

Network LPR AI Camera User Manual



Milesight Network Camera User Manual

Contents

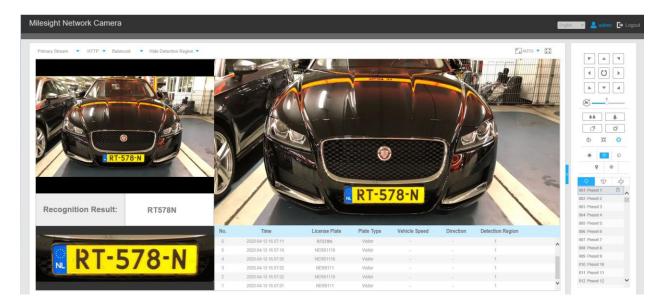
1.	. LPR		3
		Live Video	
		Settings	
		Smart Search	
	1.5.	Dinart Dearen	_

1. LPR

1.1. Live Video

Milesight LPR Camera supports professional LPR Live View interface , it can show the real-time license plate recognition results and display the snapshots of detected license plates ,which realizes a stand-alone LPR solution.

LPR mode of Live View interface (Non-AI Series)



LPR mode of Live View interface (AI Series)



Note: For Snapshot/Recording (), you can click to capture/record the current image/ video, but only when you using the IE browser with plugin, it will automatically be saved to the configured path on your PC and pop up the corresponding folder. If you using the Chrome/Firefox/ Safari/Edge browser in Plugin-Free Mode, it will not automatically pop up the corresponding folder to show you the details.

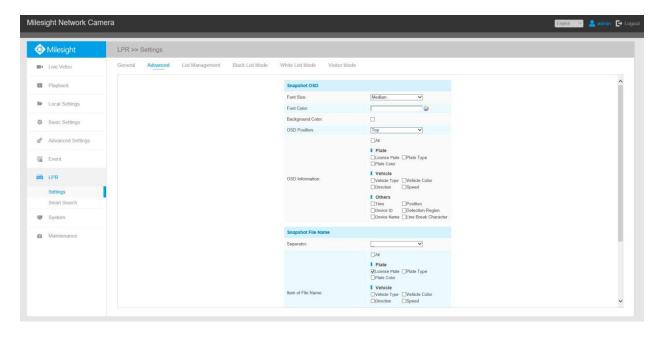
1.2. Settings

The LPR function will automatically detect and capture license plate in real time and compares to a predefined list, then takes appropriate action such as generating an alert once the license plate is on the predefined black list.

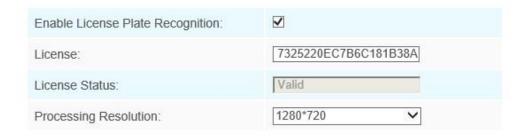
Note:

- LPR is optional for 12X AF Motorized Pro Bullet, Mini PoE PTZ Bullet, ABF Pro Box, Vandal-proof Motorized Mini Bullet, Motorized Pro Bullet Network Camera, Mini Bullet Network Camera.
- Currently we have three LPR versions, **LPR1**, **LPR2** and **LPR3**. LPR1 is for Asian regions, LPR2 is for European regions and the former Soviet Union and LPR3 is for Korea.
- There is only Basic Event under Event Tab for LPR cameras.

General



Step1: Enter the license and click Save. When the License Status changes to Valid, the camera can start detecting the license plates.



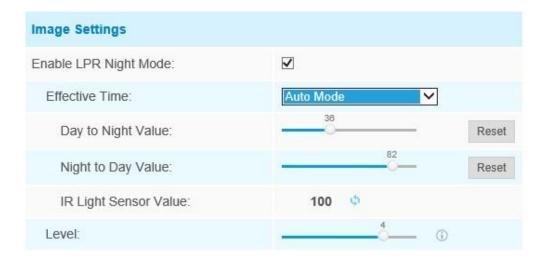
Note: Only LPR2 and LPR3 need to enter a license to activate the LPR function.

