



PARKVA PATROL MOBILE LPR

Installation, Setup, and User Manual

Release 1.7

TABLE OF CONTENTS

1. Introduction	2
2. Installation Checklist	2
3. System Installation (tow trucks)	3
A. Connectivity Diagram	3
B. Mounting Recommendations	3
i. Camera mounting:	3
ii. Control Unit mounting:	3
iii. Antenna mounting:	4
iv. Connections	4
4. Operation	4
A. System Setup	4
B. Aiming the Camera	5
C. Driving the Lot	5
D. Parkva Patrol Application Operation	6
5. Support	7

USER MANUAL

1. INTRODUCTION

This document provides instructions on installing, setting up, and operating the Parkva Patrol Mobile LPR system.

Parkva Patrol uses the latest high-resolution camera sensors with a digital wide dynamic range (D-WDR) and 850nm IR illumination to deliver exceptional license plate detection and character recognition in all lighting conditions.

The system supports two cameras operating simultaneously to double the productivity of scanning license plates in traditional parking lots. This functionality is made possible by the powerful NVIDIA GPU running Parkva's proprietary LPR software. Further, the system is remotely managed by Parkva, allowing for real-time system analysis and over-the-air software updates.

In addition to industry-leading price to performance, Parkva Patrol avoids the complex setup process of traditional LPR solutions in favor of a pre-configured, intuitive user interface that can be up and running in minutes. Moreover, the system is highly portable, allowing for use in more than one vehicle.

Parkva Patrol is integrated with Omadi's dispatch platform and permit system, as well as third-party digital permitting systems. (The current list includes: VPermits, ParkingSnap, Reliant, ParkByPlate, and Towcentirc.)

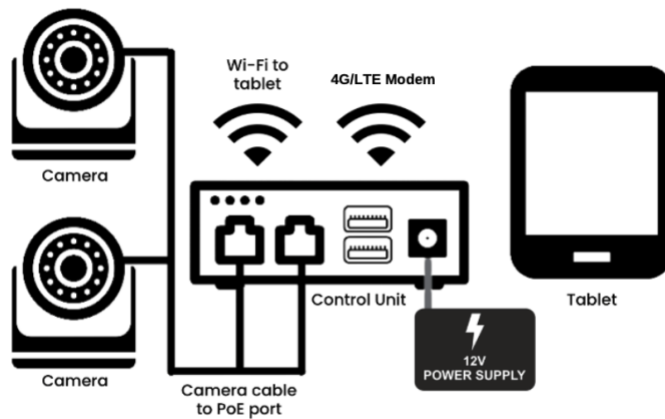
2. INSTALLATION CHECKLIST

The following items are required for systems operation:

• LPR Camera w/cable	GPCL-120LA5GN
• RJ45 Patch Cable	CAT6RJ454
• Control Unit	AIE100-903-TXNX
• LTE/GPS/Wi-Fi Antenna	A-PUCK-0005-V1-01-W
• Tablet	Samsung - Galaxy Tab A7 Lite 8.7
• Camera Mount	Optional accessories
• Control Unit Mount	Optional accessories
• DC Power Regulator and Cabling	Optional accessories
• Tablet Vehicle Mount and Protective Case	Customer provided
• Camera Safety Harness/Lanyard	Customer provided

3. SYSTEM INSTALLATION (TOW TRUCKS)

A. Connectivity Diagram



B. Mounting Recommendations

i. Camera mounting:

The camera performs best when mounted 4'-6' above the ground and aimed 0-15° towards the direction of the parked vehicles being scanned- see Section 4.b. Methods to mount the camera include magnetic, suction cup, and permanent mount — **regardless of the install method, secure the camera with a safety lanyard.** Mount the camera with the serial number decal facing down.

ii. Control Unit mounting:

The most common installation location for the Parkva Patrol Control Unit is on the rear panel of the tow truck or under the seat. Ensure that the Control Unit is mechanically secure and ensure proper clearance so that the Control Unit top can radiate heat generated by the GPU. (The truck rear panel should have holes with grommets to allow the camera cables to enter the cab and connect to the Control Unit.)



iii. Antenna mounting:

The antenna ships connected to the control unit with removable 3M® Dual Lock fastening strips and in most installations, will operate fine in this configuration. If your control unit installation location prohibits good Wi-Fi transmission from the antenna to the tablet, disconnect (clip tie-wraps) the antenna from the control unit and mount it in a more suitable place with fewer metal obstructions. One option is to mount it to the rear window, as shown below.



