

ANPR Camera Model

IPC262EBR9-DUPZIT - UNV 2MP IP66 Bullet IR Starlight 10X *LPR* (NZ & AU) 2.8mm to 32mm

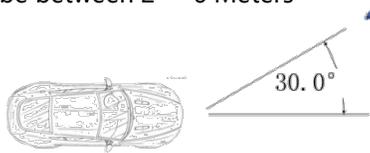
For best results the distance between ANPR camera and detection area should be between 2-35 meters approx.

ANPR Function requires a NVR 302 series or higher model for the analytics / database function

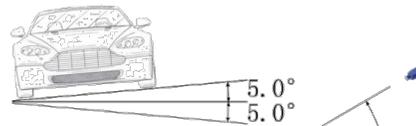
Installation / Design

Mounting Height of ANPR Camera should be between 2 – 6 Meters

VERTICAL ANGLE IS LESS THAN 30°



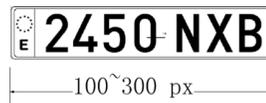
TILT ANGLE IS LESS THAN 5°



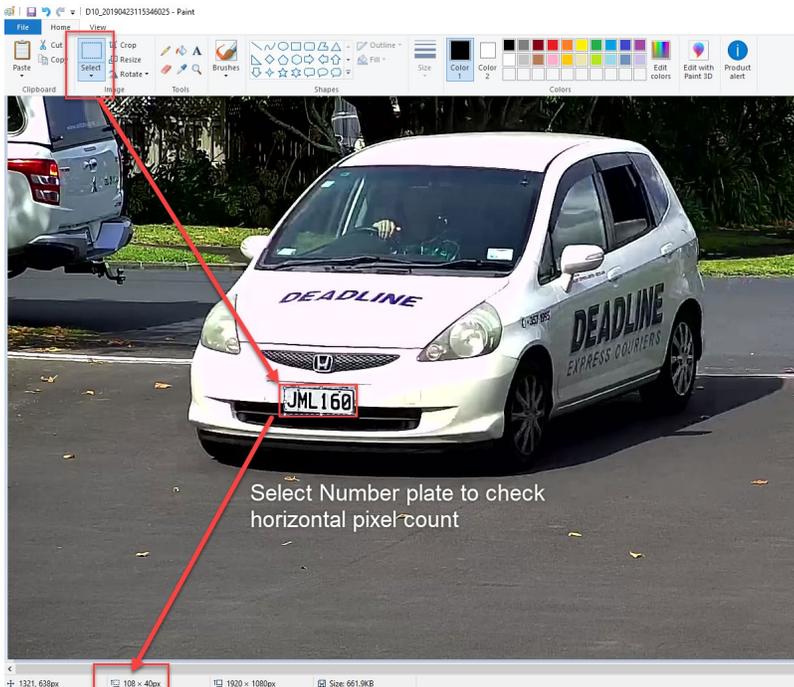
HORIZONTAL ANGLE IS NO MORE 30°



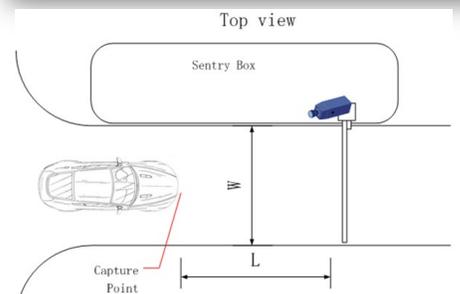
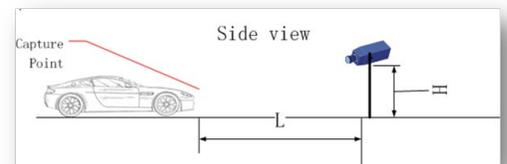
LICENSE PLATE IS BETWEEN 100-300PX IN WIDTH



Take a snapshot and use MS Paint to measure Pixel Count



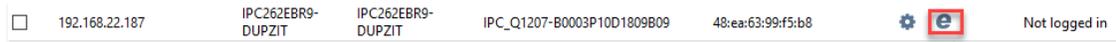
Example ANPR Solution (pole Mount)