Step2: The LPR Night Mode supports the optimal LPR night recognition effect by adjusting different parameter levels. You can choose Customize to set effective time manually, or choose Auto Mode which can automatically switch to night mode according to illumination intensity.

Customize Mode



Auto Mode



Step3: Check the checkbox "Enable License Plate Recognition", you can draw the screen to select area interested.

Table 51. Description of the buttons

Parameters	Function Introduction
License (Only for LPR2 and LPR3)	Generated by camera's information
License Status (Only for LPR2 and LPR3)	Show present license status, including Valid and Invalid .
Processing Resolution	Resolution of the stream for LPR analysis, including 1920*1280, 1280*720, 640*360, 320*176.

Parameters	Function Introduction	
Country/ Region (Only for LPR1)	Select country/ region to detect the license plate.	
(Only for PTZ series) Normal: configure the LPR detection regions for the current area. Advanced: configure different LPR detection regions for different PTZ presets(Only support Preset 1~4 so far).		
Enable Day/Night Detection Mode (Only for LPR3)	With this option enabled, the camera will enable different detection modes according to Day/Night mode.	
Enable Vehicle Speed Detection (Only for LPR3)	With this option enabled, the camera will detect the vehicle speed and display results on the Smart Search interface. You need to draw two lines(Line1 and Line2) on the live view, and fill in Camera Installation Height, Horizontal Distance1 and Horizontal Distance2, camera will combine the lines you draw and the data filled to calculate the vehicle speed. 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. Speed of vehicle Requirement Real height of camera (H) (unit: meter) Real distance between camera pole and line (d1, d2) (unit: meter) Pixel position of each line (y1, y2) To be changed UI Drawable two lines Edit boxes to input camera height and distance of each line	

Parameters		Function Introdu	iction		
	Draw the screen to select the area interested, then click "Add"button to add the area, only four recognition areas can be added. You can edit the name of the area or delete the area in the list below.				
	ID	Name	Edit	Delete	
Add	1	ROI_1	×	×	
	2	ROI_2	×	×	
	3	ROI_3	×	×	
	4	ROI_4	×	×	
	Note: Only	license plates larger than 150 p	oixels can be reco	gnized.	
Clear	Click the "Clear"	Click the "Clear" button to clear the area being drawn.			
Delete All	Click the "Delete	Click the "Delete All" button to delete all the added areas.			

Step4: Schedule Settings. You can draw the schedule by clicking Edit button.



Step5: Set Detection Settings and LPR Message Post Settings.

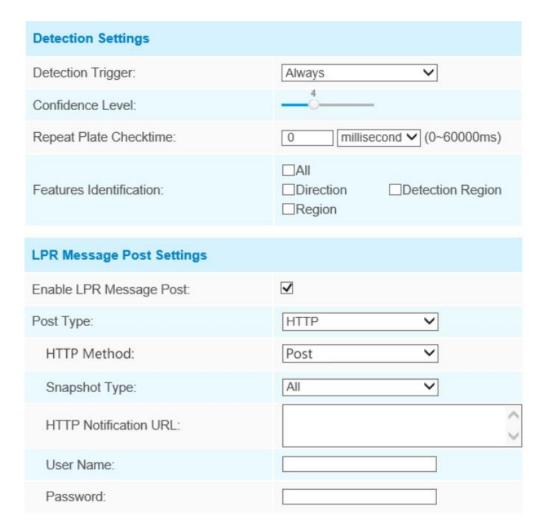


Table 52. Description of the buttons

Parameters	Function Introduction
Detection Trigger	Always: in this mode, camera will always detect license plates. Alarm Input: in this mode, camera will only detect license plates during Alarm Input is being triggered.
Confidence Level (Only for LPR1 and LPR2)	You can set the confidence level from 1 to 10. When the confidence level of the license plate is higher than the set confidence level, it will push the license plate image to the Smart Search interface.
Repeat Plate Checktime	Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles. You can set Repeat Plate Checktime from 0 to 60min or 0 to 60000ms.

