AlertVU™

Mobile Installation Guide

version 4.5.2.0

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Law Enforcement

Important Safeguards
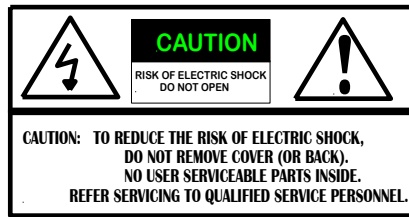
⚠ This symbol indicates important operating and maintenance instructions.

⚡ This symbol indicates un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to a person.

Caution: This system is designed to operate in 12-volt DC negative ground vehicles only. All system components must be operated only when properly connected to the Video Interface Unit (EPC).

Attention: To reduce the risk of electric shock, do not perform any servicing other than that contained in this User Manual unless you are qualified to do so. Refer all servicing to qualified personnel.

DO NOT allow liquids to enter the EPC or any other component of the AlertVU. This could cause electrical shorts, fire, or other damage.

The AlertVU should be installed by a qualified technician and must conform to SAE Requirements. Ground wires (black) must be connected to the vehicle's chassis. Make sure your AlertVU and mobile data computer are both grounded at the exact same point.

Warning: Airbag Deployment—Do not install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury.

Warning: Seat Removal Precaution—If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment. Failure to heed this warning could result in death or serious injury.

Notice: Drilling Precautions—When drilling holes, check the area in which you are drilling to be sure you do not damage vehicle components. All drilled holes should be deburred and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing.

Warning: The AlertVU EPC and Power Supply box *must* be installed in a climate controlled environment. Failure to do so will void the factory warranty. Mobile-Vision cannot support any EPCs or Power Supply boxes that are installed in a location that is not climate controlled, such as an unventilated trunk.

Warning: Temperature extremes can adversely affect equipment operation. The AlertVU EPC and Power Supply must be installed in a climate controlled environment. Failure to do so will void your factory warranty. Mobile-Vision will not support any EPCs or Power Supply boxes that are installed in a location that is not climate controlled, such as an unventilated trunk or a confined space such as a glove compartment.

Table of Contents

Introduction

AlertVU is a License Plate Reader (LPR) system. Using advanced algorithms, AlertVU quickly and accurately reads license plate data in the field, then compares that data to wanted license plates on law enforcement hotlists.

IMPORTANT   The AlertVU Mobile application comes pre-installed on your AlertVU EPC (embedded processing computer), which is mounted inside the vehicle. You access AlertVU Mobile from your mobile data computer via a standard web browser.

AlertVU uses a cellular signal to transmit your plate reads to the AlertVU server, which is located at your precinct. This process occurs automatically without any action on your part, although cellular connectivity is required. Once you return to the precinct, you can login to the AlertVU Back Office application and access the license plate data for *all* your agency's AlertVU units (i.e., your data and the data gathered by other officers in the field). For more information on the Back Office software, refer to the *AlertVU Back Office Administrator's Guide*.

This guide covers the hardware and software installation procedures for AlertVU. Perform these procedures *once* in sequential order, beginning on page 3.

Cellular Connection

AlertVU Mobile requires a constant connection to a cellular network. This can be achieved using a variety of devices (not included), such as a portable "MiFi" device,[*] USB cellular modem, or an in-car modem/router.

Product Components

The AlertVU LPR system includes an Embedded Processing Computer (EPC) and three Dual IR cameras.
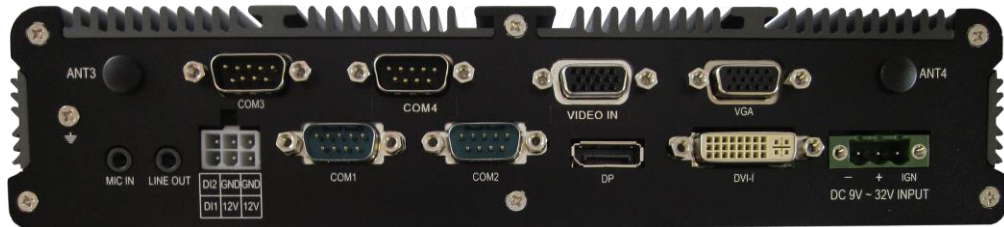
Acronyms

LPR............License Plate Reader
EPC............Embedded Processing Computer
MDC..........Mobile Data Computer (in-car PC)
NIC............Network Interface Card
IR...............Infrared

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[*]   A wireless router that acts as mobile Wi-Fi hotspot.

Embedded Processing Computer (EPC)

The EPC is the "brain" of the AlertVU system. It runs the AlertVU Mobile software and controls the video and cameras.

Front Color Camera

The Front Color camera is mounted on the interior of the vehicle, facing forward. It includes the following components:

- ❒ 20' camera cable
- ❒ Power cable with plastic molex connector
- ❒ Serial cable with serial plug, for camera communications
- ❒ BNC connector for video
- ❒ Camera mount

Dual IR Camera

The Dual IR camera is mounted on the exterior of the vehicle. The Dual IR is actually two cameras in one. The right lens is an infrared camera designed for use in low light conditions. The left lens is a color "overview" camera designed for use in daylight. The overview camera captures an image of the front or back of a vehicle.

The Dual IR camera includes the following components:

- ❒ 10' or 20' camera cable
- ❒ Power cable
- ❒ Serial cable with serial plug, for camera communications
- ❒ (2) BNC connectors for video
- ❒ Camera mount

Infrared (ALPR) camera

Color (OVERVIEW) camera, used to capture wide shots of each vehicle

LED illuminators
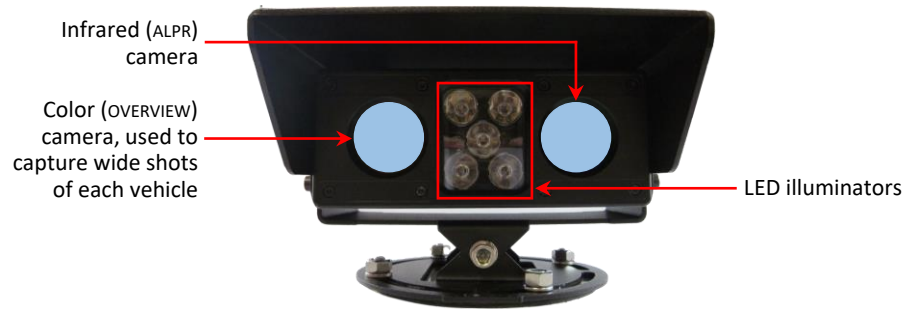
Parking Camera

The Parking camera is mounted on the exterior of the vehicle. It is an infrared camera used to scan vehicles that are a short distance from the camera, such as vehicles in parking lots. This camera includes the following components:

❐ 16' camera cable
❐ Power cable with plastic molex connector
❐ Serial cable with serial plug, for camera communications
❐ BNC connector for video
❐ Camera mount

Hardware Installation

This section describes how to install and configure all the hardware components of your AlertVU license plate reader.

Pre-Installation Notes

❐ Mount the EPC and Power Supply in the interior of your vehicle or in a trunk tray that is equipped with climate control. See **WARNING** on the next page.
❐ Route all camera cables to the EPC.
❐ Mount all cameras in a manner that does not interfere with your vehicle's operation.
❐ Route and fasten all cables in a manner that does not interfere with your vehicle's operation or maintenance.
❐ Mount the Dual IR cameras on the *exterior* of your vehicle, as infrared light is not able to penetrate glass.
❐ While routing cables from the EPC to the mobile data computer and cameras, be sure to adhere to industry safety guidelines.

❑ For the best results, the angle of the camera should not point at an angle greater than 30 degrees to the plate of a vehicle travelling parallel (i.e., either in the same or opposite direction) of the surveillance vehicle.

❑ Typically, camera cables are routed under the automotive moldings and weather stripping.

WARNING: Temperature extremes can adversely affect equipment operation. The AlertVU EPC and Power Supply *must* be installed in a climate controlled environment. Failure to do so will void your factory warranty. Mobile-Vision will not support any EPCs that are installed in a location that is not climate controlled, such as an unventilated trunk.

Part 1: Mount the EPC and Power Supply in the Vehicle

Using the provided brackets, mount the EPC in the vehicle's interior, such as under one of the seats. To avoid accidentally disconnecting any cables, be sure to select a secure location that vehicle occupants are unlikely to brush up against. Also, make sure that the EPC is mounted in such a manner that you have easy access to the devices' ports.

Use the provided side L-brackets to mount the EPC and Power Supply.

NOTE: Select mount locations that will ensure your passengers' safety in the unlikely event that the EPC becomes dislodged.

Part 2: Make the Power Connections

1   Connect the red power wire at the end of the Battery Power cable to the red label 15-amp fuse. If the provided crimp-on connector does not work for your particular installation, you may need to replace it with a different connector.
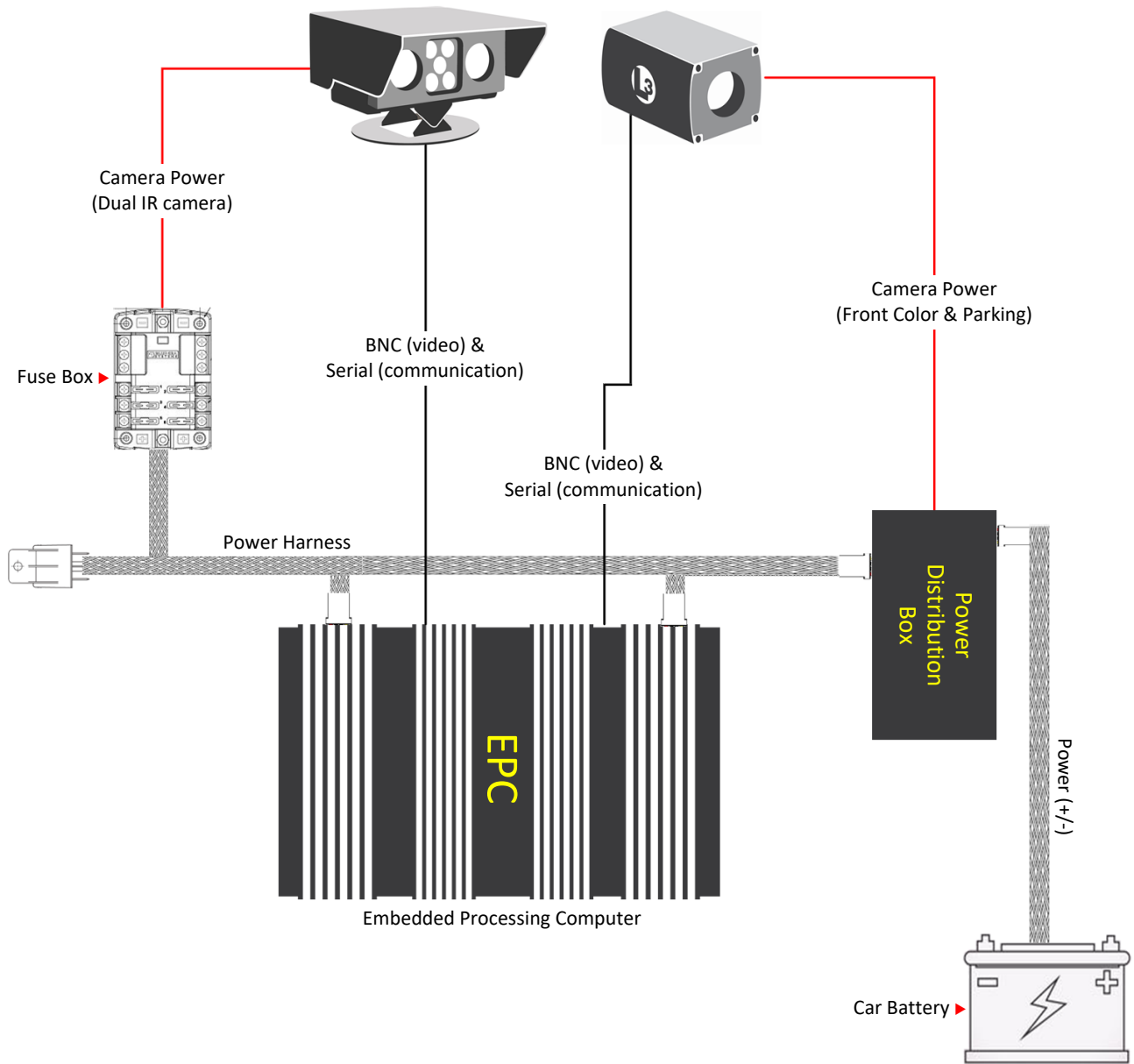
2   Connect the other end of the red label 15-amp fuse to the battery positive terminal. If the provided ring connector does not work for your particular installation, you may need to replace it with a different connector.

