



## **Dahua ANPR Camera Quick Setup Guide**

**For Paxton Access Control Controller**

## Revision

| Revision History | Release note  | Revisor   | Date       |
|------------------|---------------|-----------|------------|
| Version 1.0      | First Edition | Bibu Chen | 11/03/2019 |

# Content

|                                   |    |
|-----------------------------------|----|
| 1. OVERVIEW.....                  | 4  |
| 2. PRODUCT.....                   | 4  |
| 3. SETUP ON ANPR CAMERA .....     | 5  |
| 4. CONNECTION WITH NET2 PLUS..... | 8  |
| 5. OPERATION.....                 | 9  |
| 6. APPENDIX.....                  | 13 |

## 1. Overview

This guide aims to help users to setup Dahua ANPR Camera to be integrated with Paxton Access Control Controller to trigger the relay out according to the different rights of different vehicle owners.

- Dahua Contact Information

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Tel: +86 571 8768 8883

Website: <http://www.dahuasecurity.com/>

## 2. Product

a) Dahua ANPR Camera:

- Model Name: DHI-ITC237-PU1B-IR-PAX
- Firmware Version: 2.401.003.0.R, build: 2018-3-19
- Specification:

- Super Starlight
- H.265
- 5-50mm vari-focal lens,
- Monitor distance 4-40m
- IP66
- White list database,
- IR light
- Wiegand Output for Paxton



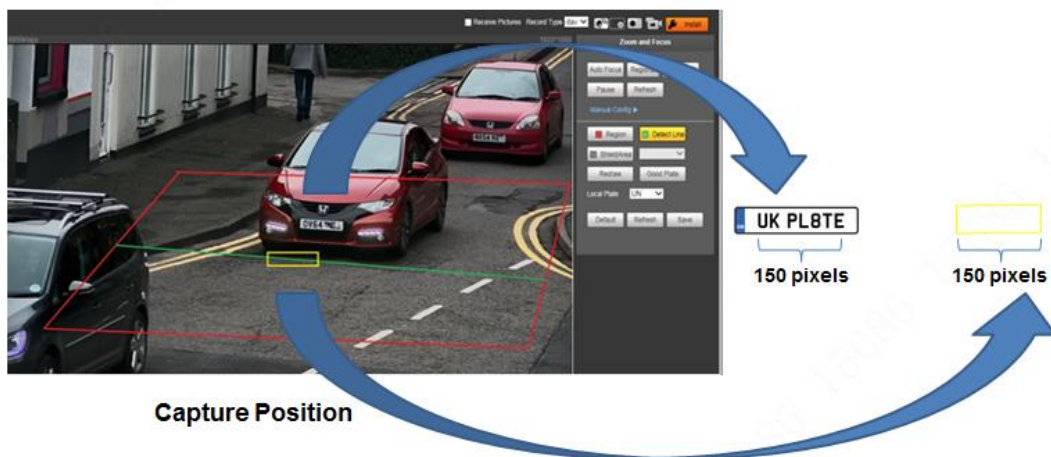
b) Paxton Access Control Controller:

Model Name: Net 2 Plus



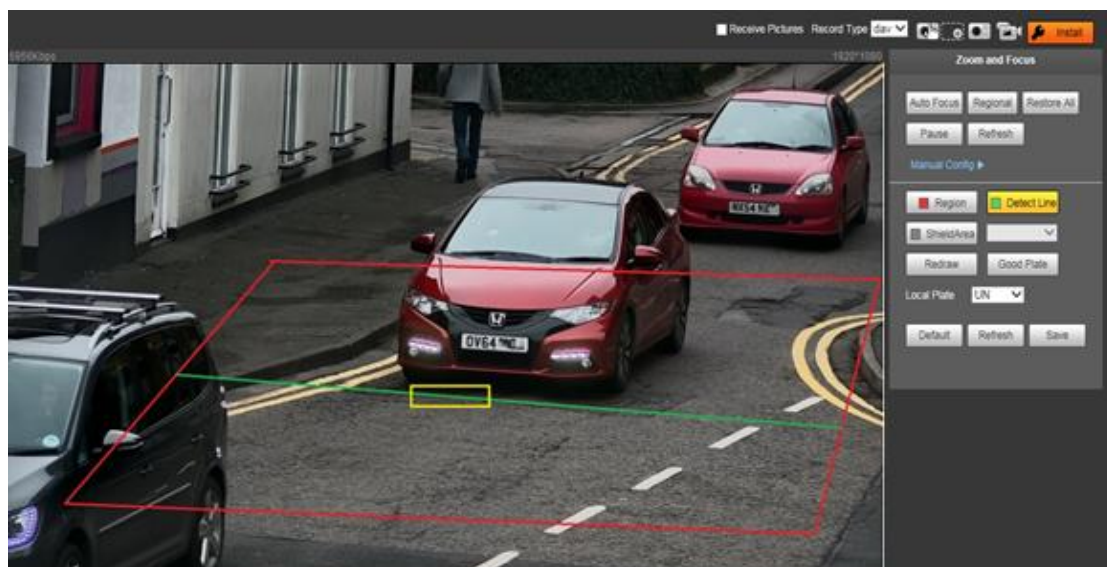
### 3. Setup on ANPR Camera

- a) Put IP address in your web browser and login  
(The default IP address should be 192.168.1.108)
- b) Click the button “**Config**” on the webpage and adjust the lens so that the width of the number plate is close to 150 pixels

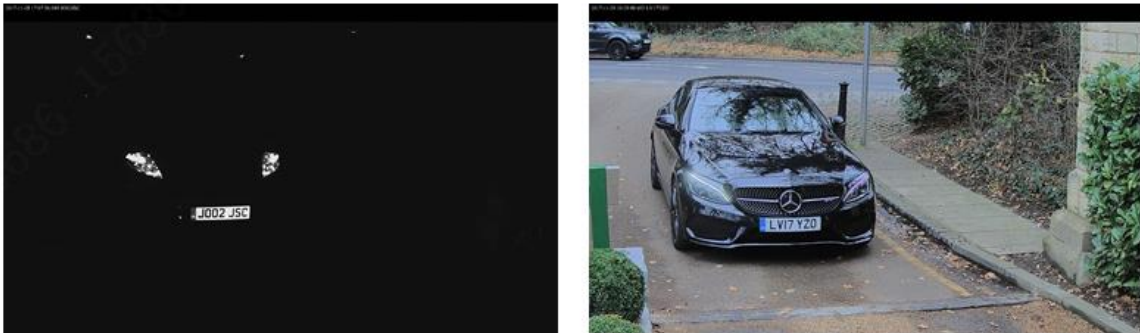


- c) Set up the recognition and capture rules

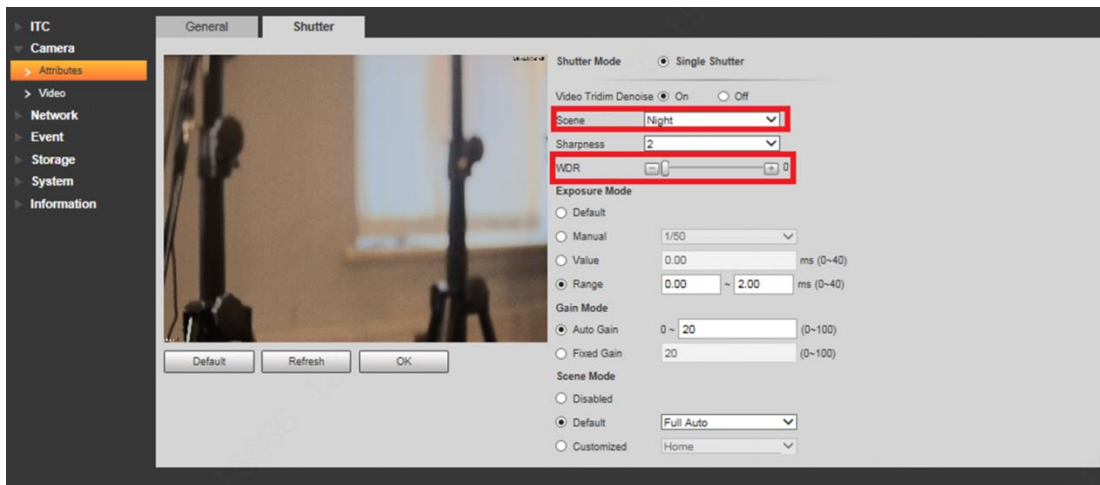
The Recognition area shall be less than 2/3 of the whole view



