



Milesight-Troubleshooting LPR

1. What is LPR

LPR(License Plate Recognition) is a technology that uses optical character recognition on images to read vehicle registration plates . The LPR algorithm is embedded in cameras are able to recognize, capture and upload license plate images on their own and intelligently.



2. LPR Cameras

- LPR 12x H.265+ AF Motorized Pro Bullet Network Camera
- LPR 12x H.265+ Mini PTZ Bullet Network Camera
- LPR H.265+ ABF Pro Box Network Camera
- LPR H.265+ Mini Bullet Network Camera
- LPR H.265+ Vandal-proof Motorized Mini Bullet Network Camera
- LPR H.265+ Motorized Pro Bullet Network Camera

3. How to set LPR

(1) Settings

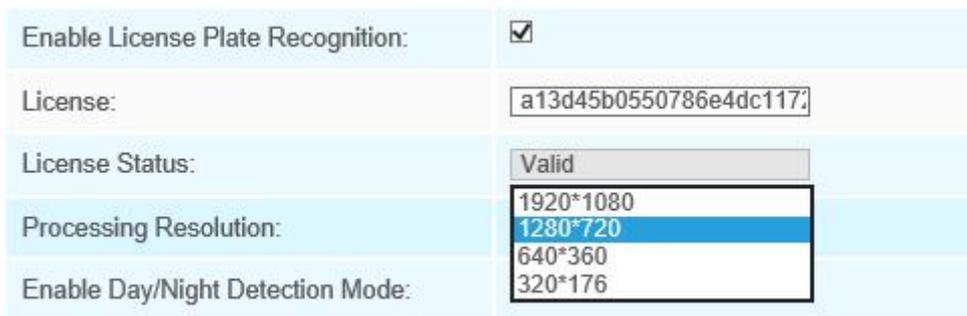
Step1: After log in the web, and go to **“Advanced Settings ”** → **“LPR ”** → **“Settings ”**.

Check the checkbox **“Enable License Plate Recognition”** , you can draw the screen to select four areas interested. The area as shown in the blue box below, it will also display pixels above each area.



[License]: We will automatically assign an license to each device.

[License Status]: This column is used to display the status of the license, **[Valid]** or **[Invalid]**.



[Processing Resolution]: Resolution of the stream for LPR analysis. Default selected resolution is 1280*720. Users can choose different resolution according to the environment.

[Enable Day/Night Detection Mode]: With this option enabled, the camera will enable different detection modes according to Day/Night mode.

[Enable Vehicle Speed Detection]: With this option enabled, it will display two lines(Line1 and Line2) in the live view. You need to fill in Camera Installation Height, Horizontal Distance1 and Horizontal Distance2, then the camera will calculate the vehicle speed based on the line position and the data you filled in, and display the result on the logs interface.

Camera Installation Height: real height of camera.

Horizontal Distance1: real distance between camera pole and line1.

Horizontal Distance2: real distance between camera pole and line2.

Note: The two lines are used to match the actual position of the car as a reference line for measuring two horizontal distances. You can use the default line position set by the camera, or drag the line to move its position.

[Set LPR Detection Region]: You can set up to 4 ROI areas by drawing the screen. If you choose **Normal Mode**, it supports configuring the LPR detection regions for the current area. If you choose **Advanced Mode**(Only for PTZ series), it supports configuring different LPR detection regions for

different PTZ presets(Only support Preset 1~4 so far).

Set LPR Detection Region

Effective Region Settings: Advanced

Effective with Presets:

- Preset 1
- Preset 2
- Preset 3
- Preset 4

Set LPR Detection Region

Note: Please draw the screen for setting!

ID	Name	Edit	Delete
1	ROI_1		
2	ROI_2		
3	ROI_3		
4	ROI_4		

! Notes

- Only license plates larger than 150 pixels can be recognized.
- For better performance, please choose the appropriate resolution in advance.

Step2: Schedule Settings. You can draw the schedule by clicking “**Edit**” button. And then click [**Save**] or [**Reset**] after setting. You also can copy the settings to other channels.

Schedule Settings

Step3: Detection Settings and LPR Message Post Settings.

[Detection Trigger]: If you choose **“Always”** , camera will always detect the license plate. If you choose **“Alarm input”** , camera will only detect the license plate when Alarm Input is being triggered.

[Repeat Plate Checktime]: Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles.

[Feature Identification]: Check **Direction**, **ROI_ID** or **All** to enable Features Identification, it will display the corresponding information on the logs interface.