Part 3: Connect the Ignition and Ground Wires

1   Connect the white ignition wire to the white label 5-amp ignition fuse. If the provided crimp-on connector does not work for your particular installation, you may need to replace it with a different connector.

2   Connect the other end of the white label 5-amp ignition fuse to your vehicle's ignition source.

3   Connect the black ground wire to the vehicle chassis. (See **NOTE** below.)

Connect to vehicle chassis

NOTE: If you also have a Flashback digital in-car video system installed in your vehicle, *both* the Flashback unit and the EPC must be grounded to the same point on the vehicle chassis.

See connections diagram on the next page.

Camera Power
(Dual IR camera)

Camera Power
(Front Color & Parking)

Fuse Box ▶

BNC (video) &
Serial (communication)

BNC (video) &
Serial (communication)

Power Harness

Power
Distribution
Box

EPC

Power (+/-)

Embedded Processing Computer

Car Battery ▶

Part 4: Install the Front Color Camera

1   Select an appropriate windshield position for the camera. This position should give you enough room so that you can easily rotate the camera without interfering with the rear view mirror.

2   After selecting a camera location, remove the metal button from the camera mount. Next, open the glue activator tube and apply the activator to both the windshield glass surface and the metal button. Wait one minute, then proceed to the next step.

3   Apply **two drops** of glue to the metal button. Next, press the metal button to the windshield and hold for one minute.

4   Allow the glue to set up for a minimum of *three hours*, then attach the camera to the windshield.

This document consists of general capabilities information that is not defined as controlled technical data under ITAR part 120.10 or EAR

Part 5: Install the Parking Camera(s)

Mount the Parking camera on the trunk of the vehicle using the provided trunk lip mount.

Part 6: Install the Dual IR Camera(s)

Mount the Dual IR camera on the exterior of the vehicle with the provided mount. A typical installation would be on the trunk of the vehicle using the trunk lip mount.

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Part 7: Install and Connect the GPS Antenna

1   Mount the GPS Antenna on the interior of your vehicle. Mount it close to the exterior of the vehicle, such as near a window. Avoid close contact with radio communication devices. Select a location that does not interfere with door/window operation *or* obstruct the driver's view in any way.

2   Connect the antenna to the **ANT1** port on the EPC.
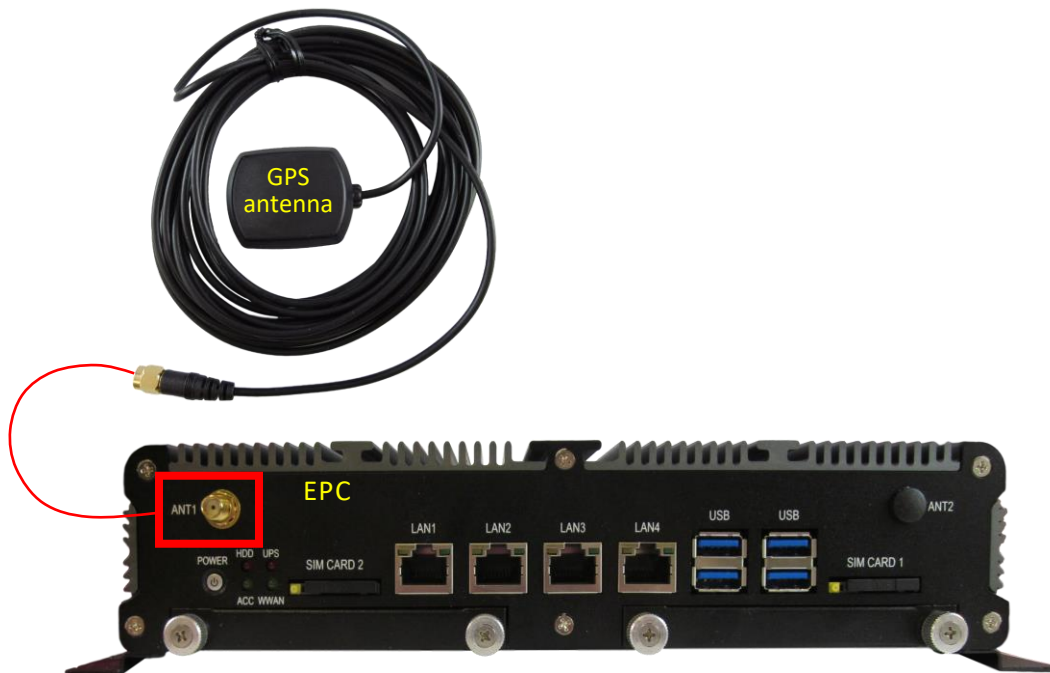
Part 8: Connect the Ethernet Cable

Connect the Ethernet Cable from the **LAN1** port on the EPC to an available Ethernet port on your mobile data computer.

This document consists of general capabilities information that is not defined as controlled technical data under ITAR part 120.10 or EAR
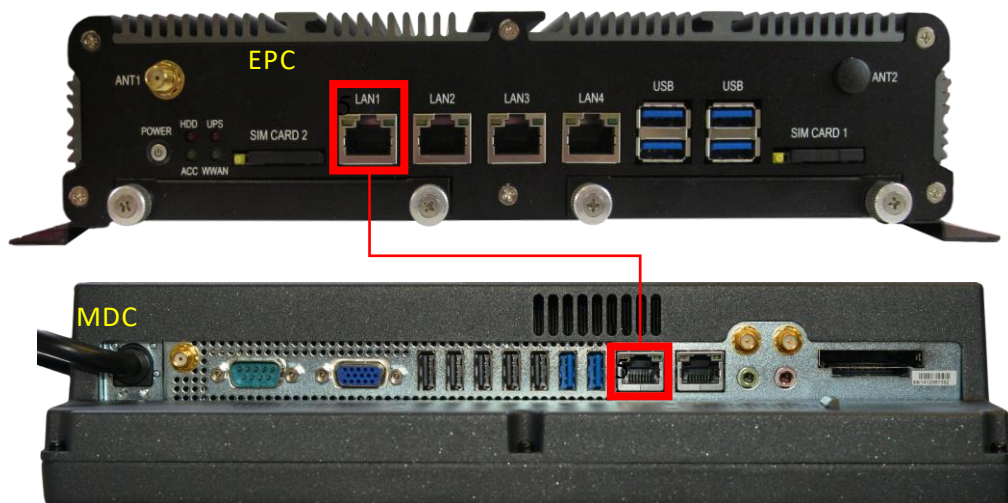
Part 9: Power On the EPC

1 Verify that the USB security Dongle and extension cable is plugged into one of the USB ports on the EPC.

2 Press the **POWER** button on the EPC.
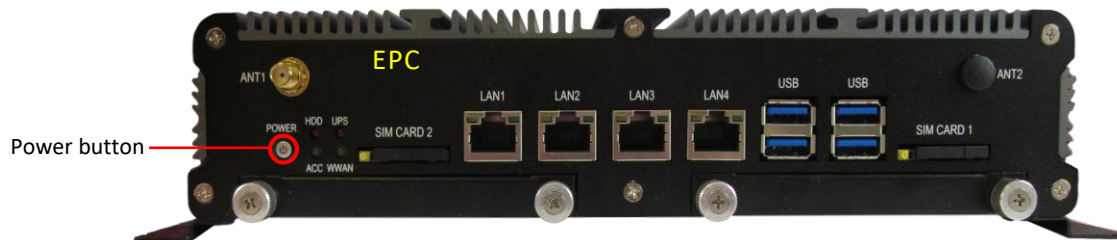
3 Wait five minutes to allow Windows time to load, then proceed to "Software Configuration" on page 18.

Part 10: Connect the Cameras to the EPC and Power Supply

To connect your AlertVU cameras to the EPC and Power Supply box, first review the Camera Configuration Guidelines beginning on the next page, which describe some of the most common camera configurations. Next, make the appropriate connections to the Power Supply, Pigtail Cable, and COM Ports.