Parameters	Function Introduction
Feature Identification	Check Region(Only for LPR2), Direction Region, Direction or All to enable Feature Identification, it will display the corresponding information on the Smart Search interface.
Enable LPR Message Post	Check the checkbox to enable LPR Message Post. It will push information to some third-party devices or software that are compatible with ours.
Post Type	Information can be pushed by RTSP, TCP or HTTP.
HTTP Method	There are two HTTP push methods, including Post and Get.
Snapshot Type	Three kinds of snapshot can be chosen: All, License Plate and Full Snapshot. When you choose All, License Plate Snapshot and Full Snapshot will be pushed. Note: This option is available just for Post HTTP Method.
HTTP Notification URL	LPR camera can use the API URL to send LPR information to back-end devices when the license plate is recognized. API URL format fills as below: http://IP:Port/api/lpr?
User Name	Receiver name
Password	Receiver Password

Note: License Plate Serial Format function supports formulating identification rules and can automatically do further processing, filter license plates in non-compliant formats to achieve more intelligent and accurate license plate recognition.



Advanced

In the interface, you can set display information on snapshot of license plate recognition, and also customize the file name of snapshots which are uploaded via FTP or Email or stored on local LPR Picture File Path.

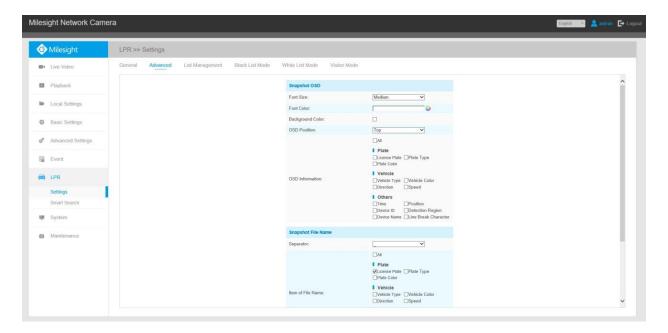


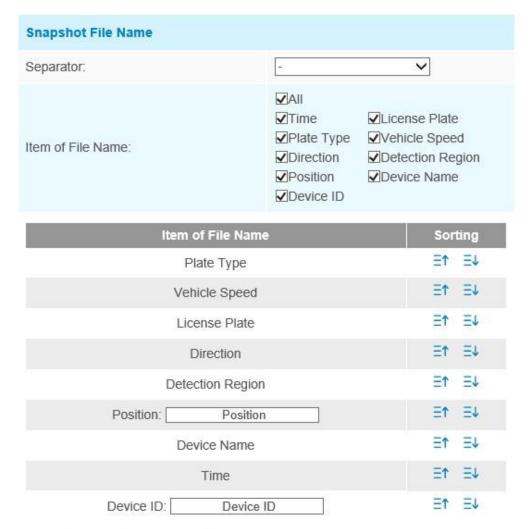
Table 53. Description of the buttons

Parameters	Function Introduction
Font Size	Small/Medium/Large are available for OSD information. Note: Snapshot OSD font size and Image OSD font size are corresponded.
Font Color	Enable to set different color for OSD information. Note: Snapshot OSD font color and Image OSD font color are corresponded.
Background Color	Check the checkbox to select background color of snapshot OSD information. Note: Background color cannot be the same with font color.
OSD Position	Check the checkbox to show OSD information position.

Parameters	Function I	ntroduction
	Customize the OSD content. You can set OSD Information as shown below:	
OSD Information	When license plate is recognized and the recognized	Plate
Separator	"-", "_" and Space are available for File The default separator is "-".	Name Separator format.

