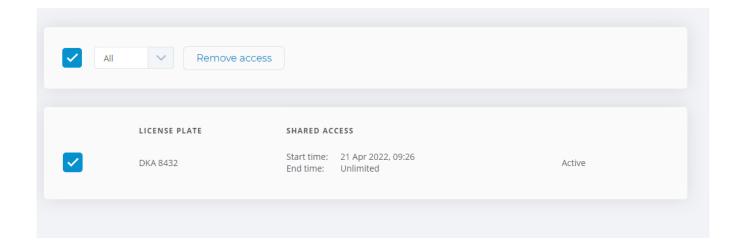
#### 3.3.4. ANPR access

The **ANPR Access** tab gives control over all the license plates that have access to the parking lot. It is possible to:

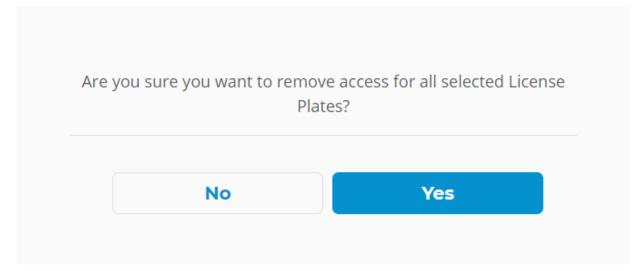
- Filter license plates by the status (Active or Expired)
- Search the lot to see a specific license plate and duration of shared access It is possible to filter the license plates, click the **Apply** filter to search by the given information.



It is possible to withdraw access by checking the license plate and clicking the **Remove** access button.

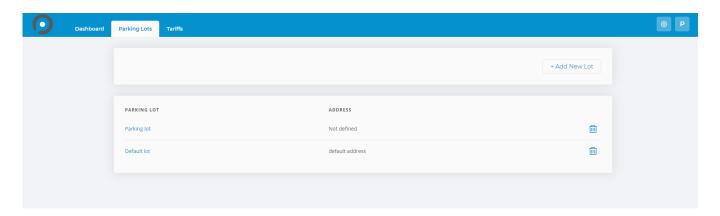


It opens a window for extra confirmation. When confirmed, the chosen license plate will no longer have access to the parking lot.

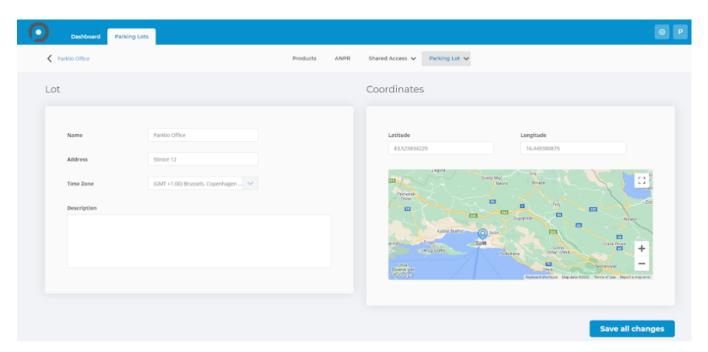


## ■ 3.5. Parking lot

The Parking lot tab shows the list of all added parking lots and allows adding and deleting lots.



The Parking lot tab opens the **Parking lot** page allowing control of products and zones, as well as access to the ANPR system. To add a new parking lot, click the button **+ Add New Lot** and fill in the needed information (Name, address, GPS coordinates, etc.). Save information and create a new lot.



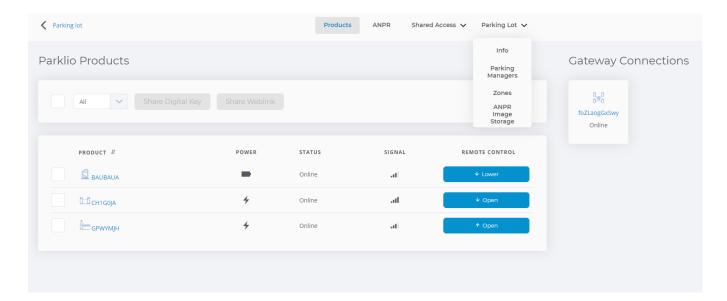
To delete a parking lot, click the trash icon on the right side of a parking lot page. A confirmation window appears to verify the order.