1 Plug serial connectors into COM1 – COM4

COM ports

Video cable

A1/A2

⚠ Do not use "A" connectors

V8 V7 V6 V5 V4 V3 V2 V1

2 Plug the cameras' BNC connectors into V1 – V8
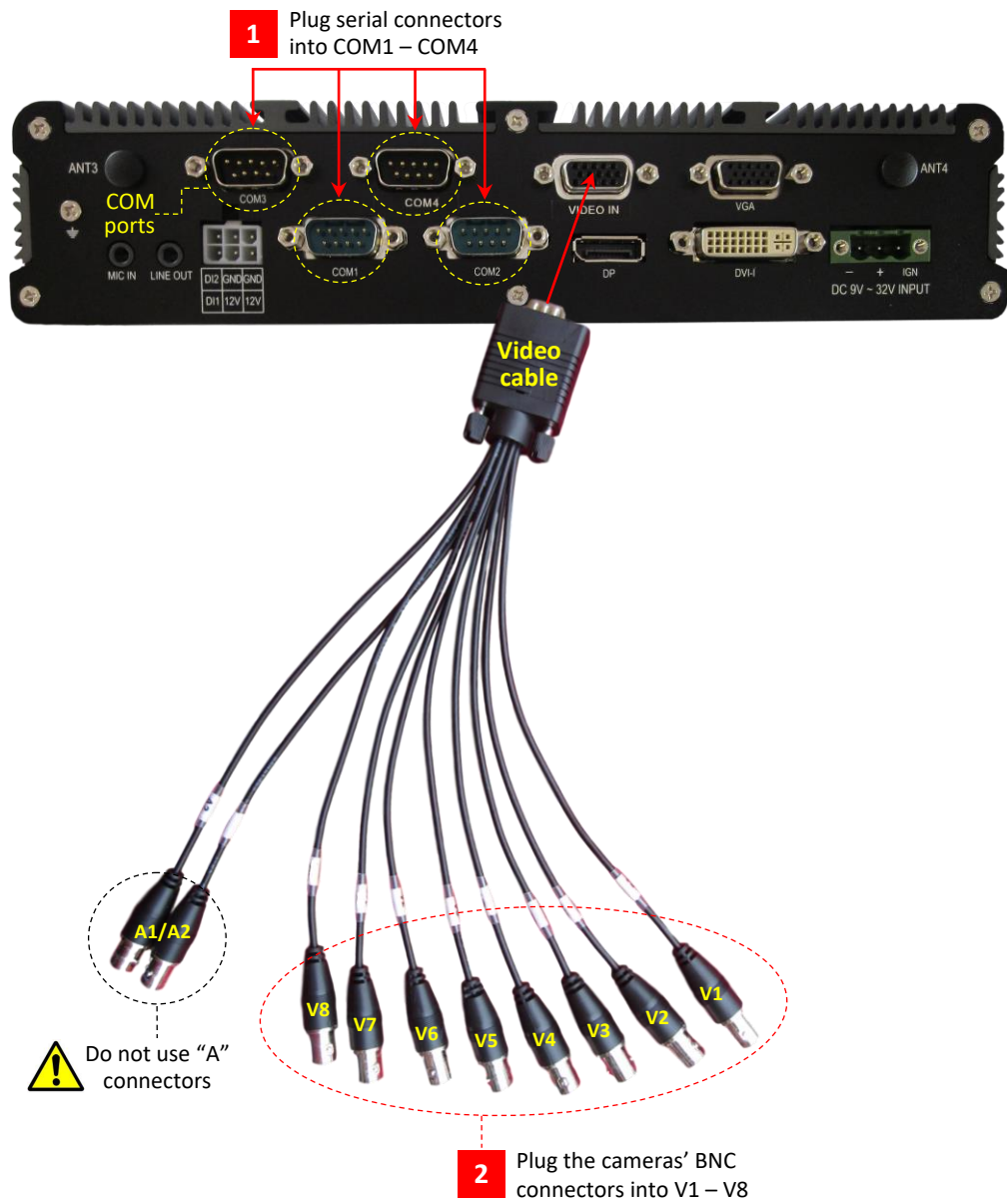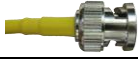
Camera Configuration Guidelines	
Description	**Page**
1 Front Color Camera	below
2 Front Color Camera & Dual IR Camera	below
3 Front Color Camera & Parking Camera	next page
4 Two Parking Cameras	13
5 Front Color Camera & Two Parking Cameras	13
6 Front Color Camera, Parking Camera, & Dual IR Camera	14
7 Front Color Camera, Two Parking Cameras, & Dual IR Camera	15
8 Two Dual IR Cameras & Parking Camera	16
9 Two Dual IR Cameras	16
10 Two Dual IR Cameras & Two Parking Cameras	17

Configuration 1: Front Color Camera

Camera	Attach…		To…
Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC

Configuration 2: Front Color Camera & Dual IR Camera

Cameras	Attach…		To…
1. Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Dual IR		Yellow BNC connector	V2 on EPC
		White BNC connector	V3 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC

Configuration 3: Front Color Camera & Parking Camera

Cameras		Attach…	To…
1. Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Parking		BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC

Configuration 4: Two Parking Cameras

Cameras		Attach…	To…
1. Parking (Right)		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Parking (Left)		BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC

(Continued)

Configuration 5: Front Color Camera & Two Parking Cameras

Cameras		Attach…	To…
1. Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Parking (Right)		BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC
3. Parking (Left)		BNC connector	V3 on EPC
		Phoenix connector	Power Supply
		Serial connector	COM3 on EPC

Configuration 6: Front Color Camera, Parking Camera, & Dual IR Camera

Cameras		Attach…	To…
1. Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Parking		BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC
3. Dual IR		Yellow BNC connector	V3 on EPC
		White BNC connect	V4 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM3 on EPC

Configuration 7: Front Color Camera, Two Parking Cameras, & Dual IR Camera

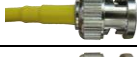| Cameras		Attach…	To…
1. Front Color		BNC connector	V1 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Parking (Right)		BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC
3. Parking (Left)		BNC connector	V3 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM3 on EPC
4. Dual IR		Yellow BNC connector	V4 on EPC
		White BNC connector	V5 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM4 on EPC

(Continued)

Configuration 8: Two Dual IR Cameras & Parking Camera

Cameras	Attach…		To…
1. Dual IR (#1)		Yellow BNC connector	V1 on EPC
		White BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Dual IR (#2)		Yellow BNC connector	V3 on EPC
		White BNC connector	V4 on EPC
		Serial connector	COM2 on EPC
3. Parking		BNC connector	V5 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM3 on EPC

Configuration 9: Two Dual IR Cameras

Cameras	Attach…		To…
1. Dual IR (#1)		Yellow BNC connector	V1 on EPC
		White BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Dual IR (#2)		Yellow BNC connector	V3 on EPC
		White BNC connector	V4 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC

Configuration 10: Two Dual IR Cameras & Two Parking Cameras

Cameras		Attach...	To...
1. Dual IR (#1)		Yellow BNC connector	V1 on EPC
		White BNC connector	V2 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM1 on EPC
2. Dual IR (#2)		Yellow BNC connector	V3 on EPC
		White BNC connector	V4 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM2 on EPC
3. Parking (Right)		BNC connector	V5 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM3 on EPC
4. Parking (Left)		BNC connector	V6 on EPC
		Phoenix connector	Power Supply box
		Serial connector	COM4 on EPC

Software Configuration

This section describes how to install and configure all the software components of your AlertVU license plate reader. Before you perform these procedures, first install all of the hardware components of your AlertVU system, as described in "Hardware Installation" on page 3.

Part 1: Configure Your MDC to Connect to the EPC

The EPC comes preconfigured with a LAN 1 IP address of **192.168.11.1**. In order for your web browser to communicate with the AlertVU Mobile application, you need to make the following changes to the Windows settings on your MDC.

NOTE: The steps in this procedure are for Windows 7. If you have a different version of Windows installed on your MDC, this procedure may differ slightly.

1   Make sure your MDC is powered on.

2   Click on the **Start** button or 🌐 icon, then select **Control Panel**.

3   Click **Network and Sharing Center**.

4   Click **Change adapter settings**.

5   Right-click on the local area connection that is directly connected from the EPC to your MDC via Ethernet cable, then select **Properties** from the popup menu.

6   Click on **Internet Protocol Version 4 (TCP/IPv4)** to highlight it, then click the **Properties** button.

7   Select the **Use the following IP address** radio button.

8   Enter **192.168.11.10** in the *IP address* field.

9   Enter **255.255.255.0** in the *Subnet mask* field.

10   Click **OK** to save your changes.

Part 2: Display the AlertVU Home Page

Enter the following IP address: **192.168.11.1** in your **Chrome or Firefox** internet browser.
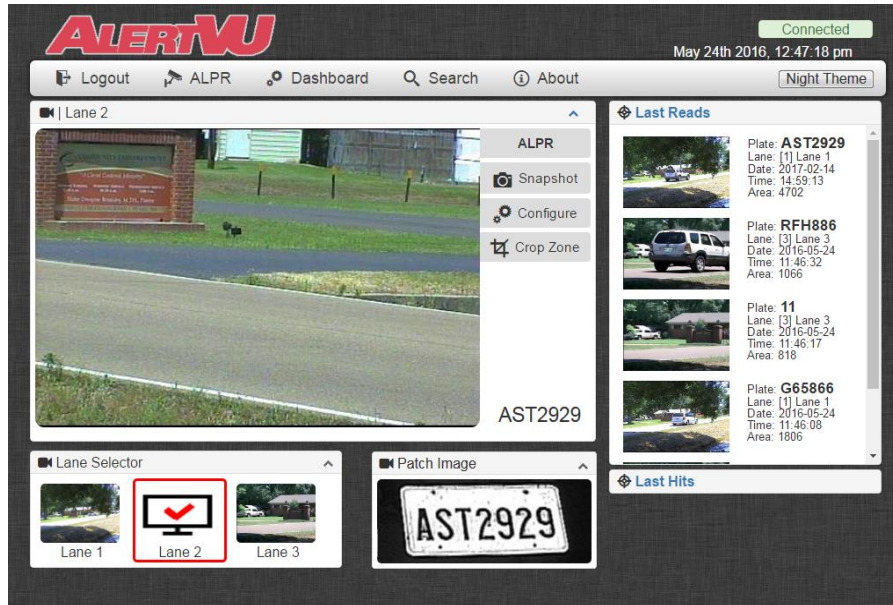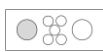
If you are able to display the AlertVU Mobile Home page, it indicates that the NIC (Network Interface Card) addresses are correct. Proceed to the next section.

Part 3: Adjust the Cameras' Settings

This section describes how to adjust the focus and zoom settings for each of your camera views. It also shows you how to verify that other settings (shutter speed, brightness, gain, etc.) are set to the recommended values.

The recommended settings for each camera are listed below.

Camera	Shutter Speed	Zoom Distance	Brightness	IR LEDs*	Exposure	Gain	Iris
Front Color	1/4000	Variable; see Figure 1 on pg 21	n/a	n/a	0	4	15
Parking	1/1000	5 feet	n/a	n/a	-6	0	13
Dual IR—Color view (OVERVIEW)	1/700	25.5 feet	n/a	n/a	n/a	n/a	n/a
Dual IR—Infrared view (ALPR)	1/2500	25.5 feet	13	Rapier 30 850: Normal Rapier 30 740: Low	n/a	n/a	n/a

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*   Also referred to as the "Plate Read Illumination" setting.

IMPORTANT The Camera Lanes and COM port settings are preconfigured in the factory. If you need to adjust these settings for any reason, refer to *AlertVU Mobile Administrator's Guide* for instructions.

For specific instructions, see:

❐ Adjust the Settings for a Front Color or Parking Camera, below
❐ Adjust the Settings for a Dual IR Camera, page 25.

Adjust the Settings for a Front Color or Parking Camera

1 From the AlertVU Mobile Home page, select the Front Color or Parking camera you wish to adjust:

Go to the bottom of the page and drag the lane into the viewing pane.

– OR –

Double-click on the lane's thumbnail image.

2 If this is a *Front Color* camera, park a second vehicle in front of your police vehicle, as pictured in Figure 1 on the next page.

– OR –

If this is a *Parking* camera, park a second vehicle to the right or left of your police vehicle, as pictured in Figure 2 on page 22.

3 Aim the Front Color or Parking camera so that the plate is in the center of the live video image. You will adjust the zoom setting in a later step.