Parameters	Function Introduction	
	You can customize the snapshot file name according to items chosen.	
Item of File Name	Item of File Name:	□ All I Plate ☑ License Plate □ Plate Type □ Plate Color I Vehicle □ Vehicle Type □ Vehicle Color □ Direction □ Speed I Others ☑ Time □ Position □ Device ID □ Detection Region □ Device Name

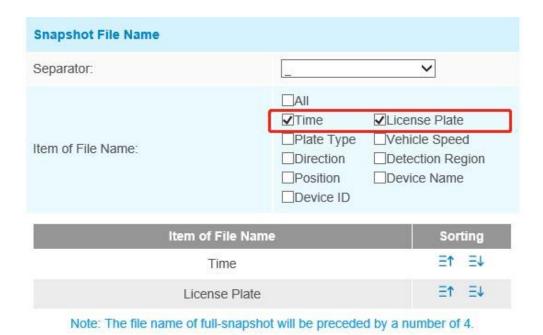
Each time when an item is checked, the list will add the item row, including the item name and sorting operation. You can click and button to sort these items, and choose separator to connect these items name. Also, the content of Position and Device ID items can be customized. When you check all items, the function interface will show as below:



Note: The file name of full-snapshot will be preceded by a number of 4.

Note: You need to check at least one item.

For example, you can choose items, separator and items sorting as below:



Once license plate is recognized, and the snapshot will be uploaded via FTP or Email or stored on your local LPR Picture File Path. Then, You can see the snapshot file name which you customize as

Full-snapshot Recognized successfully

shown below:



Full-snapshot Recognized failed



License plate snapshot Recognized successfully



License plate snapshot Recognized failed



Note:

- If the item checked is not recognized successfully, then the item will be displayed with the specific symbol "#".
- The file name of full-snapshot will be preceded by a number of 4.

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.

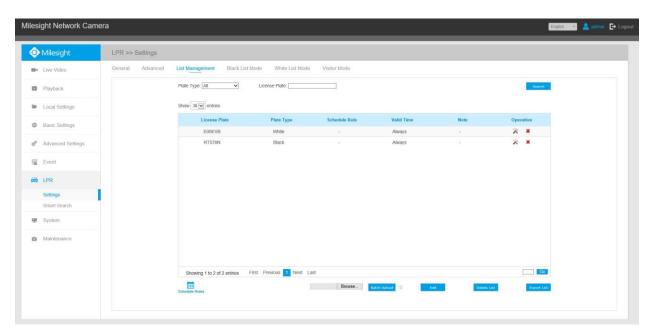
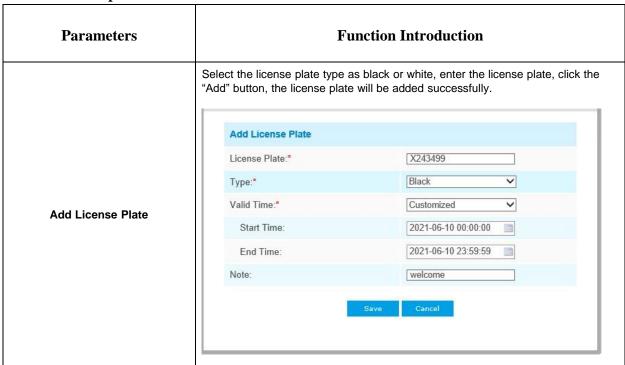
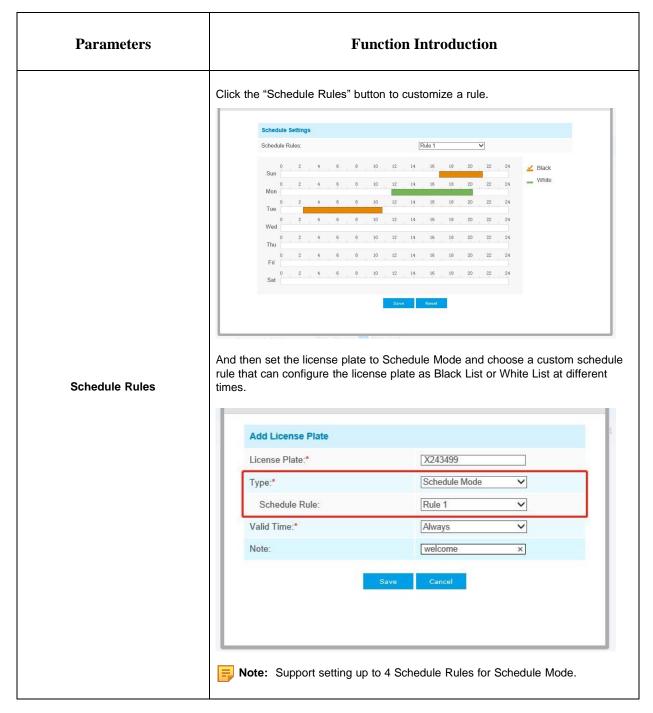


