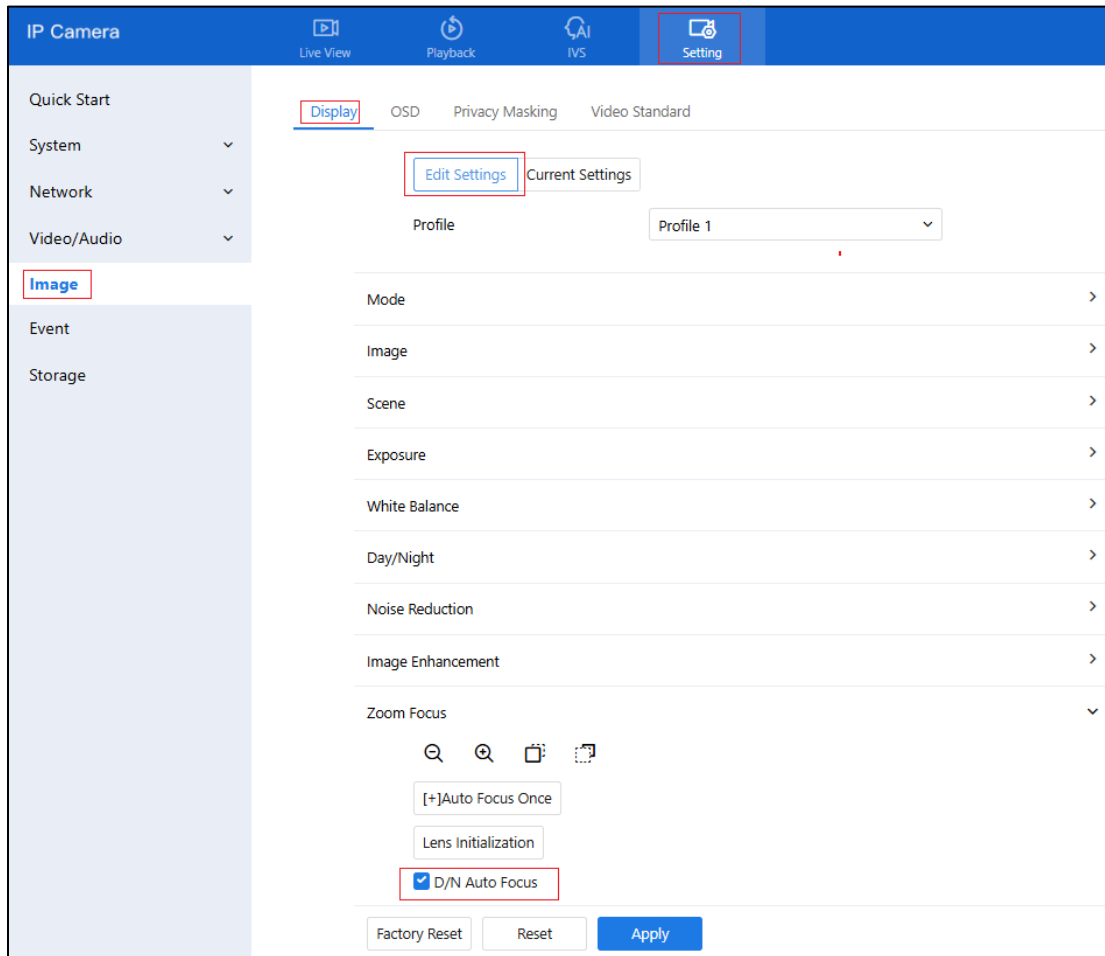


## Troubleshooting – Camera can't focus

### Case 1: The camera can't focus at night after switching to Night Mode



When the user enables the **D/N Auto Focus** function, the camera will automatically switch to **Night Mode** at night and switch to **Day Mode** in the morning. Whenever the camera switches from Day Mode to Night Mode, or vice versa, the camera will automatically focus.