Figure 1: Alignment of Front Color Camera

Make sure that the test plate
is parallel to the ground

GOOD   BAD

30°   30°

Do not rotate the camera
more than 30 degrees
in either direction

Figure 2: Alignment of Parking Camera

Do not rotate the
camera more than 30º
in either direction

30º

30º

5 ft

Make sure that the test plate
is parallel to the ground

GOOD   BAD

Configure
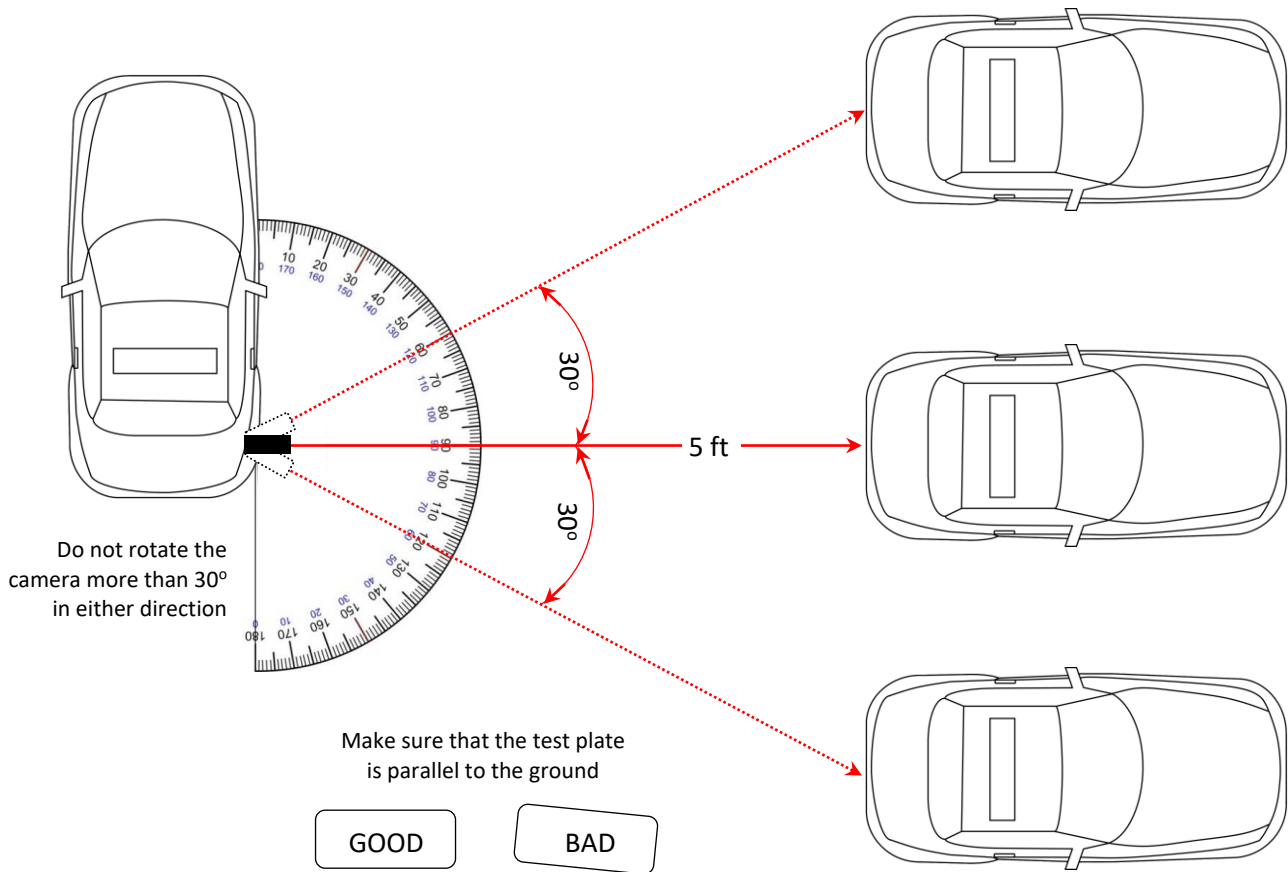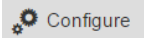
4 Click **Configure**. The Camera Control popup displays.
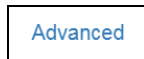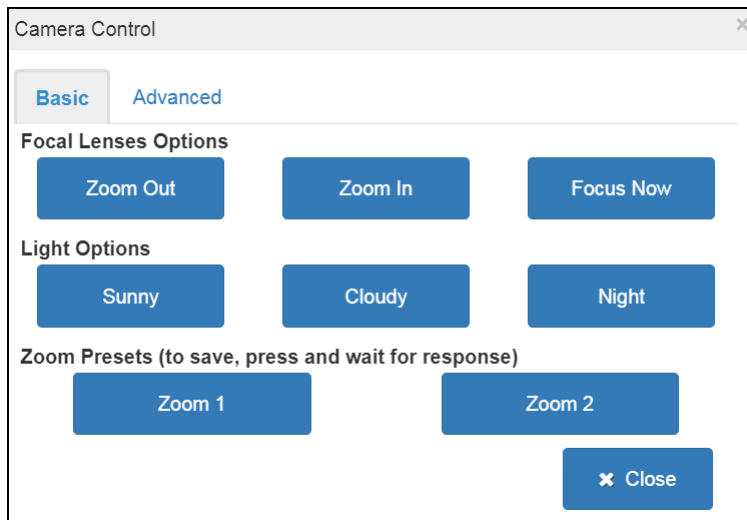
Advanced

5 Click the **Advanced** tab.
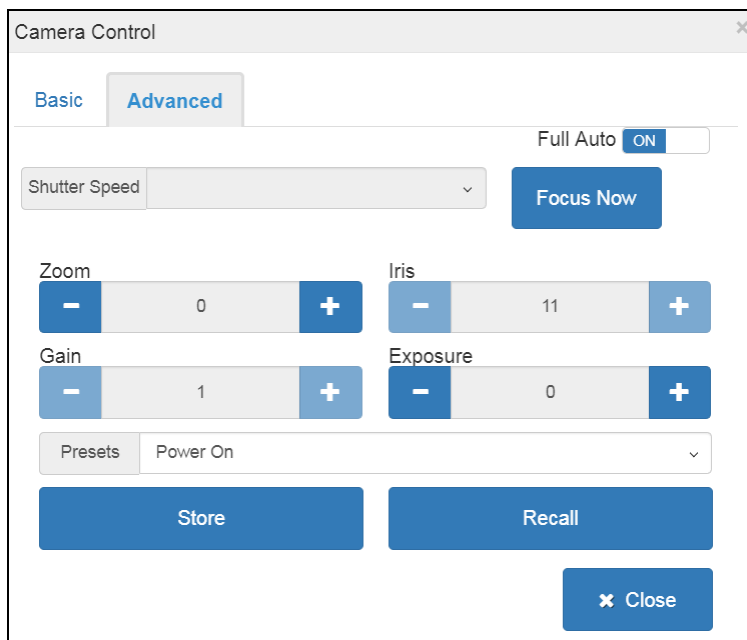
6 Proceed to the *Shutter Speed* field at the top of the popup.
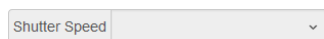
Select the appropriate value from the drop-down list:

- ❐ Front Color camera: **1/4000**
- ❐ Parking camera: **1/1000**

Next, you need to adjust the camera's zoom setting.

Recommended Plate Size The plate should take up 20% – 25% of the viewing window, which is approximately 1,000 pixels. The headlights should also be visible on the left and right of the image.

7 Proceed to the *Zoom* field.
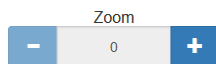
Using the plus and minus icons, zoom in (+) or out (-). Once the plate looks similar to the one above, proceed to the next step.

8 Click **Focus Now**.

9 Proceed to the *Exposure* field.
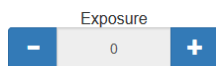
If this is a *Front Color* camera, set the *Exposure* value to **0**.

– OR –

If this is a *Parking* camera, set the *Exposure* value to **-6**.

10 Proceed to the *Presets* field at the bottom of the popup.
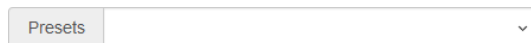
If it is not already selected, select **Power On** from the drop-down list.

11 Click **Store**. This will save your settings so that the system can restore them in the event that this camera loses power.

12   Click **Close**.

13   If you have another Front Color or Parking camera to configure, repeat steps 1 – 12.

Adjust the Settings for a Dual IR Camera

1   From the AlertVU Mobile Home page, select the Dual IR camera you wish to adjust:

Go to the bottom of the page and drag the lane into the viewing pane.

– OR –

Double-click on the lane's thumbnail image.

2   Park a second vehicle to the right or left of your police vehicle, as pictured on the next page.

3   Aim the Dual IR camera so that the plate is in the center of the live video image. You will adjust the zoom setting in a later step.
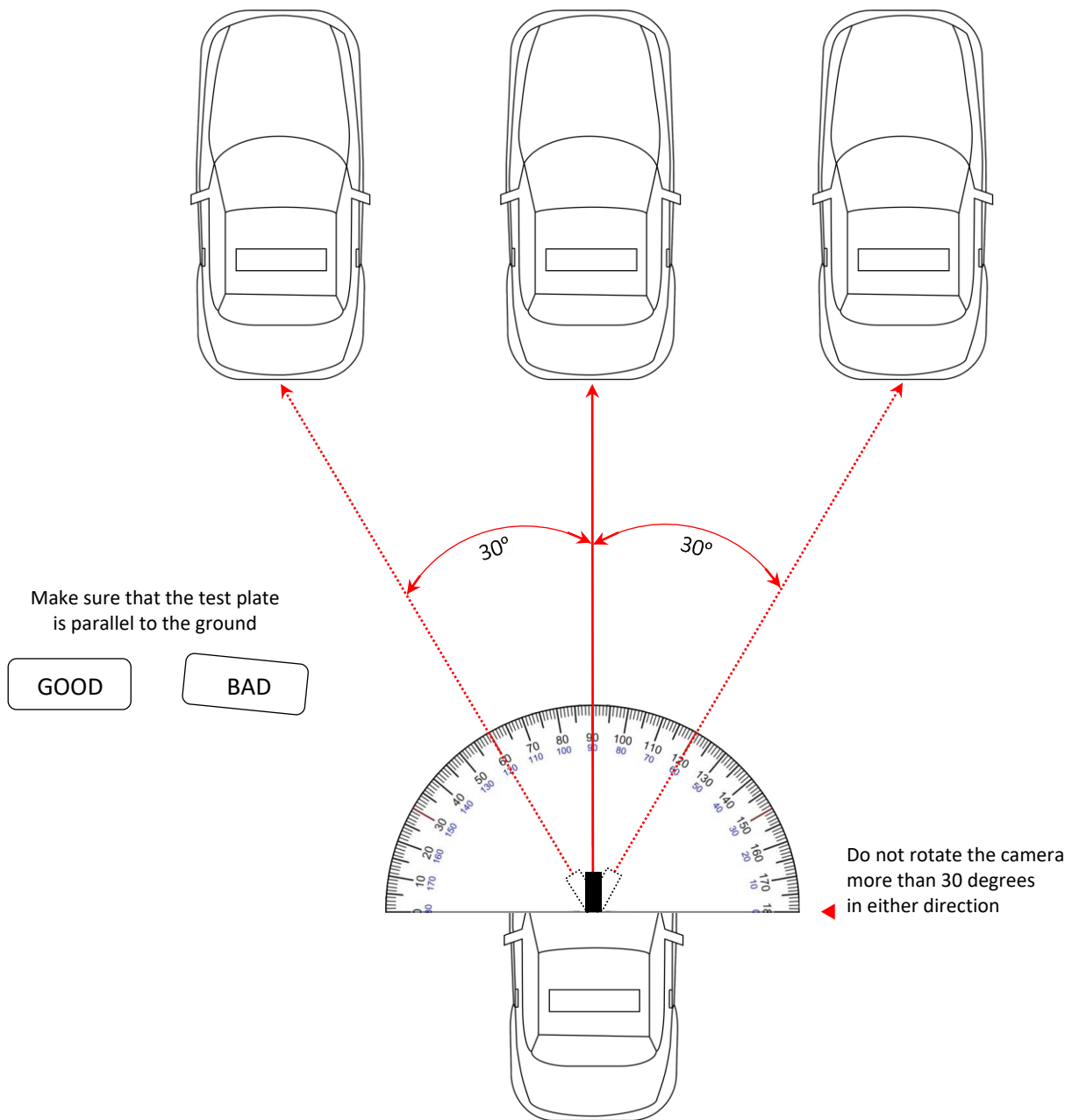
(Continued)

