

Congratulations on the purchase of your countCAM4! The countCAM4 provides flexibility in your data collection abilities by allowing you to collect both traffic video (Camera Mode) OR directional traffic volumes (Counter Mode) from a single device.

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1. GETTING STARTED

Fully Charge the countCAM4

Before use, fully charge your device to ensure proper functionality. A fully charged countCAM4 provides up to 100-hrs of runtime in Camera Mode and up to 85-hrs in Counter Mode.

To charge your countCAM4:

1. Ensure the device is turned off.
2. Plug the provided 3-pin charging cable, and charge base, into the charging port shown in *Figure 1.1*.
3. The countCAM4 fully charges from empty within 12-15 hours.

A red LED illuminates within the 3x LED array while charging (*Orange in Figure 1.2*). This LED turns off when fully charged.

Button Functionality

The countCAM4 uses a software button (*Green in Figure 1.2*) with three functions:

1. Click and release the power button on the front of the device to see the current battery level displayed on the 5x LED array (*Red in Figure 1.2*)
2. Click and hold the power button for one second to turn on the device.
3. Click and hold the power button for three seconds to turn off the device.

Update The Device's Date and Time

The countCAM4 uses GPS to set the date and time of the device. An initial GPS lock is needed to ensure the device correctly sets the date/time to your time zone. This process is only needed the first time a device is used or if the device is being used in a new time zone.

To achieve this lock:

1. Fully charge and turn on the unit.
2. Place the unit in a location with a full, unobstructed, view of the sky.
3. After 15 minutes, connect to the countCAM4, using the process described in Chapter 2, to view the camera's date and time.
4. Once the updated date/time is confirmed, your device is ready for use.

If the unit's clock does not update within 1-hour, please contact support at help@streetlogic.pro for further assistance.



Figure 1.1 – Charging Port



Figure 1.2 – Front Panel Indicators

Connecting to the countCAM4 WIFI Network

The countCAM4 uses a local wireless network to communicate with WIFI-enabled devices. Complete the following steps to connect to the countCAM4 WIFI network:

1. Turn on the countCAM4 camera unit.
2. After roughly 30 seconds, a blue or green LED will illuminate, indicating the boot-up process is complete.
3. Open the WIFI settings of your device and connect to the countCAM4's wireless network. The network name will match the Device ID (*Figure 1.3*). The Device ID is displayed above the power button of the countCAM unit.
 - The password is **12345678**
 - You may receive a warning that no internet is detected on the device, which is expected.
4. We recommend turning off the "Auto Connect" option to prevent inadvertent connection to other powered on devices near by.



Checking Device Firmware

To ensure a smooth and efficient data collection process, you will need to be sure you are running the latest countCAM4 firmware. To check your firmware version:

1. Open the countCAM4 Dashboard using the process stated in Chapter 2.
2. On the top left corner of the Dashboard main page a version number is shown. Make sure this firmware matches that available in the [countCAM4 Help Center](#).

Calibrating Device Compass

The countCAM4 utilizes an onboard compass to capture orientation information for setups. This calibration is completed on all cameras before sale. If orientation information appears incorrect, or if recalibration is desired follow the steps in the [countCAM4 Compass Calibration](#) support article

2. CAMERA MODE – CONTROLLING THE COUNTCAM4

Using the Camera Mode Dashboard

When in Camera Mode, the countCAM4 will show a blue LED (Figure 2.1) during the bootup and recording process. **Access the Camera Mode Dashboard by:**

1. Connecting to your device's WIFI network as described earlier.
2. Open a web browser.
3. Type the Device ID followed by “.local/”
 - i.e. 001081.local/
4. Press the Enter Key or tap the GO button.

The Camera Mode Dashboard should open.

NOTE: If using a phone/tablet you can scan the QR code on the front of the unit to access the device dashboard. This will allow you to access the dashboard with a click of a button, saving time while in the field.

If this is your first time connecting to the unit, or if the unit was last in Camera Mode, you will see the Camera Mode Dashboard main page. Here you can:

- See a live view of the camera for positioning your recording (A).
- Start or stop the countCAM4 video recording (B).
- Set a Time of Day recording schedule (C).
- Review and download recorded videos stored on the countCAM4 (D).
- Select a recording resolution (E).
- Monitor the battery voltage and percentage (F).