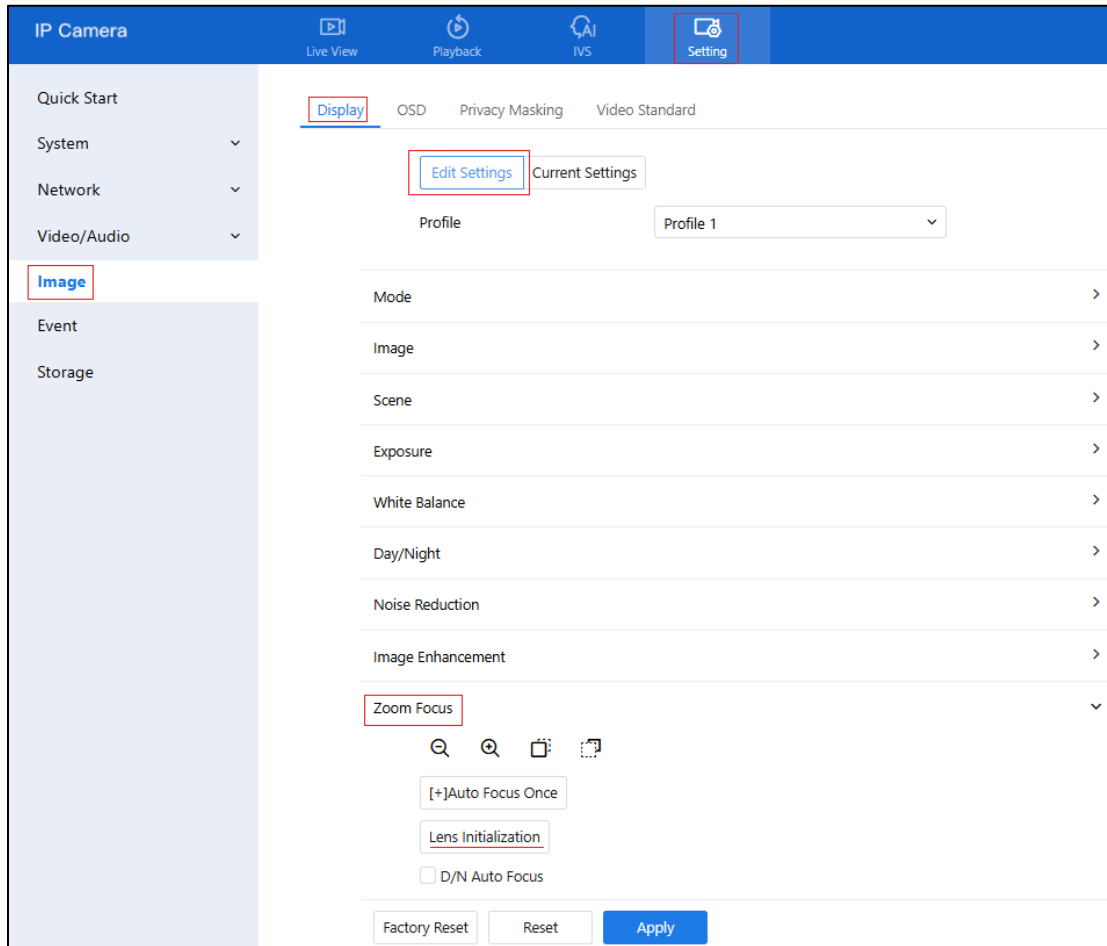
When a camera is focusing and the scene is changing (for example, an object is moving), the focus may fail and the camera will not focus again, which will cause a blurry image.

At night, camera focus can also be easily affected by external light, especially when there is a direct light source in the camera view. During installation, please try not to let the camera look at a scene where there is strong light at night.

Case 2: The camera can't automatically focus after a period of usage.