Alignment of Dual IR Camera

13 ft

22ft

25.5 ft

30°

Make sure that the test plate
is parallel to the ground

GOOD   BAD
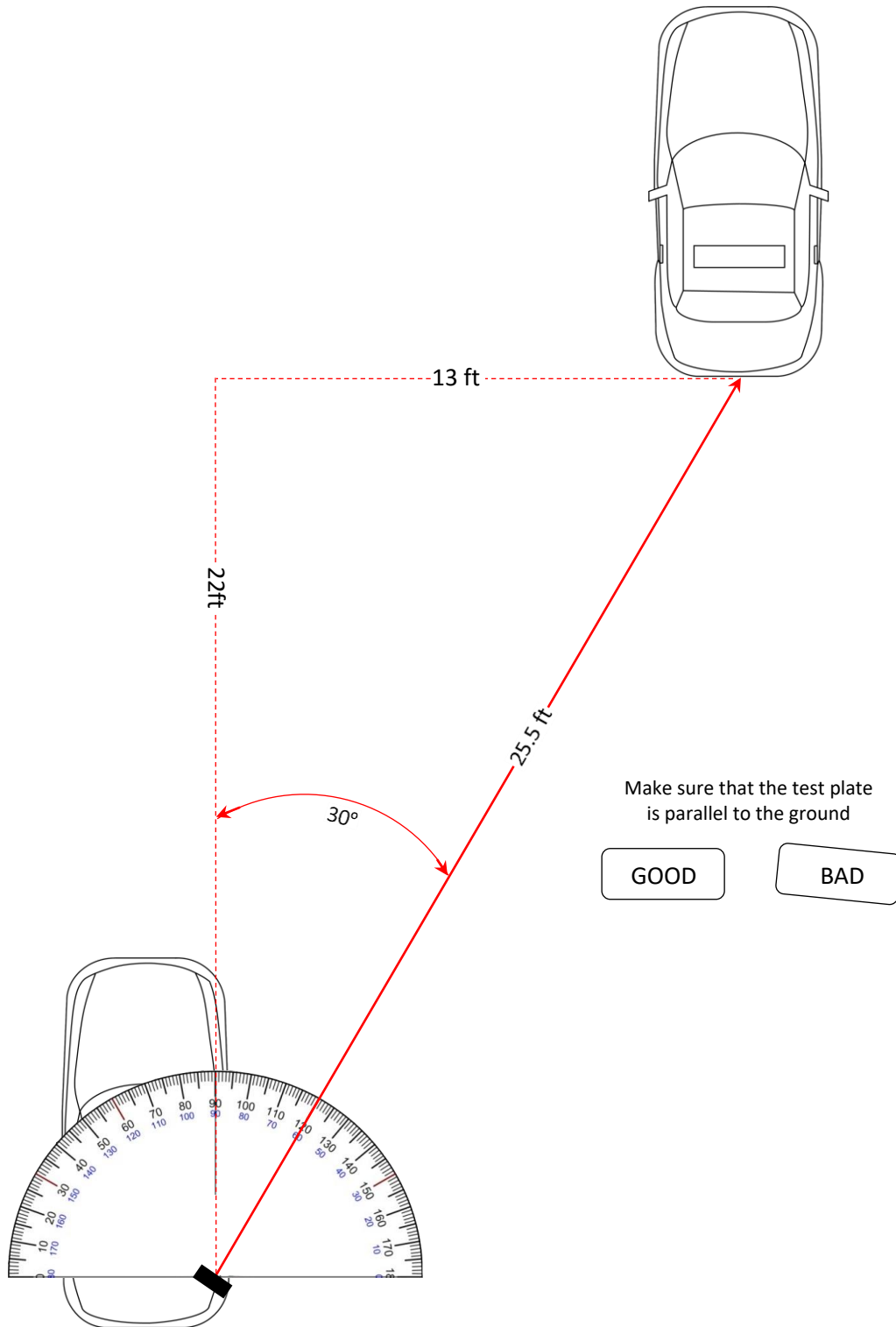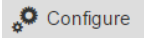
Configure

4   Click **Configure**. The Camera Control popup displays.
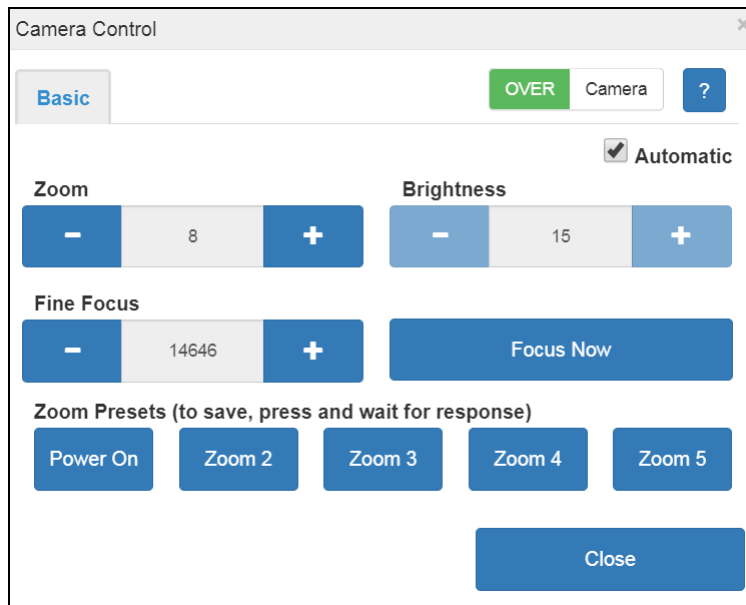
We will begin by configuring the color (OVERVIEW) view.

5   If OVER Camera displays at the top of the popup, proceed to the next step

– OR –

If Camera ALPR displays at the top of the popup, click on that button to switch to the color view.

6   Proceed to the *Zoom* field.
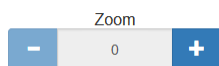
Using the plus and minus icons, zoom in (+) or out (-). Once entire front or rear of the vehicle appears in the viewing window, proceed to the next step.

Focus Now

7 Click **Focus Now**.

If you can clearly read all the plate's characters, skip to step 9.

– OR –

If you *cannot* clearly read all the plate's characters, proceed to the next step.

8 Proceed to the *Fine Focus* field.
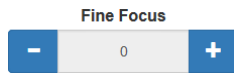
Fine Focus

| **–** | 0 | **+** |

Using the plus and minus icons, adjust the focus in small increments. Once you can clearly read all the plate's characters, proceed to the next step.

9 Proceed to the *Zoom Presets* section at the bottom of the popup.

Power On

10 Press and hold the **Power On** button until the following popup displays.

Alert

ⓘ Preset 'Power On' Saved

OK

This will save your settings so that the system can restore them every time the vehicle is turned on.

11 Click **OK**.

12 Click OVER Camera to switch to the infrared view.

Camera Control ✕

| **Basic** | | Camera | ALPR | ? |

Zoom

| **–** | 4 | **+** |

Brightness

| **–** | 0 | **+** |

Fine Focus

| **–** | -12697 | **+** | Focus Now |

Zoom Presets (to save, press and wait for response)

| Power On | Zoom 2 | Zoom 3 | Zoom 4 | Zoom 5 |

Close
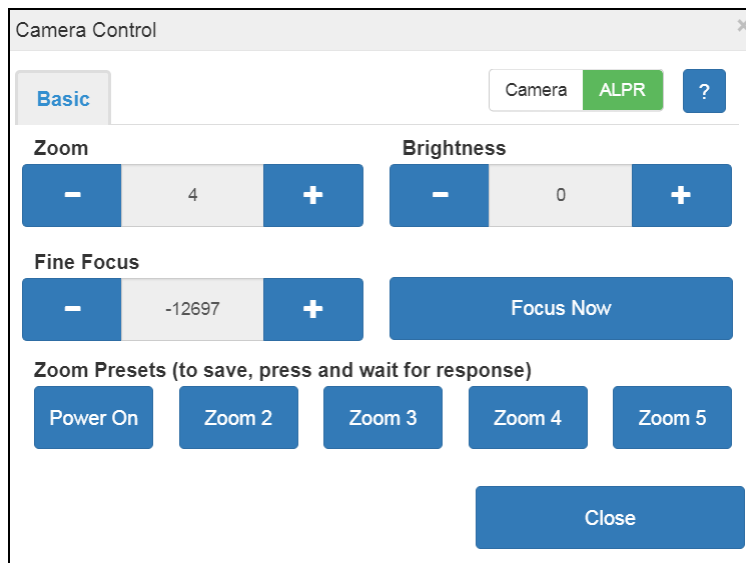
13 Proceed to the *Zoom* field.

Zoom

| − | 0 | + |
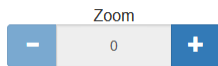
Using the plus and minus icons, zoom in (+) or out (-). Once the plate size meets the recommended criteria, proceed to the next step.

Recommended Plate Size   The plate should take up 20% – 25% of the viewing window, which is approximately 1,000 pixels. The headlights should be visible on the left and right of the image.


14 Proceed to the *Brightness* field.

Brightness

| − | 12 | + |
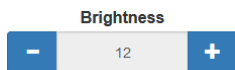
Set the *Brightness* value to **13**.

Focus Now   **15** Click **Focus Now**.

If you can clearly read all the plate's characters, skip to step 17.

– OR –

If you *cannot* clearly read all the plate's characters, proceed to the next step.

16 Proceed to the *Fine Focus* field.
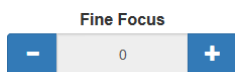
Fine Focus

| − | 0 | + |

Using the plus and minus icons, adjust the focus in small increments. Once you can clearly read all the plate's characters, proceed to the next step.

17 Proceed to the *Zoom Presets* section at the bottom of the popup.

18 Press and hold the **Power On** button until the following popup displays.
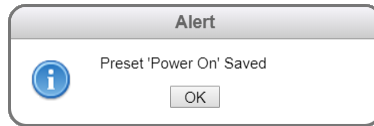
```
                    Alert
         ┌──────────────────────────┐
    (i)    Preset 'Power On' Saved
                   [  OK  ]
```

This will save your settings so that the system can restore them every time the vehicle is turned on.

19 Click **OK**.

20 Click **Close**.

21 If you have another Dual IR camera you need to configure, repeat steps 1 – 20. Otherwise proceed to the next section.

Proxy Configuration

This section describes how to set up communication between the EPC in your vehicle and the AlertVU Back Office server. This is also referred to as the *proxy setup*. Perform these tasks after you have completed all the previous setup procedures in this guide. The proxy settings enable the system to perform the following functions:

❒ Wirelessly transmit all plate captures from the EPC to your AlertVU Back Office server
❒ Wirelessly transmit all hotlist updates from your AlertVU Back Office server to the EPC.

Once you've selected the correct settings, all communications will occur automatically without any action on your part.

