What's a LPC Camera?

License Plate Capture, or LPC cameras, are purpose built video security cameras used to capture number plates. Most, if not all, LPC cameras capture plate numbers and pass them along to downstream systems such as Monitors, Digital Video Recorders (DVR), Video Management Systems (VMS), or specialized Automated Number Plate Recognition (ANPR) systems for real-time or on-demand comparative analysis against a master database of record. The following discussion presents best practices for selecting LPC cameras and is by no means an exhaustive list.

STEP 1: Analog or IP?

Will you connect the camera(s) to an analog DVR, or Network Video Recorder (NVR). Analog LPC video feeds may be fed directly to local viewing monitors or DVRs like traditional CCTV cameras. IP-based LPC cameras typically have either an embedded or standalone video encoder, the purpose of which is to perform Analog-to-Digital Video Conversion (ADVC). We heart acronyms, too!

STEP 2: Overview camera?

The majority of LPC cameras do not produce color overview images of the surrounding scene. In other words, a plate number does not provide the vehicle make, model, color, etc. Select LPC camera vendors offer dual camera solutions - one LPC camera and one overview camera - for a complete view of the area of interest. Simple enough, right?

STEP 3: Video Format

Security cameras come in two main varieties - NTSC & PAL. NTSC delivers a frame rate of 30 fps at an aspect ratio of 720x480, and is used in North America, Japan and South Korea. PAL is a different video standard that is incompatible with NTSC; it uses a fame rate of 25 fps and 720x576 aspect ratio, and is used in most of Europe, Australia and large parts of Africa and Asia.

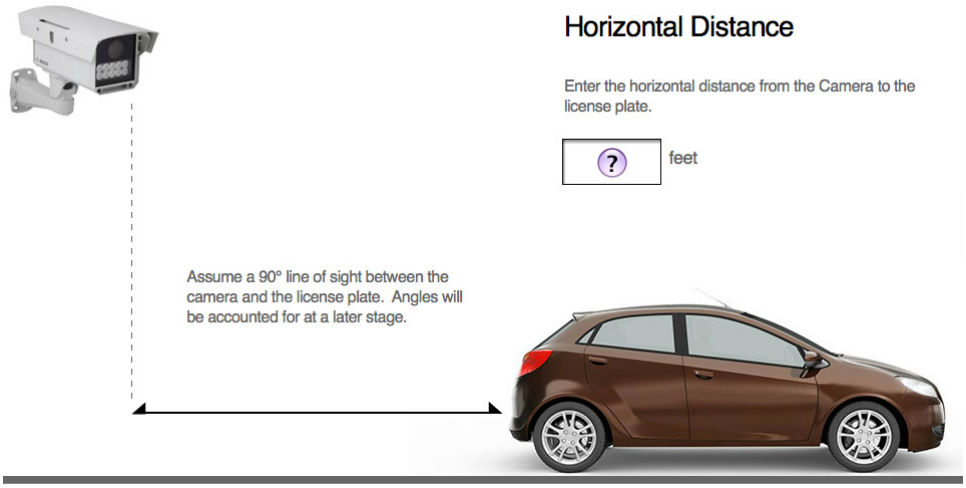
STEP 4: Power

How will you power the camera(s)? Like video format, power requirements are largely determined by geography and available power sources. LPC cameras may be purchased in 220 VAC, 120 VAC, 24 VAC, 12/24 DC/AC configurations. For example, an installer may opt for a high voltage 120/220 VAC camera if the installation calls for pole mounting. This brings us to Step 5: Mounting.