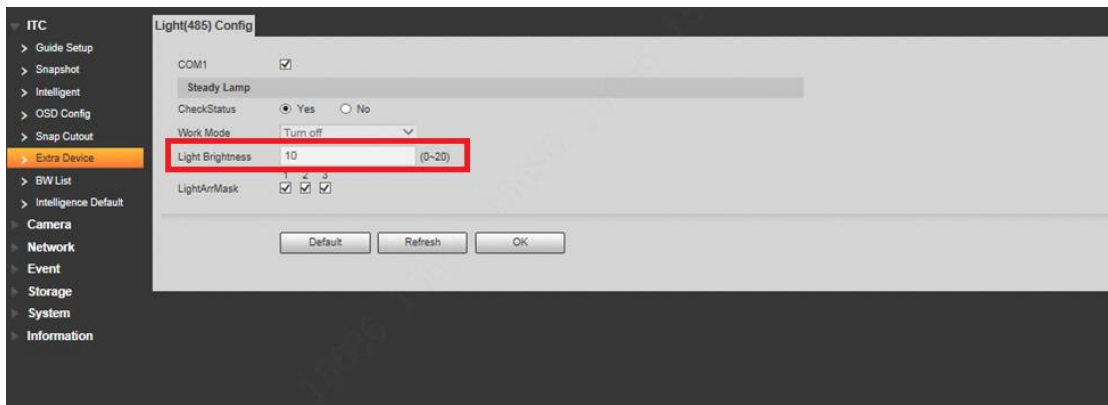
d) Set up the image parameters to make the effect of number plate in night and daytime as below



e) Set up Image Quality Parameter – WDR



f) Setup - Set up Image Quality Parameter – Light Brightness



g) ANPR Camera captured the plate numbers

**Plate Result**

**Original snapshot**

**Snap cut** IS04NCN

**Plate result list**

|      |      |                     |   |          |      |         |          |         |
|------|------|---------------------|---|----------|------|---------|----------|---------|
| 1862 | ANPR | 2016-03-10 13:57:02 | 1 | IS04NCN  | Blue | ROU     | No Speed | Unknown |
| 1860 | ANPR | 2016-03-10 13:56:52 | 1 | S07YMF   | Blue | Unknown | No Speed | Unknown |
| 1859 | ANPR | 2016-03-10 13:56:27 | 1 | TM29FEL  | Blue | ROU     | No Speed | Unknown |
| 1858 | ANPR | 2016-03-10 13:56:16 | 1 | BT24OKJ  | Blue | ROU     | No Speed | Unknown |
| 1858 | ANPR | 2016-03-10 13:56:05 | 1 | IS0795GN | Blue | ROU     | No Speed | Unknown |