Note that the antenna can be mounted temporarily or permanently in other ways, just as long as the antenna is inside the vehicle and the curved top is facing up or horizontally.)

CAUTION: Antennas must be installed to provide a separation distance of at least 20 centimeters (8 inches) from all persons to comply with SAR (Specific Absorption Rate) RF Exposure requirements.

iv. Connections

Connect the camera cable(s) to the Control Unit via the R45 jumper cable. Be sure to match the labeled cameras to the labeled ports on the control unit. The tablet automatically connects to the Control Unit via Wi-Fi. Unless hardwired into the fuse panel, connect the 12v DC cable to the vehicle's DC power via the cigarette lighter adapter provided.

IMPORTANT:

Self-installation instructions and guidance are provided for your convenience. It is your responsibility to determine if you have the knowledge, skills, and physical ability required to properly perform an installation. Parkva Corporation shall have no liability for damage or injury resulting from the installation or use of any Parkva or third-party products. It is your responsibility to ensure that all products are installed in adherence with local laws and regulations and in such a manner as to allow a vehicle to be operated safely and without distraction.

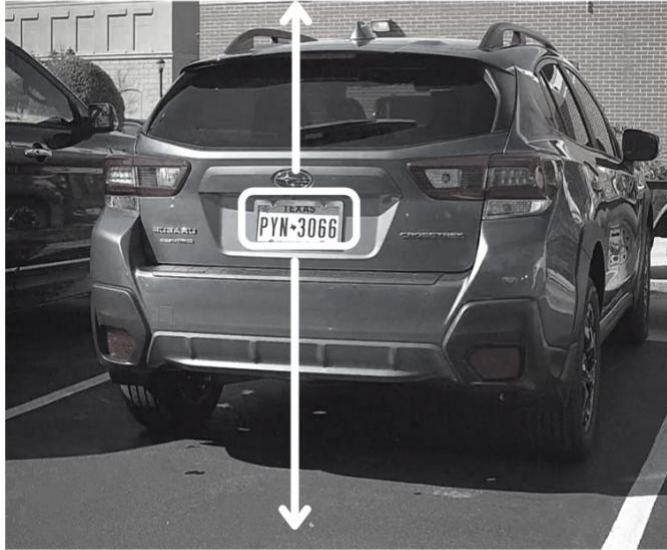
4. OPERATION

A. System Setup

(1) Power up the Control Unit. (2) Turn on the Tablet. The Tablet should automatically connect to the Control Unit via a Wi-Fi connection: **ppXXXXX**. (3) Follow the prompts to log in to the system. It will take approximately 1 ½ minutes for the system to power up and all for connections (Camera, Modem, Internet, and Server) signaling green.