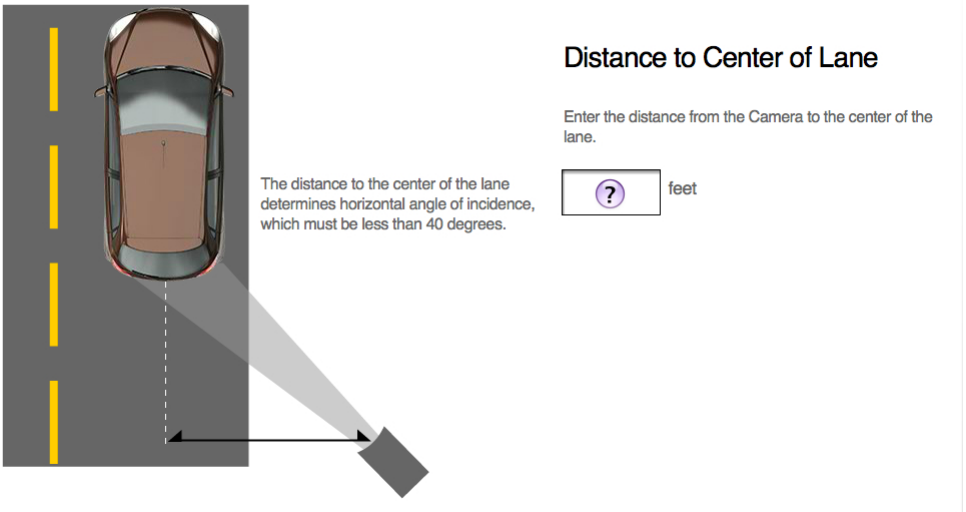
STEP 5: Mounting

The mounting surface will determine which mounting adapters are required, if any. A pole mount adapter is the most popular mounting accessory and is required for pipe -or pole -mount installations. Electrical junction boxes are commonly used for making conduit connections and cable concealment. And now for the most important step...measurements.

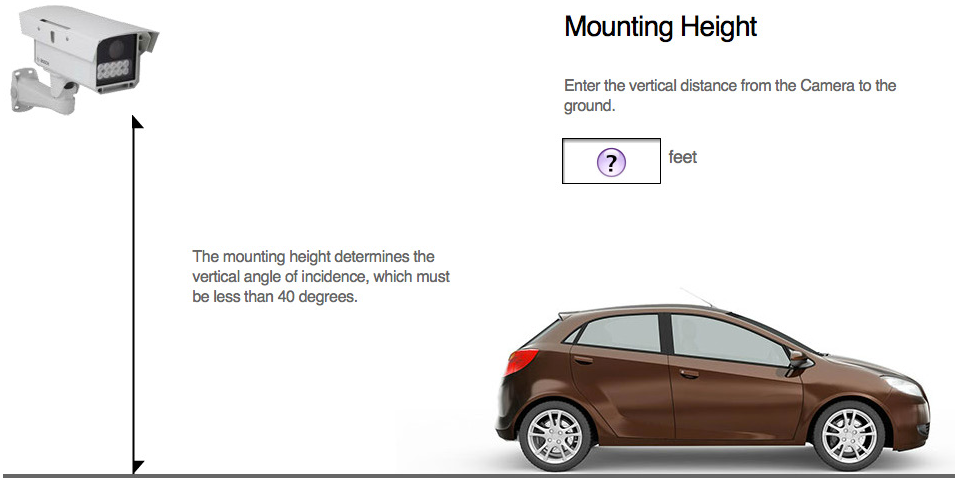
STEP 6: Measurements
A. Horizontal Distance



B. Distance to Center of Lane



C. Mounting Height



Disclaimer

License plate capture camera performance, specifically, can vary due to differences in license plate design and manufacturing. The main influential plate characteristics are:

Plate background color
Plate character color
“Background” design
Manufacturing process

Due to specific combinations of the above characteristics, certain license plates in certain states/provinces pose performance challenges greater than the majority of license plates. Because license plate designs are not controlled in North America, a variety of designs exist allowing for various color and design combinations. Some of the more challenging color combinations can result in plate images with reduced contrast between plate characters and the plate background. In these situations, it then becomes more difficult to “read” the license plate, and the images of the plate can appear brighter or dimmer overall depending on the colors. These “imaging symptoms” can be more prevalent if the cameras are being used at the extreme minimum or maximum of their specified ranges. Please consult 123 Security Technical Support for assistance if you are experiencing any problems with plate capture images.

We hope you’ve enjoyed this article!