Zero-Server ALPR Infrastructure

Complete field installation guidelines for deploying the **PlateKey** cloud-managed license plate reader.

The Edge Advantage: PlateKey is an AWS IoT-connected edge device. There is no on-site NVR, DVR, or server to install, and zero IP network configuration required. All detection, parsing, and relay actuation happens locally on the camera in under 0.5 seconds.

- **Plug-and-Play Simplicity:** Supply power and a gate trigger line, and the unit automatically links to the cloud upon boot.
- **Massive Local Database:** Syncs up to 50,000 authorized plates directly to the device for instant processing, immune to internet latency.
- **4-Wire Minimum:** Effortless deployment using a standard 18/4 wire (2 for power, 2 for the mechanical unlock relay).

< 0.5 SEC TRIGGER | AWS IOT CORE | NO LOCAL SERVER | POE / 12V DC / SOLAR

Camera Positioning

Unlike legacy ALPR cameras that require microscopic zooming and precision lens alignment, the PlateKey utilizes advanced edge-AI to scan a broad trigger frame.

Targeting Strategy

- **Rear-Plate Preferred:** Aim the camera at the vehicle's rear plate as it passes. Rear plates are universally standard and benefit from the vehicle's built-in plate illumination at night, improving accuracy.
- **Drive Lane Focus:** Ensure the camera is pointed toward the actual approach or departure lane. The vehicle should appear naturally within the center of the frame.
- **Avoid Curb Parking:** Ensure the wide-angle frame does not accidentally capture cars parked on the side of the road. (The trigger area can be narrowed later in software if unavoidable).

Important: No physical optical lens zoom is required. The PlateKey will capture any plate within its frame as long as it is legible.

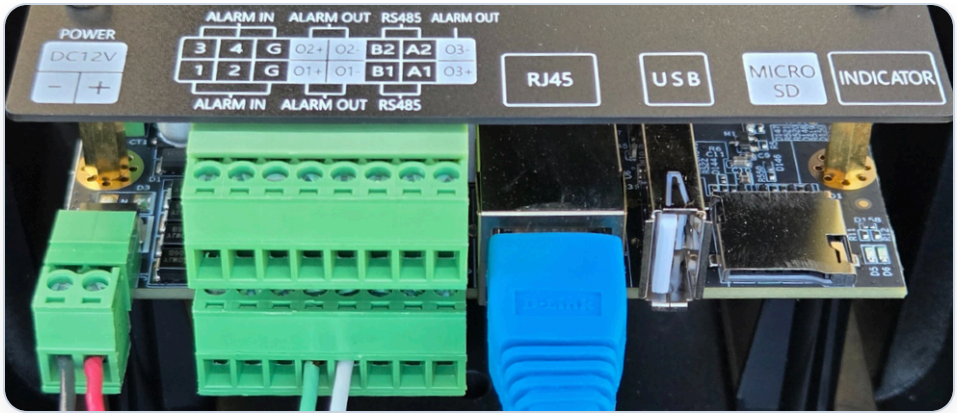
Mounting Architecture

Inside the Conduit:
A Cat 6 cable and an 18/4 wire (with internet service)
Alternatively, an 18/4 wire (utilizing a 4G SIM card)

Secure the unit using the included articulating arm. Ensure the cable pigtail utilizes a drip loop before entering any conduit to prevent water ingress.

Internal Terminal Board

Twist the rear latch to flip open the top lid, revealing the internal terminal blocks for easy accessibility and installation. Only two pairs of wire are mandatory when utilizing the EntryOne 4G cellular router.



POWER DELIVERY

Supply exactly **12V DC** to the dedicated power terminal. Ensure the power supply is adequately rated to handle the camera's draw, especially if infrared LEDs trigger at night.

GATE ACTUATION

The **01 ALARM OUT** terminal functions as the mechanical gate trigger. Land your existing gate open wires to **COM** and **NO** (Normally Open). No intermediate relays are required.

The terminal block detaches from the board to make landing wires easier in the field.

Option A: Site Provided Data

If the gate has access to the building's IT infrastructure, run a standard Cat5e/Cat6 cable into the enclosure.

- Plug the RJ45 directly into the camera board.
- The unit utilizes DHCP to obtain an IP.
- No port forwarding or static IPs are required; it tunnels securely outbound to AWS IoT.

Option B: 4G Cellular (EntryOne)

Bypass the IT department completely. EntryOne can supply an industrial 4G LTE cellular router (e.g., Cradlepoint) pre-configured for the site.

- Mount the 4G router inside a weatherproof enclosure near the camera.
- Connect the PlateKey RJ45 to the router.
- The unit establishes a cellular link to the cloud.

Off-Grid / Solar Capability: Because the PlateKey and 4G router operate on 12V DC, the entire array can be easily powered by a remote 12V Solar Panel and Battery kit, requiring absolutely zero trenched infrastructure.

Verifying Cloud Connectivity

Once power is applied, the PlateKey takes approximately 1 to 2 minutes to boot, acquire an IP, and tunnel into the AWS cloud. All device management happens remotely.

1. On a laptop or smartphone, navigate to **admin.entryone.com** and log in using your provided installer or property manager credentials.
2. Navigate to **Smart Devices → Cameras**.
3. Locate the PlateKey (TLP05) in the list. Ensure the Status indicator shows **Online** (Green). If it shows Offline, wait 60 seconds and refresh, or check your network cable.
4. Click the **Sync** button next to the device to force download the property's authorized plate database into the local memory.

Live Testing Procedures

1. **Blind Test:** Drive a random, unregistered vehicle through the capture zone. Go to **Entry Records → Vehicles** in the portal. Confirm an event was logged and the snapshot was captured accurately.
2. **Enrolled Test:** Navigate to **Device Users → Vehicles** and click Add. Enter a test license plate.
3. Wait 60 seconds for the cloud to sync the new plate to the camera.
4. Drive the test vehicle through the capture zone. The physical gate should actuate immediately (< 0.5 sec) and a successful entry event will appear in the portal logs.

Local Interface & Trigger Box (Advanced)

The PlateKey is shipped pre-optimized with a broad trigger area and automatic LED behavior. Adjustments are rarely needed. However, if the camera is constantly detecting cars parked on the curb, you can narrow the detection frame locally.

1. Find the Local IP Address on the *Smart Devices* → *Cameras* page of the cloud portal.
2. Ensure your laptop is on the same local network, and type the IP into a web browser.
3. Log in using the default credentials: **admin** / **123456**.
4. Navigate to the video setup and adjust the blue boundary box to exclude curb parking. You can also force the LED on/off here for difficult front-plate reads in total darkness.

CRITICAL WARNING: Do NOT factory-reset the device or alter the network/firmware settings inside the local GUI. Doing so will wipe the AWS provisioning certificates and permanently break cloud connectivity.

Limited Hardware Warranty (3 Years)

EntryOne warrants that each device will be free from defects in materials and workmanship for a period of three (3) years from the date of shipment. This applies under normal use and installation in accordance with published documentation.

During the warranty period, EntryOne will, at its option, repair or replace any unit that fails due to manufacturing defect.

This warranty does not cover damage resulting from:

- Improper installation, wiring, or maintenance.
- Exposure to severe electrical surges or environmental extremes.
- Unauthorized physical repairs, modifications, or third-party firmware resets.
- Use with non-certified power supplies or unsupported accessories.