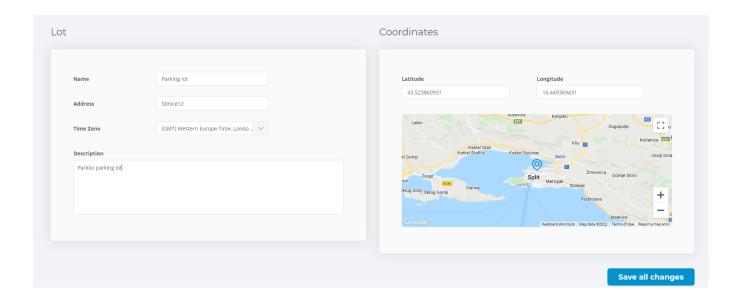
Deleting a parking lot removes all products and zones as well

# ■ 3.5.1. Parking lot info

The **Info section** offers information about the parking lot as well as editing options based on the parking configuration and requirements. To access it, click the **Parking lots** tab, choose the parking lot and click **Info**.



It is possible to edit the parking lot name, address, GPS coordinates, time zone, and add a description to the lot. To save new information, click **Save all changes.** 



# ■ 3.5.2. Parking Managers

The **Parking Managers** tab contains the list of all managers in the Parking Management System.

Super Admins have insight and control of any part of the PMS and they can add other users and give them different roles:

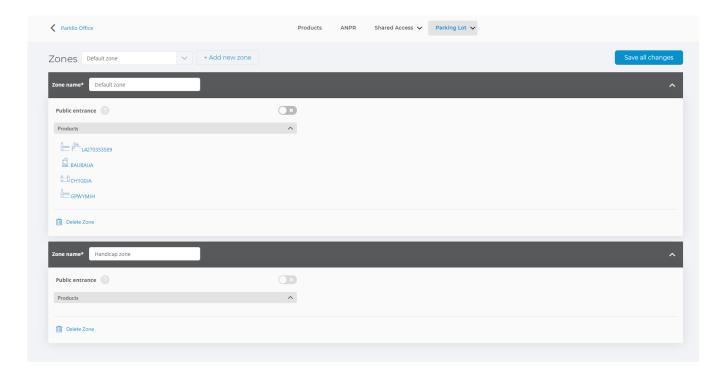
- **Operator** Adds products to PMS, controls the products and manages parking products added to the parking lot.
- **Admin** Doing the operations as Operator, with the possibility of viewing reports and statistics. Able to make changes to the Tariffs and Zones tab. Admins can also add Operators.
- **Super Admin** Having complete access to everything, able to add or delete Operators, Admins and Super Admins



Super Admins are unable to remove themselves from the list of Parking Managers. It can be done from another Super Admin.

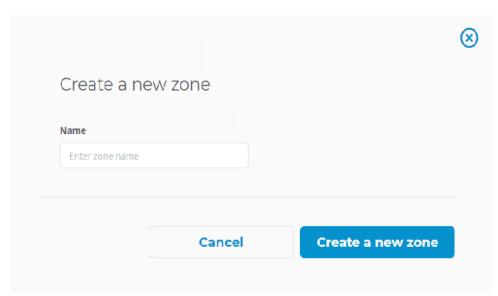
#### ■ 3.5.3. Zones

The **Zones** tab can be used to separate large parking lots into smaller lots. The parking lot is split into two zones (Default Zone and Handicap Zone) by default.

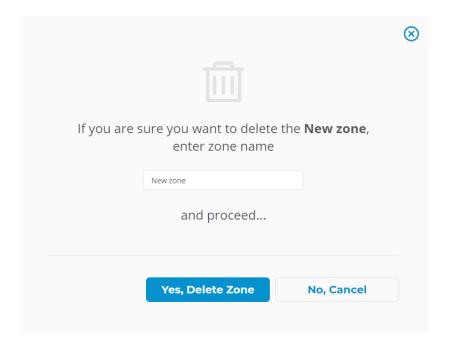


It is possible to add different products and set tariffs for each zone.