SETTING UP ANPR

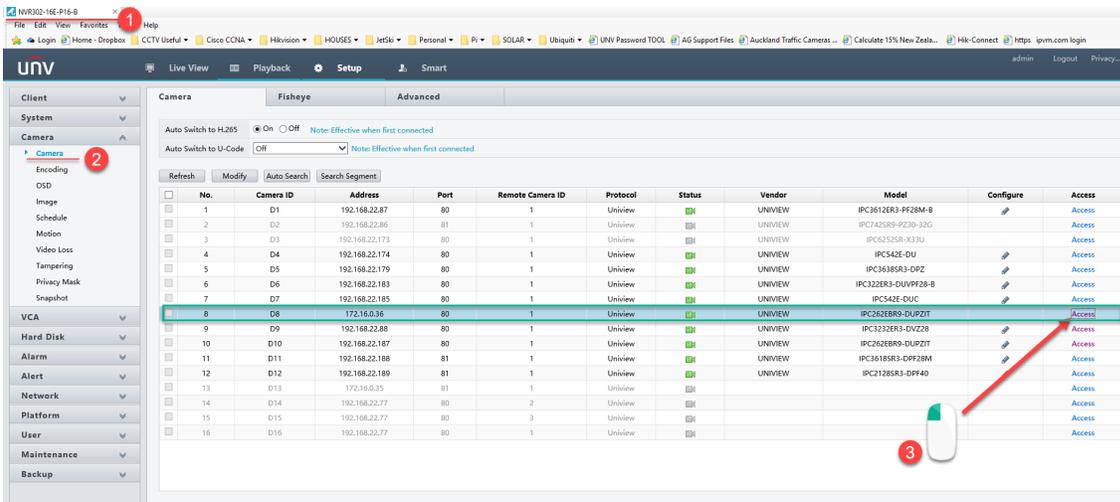
LOGGING IN (Web Interface using Internet Explorer)

- The first step will be to use the EZTools software on a windows PC to find the IP address of the Camera, open the camera using Internet Explorer.



If your ANPR camera is plugged into one of the POE ports on the NVR directly rather than a POE switch, then you will need to access the web interface of the camera via the NVR.

- Log into to the NVR (Web Interface) and go to Camera settings and click on Access as shown below.



If using camera via an POE switch please ensure you assign a static IP Address and set on the NVR Plug and Play is fine if connected directly to the NVR.



It is a good idea to setup the camera via an external switch and enable the EZCloud feature and adding to your account. This will give you access to the camera directly when off-site and you need to fine tune the cameras image settings particularly at nighttime.

Firmware Update

You need to ensure that you have the latest FW installed for ANPR Functionality, please contact CRK for a link as at time of writing it is not available via the Cloud.

IPC_Q1207-B0003P10D1809B09

Camera Settings for ANPR

1. Ensure Motion Detection is switched Off
2. Ensure WDR is switched Off
3. Set Smoothing to Clear (under video settings)
4. Set Bitrate type to VBR and image quality to Quality
5. U-Code Off
6. 25 fps and i-Frame also to 50
7. Switch off smart illumination
8. Recommend using scenes and setting on a schedule for best Day / Night Performance (under image settings). I use Road Highlight Compensation during the day and create a new scene for night with manual exposure then it can be activated by the schedule.

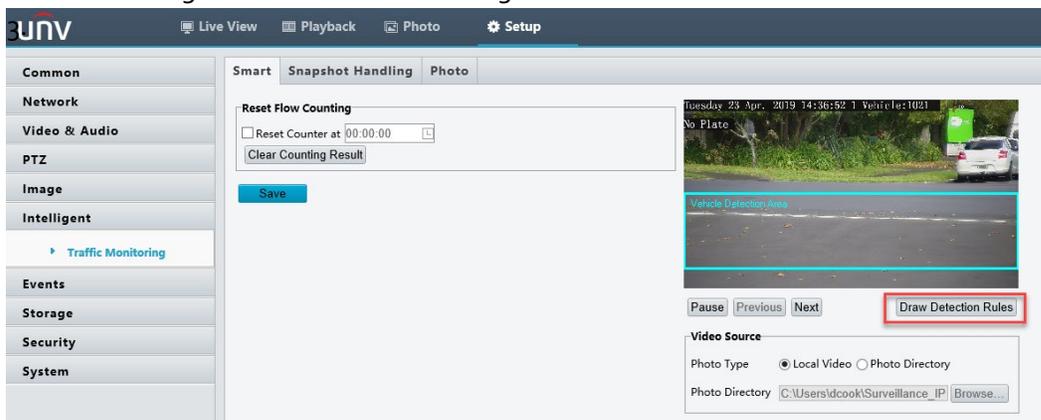
At night, the plate number can easily over exposed. After you set everything up, you need to double check how it's going at night. Set the "Gain", "Shutters" and "Day/Night Sensitivity" correctly.