Table 54. Description of the buttons

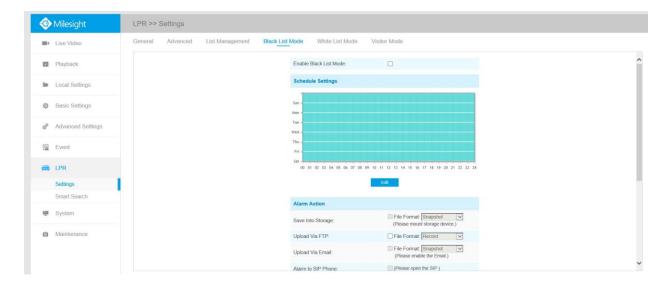


Parameters	Function Introduction
Batch Upload	You can add a csv form with the license plate you want to add, click the "Browse" button to import the form to this interface, click the "Upload" button, the license plates will be added successfully. Note: You can first download the template as a reference in this interface.
List Search	Select Plate Type or directly enter the license plate number, click the "Search" button, the corresponding license plate will be displayed in the list below.
Export List	Click the "Export List" button to export the license plate in the current list to a csv form locally.
Delete List	Click the "Delete List" button to delete all the license plate in the current list.



Note: It supports adding 1000 Black List and White List.

Black List Mode



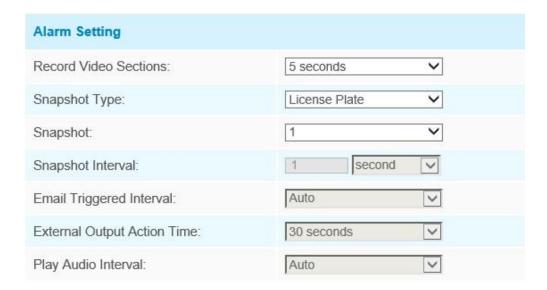
Step1: Check the checkbox to enable Black List Mode.

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

Step3: Set alarm action.

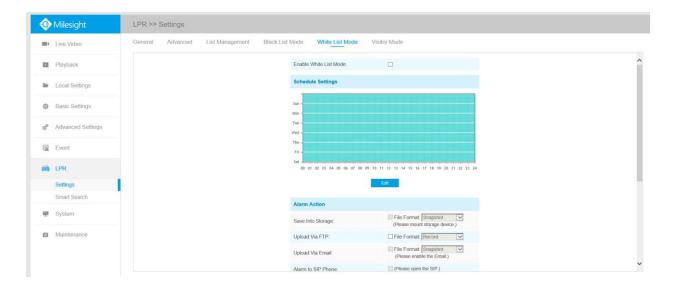
Alarm Action	
Save Into Storage:	☐ File Format: Snapshot (Please mount storage device.)
Upload Via FTP:	☐ File Format: Record ✓
Upload Via Email:	File Format: Snapshot (Please enable the Email.)
Alarm to SIP Phone:	(Please open the SIP.)
HTTP Notification:	

Step4: Set alarm settings.