Manual Recording Video

To initiate a manual recording, tap the **START CAMERA** button under the live view in the Camera Mode Dashboard. This button will change to **STOP CAMERA**, and the left most LED on 3x LED array will begin to blink, indicating recording is in progress. To stop the recording, press **STOP CAMERA**.

Setting a Time of Day Recording Schedule

The countCAM4 allows users to select what hours of the day to record. To access the scheduler, tap **SCHEDULE**.

NOTE: The scheduler allows users to select recording hours, however, it **DOES NOT** allow selection of recording days.



Figure 2.1 – Camera Mode LED

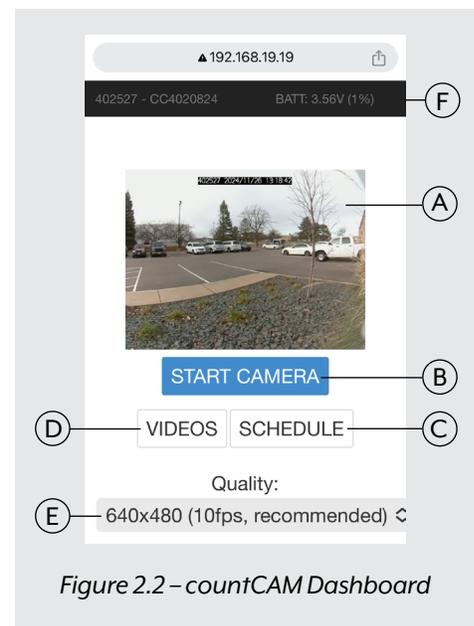


Figure 2.2 – countCAM Dashboard

To set a schedule:

1. Tap the red **START SCHEDULER** button if it shows on the top of the page. If the **STOP SCHEDULER** and **SAVE SETTINGS** buttons are showing, skip this step.
2. Toggle the **CAMERA ON?** checkboxes to select the hours you would like to record. When a checkbox is selected, the camera will start recording at the start of that hour. If the checkbox is deselected, the camera will turn off and will not record until the next checked hour.

Save the selected schedule by pressing **SAVE SETTINGS** at the top of the scheduler page. When a recording schedule is active, a warning shows beneath the live view on the main dashboard page.

Please note that there is a slight delay of up to three seconds in initiating a recording schedule. If this is a concern, consider collecting an extra hour before your desired recording schedule.

Turn on and off the scheduler by pressing the red **START SCHEDULER/ STOP SCHEDULER** button on the top of the page. The schedule is off when the **START SCHEDULER** button is visible and no schedule is shown (Figure 2.3). The scheduler is on when the **STOP SCHEDULER** and **SAVE SETTINGS** buttons are at the top of the screen (Figure 2.4).

Figure 2.4 shows an example of an active schedule that records from 07:00 a.m. to 10:00 a.m. (07:00-10:00) and 04:00 p.m. to 07:00 p.m. (16:00-19:00), for a total of 13 hours.

We recommend checking the scheduler before starting a recording to ensure the appropriate times are selected. There is no way to recover hours that were not recorded.

Selecting the Recording Quality

The countCAM4 provides three recording quality selections in the dropdown menu on the main Dashboard page. These include:

- 10fps, Low Quality – 480x360 at 10 frames per second
 - Smallest file sizes best used for volume counts or turning movement counts with 3-classifications or less.
- 10fps, Balanced – 640x480 at 10 frames per second
 - Recommended selection. Provides small file sizes with the ability to complete 13-classification counts.
- 25fps, Balanced – 640x480 at 25 frames per second
 - Large file sizes. Recommended only to be used for AI/ computer processing of counts.

Reviewing Videos

Press the **VIDEOS** button (Figure 2.5) to view or download your recorded videos. We recommend downloading videos using the USB cable, when possible, as this will provide faster download speeds compared to WIFI. A full description and instructions for navigating the Video Dashboard are in “Chapter 4: Retrieval”.