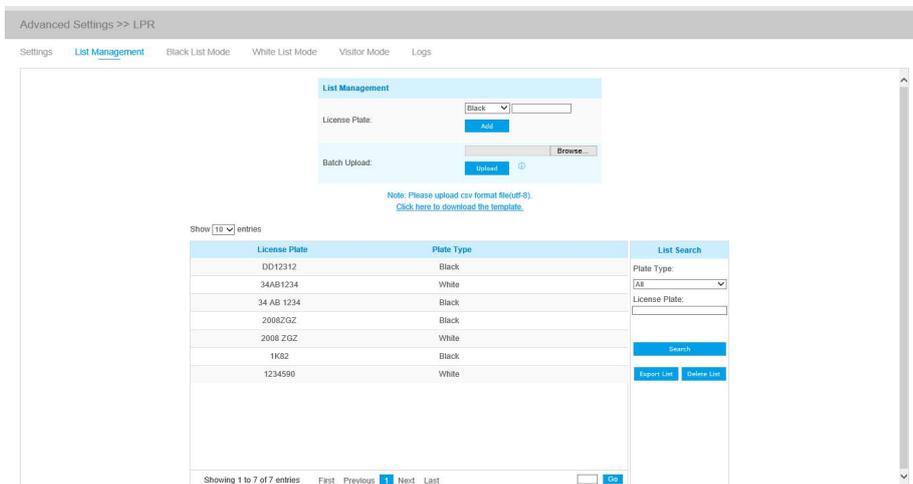
[LPR Message Post Settings]: Check the checkbox to enable LPR Message Post. It will push information to some third-party devices or software that are compatible with ours. Information can be pushed by **RTSP**, **TCP** or **HTTP**.

More information about LPR Message Post, please refer to ***Milesight-Troubleshooting-Integration between LPR Camera and NVR(VMS)***.

Step4: Don’ t forget to click **“Save”** after finishing all settings.

(2) List Management

Add the license plates to this interface as Black or White type (Black/White List), and then you can set the alarm action for these license plates in the corresponding black list mode or white list mode interface. When these license plates are detected, the camera will respond accordingly to your settings.



Step1: Select the **license plate type** as black or white, enter the license plate, click the **"Add"** button, the license plate will be added successfully.

Step2: You can add a csv form with the license plate you want to add, click the **"Browse"** button to import the form to this interface, click the **"Upload"** button, the license plates will be added successfully.

Note:

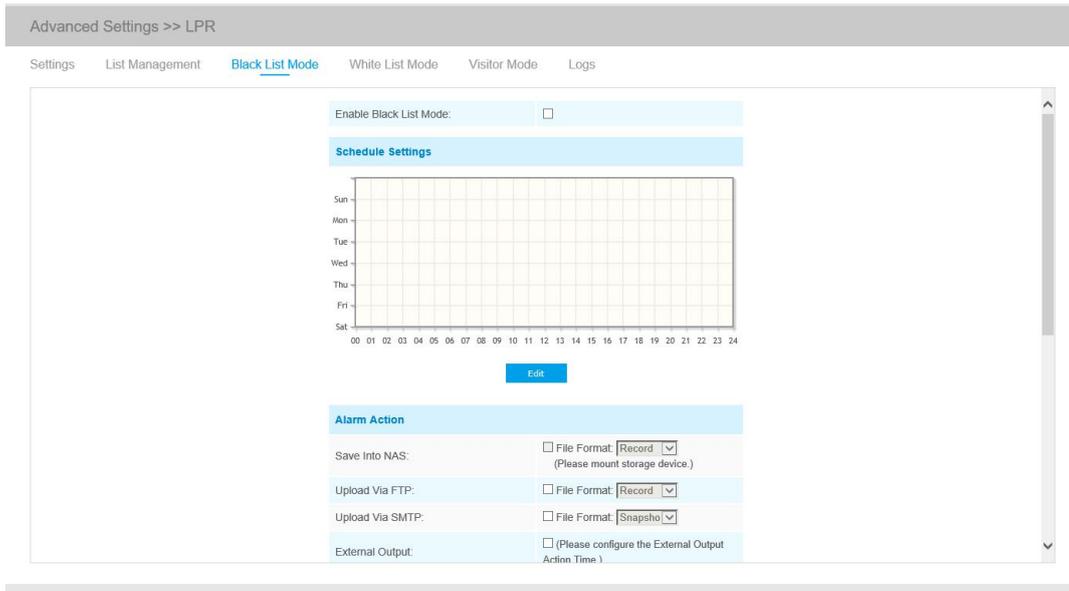
1. You can first download the template as a reference in this interface.
2. It allows to add 1000 license plates to Black and White List.

Step3: Select Plate Type or directly enter the license plate number, click the **"Search"** button, the corresponding license plate will be displayed in the list.

Step4: Click the **"Export List"** button to export the license plate in the current list to a csv form locally.

Step5: Click the **"Delete List"** button to delete all the license plate in the current list.

(3) Black List Mode



Step1: Check the checkbox to enable Black List Mode.

Step2: Schedule Settings. You can draw the schedule by clicking Edit button.