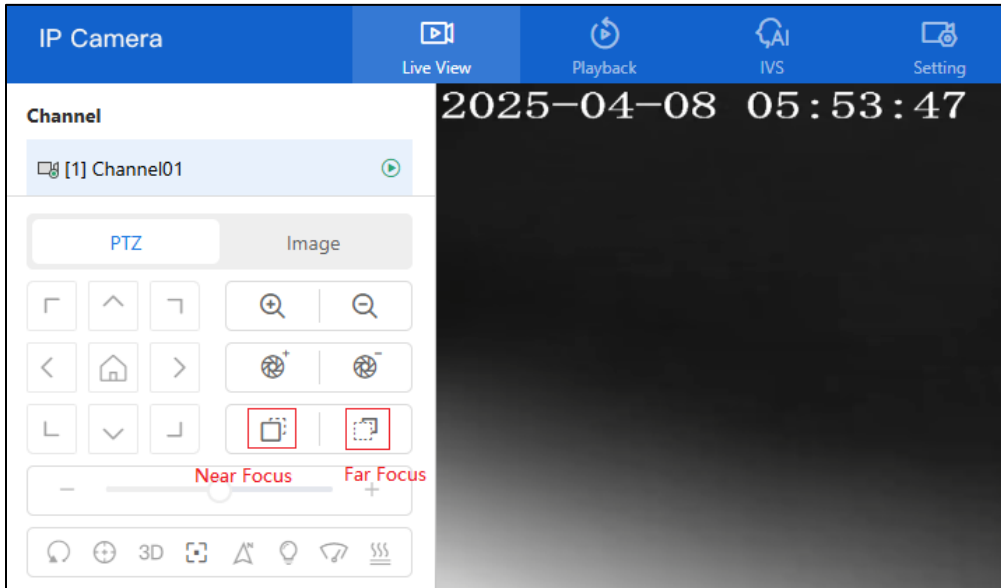
The camera's autofocus follows a focus curve. If the focus motor step matches with the curve, then the camera can focus clearly. In some cases, when the camera frequently switches back and forth between long focus and short focus, it may cause the focus motor step not to match with the curve, and then the user may find that the camera can't automatically focus to a clear point.

In this case, please go to camera **Setting** > **Image** > **Display**, select **Edit Settings**, then go to **Zoom Focus** and click on **Lens Initialization** to recover the lens.



*\*For the still scenario, after clicking on **Lens Initialization**, if the camera still can't focus clearly, please contact technical support for further help.*

Case 3: The camera lens does not move when clicking the manual focus button (Near Focus/Far Focus)



For a 2.7mm~13.5mm lens, the motor has 3000 steps, and the motor moving speed is variable.

For 1 click, there is a duration between mouse press and mouse release. The motor moves according to the duration.

- When the duration is 0-40ms, the motor moves 4 steps
- When the duration is 0-80ms, the motor moves 4 steps (1<sup>st</sup> 40ms) + 6 steps (2<sup>nd</sup> 40ms) = 10 steps
- When the duration is 0-120ms, the motor moves 4 steps (1<sup>st</sup> 40ms) + 6 steps (2<sup>nd</sup> 40ms) + 8 steps (3<sup>rd</sup> 40ms) = 18 steps
- When the duration is 0-160ms, the motor moves 4steps (1<sup>st</sup> 40ms) + 6 steps (2<sup>nd</sup> 40ms) + 8 steps (3<sup>rd</sup> 40ms) +10 steps (4<sup>th</sup> 40ms) = 28 steps

When the duration is more than 160ms, then in 0-160ms, the motor will move 28 steps. After 160ms, the motor will move with a speed of 600 steps per second.

So, when the user clicks on the manual focus button, the motor may move very few steps, and it's not obvious. If the user presses the manual focus button and holds it for a bit longer, then the motor movement will be more obvious.