NOTE: All Windows procedures in this section are geared towards the Windows 7 operating system. If you have a different version of Windows installed on your mobile data computer, steps may vary slightly.

Perform the following procedures *once* in sequential order.

1: Verify that the EPC is connected to the MDC

Check to make sure that the EPC is physically connected to the MDC via an Ethernet cable, as pictured here.
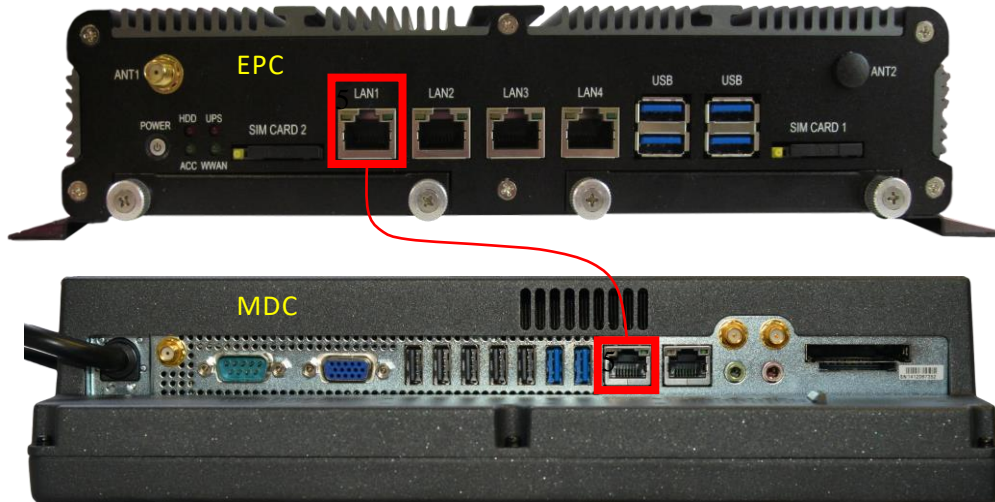
Enter the following IP address: **192.168.11.1** in your **Chrome or Firefox** internet browser and verify that the AlertVU LPR screen is displayed.

EPC PROCEDURE

2: Configure the EPC for UDP Broadcast

If your agency is using the *UDP broadcast* method to communicate with the AlertVU Back Office server (see screen on the next page), you need to perform the following procedure. If your agency is using the *Ping* method to communicate with the AlertVU Back Office server, this procedure is not mandatory, but we still recommend that you perform it. That way, if you ever need to change your discovery method in the future, you will not need to reconfigure the system.

(Continued)

How do I know if my agency is using the UDP Broadcast method?
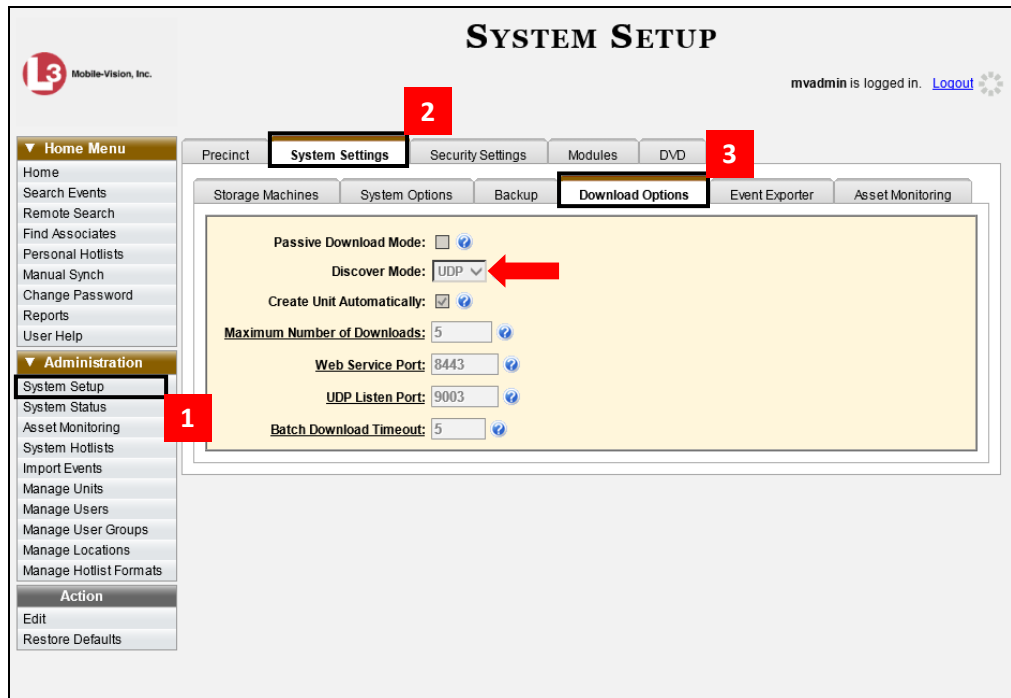
1   Remote into the EPC using a VNC viewer application.

2   Proceed to the following file on the EPC: c:\mobile_alpr\bin**config.bat**

3   Right-click on the **config.bat** file, then select **Run as administrator** from the popup menu.
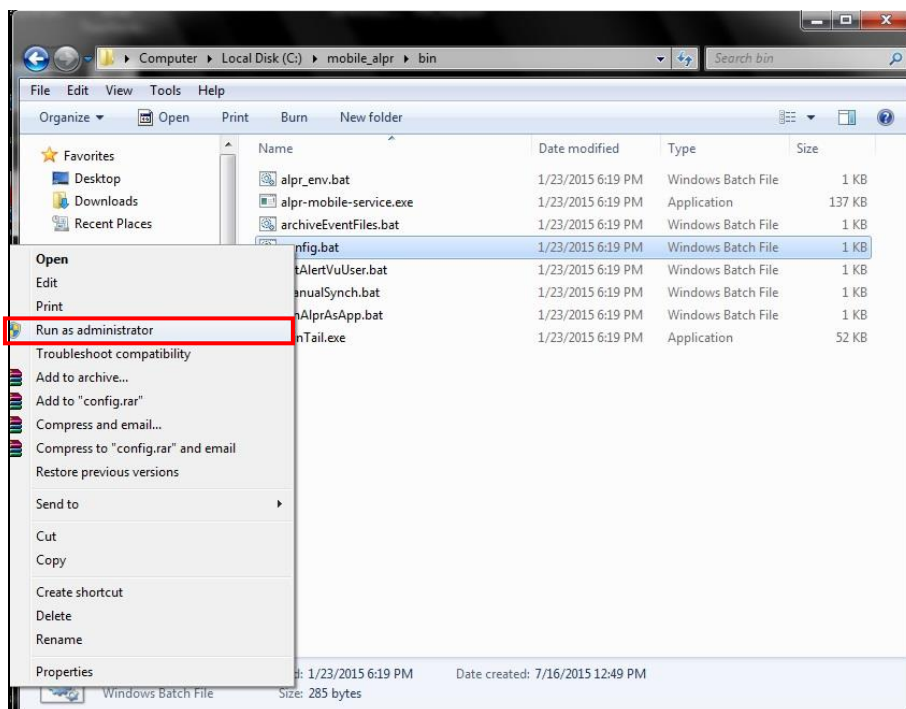
A Java applet displays, as pictured below.

4   Enter the IP address for the AlertVU Back Office server in the *Remote Server Ip* field at the top of the page.

5   Select the *Enable UDP Unicast Mode* checkbox.

Enter the IP address for your
AlertVU Back Office server here

Select this checkbox
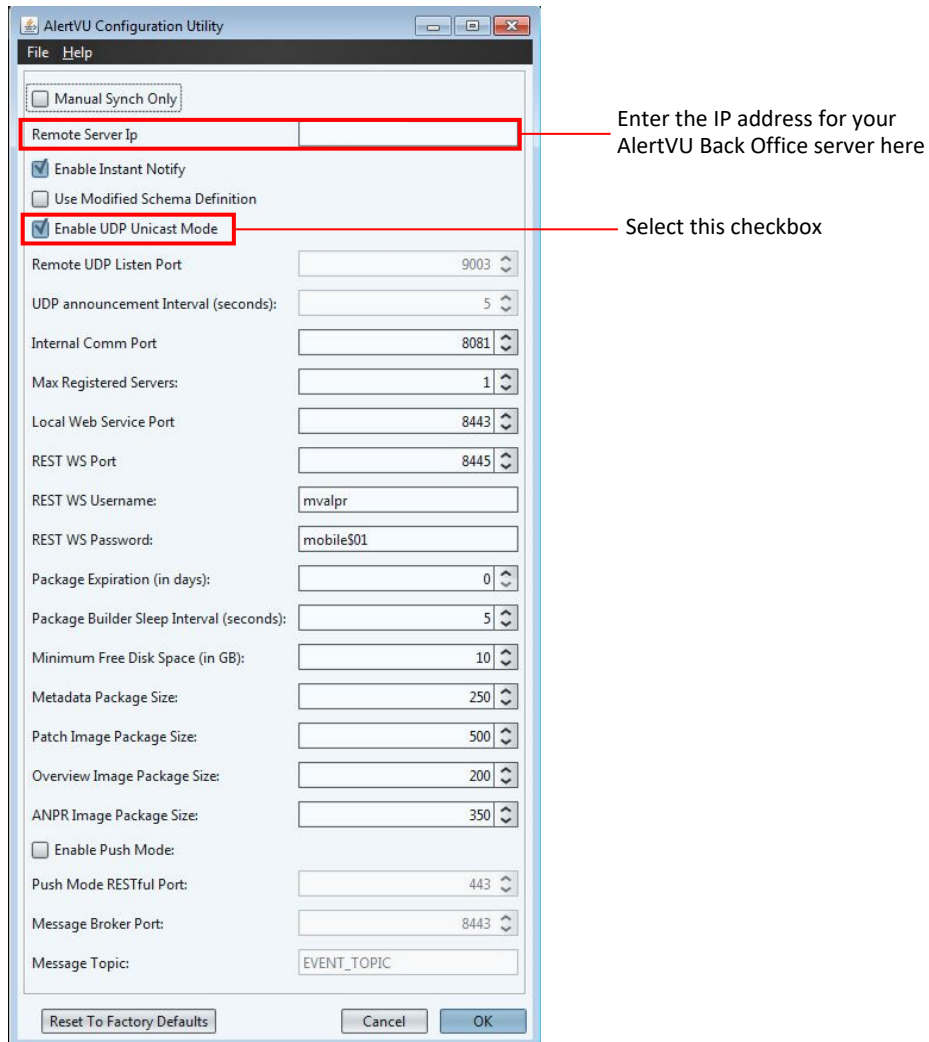
6   Press **Enter** to save your changes. After a momentary delay, a confirmation message displays.

7   Click **OK**.

SAFE FLEET
Law Enforcement

Proxy Configuration
3: Show Hidden Files on the MDC

This document consists of general capabilities information that is not defined as controlled technical data under ITAR part 120.10 or EAR
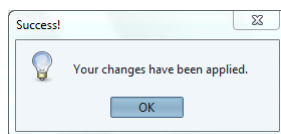
8 Click the ⊠ in the upper right corner of the screen to close the AlertVU Configuration Utility.

End of EPC Procedures.