Step3: Set alarm action.

Alarm Action	
Save Into NAS:	<input type="checkbox"/> File Format: Record (Please mount storage device.)
Upload Via FTP:	<input type="checkbox"/> File Format: Record
Upload Via SMTP:	<input type="checkbox"/> File Format: Snapsho
External Output:	<input type="checkbox"/> (Please configure the External Output Action Time.)
Play Audio:	<input type="checkbox"/> (Please configure the Audio Action Settings and Audio Interval.)
Alarm to SIP Phone:	<input type="checkbox"/> (Please open the SIP.)
HTTP Notification:	<input type="checkbox"/>

Step4: Set alarm settings.

Alarm Setting	
Record Video Sections:	5 seconds
Pre-record:	0 second
Snapshot Type:	License Plate
Snapshot:	3
Snapshot Interval:	1 second
External Output Action Time:	30 seconds
Audio Action Settings:	Edit
Play Audio Interval:	Auto

After that, when a license plate marked as “black” is detected, the camera will respond accordingly to your settings.

(4) White List Mode

Advanced Settings >> LPR

Settings List Management Black List Mode **White List Mode** Visitor Mode Logs

Enable White List Mode:

Schedule Settings

Sun
Mon
Tue
Wed
Thu
Fri
Sat

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Edit

Alarm Action

Save Into NAS: File Format: Record (Please mount storage device.)

Upload Via FTP: File Format: Record

Upload Via SMTP: File Format: Snapsho

External Output: (Please configure the External Output Action Time.)

Step1: Check the checkbox to enable White List Mode.

Step2: Schedule Settings. You can draw the schedule by clicking Edit button.

Step3: Set alarm action.

Alarm Action

Save Into NAS: File Format: Record (Please mount storage device.)

Upload Via FTP: File Format: Record

Upload Via SMTP: File Format: Snapsho

External Output: (Please configure the External Output Action Time.)

Play Audio: (Please configure the Audio Action Settings and Audio Interval.)

Alarm to SIP Phone: (Please open the SIP.)

HTTP Notification:

Step4: Set alarm settings.

Alarm Setting

Record Video Sections: 5 seconds

Pre-record: 0 second

Snapshot Type: License Plate

Snapshot: 3

Snapshot Interval: 1 second

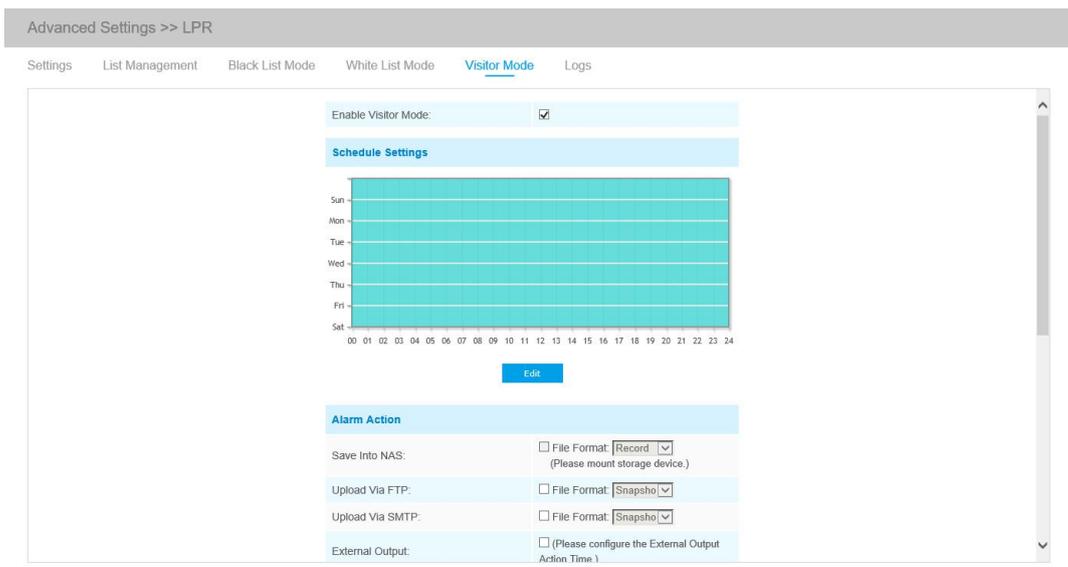
External Output Action Time: 30 seconds

Audio Action Settings: Edit

Play Audio Interval: Auto

After that, when a **license plate marked as "White" is detected**, the camera will respond accordingly to your settings.

(5) Visitor Mode



Step1: Check the checkbox to enable Visitor Mode.

Step2: Schedule Settings. You can draw the schedule by clicking Edit button.

Step3: Set alarm action.