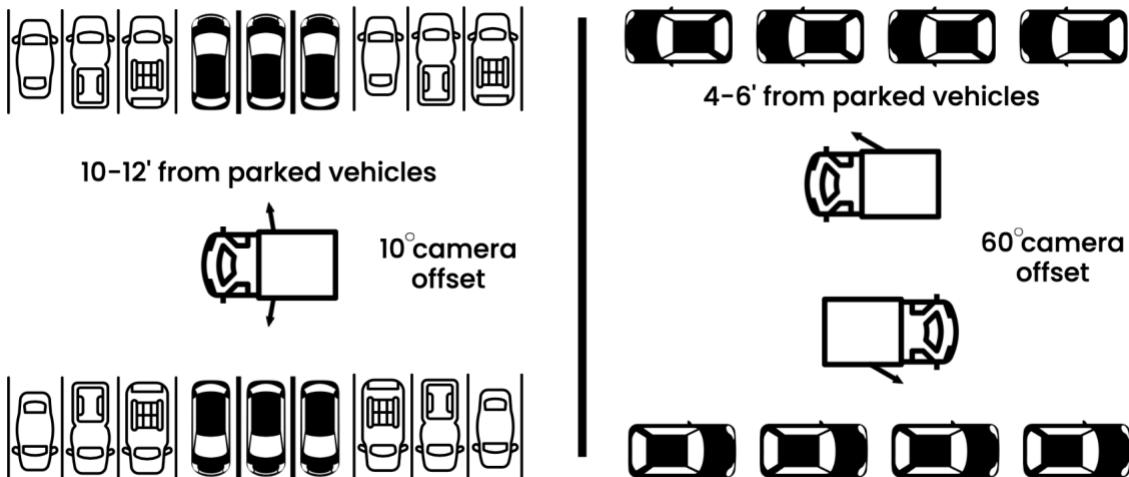
B. Aiming the Camera

Align the camera tilt so that the license plates of typically scanned vehicles will be framed like the image below when you scan license plates. Also, mount the camera, so the azimuth is 10° to the license plate. (If you intend to patrol lots with many parallel parked vehicles, you might want to mount the second camera at 60° to optimize detection.) Increased viewing angles make it difficult to detect and read license plates embedded in truck bumpers and vehicles with rear-mounted spare tires.

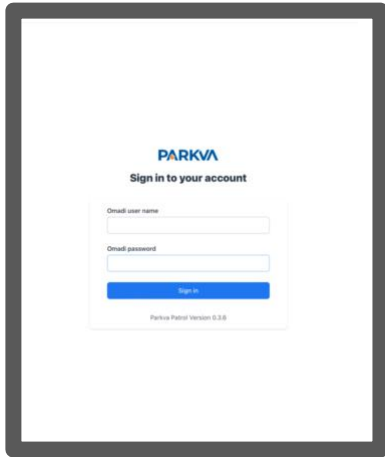


C. Driving the Lot

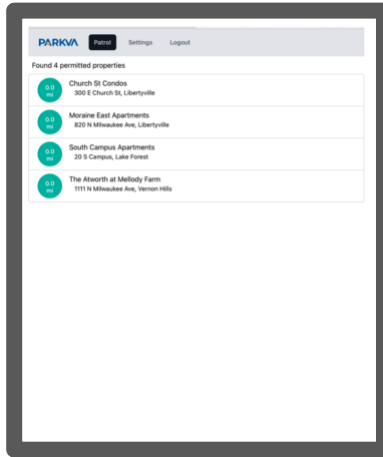
For optimal performance, drive the lot as illustrated below.



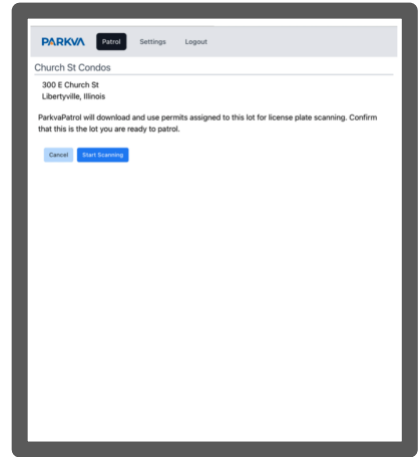
D. Parkva Patrol Application Operation



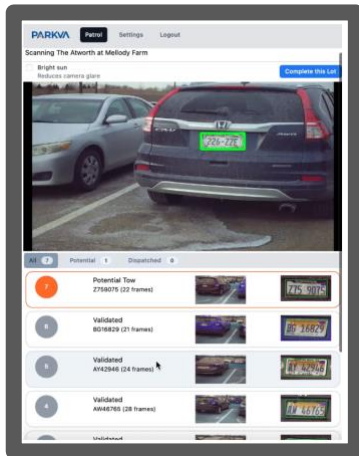
Log-in using your digital permit credentials.