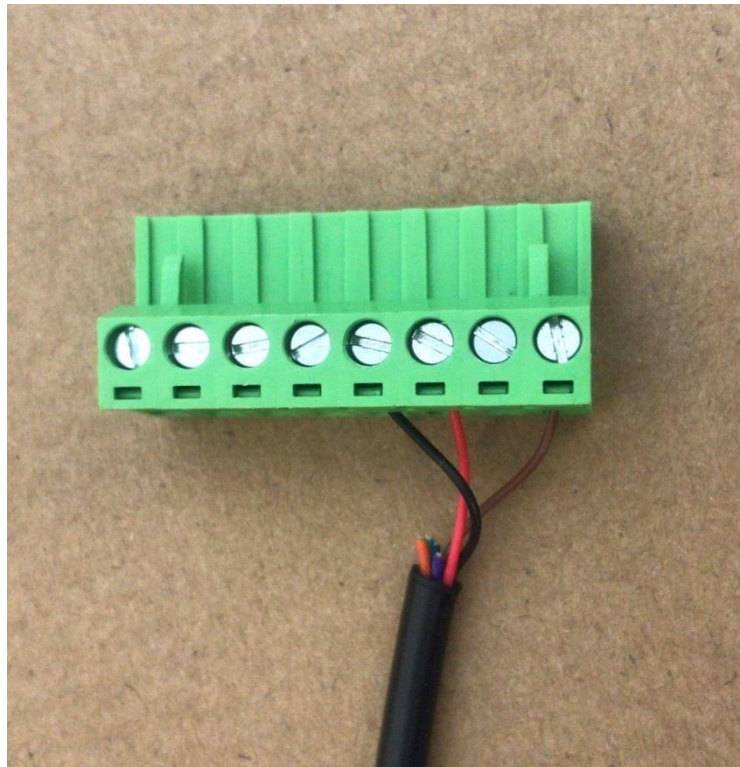
**Real Plate Info**

IS 04 NCN

h) Also you can use the Quick Guide to do the quick setup

#### 4. Connection with Net2 Plus

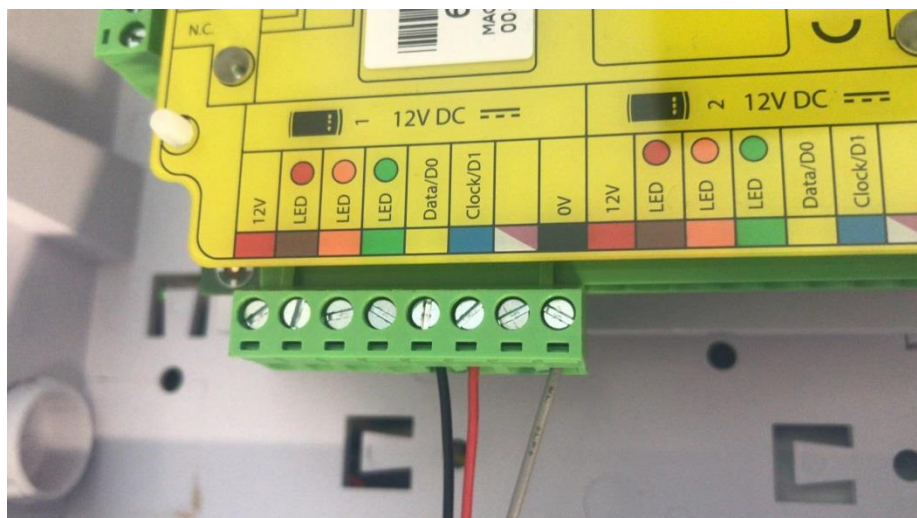
- a) To connect the ANPR Camera with Net2 Plus Reader port, using a Belden reader cable (as per Paxton specification).



**Red** wire: D1 at ANPR –Clock/D1 on Net2 Plus Reader Port

**Black** wire: D0 at ANPR –Clock/D0 on Net2 Plus Reader Port

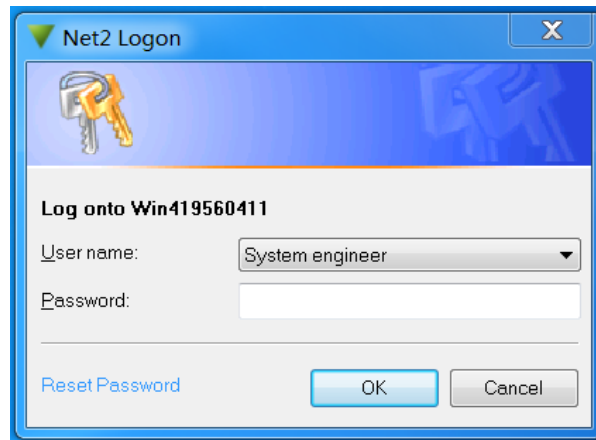
**Brown** wire: GND at ANPR –0V on Net2 Plus Reader Port