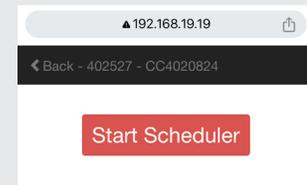


Figure 2.3 – Recording Schedule OFF

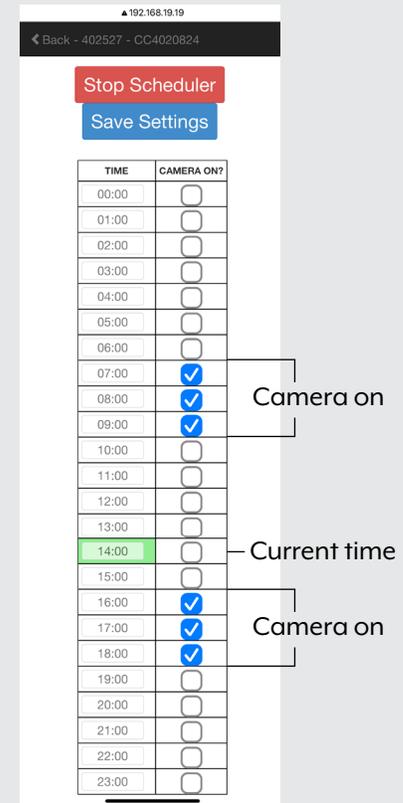


Figure 2.4 – Recording Schedule ON

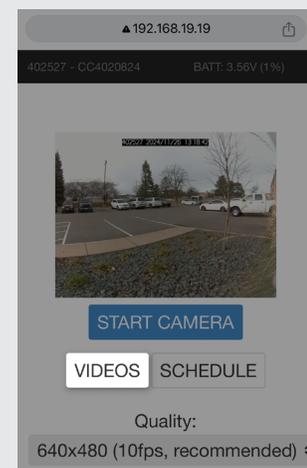


Figure 2.5 – VIDEOS Button

3. CAMERA MODE – INSTALLATION

Location Selection

When in Camera Mode, install the countCAM4 on a signpost or utility pole using the adjustable extension pole. When possible:

1. The camera should be 50-150 feet away from the center of the intersection
2. All movements should be visible within the camera view.
3. Avoid locations where objects may obstruct views.
4. Face the camera north or south to avoid sun glare during sunrise or sunset. If a north/south facing setup is not possible, tilt the camera downward to reduce the skyline in the view.
5. Keep the bottom of the extension pole elevated off the ground.

Installing the countCAM4 in Camera Mode

1. Turn on the unit, connect to the device's WIFI, and navigate to the Camera Mode Dashboard.
2. Attach the countCAM4 to the adjustable pole, available in our [online store](#), using the mounting bracket. Tilt the camera to a downward angle and use the thumb screws on the mounting bracket to tighten in place (Figure 3.1).
3. Extend the aluminum pole and position it on the signpost or utility pole. Make sure the countCAM4 is pointed in the proper direction using the live view from the Dashboard. If needed, lower the extension pole, and adjust the camera's tilt using the mounting bracket before repositioning the extension pole and camera.
4. Use one hose clamp to fasten and hold the adjustable pole to the mounting location. Install a second hose clamp, with the lock bracket and padlock to avoid theft. Always use at least two hose clamps when setting up the countCAM4 device and extension pole.

Verification and Starting a Recording

Before you leave the data collection site, verify:

- All desired movements and approaches are within the live view of the camera.
- The recording schedule is either turned off or set to the desired times.
- Review the **VIDEOS** page to ensure sufficient storage is available for your videos (Figure 3.2).

If recording manually, tap **START CAMERA** and ensure the camera LED changes from solid blue to blinking before leaving the intersection. If using the scheduler, ensure the schedule is active by checking for the schedule warning on the main page (Figure 3.3) and verifying the schedule is correctly set.



Figure 3.1 – CC3+ Mounting Bracket Angle

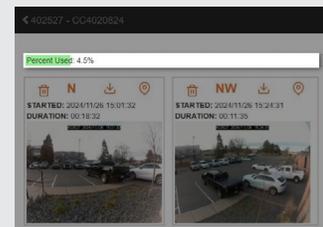


Figure 3.2 – Device Storage

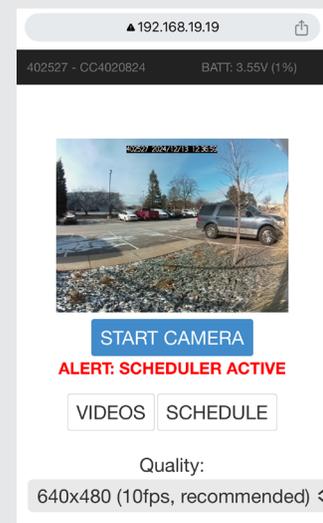


Figure 3.3 – Active Schedule Warning

4. CAMERA MODE – RETRIEVAL AND DOWNLOAD

Picking-up the countCAM4

After the recording has ended, carefully take down the countCAM4:

- If the countCAM4 is still recording, depress and hold the power button for three seconds to turn off the device, or connect to the countCAM4 and press **STOP CAMERA** (Figure 4.1).
- Place the countCAM4 in a storage bin or container to avoid damaging the device during transport.