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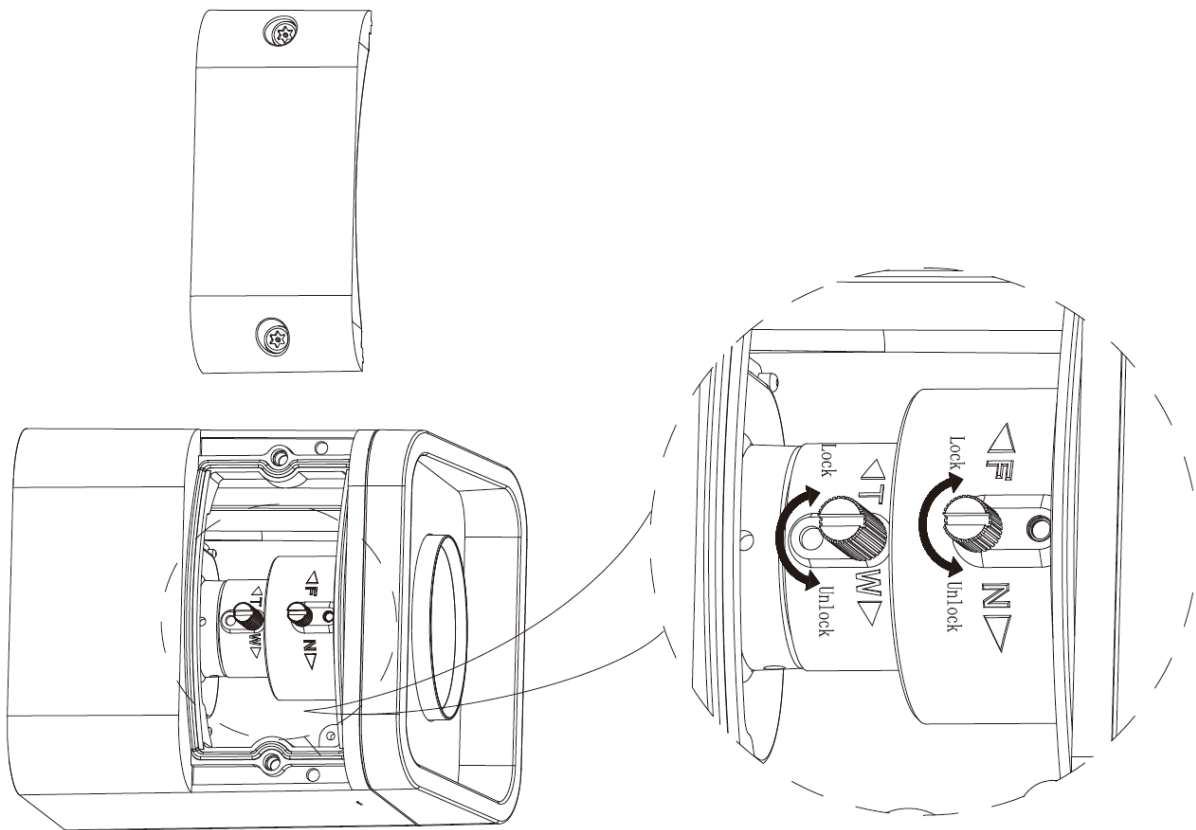
## Case 4: How to manually focus a Lite Series Camera

Some lite series camera models support a varifocal lens, but the user needs to focus manually. The cameras will have a focus lever and a zoom lever; by default, they are locked in position.

The user can remove the dome cover or focusing cover (for bullet) and loosen the focus/zoom lever to unlock it (loosen the lever but don't remove it), then rotate the lever to manually focus.

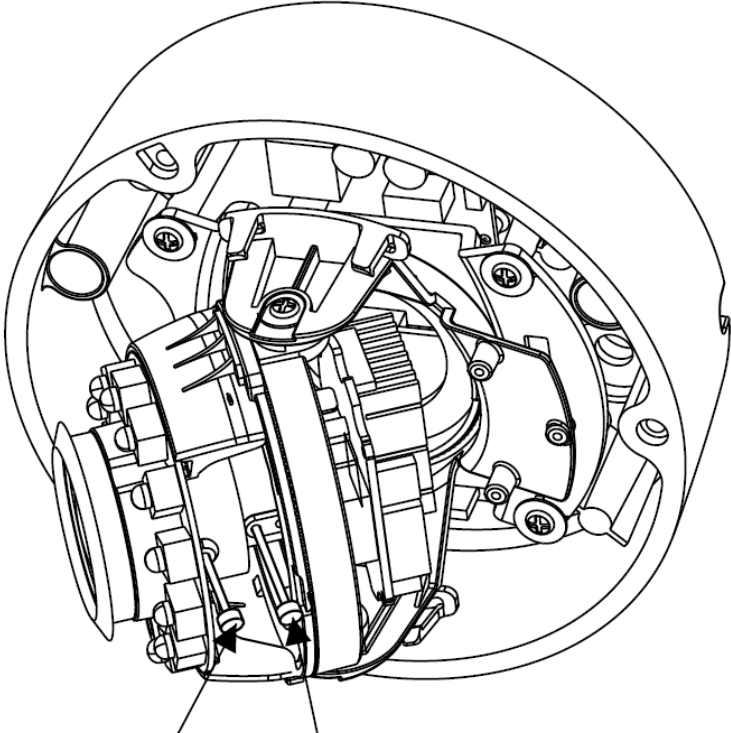
Please refer to the pictures below:

### **Bullet Camera**



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**Dome Camera**



Focusing lever    Zoom lever