If you can see the plate number clearly in the live view, the accuracy of recognition should be over 95%. If the accuracy is not good enough. Check the following things one by one, "firmware of the camera", height of camera", "pixel of the plate number". "plate number is horizontal or not" Ensure the image has the best focus where the plate will be captured.

SETTING UP LPR

Detection Rules

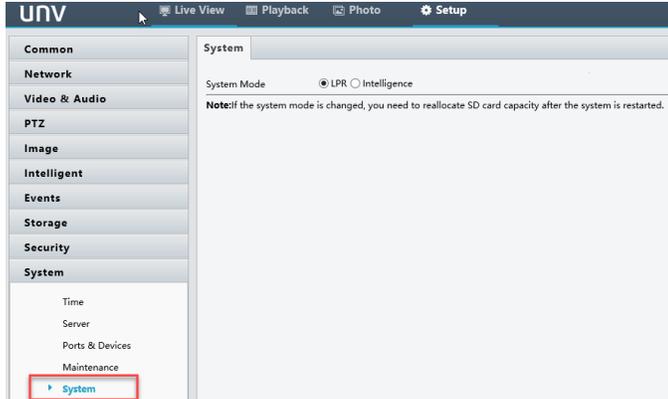
1. Log in to the camera via Network (this cannot be done via the NVR)
2. Go to Intelligent and Traffic Monitoring then draw detection Rules



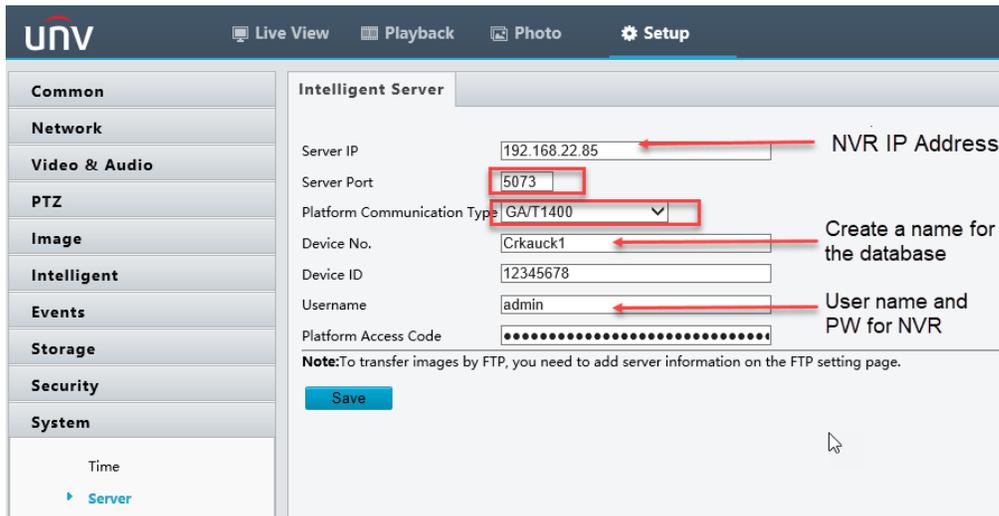
3. Draw detection – The smaller you can make this area the better the accuracy
4. Snapshot handling - For unidentified vehicles, you may choose to generate passing record or not. Enabled as default



- Generated Photos - you may see a small color photo of plate. If you goto Live view using Internet Explorer and open image folder you will see images recorded to your local PC whilst the camera is connected.
- Under System ensure LPR is selected (default)



- Next, we will configure the Server / database which is the NVR: This setting can be configured under Common then server. Or as shown below System and Server.
 - IP Address for the NVR
 - server port is 5073
 - change the Platform Communication Type GA/T1400
 - Device ID is a way of identifying the camera if using more than one ANPR on the NVR
 - Username and Platform Access Code is for the NVR