Downloading Video Files

Retrieve the collected video from the countCAM4 by connecting the device to a computer with the following steps:

- Connect the countCAM4 to your computer using WIFI or the provided USB cable. The USB connection will download videos faster than the WIFI connection.
- Once the LED illuminates blue, open a web browser and navigate to the countCAM4 Dashboard:

Type the `http://<deviceid>.local/` into the web browser and hit the Enter Key.

- i.e `http://001081.local`

If you cannot access this page using the steps above, download the RNDIS driver available [HERE](#) in the countCAM4 section of the Help Center. This driver is needed to use the USB connection. Email help@streetlogic.pro if you're still having issues after installing the RNDIS driver and restarting your device.

Once in the countCAM4 Dashboard, click **VIDEOS** (Figure 4.1) to access your stored videos. All recordings on the device are shown on this page (Figure 4.2) with their start date and time, recording duration, and a screenshot displayed. The direction the camera was facing, along with a link to a Google Maps page showing the setup location is also provided for each video, pending a full GPS lock was achieved. The direction of the camera will be shown via the short form direction notation (N, S, E, W, NE, SE, NW, SW) while the location information can be accessed by clicking on the location pin shown above the screenshot (Figure 4.3).

If a video is actively recording, “Video in Progress” is displayed above the active recordings screenshot (Figure 4.4).

A video may show “Processing Video, ###% done” (Figure 4.5). This message means the video has finished recording but is still being prepared for download. If a study shows this message leave the device powered on, wait ten minutes, and click the refresh button. In the rare instance you get this message, you can unplug the countCAM4, power

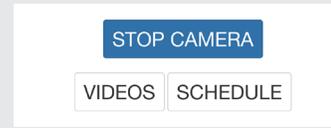


Figure 4.1 – STOP CAMERA Button

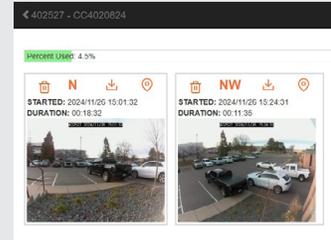


Figure 4.2 – Video Dashboard



Figure 4.3 – GPS and Orientation

VIDEO IN PROGRESS
STARTED: 2024/11/25 14:40:13

Figure 4.4 – Video in Progress Message

PROCESSING VIDEO, 50% done

Figure 4.5 – Video Boxing Message



Figure 4.6 – Download and Delete Video Icons

it on, and download videos from a different device while the initial countCAM4 finishes processing the video. To download your video, click the orange download icon (down arrow) located above the screenshot (*Figure 4.6*). You can also view the video within the Video Dashboard by clicking on the video screenshot.

The countCAM4 automatically stops and starts a new video at midnight, which means the maximum video length from the countCAM4 is 24 hours. Any recording that spans multiple days will have at least two video files to download.

Clearing the Device

We recommend clearing the videos from the countCAM4 after a successful download is confirmed and you have the videos saved to your hard drive or a flash drive. Deleting videos will result in faster load times of the **VIDEOS** page.

Delete videos by clicking the orange trash can icon on the top left of the video (*Figure 4.6*). The used and available storage on the device is shown at the top of the **VIDEOS** page.

NOTE: Once deleted, videos cannot be recovered.

5. COUNTER MODE – INSTALLATION

Installing the countCAM4 in Counter Mode

When in Counter Mode, install the countCAM4 on a signpost or utility pole next to a two-lane, bi-directional (Figure 5.1).

