

License Plate Recognition Configuration

CSP-IPBX4 / CSP-IPBX12



Introduction:

The following guide will assist in configuring your CSP-IPBX4 or CSP-IPBX12 camera to capture license plates on slow moving vehicles. License plate recognition is one of the most difficult tasks a camera could be given. This guide will explain a few key points in capturing License Plates properly.

Camera Positioning:

The most important part of successfully capturing license plates is the cameras position. If the positioning is not correct you will have a very difficult time getting the results you're looking for. You will want to avoid mounting a license plate camera too high in the air, perpendicular to the road where vehicles will be passing or simply too far away from where the plate will be. Positioning the camera where license plates will be is a good idea as well. Driveways, Gates, Entry and Exit points are easy to capture because you know where the vehicle/plate is going to be. This allows you to zoom the lens in to the exact position of the license plate and capture it every time!

We like to recommend positioning your camera between 5' and 15' high off of the ground. Any higher and the angle will be too extreme to capture the license plates correctly. Shooting the camera either straight onto the license plate or offset by 15° to 30° will give you the best results. Mounting the camera no further than the cameras specs call for will give you the best results. CSP-IPBX4 should be mounted no further than 20' away from the plate for the best results. CSP-IPBX12 should be mounted no further than 40' away from the plate for the best results.

Bench testing your camera with a test vehicle / license plate prior to mounting is always a good idea.

Adjusting Cameras Lens:

Your new CSP-IPBX4 / CSP-IPBX12 is equipped with a Motorized Zoom and Focus. It will most likely be necessary to adjust these options to get the perfect image

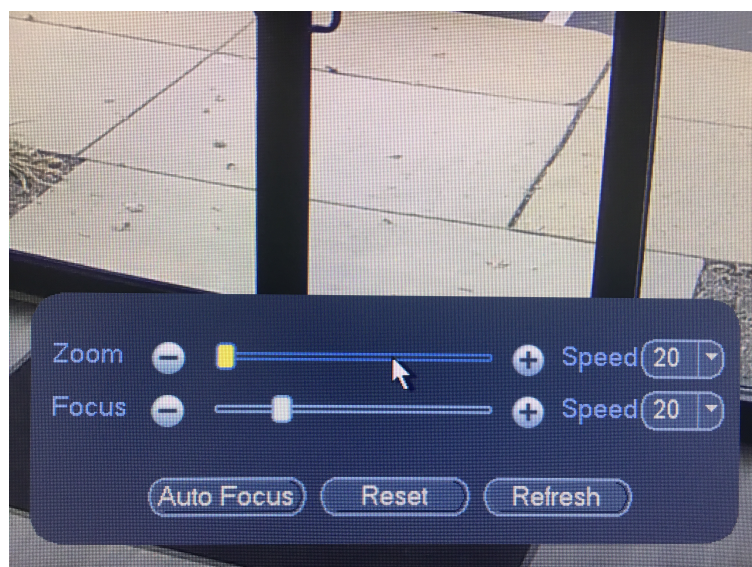
From the NVRs monitor , move your mouse cursor over the channel that your Motorized Zoom/Focus camera is connected to and right click on it.

Click on Auto Focus to enter the next menu.



Inside of the Auto Focus menu you may click and hold the click down on the slider. Move the mouse left and right to drag the slider to make adjustments to the zoom. Once the camera zooms in, give it enough time to Auto Focus. Once the camera is Auto Focused you will be able to control it again.

You may also click on the + and - next to Zoom and Focus to make these changes. You may need to hold the click down for a few seconds before the camera begins adjusting its lens.

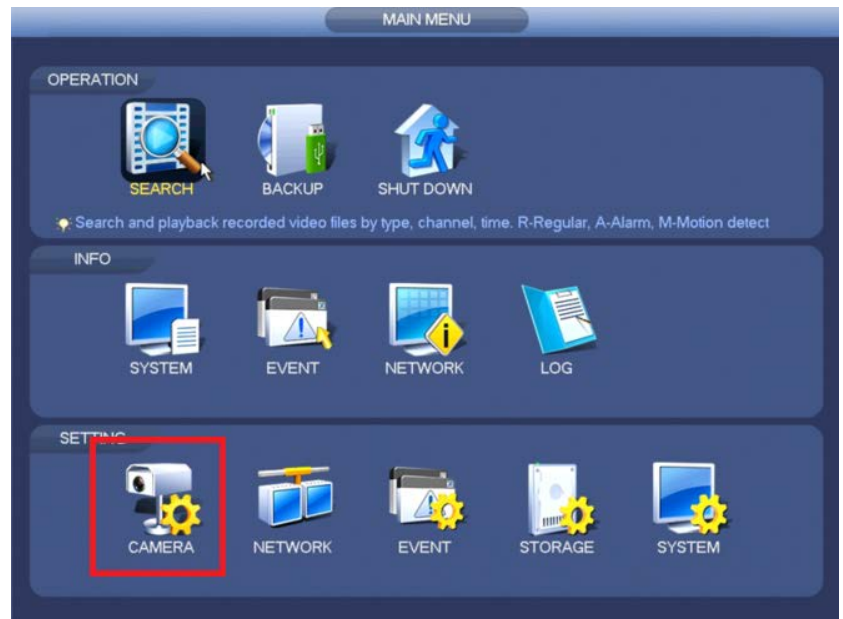


Configuring Camera Settings:

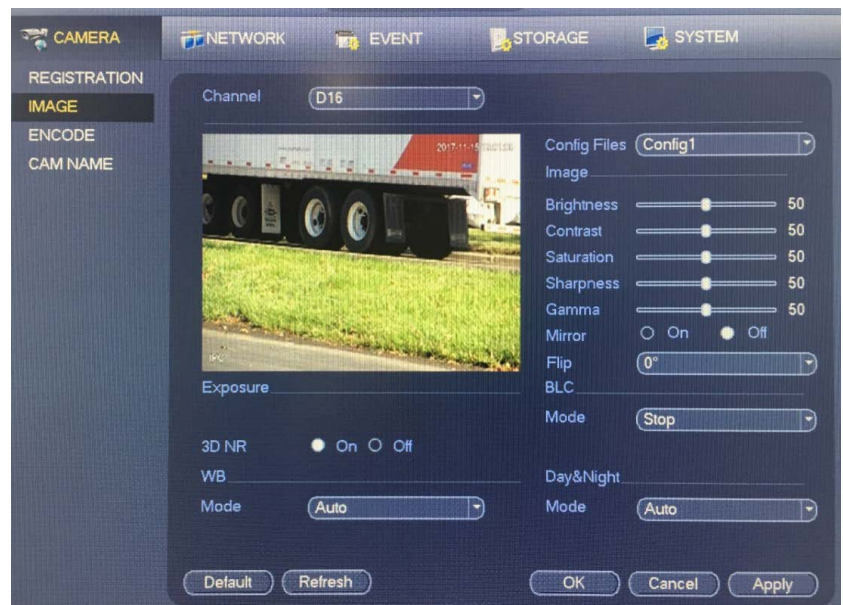
Now that your camera has been positioned correctly we can move on to finding the correct internal camera settings to get the most out of your new license plate camera. If you plan on capturing license plates at night or in a very dark area we will want to configure the cameras Infrared settings.

Altering Cameras Image Settings:

Go to the Main Menu - Setting - Camera

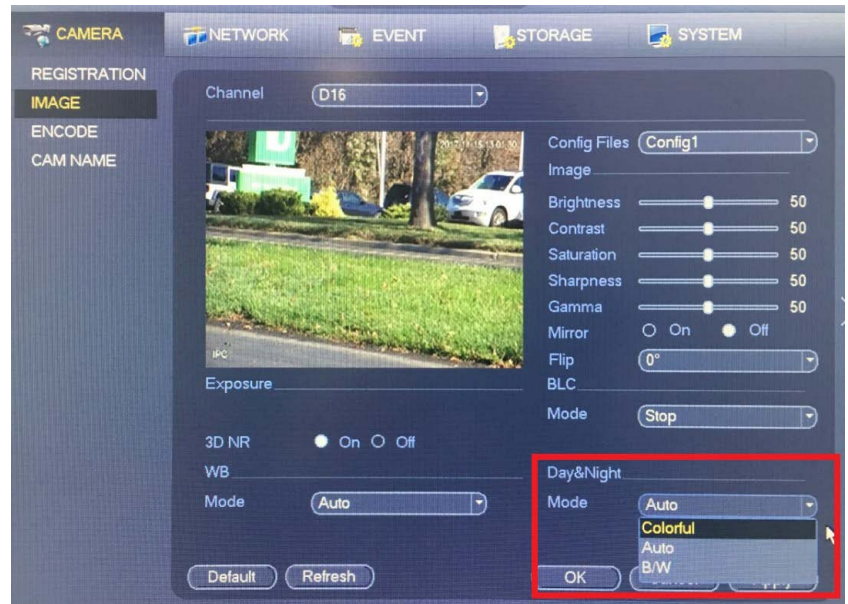


Inside of the Camera settings, select Image on the left column. Select the Channel number at the top where your License Plate Camera is connected.



If you plan on capturing license plates at night you may need to Adjust the Day/Night mode from Auto to Colorful. This will enable the camera to stay in a color mode at night. This drops the IR night vision intensity and will prevent License plate reflection at night.