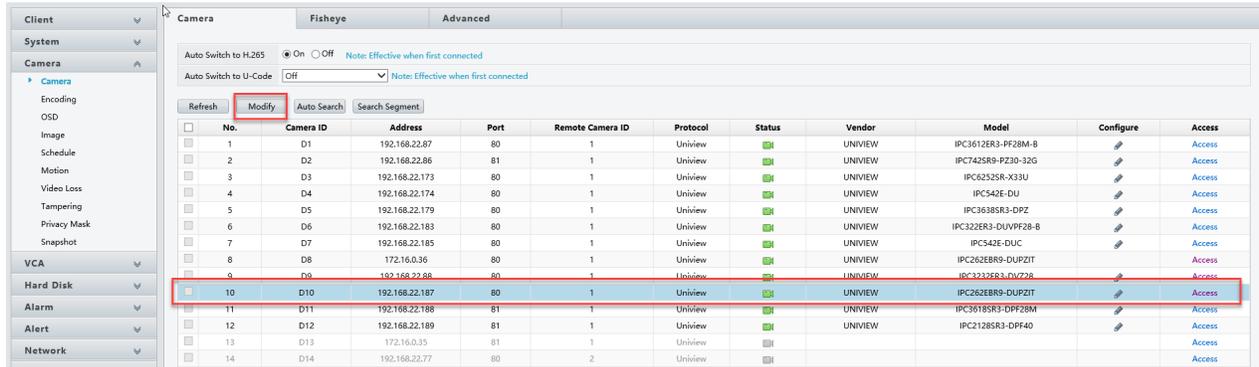


ANPR Setup on the NVR

The Next step is adding the camera to the NVR and setting up the ANPR function. We can also add Whitelist / Blacklist car number plates to trigger alarms or activate a relay connected to a barrier arm for instance.

The first step is to add the camera, using a static IP Address.

As shown below I am using Internet Explorer to access the NVR for configuration, this step can be don via the NVR directly if required.



Connect the camera to the NVR as shown below this so the camera can send the plates and images to the NVR

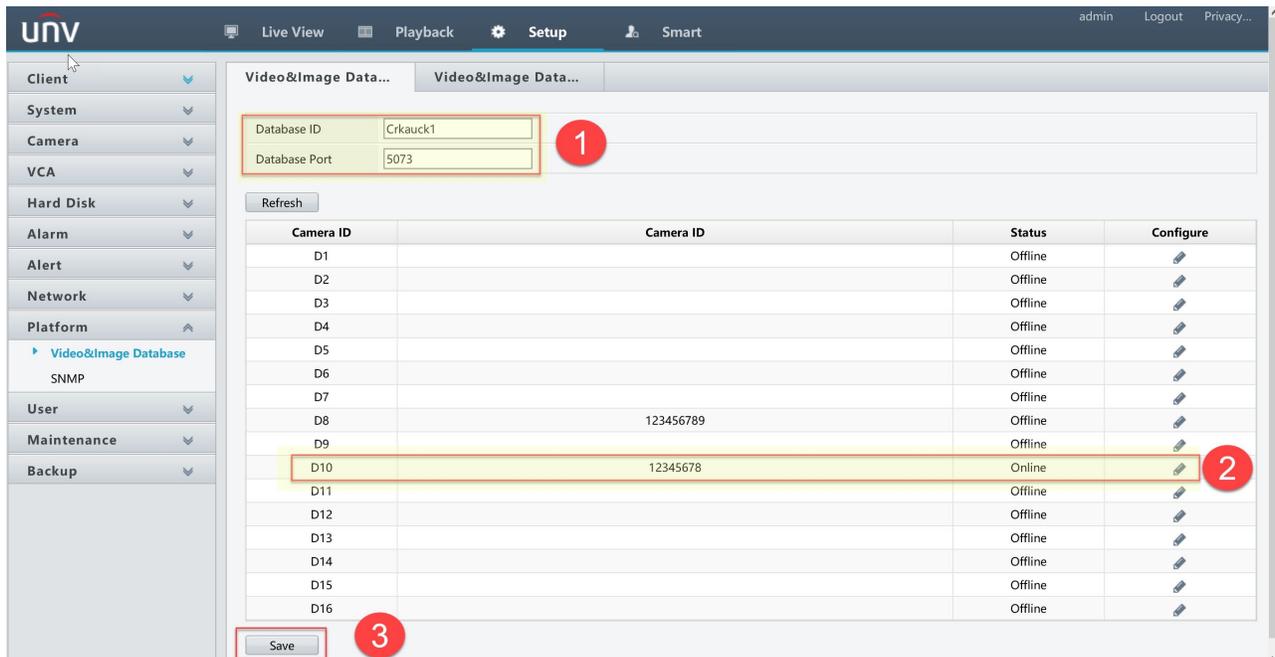
Settings – Platform

Enter the Database ID

Database port (5073)