Alarm Action	
Save Into NAS:	<input type="checkbox"/> File Format: Record <small>(Please mount storage device.)</small>
Upload Via FTP:	<input type="checkbox"/> File Format: Record
Upload Via SMTP:	<input type="checkbox"/> File Format: Snapsho
External Output:	<input type="checkbox"/> <small>(Please configure the External Output Action Time.)</small>
Play Audio:	<input type="checkbox"/> <small>(Please configure the Audio Action Settings and Audio Interval.)</small>
Alarm to SIP Phone:	<input type="checkbox"/> <small>(Please open the SIP.)</small>
HTTP Notification:	<input type="checkbox"/>

Step4: Set alarm settings.

Alarm Setting	
Record Video Sections:	5 seconds
Pre-record:	0 second
Snapshot Type:	License Plate
Snapshot:	3
Snapshot Interval:	1 second
External Output Action Time:	30 seconds
Audio Action Settings:	Edit
Play Audio Interval:	Auto

After that, when **a license plate that is not marked as "Black" or "White" is detected**, the camera will respond accordingly to your settings.

(6) Logs

Advanced Settings >> LPR

Settings List Management Black List Mode White List Mode Visitor Mode **Logs**

Time	Snapshot	License Plate
2019-04-09 21:24:48		35 바 2718
2019-04-09 21:24:38		35 바 2718
2019-04-09 21:24:34		35 바 2718
2019-04-09 21:24:32		35 바 2718

Time	License Plate	Plate Type
2019-09-10 19:09:55	65-11921	Visitor
2019-09-10 19:09:52	11C19216	Visitor
2019-09-10 19:09:48	65-71921	Visitor
2019-09-10 19:09:38	16411011	Visitor
2019-09-10 18:51:22	2081999	Visitor
2019-09-10 18:50:52	124-0197	Visitor
2019-09-10 18:33:37	##1009	Visitor
2019-09-10 18:32:59	2#2650	Visitor
2019-09-10 18:32:27	056#0710	Visitor
2019-09-10 18:32:26	40#7101	Visitor
2019-09-10 18:31:56	5#1189	Visitor
2019-09-10 18:31:47	054-0710	Visitor
2019-09-10 17:28:59	1121911	Visitor
2019-09-10 06:38:07	##71111	Visitor
2019-09-10 03:15:16	0412195	Visitor
2019-09-10 03:13:41	##57072	Visitor

Showing 1 to 30 of 131 entries First Previous 1 2 3 4 5 Next Last Go

Step1: The detect results in real time will be displayed on the right side of Logs page, including detected time, live screenshot, and license plate.

Note: Only 10 logs are visible on the right side.

Time	Snapshot	License Plate
2019-04-09 21:24:48		35 바 2718
2019-04-09 21:24:38		35 바 2718
2019-04-09 21:24:34		35 바 2718
2019-04-09 21:24:32		35 바 2718

Step2: Select Plate Type or directly enter the license plate number, select Start Time and End Time, click the **“Search”** button, the corresponding license plate will be displayed in the list below.

Note: It supports displaying 10,000 logs.

Show entries

Time	License Plate	Plate Type	
2019-09-10 19:09:55	65나1921	Visitor	
2019-09-10 19:09:52	11다9216	Visitor	
2019-09-10 19:09:48	65거1921	Visitor	
2019-09-10 19:09:38	16년1011	Visitor	
2019-09-10 18:51:22	20#1999	Visitor	Detail
2019-09-10 18:50:52	12누0197	Visitor	
2019-09-10 18:33:37	###1009	Visitor	
2019-09-10 18:32:59	2#2850	Visitor	
2019-09-10 18:32:27	056#0710	Visitor	
2019-09-10 18:32:26	40모7101	Visitor	
2019-09-10 18:31:56	5#1189	Visitor	
2019-09-10 18:31:47	05누0710	Visitor	
2019-09-10 17:28:59	11고1911	Visitor	
2019-09-10 06:38:07	##저1111	Visitor	
2019-09-10 03:15:16	0서2195	Visitor	
2019-09-10 03:13:41	##도7072	Visitor	

Showing 1 to 30 of 131 entries First Previous **1** 2 3 4 5 Next Last

Log Search

Plate Type:

License Plate:

Start Time:

End Time:

Step3: Click the "**Detail**" button on the right of each log to display license plate details as shown below.

License Plate Details

Time:	License Plate:	Plate Type:	ROI_ID:
2019-09-10 18:50:52	12누0197	Visitor	1
Direction:	Vehicle Speed:		
Approach	-		

Step4: Click the "**Log Export**" button to export the license plate in the current list to a csv form locally. You can also click the "**Auto Export**" button to automatically export the log to FTP, SMTP or Storage.

Log Settings

Enable Auto Export Logs:

Day:

Time:

Export Time Range:

Export to: FTP SMTP Storage

———— **END** ————