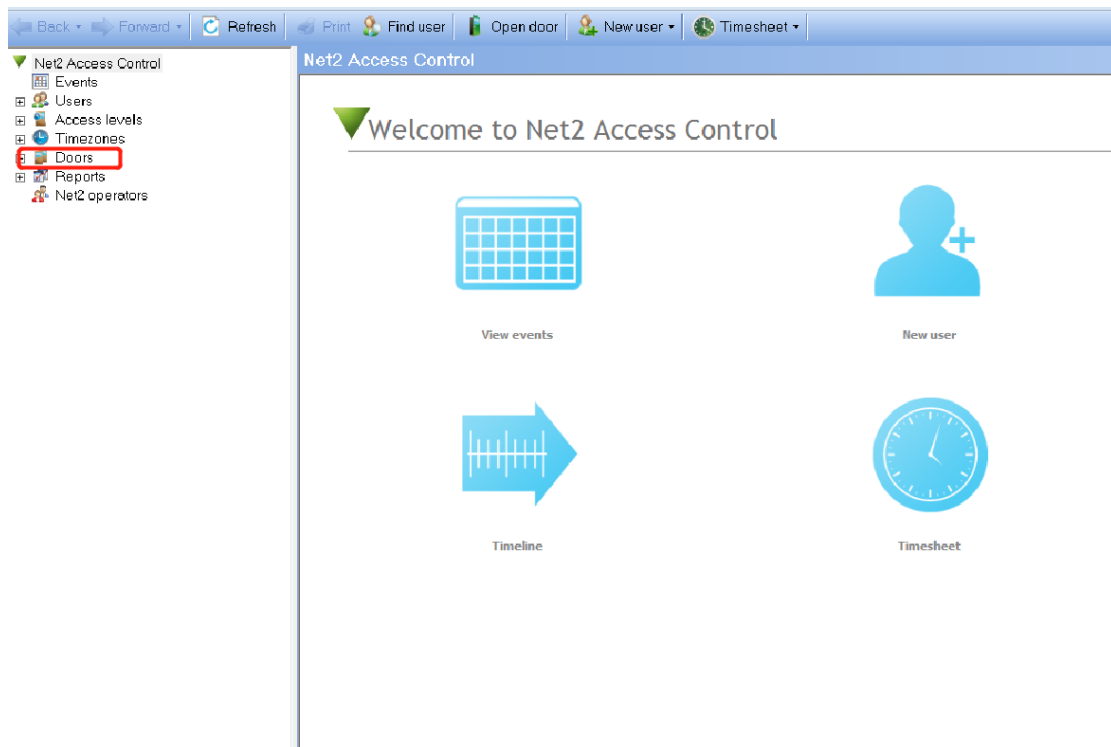


## 5. Operation

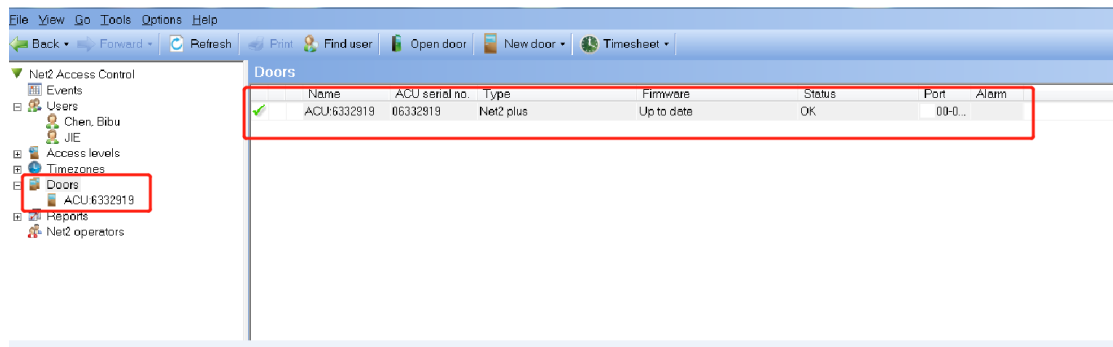
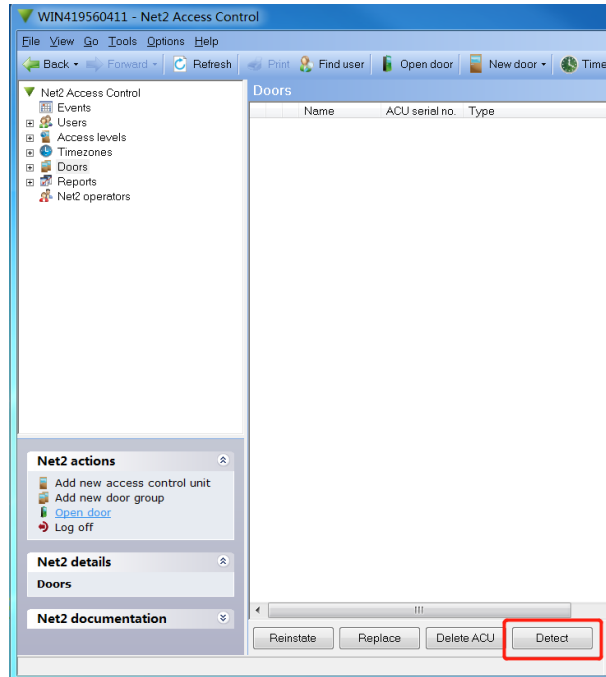
### a) Login to Net 2 Access Control