MDC PROCEDURE   ## 3: Show Hidden Files on the MDC

1 Proceed to the MDC.

2 Click on the MDC's **Start** button or 🌐 icon, then type **search** in the search box.

3 Select the **Change search options for files and folders** option.

4 Click the **View** tab at the top of the page.

5 Select the radio button labeled *Show hidden files, folders, and drives*.

6 Deselect the *Hide extensions for known file types* checkbox.
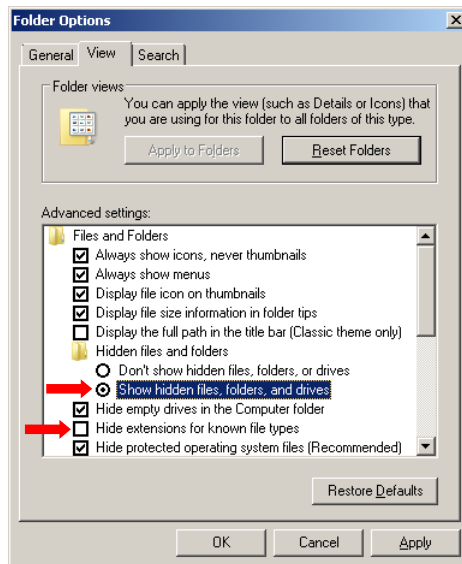
7 Click **Apply**.

8 Click **OK**.
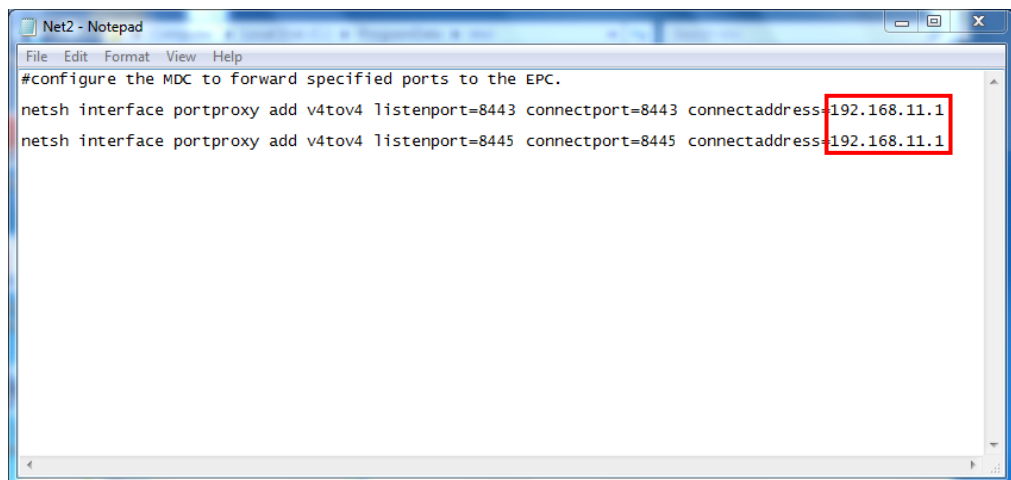
MDC PROCEDURE   ## 4: Add Firewall Rules to the MDC

1   Click on the MDC's **Start** button or 🌐 icon, then select **Control Panel**.

2   Select **Windows Firewall**.

3   Select **Advanced Settings**.

4   Proceed to the *View and create firewall Rules* section and select **Inbound Rules**.

5   Select **New Rule**.

6   Select **Port**, then click **Next**.

7   Make sure that **TCP** is selected.

8   Enter **8443** in the *Specific local ports* field, then click **Next**.

9   Make sure *Allow the connection* is selected, then click **Next**.

10   Make sure that the *Domain*, *Private*, and *Public* checkboxes are all selected, then click **Next**.

11   Enter **AlertVU Port 8443 inbound** in the *Name* field, then click **Finish**.

12   Select **New Rule**.

13   Select **Port**, then click **Next**.

14   Make sure that **TCP** is selected.

15   Enter **8445** in the *Specific local ports* field, then click **Next**.

16   Make sure *Allow the connection* is selected, then click **Next**.

17   Make sure that the *Domain*, *Private*, and *Public* checkboxes are selected, then click **Next**.

18   Enter **AlertVU Port 8445 Inbound** in the *Name* field, then click **Finish**.

19   Close all the open firewall screens.

MDC PROCEDURE **5: Configure and Test the Net2.bat Script**

This procedure will configure communication between the EPC and MDC.

1   If you have not done so already, copy the files from the tool disk shipped with the unit and copy them onto a USB key.

2   Insert the USB key in a USB port on the MDC.

3   Create a folder on the MDC's **c:\ProgramData** directory called **mvi**.

4   Using Microsoft Explorer, navigate to the USB drive. Locate the Net2.bat file in the following folder:

   MDC-port-forwarding for MDC/**Net2.bat**

5   Copy the Net2.bat file from the USB drive to the **c:\ProgramData\mvi** folder on the MDC.

6   Right-click on the Net2.bat file and select **Edit** from the popup menu. The Net2.bat file opens in Notepad, as pictured below.

7   Make sure the two IP addresses listed at the end of the Net2.bat file are **192.168.11.1**.

8   Select **File➞ Save** from the menubar.

9   Select **File➞ Exit** from the menubar.

10 Right-click on the Net2.bat file and select **Send to➞ Desktop (create shortcut)**.

11 Move the Net2.bat - shortcut file from the desktop to the MDC's startup directory:

   \Users\<user name>\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup

Next, you need to run the Net2.bat - shortcut script to make sure it works.

12 Right-click on the Net2.bat - shortcut file in the *Startup* folder, then select **Run as administrator** from the popup menu. The screen will flash quickly.

13 Click on the Windows **Start** button or 🌐 icon, then position your cursor in the Windows search field.

14 To verify that everything was configured correctly, type **cmd** and press **Enter**. The DOS prompt displays.
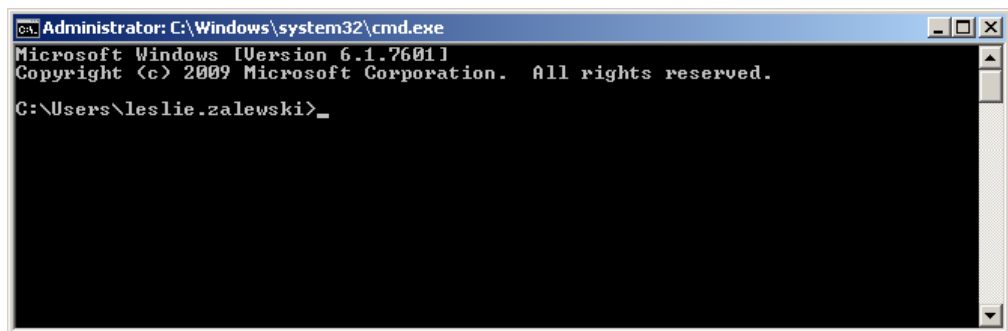
15 Type **netsh** and press **Enter**.

16 Type **interface** and press **Enter**.

17 Type **portproxy** and press **Enter**.

18 Type **show all** and press **Enter**. The screen should look like this:
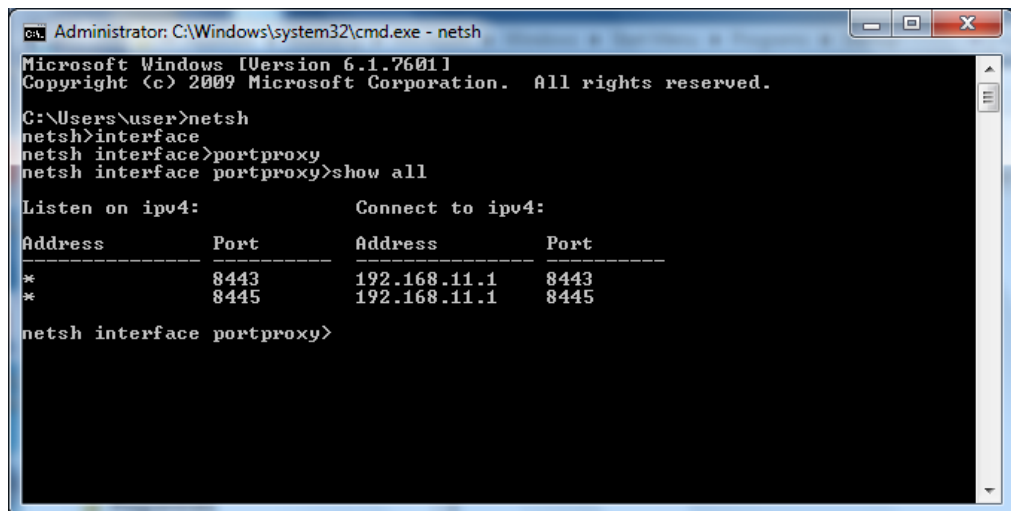
⇒ If your screen looks like the one pictured above, proceed to the next section.
⇒ If your screen does *not* look like the one pictured above, repeat steps 1 – 17.

MDC PROCEDURE ## 6: Install Java on the MDC

1 Proceed to the *software utils* folder on the USB drive.

\mobile alpr\3rdParty\java**jre-7u80-windows-i586.exe**

2 Double-click on the **jre-7u80-windows-i586.exe file**. This is the Java installer.

3 Follow the system prompts to install Java on the MDC.

Next, you need to add the java directory to the end of the MDC's Windows Environment Variables path, as described below.

4 Click on the MDC's **Start** button or 🌐 icon, right-click on **Computer**, then select **Properties** from the popup menu.

5 Click **Advanced system settings** in the upper left corner of the page.
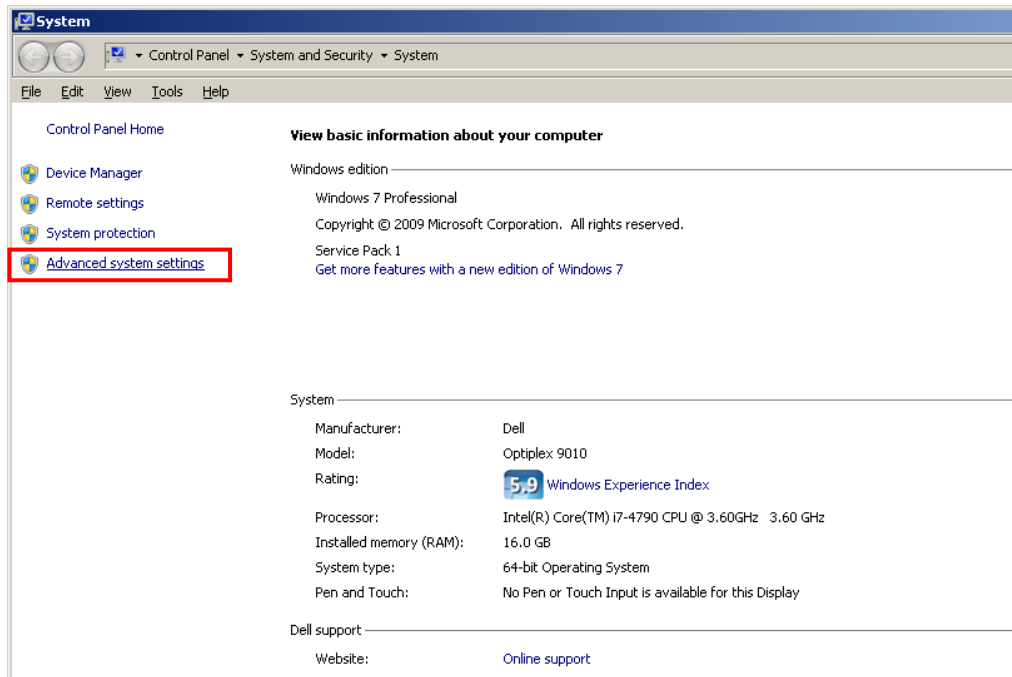
6 Click the **Environment Variables** button.