Camera ID (you can have more than one ANPR camera connected to the same database

Check camera shows as Online



White List / Black List / Other

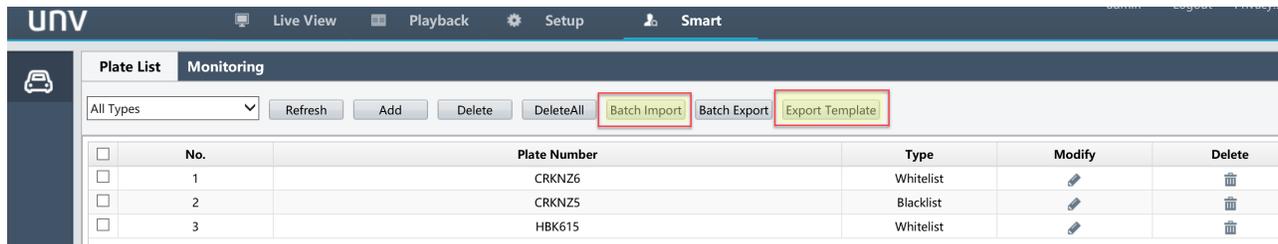
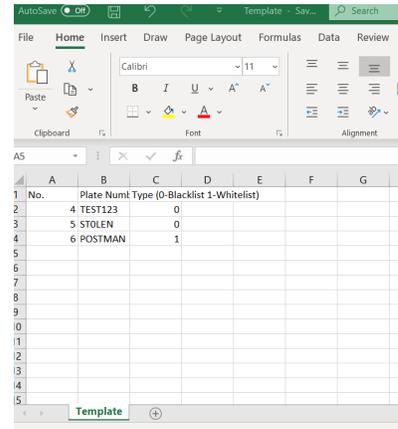
Network login to the NVR and on the main page next to setup you will see SMART

Whitelist – Mainly used for Access Control

Blacklist – To avoid unauthorized vehicles attempt accessing the premises by sending a pop-up, audio alarm or an Email Notification.

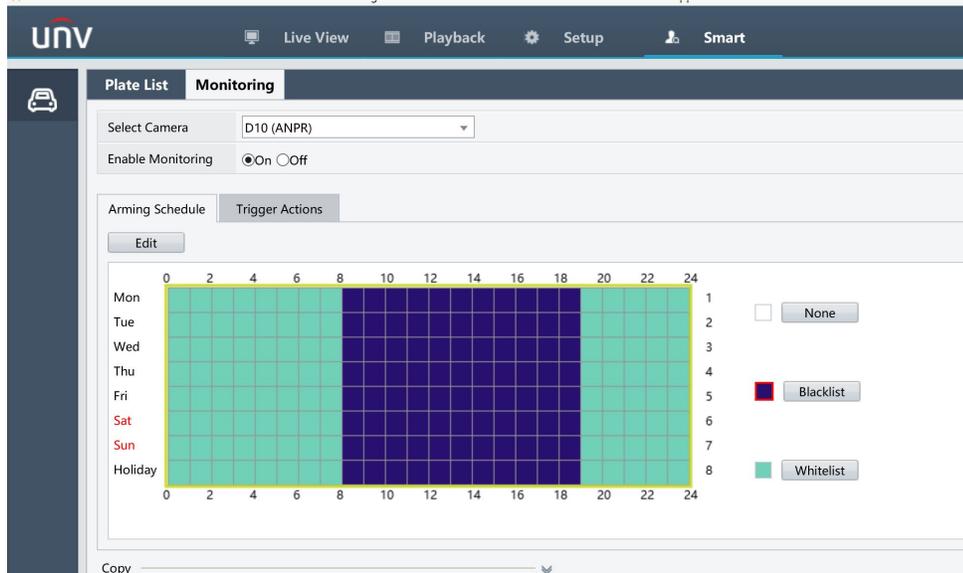
Other – Vehicles not included in either of the above lists

Export Excel Template enter Number Plates then simply Import back to the NVR



Trigger Actions

As with any other VCA you can schedule and configure a trigger action, which could be a relay to a barrier arm for instance or an automated gate



Note: the trigger Action can only be for a single list at one time so White List or Black List, although you can change using the schedule.