1. Replace the Camera Mode bracket with the Counter Mode plate, if desired (Figure 5.1).
2. Use a zip tie or hose clamp to fasten the countCAM4 to the pole/post.
3. Mount the countCAM4 camera lens three to five feet above the roadway surface.
4. Rotate the camera perpendicular to the roadway to ensure the most accurate results.
5. Avoid pointing the countCAM4 at locations where busy sidewalks, driveways, other roads, etc., are visible in the background of the camera view. The device is detecting all objects in its field of view and can overcount in these situations.

NOTE: To achieve accurate volume counts, ensure the countCAM4 is at least six (6) feet away from the closest vehicle. To collect accurate speed data the distance must be increased to:

- 35 MPH or less: ~15-feet from the near lane traffic.
- 40 MPH or greater: ~20-feet from the near lane traffic.

Turn on the countCAM4

Click and hold the power button on the bottom of the countCAM4 for one second to power on the device.

The countCAM4 will begin its boot up and calibration process which may take up to two minutes to complete. Once complete, a green LED (Figure 5.2) will flash every time a vehicle is detected and written to the log. This means your device is collecting vehicle data. Use this indication to verify your device is correctly counting vehicle traffic.



Figure 5.1 – Installation Example



Figure 5.2 – Counter Mode LED

6. COUNTER MODE – RETRIEVAL AND DOWNLOAD

Pick-up the countCAM4

Once the study period has elapsed, retrieve the countCAM4 from the field.

- Turn off the device by depressing and holding the power button for three seconds.
- Remove the countCAM4 from the pole/post.

Connect the USB cable to the countCAM4

Vehicle data can be retrieved from the countCAM4 by connecting the device to a computer using the following steps:

1. Connect the countCAM4 to your computer using the provided USB cable (Figure 6.1) or via the unit's WIFI.
 - If using WIFI, turn on the unit with the power button and connect to the device's WIFI on the downloading computer.
 - The unit will automatically start a new study and the LED will blink with movement when connecting via WIFI.
 - If connecting with the provided USB cable (Figure 6.1) the device will power on itself. The LED will remain solid upon boot up and no new study will be started.



Figure 6.1 – Dashboard Connection

2. Once the device has powered on, navigate to the countCAM4 dashboard as discussed in Chapter 2.

Download the Study Data

The Counter Mode dashboard presents your completed studies for download (Figure 6.2).

- Studies will be listed with the newest study on top.
- Summary information for each study is provided in the report listing. This includes:
 - A screenshot of the detection location
 - The start date and time
 - The end date and time
 - The study Duration
 - A GPS Link

If a GPS link was not achieved during the study times will default to UTC and a warning message will be provided

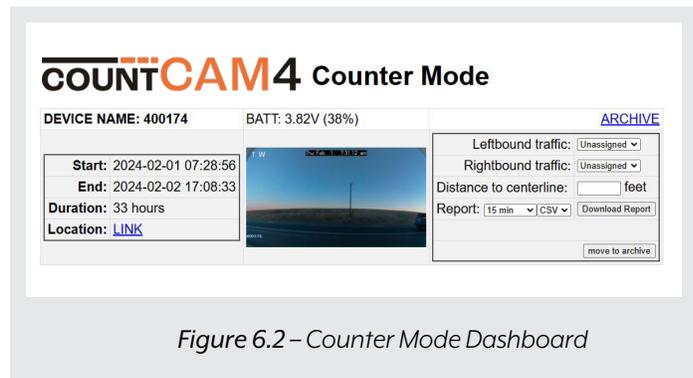


Figure 6.2 – Counter Mode Dashboard

To generate a volume only report enter the prompted information displayed to the right of the study screenshot, including:

1. Enter your Leftbound and Rightbound direction.
2. Select your desired bin size from the 15-minute, 60-minute, and per vehicle options.

3. Select your report type.

- Both .CSV and .MS2 file types are provided.

4. Click **DOWNLOAD REPORT**.

To generate a volume and speed report enter the distance from the countCAM4 to the nearest side of each flow vehicle traffic.

Reports can be removed from the countCAM4 dashboard by clicking **MOVE TO ARCHIVE**. This will remove the study from the summary list and the data will no longer be available for on-demand download.