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

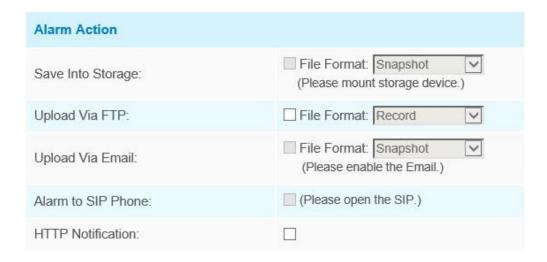
White List Mode



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.

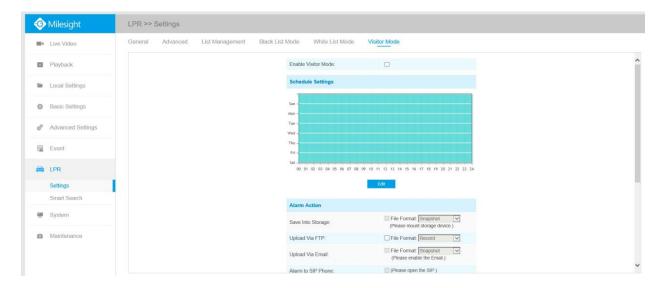


Step4: Set alarm settings.



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

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 Storage:	File Format: Snapshot (Please mount storage device.)
Upload Via FTP:	File Format: Record
Upload Via Email:	File Format: Snapshot (Please enable the Email.)
Alarm to SIP Phone:	(Please open the SIP.)
HTTP Notification:	

Step4: Set alarm settings.

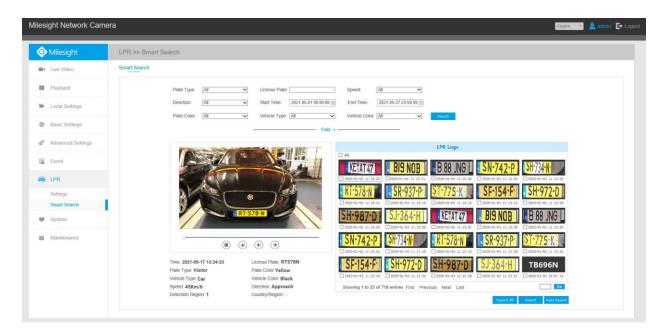


After that, when a license plate that is not marked as "Black" or "White" is detected, the camera will respond accordingly to your settings.

1.3. Smart Search

The real-time detection results will be displayed on the right side of Smart Search page, including detected time, live screenshot, and license plate.

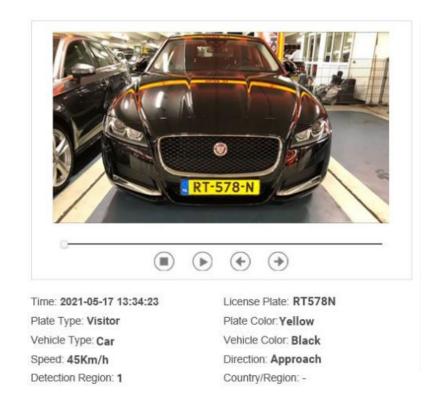
Step1: Select Plate Type or directly enter the license plate number and then select Start Time and End Time. The related license plate information will be displayed as below by one click on the "Search" button.



Note:

- It supports displaying 4,000 logs.
- Only when there is a SD Card or NAS has been set on the storage management, then the logs can be stored and show on Smart Search page.
- For Plate Color/Vehicle Color Recognition and Vehicle Type Classification, please make sure your model is MS-CXXXX-XXC.

Step2: Click on the thumbnail photo under the LPR Logs, then the license plate details will be shown as below:



Step3: Click the "**Export**" or "**Export All**" button to export the desired files in the current list to a local folder.

	Export		
Export File:	☐ Plate List ☐	Video ☐ Picture th pictures)	
Video File Format:	MP4	~	
		Export Cancel	

Step4: Click the "Auto Export" button to automatically export the logs to FTP, Email or Storage.