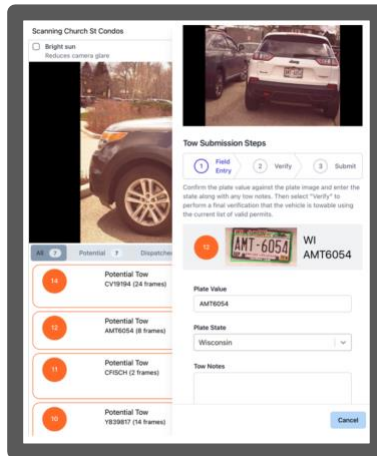
Select the desired property to patrol.



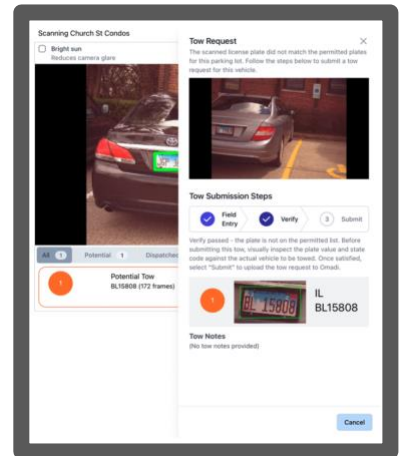
Confirm the selected property and beginning patrolling/scanning plates.



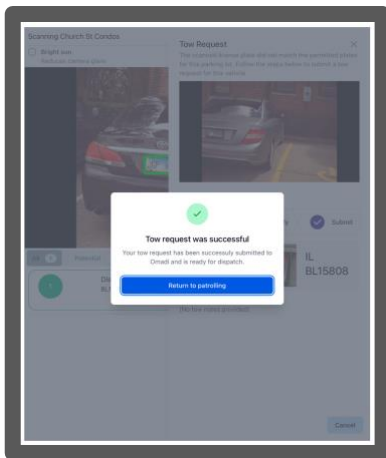
View the result and select the violation you want to tow/dispatch.



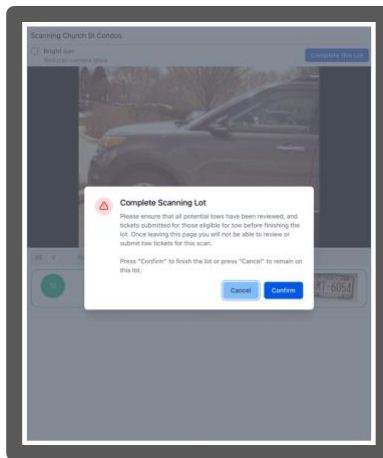
Confirm the license plate state and characters results. If necessary, make corrections and add optional notes.



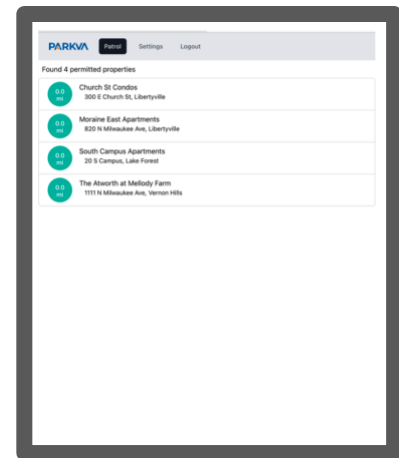
Click verify to query the permit database one more time before submitting the tow request.



After confirmation of the tow request, return to patrolling.



After you have completed patrolling the lot, confirm scanning is complete to return to the list of properties.



Patrol additional properties or logout.

5. SUPPORT

By email: support@parkva.com

By phone: (708) 581-6887

Mailing Address:

Parkva Corporation
PO Box 391
New Bern, NC 28563