7. SWITCHING COUNTCAM4 MODES

The countCAM4 allows users to collect video when set up in Camera Mode or directional volume data when in Counter Mode. To change the device mode:

1. Turn on the countCAM4.
2. A light will illuminate on the device after 30 seconds.
 - If the light is GREEN, the unit is in Counter Mode.
 - If the light is BLUE, the unit is in Camera Mode.
3. Connect to the unit's WIFI as discussed in Chapter 1.
4. Navigate to the device's Dashboard as discussed in Chapter 2.
5. Scroll to the bottom of the Dashboard page to access the Mode Switch Button (*Figure 7.1*).
 - Tap **RESTART AS COUNTER** when in Camera Mode.
 - Tap **RESTART AS CAMERA** when in Counter Mode.
6. The device will turn off and reboot in the selected mode. You will know the switch was successful when the LED illuminates in the new color.

NOTE: You will have to reconnect to the device's WIFI network after changing Modes.

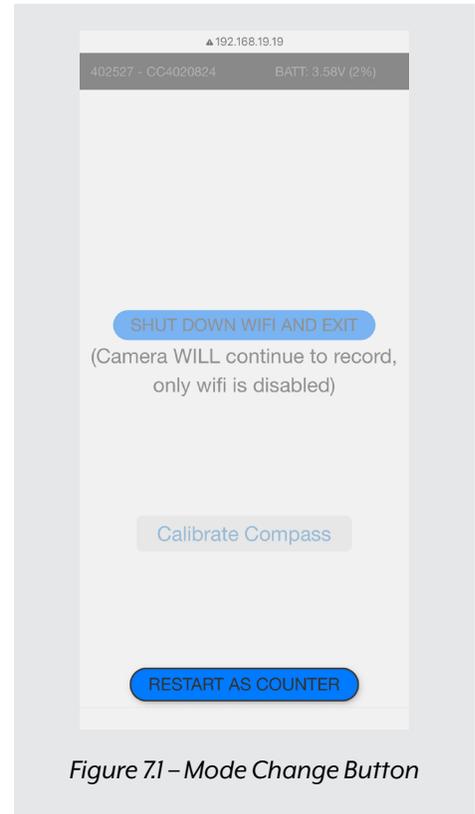


Figure 7.1 – Mode Change Button

8. USING A BOOSTER PACK, POWERBANK, OR POWERBANK2

The Booster Pack, powerBANK, and powerBANK2 External Battery Pack allows you to extend the recording time of your countCAM4 by up to 80 hours. These devices will be referenced as “battery pack” in the following section.

Charging the Battery Pack

- Plug the 3-pin charging cable into the charging port located on the endcap of the battery pack. Be sure to use the provided USB-A charge base.
- Plug the 3-pin charging cable into the charging port located on the endcap of the battery pack. Be sure to use the provided USB-A charge base.
- The battery packs fully charge from empty within 12 to 15 hours.
- A red LED illuminates while charging. Once fully charged, this LED turns off.
- Push the charge indication button on the front of the powerBANK or powerBANK2 to see the current battery level. This feature is not available on the Booster Pack.

Installing the Battery Pack

- Connect the provided 3-pin to 3-pin cable to the countCAM4 and then to the battery pack, to ensure the correct port is used.
- Set up the countCAM4 as discussed in Chapter 3 or Chapter 5.
- Use an additional hose clamp and locking bracket system, or zip-tie, to fasten the battery pack to the signpost or utility pole (*Figure 8.1*).
- Gently coil any excess cable around the device.

Battery packs can be mounted towards the top of the extension pole, using a hose clamp, to minimize tampering or vandalism. If using this technique, we recommend mounting the battery pack mid-pole, high enough to be out of reach, but low enough to reduce wind load.



Figure 8.1 – Battery Pack Mounting

IMPORTANT NOTE: Booster Packs and powerBANKs must be installed on countCAM units with a minimum of 80% charge. The powerBANK2 can be used on a device with any charge level. This means if more than 80 hours of additional runtime is needed, two powerBANKs/Booster Packs should be installed at the start of the recording. It is possible to swap out boosters during a recording, but this should occur early in the recording process so that the countCAM is still fully to mostly charged. If a powerBANK/Booster Pack is installed on a countCAM that is not sufficiently charged the booster will be unable to extend runtimes.

9. ADDITIONAL INFORMATION AND SUPPORT

Visit our help center at (<https://www.streetlogic.pro/pages/countcam4-help>) for documentation and setup videos. If you need additional help, use the Chatbot located at the bottom right of www.StreetLogic.pro. Or, email us at help@streetlogic.pro.