Clicking Add new zone button opens the window to create a new zone.



When the new zone is added to the Zones tab, it is possible to change the zone name, add tariffs or delete the zone. When deleting the zone, the PMS system shows a window to confirm the command.

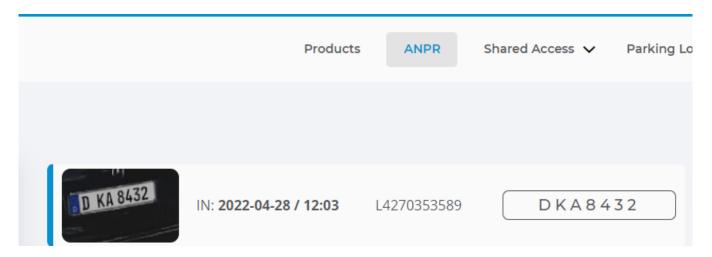




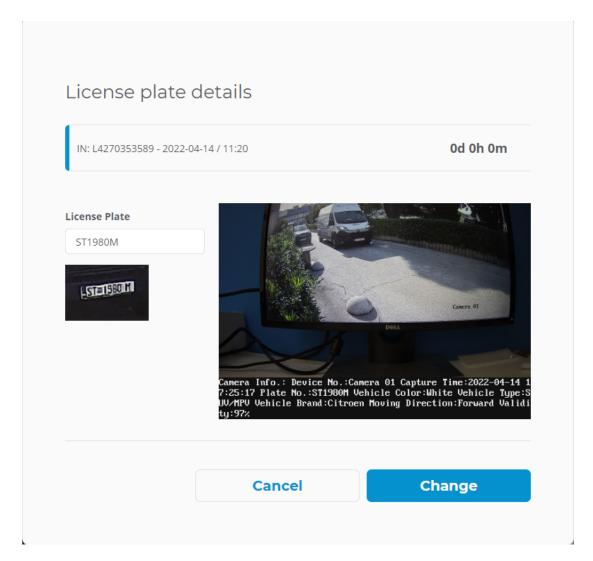
Once you delete a zone, all added products will also be removed from the PMS account.

#### ■ 3.5.4. ANPR Image Storage

To access the ANPR image storage, it is necessary to contact the sales team to purchase a subscription plan for up to 12 months. The ANPR Image Storage system allows you to see license plates and vehicles using the lot. Access the storage within the **ANPR** tab.



Clicking the **License plate** opens the window showing all the License plate details and a full photo of the vehicle.





#### 1. What is a car parking management system?

A car parking management system is software that is used to monitor and optimize parking lot occupancy. It can be used as an intelligent parking management system in cities or any other area with parking lots.

#### 2. How do automated parking lot management systems work?

Parking management system definition includes parking fee, tariff description, and zone marking. Data is presented to parking lot visitors via mobile application, display, or other guidance system based on input from the parking management system. As a parking management system, automated parking lots can be used both outdoors and indoors. All smart parking protection devices used to protect and organize parking lots are included in parking management system equipment.

#### 3. How to manage car parking?

Car parking should be managed in a way that provides complete transparency to visitors while maintaining high security standards and optimizing overall occupancy. When possible, customer feedback should be considered and implemented in the system. Both the car park operator and the visitors benefit from a well-managed parking management system.

#### 4. Can I have multiple users with one license?

Yes, you can have an unlimited number of users with a single license. The number of cameras and security devices, on the other hand, is proportional to the number of licenses required. To be more specific, one license contains the following: 8 cameras and 4 gates/chains/bollards/brains, resulting in 20 parking devices.

#### 5. Can I have multiple users with one subscription?

Yes, with any subscription model you select, there is no limit to the number of users that can be added. Your subscription choice determines the type and quantity of products you wish to manage with the PMS, but this does not restrict the number of users.

# 6. How many parking lots and parking managers can I have with one license/subscription?

You can have as many parking lots and parking managers as you like with a single license / subscription.

# 7. Can I use it on my mobile phone?

Yes, you can use Parklio PMS on your mobile phone, as the software is fully responsive. It will work on any device, including smartphones and tablets.