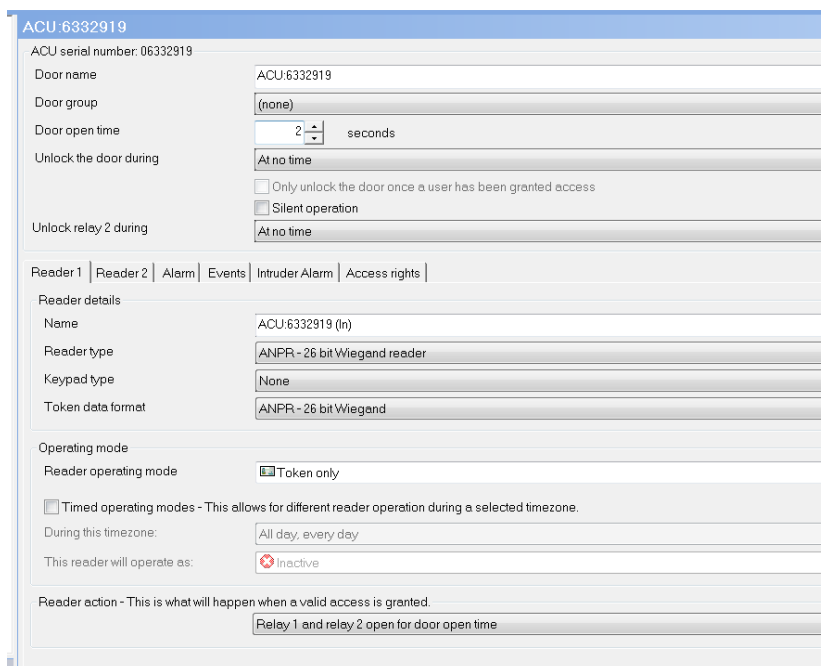
### b) Linking a Door to the ANPR Camera



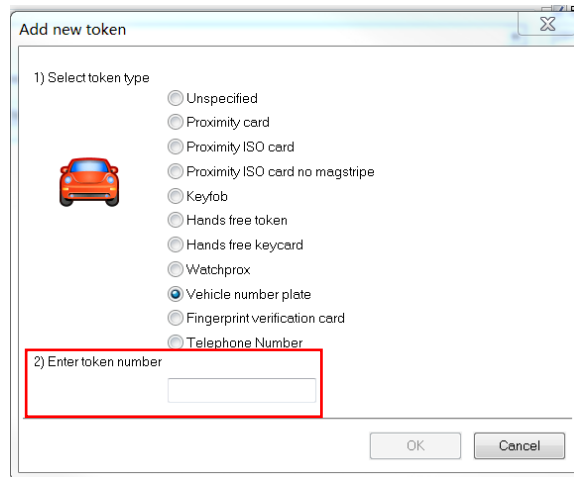
Click the 'Door' > 'Detect', to detect the Door Reader of Net2 Plus which be connected before; If 'Detect' doesn't work, please try the 'Net2 Configuration Utility' tool to detect the Net2 Plus.



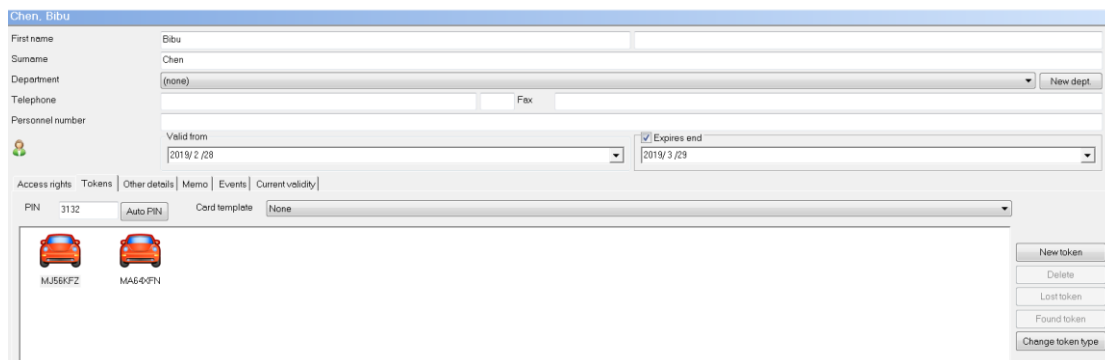
After that, the door setting for the ACU should be as follows and apply:



c) Add a new user, and select the 'Tokens' > 'New Token' to open the 'Add new token' window. Then, select 'Vehicle number plate' and enter the license plate number which belongs to the user. ( e.g. MA64XFN)