Change the Day/Night mode to Colorful and Apply the settings when done.



Here is an example of Day/Night mode set to Auto.



Here is an example of Day/Night mode set to Colorful.



Capturing Fast Moving Plates:

If the vehicle is moving too fast in the frame the license plate can appear blurry. Out of the box the CSP-IPBX4 and CSP-IPBX12 can capture slower moving vehicles. To get faster moving plates we will need to adjust the cameras exposure settings (Shutter Speed) to accommodate for the faster moving vehicle. When adjusting Shutter Speed the camera will begin to appear more grainy, and may require more ambient light sources to pick up the license plate correctly. This process will require a bit of trial and error to find the "sweet spot" of your camera. Please note that this is an optional step not required for most setups.

Login to Camera via Internet Browser:

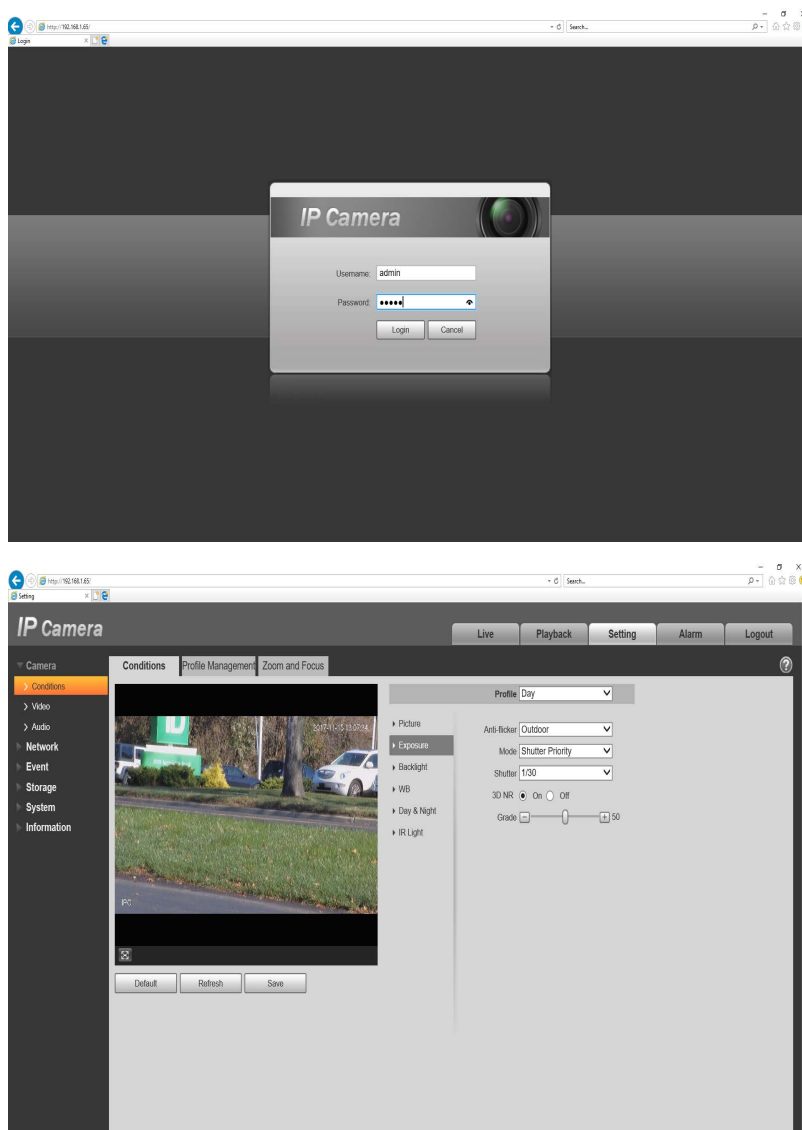
The cameras exposure setting can only be accessed through Internet Explorer using a PC. Our example camera is using the IP address of <http://192.168.1.65>. Please note that your IP address may be different. Enter that address into the address bar of Internet Explorer. Login using the following:

Username: **admin**
Password: **admin**

Once you are logged into the camera Select the Setting tab at the top of the screen. Inside of the Setting tab, click Camera on the left column and click Conditions.

Click on Exposure and change the Mode to Shutter Priority. You can change the shutter speed of the camera using the Shutter drop down menu. As vehicle speed increases the higher the shutter settings will need to be. For example a vehicle traveling 15MPH may require a 1/30 Shutter. A vehicle traveling 30MPH may need 1/2000 Shutter.

Every application is different so these settings will vary.



As the Shutter Speed increases the need for ambient light increases as well. In extreme applications extra light might be needed. Please note that the above settings are for more advanced applications and will not always need to be changed.