7 Click on *Path* to highlight it, then click **Edit**.

(Continued)

8 Add **the java path c:\Program Files\Java\jre7\bin** to the end of the *Variable value*, then click **OK**.

9 Close all the Windows screens.

MDC PROCEDURE ## 7: Configure the MDC for UDP Broadcast

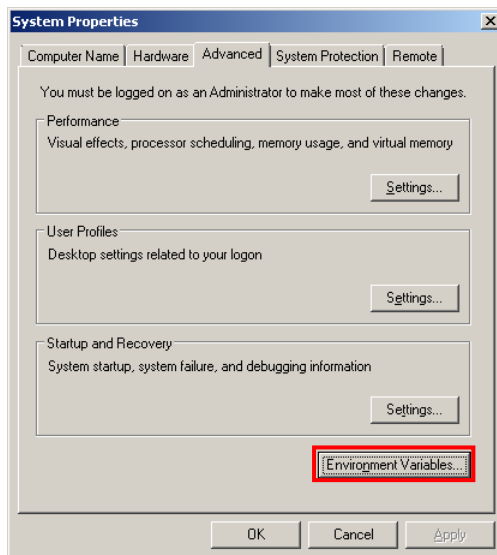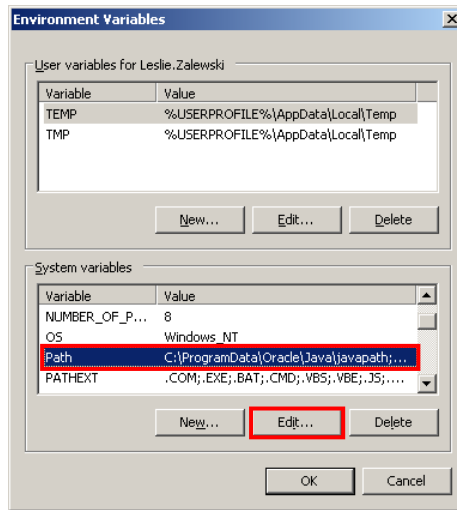If your agency is using the *UDP broadcast* method to communicate with the AlertVU Back Office server, you need to perform the following procedure. If your agency is using the *Ping* method to communicate with the AlertVU Back Office server, this procedure is not mandatory, but we still recommend that you perform it. That way, if you ever need to change your discovery method in the future, you will not need to reconfigure the system.

1 Create a folder on the MDC's **c:** drive called **mvi**.

2 Copy the contents of the MDC_UDP Announcer for MDC file from the USB drive to the **c:\ mvi** folder

3 Right-click on the startup_udp_announcer.bat file, then select **Edit** from the popup menu. The startup_udp_announcer.bat file displays in Notepad, as pictured below.

4 Add the following information to the last line of the file:

java -jar stand-alone-announcer.jar **192.168.110.79 9003 5000**

Replace with the IP address of your AlertVU Back Office server
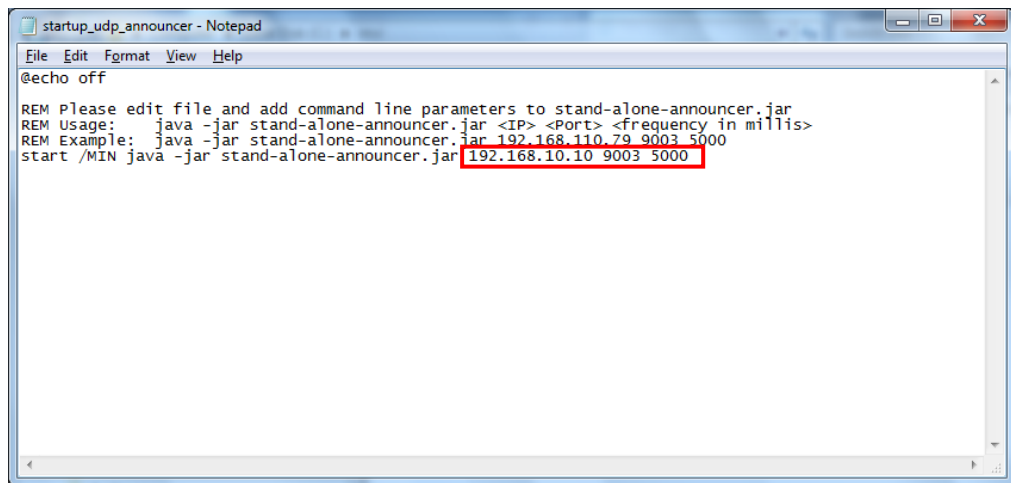
5 Select **File➜ Save** from the menubar.

6 Select **File➜ Exit** from the menubar.

7 Right-click on the startup_udp_announcer.bat file again and select **Send to➜ Desktop (create shortcut)**.
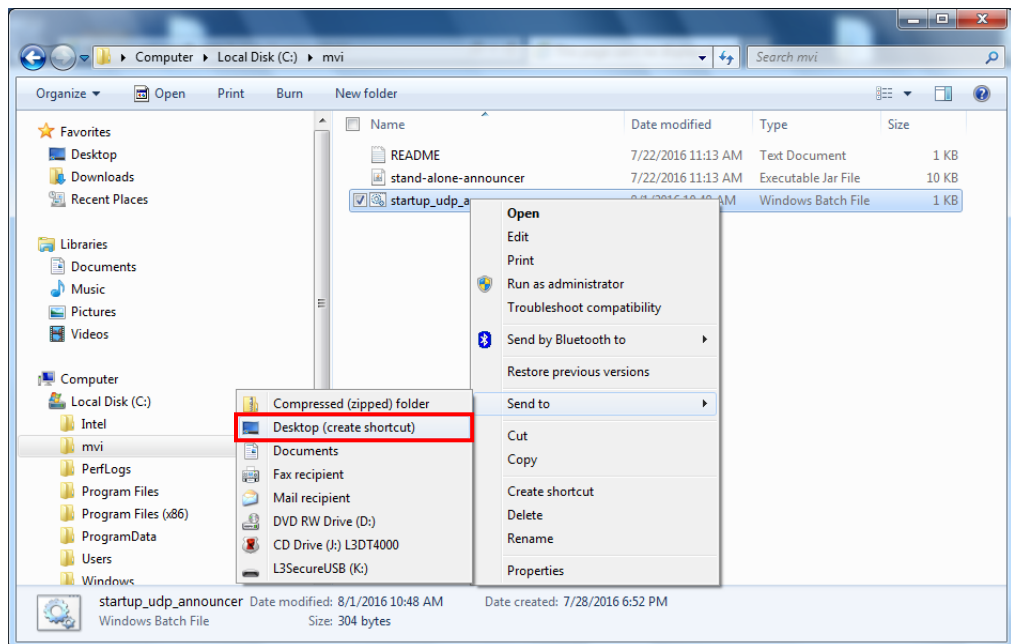
8 Move the startup_udp_announcer.bat shortcut from the desktop to the MDC's startup directory:
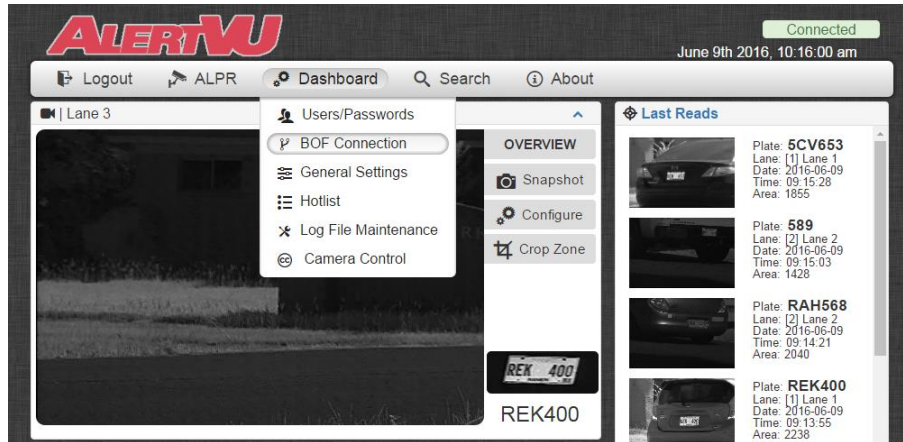
\Users\<user name>\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup

9 Restart the MDC.

10 After computer has restarted, make sure the announcer file opens and displays broadcasting.

8: Test the EPC to Back Office Connection

1 Login to AlertVU Mobile as an Admin user.

2 Select **Dashboard→ BOF Connection** from the menubar.

The BOF Connection screen displays, as pictured below.

3 Click **ON**.

4 Select **L3 BOF** from the *Schema* drop-down list.
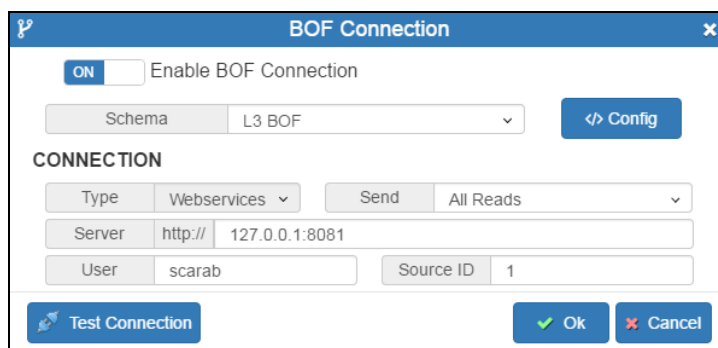
5 Click **Test Connection**.

⇒ If the *Connection Successful* message displays, proceed to the next step.
⇒ If the *Connection Failed* message displays, contact Mobile-Vision Support for assistance.

6 Click **OK**.

9: Configure the MiFi Device (MiFi Users Only)

If you are using a MiFi device to connect to the AlertVU Back Office server, you need to perform an extra procedure, as described below. If you are using a USB cellular modem or PCMCIA cellular modem, you may skip this procedure.

NOTE: The following procedure will vary somewhat depending on the type of MiFi device you have. Please refer to your MiFi device's user documentation for specific instructions.

1   Login to the administrative interface for your MiFi (i.e., the software that's used to configure the MiFi).

2   Locate and enable the MiFi's "Port Forwarding" feature.

3   Look for a button, tab, or link that has the word "custom" in it, such as "Custom Applications." Select that option.

4   Create a new application record called "AlertVU".

5   Assign the AlertVU record two ports: **8443** and **8445**. Assign these ports the IP address of your MDC.

Contact Information

Our goal at Mobile-Vision is to provide you with the most dependable, rugged equipment for your mobile workforce. To ensure that you get the most from your investment, Mobile-Vision technical experts are available for training and questions. We take pride in our ability to provide you with the most comprehensive support available. This minimizes downtime and allows your workforce to concentrate on the "task at hand."

For service and/or technical support:

(800) 336-8475, option 3
servicedepartment.mvi@safefleet.net