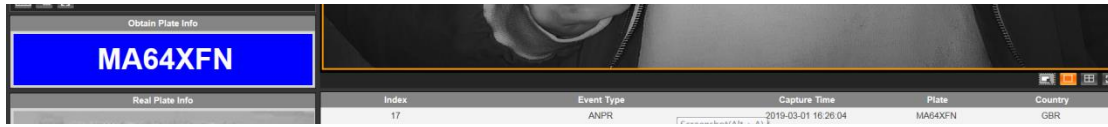


After clicking 'OK', the plate numbers display on the window; then click 'Apply' on the bottom right corner.



d) When the ANPR Camera read a license plate number from user's car, it will send the converted token number to Net2 Plus. If it's a correct token, the controller will open the door.

Plate number recognition (from ANPR Camera Web):





Events result (from Net2 Access Control):

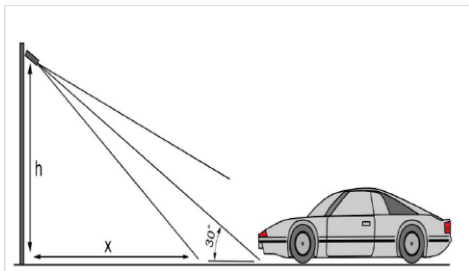
| Date/time           | User       | Token number | Where            | Event                   | Details |
|---------------------|------------|--------------|------------------|-------------------------|---------|
| 3/8/2019 9:48:11 AM | zheng, jie |              | ACU-6332919 (In) | Access permitted - ANPR | MA64*FN |
| 3/8/2019 9:47:35 AM | zheng, jie |              | ACU-6332919 (In) | Access permitted - ANPR | MA64*FN |
| 3/8/2019 9:47:14 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | MJ56KFZ |
| 3/8/2019 9:47:07 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | MJ56KFZ |
| 3/8/2019 9:46:59 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | MJ56KFZ |
| 3/8/2019 9:46:30 AM | zheng, jie |              | ACU-6332919 (In) | Access permitted - ANPR | MA64*FN |
| 3/8/2019 9:46:00 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | CF55FvU |
| 3/8/2019 9:45:52 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | CF55FvU |
| 3/8/2019 9:45:42 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | MJ56KFZ |
| 3/8/2019 9:45:27 AM | Bibu       |              | ACU-6332919 (In) | Access permitted - ANPR | MJ56KFZ |

## 6. Appendix

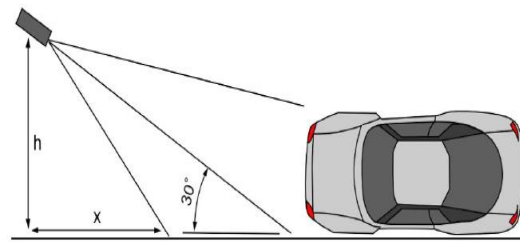
### a) ANPR Installation

| DHI-ITC237-PU1B-IR-PAX                         |  |                       | +                             |  |  |
|--|---|-----------------------|-------------------------------|--|--|
| Mount Position                                 | Height  | Best Capture Distance | Range of the Capture Distance | Width of the lane  |  |
| Side of the lane                               | 2 meters  | 7 meters              | 6-10 meters                   | 3.5 meters   |  |
| Right above the lane                           | 2 meters  | 7 meters              | 6-10 meters                   | 7 meters   |  |
| Side of the lane<br>Or<br>Right above the lane | 3 meters  | 12 meters             | 10-14 meters                  |  |  |
|  | 4 meters  | 16 meters             | 14-18 meters                  |  |  |
|  | 5 meters  | 16 meters             | 16-24 meters                  |  |  |
|  | 6 meters  | 25 meters             | 24-40 meters                  |  |  |

- Vertical angle < 30 Degree



- Horizontal angle < 30 Degree



- Number plate angle < 5 Degree



- Number plate width: more than 130pxel

