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Spacksolutions CAM3 Controlling the count User Guide

Contents

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Getting Started

Fully Charge the countCAM3

Before use, fully charge your device to ensure proper functionality.

- Ensure the device is turned off by checking that the power button is in the off position, as shown in Figure 1.1.
- Plug the provided 3-pin charging cable into the charging port at the bottom of the countCAM3 (See Figure 1.1) and the Type-A electrical plug into an outlet or power strip.

- The countCAM3 fully charges from empty within 15-hrs resulting in a minimum of 84-hrs of runtime. Extend recording with lower resolution and scheduling.
- A red LED illuminates while charging (circled in orange in Figure 1.2). This LED turns off when fully charged.
- Push the charge indication button on the front of the device (circled in red in Figure 1.2) to see the current battery level. A five LED array illuminates while depressed. The indicator may blink when the device is charging. This blinking does not affect the functionality of your device.

Update The Device's Date and Time

The countCAM3 uses GPS to set the date and time of the device. This means 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:

- Once the device is fully charged turn on the unit by depressing the power button on the bottom of countCAM3.
- Place the unit in a location with full view of the sky for 15 to 30 minutes.
- Connect to the countCAM3, using the process described in Chapter 2, "using the countCAM3 Dashboard", to view the camera's date and time.

If the unit's clock does not update within 1-hour, please contact support at **help@spacksolutions.com** for further assistance. Connecting to the countCAM3 The countCAM3 uses a local wireless network to communicate with any WIFI-enabled device. Complete the following steps to connect to the countCAM3 WIFI network:

- Turn on the countCAM3 by depressing the power button on the bottom of the device.
- After roughly 30 seconds, the LED turns green, indicating the countCAM3 has completed the boot-up process.
- Navigate to the WIFI settings of your laptop, cellphone, or tablet and connect to the countCAM3's wireless network. The network name is 'cc<deviceid>', (see Figure 1.3 for an example).
  - The default password is 12345678
- You may receive a warning that no internet is detected on the device, which is expected. The device is functioning normally.

Checking Device Firmware

To ensure a smooth and efficient data collection process, you will need to ensure you are running the latest countCAM3 firmware on your device. Check your firmware version by:

- Open the countCAM3 Dashboard using the process stated in Chapter 2, below.
- On the top left corner of the Dashboard main page a version number is shown (i.e. V1.12.30). Be sure this number matches the latest firmware version available for download in the **countCAM3 Help Center firmware download article**.
- If a new firmware version is needed follow the **firmware update process** in the countCAM3 Help Center to update your device..

Controlling the countCAM3

Using the countCAM3 Dashboard

After connecting your device to the countCAM3's WIFI network, access the Dashboard by opening a web browser (we recommend Google Chrome) and navigate to the countCAM3 Dashboard URL by typing "cc" then the Device ID followed by ".local/" (i.e. cc000519.local/) into the web browser and press the Enter Key. A phone/tablet shortcut icon can also be created, using the process discussed at the end of this chapter, allowing you to skip this step. Now you are seeing the Dashboard main page (Figure 2.1), where you can do the following:

- See a live view of the camera for positioning your recording (A in Figure 2.1).
- Start or stop the countCAM3 video recording (B in Figure 2.1).
- Set recording schedules if only peak hour, 13-hour, or specialized recording times are desired (C in Figure 2.1).
- Review and download recorded video stored on the countCAM3 (D in Figure 2.1).
- Select a recording resolution (E in Figure 2.1).

If you cannot access this page, download the RNDIS driver available **HERE** in the countCAM3 section of the Help Center. Email **help@spacksolutions** if you're still having issues after installing the RNDIS driver and restarting your device.
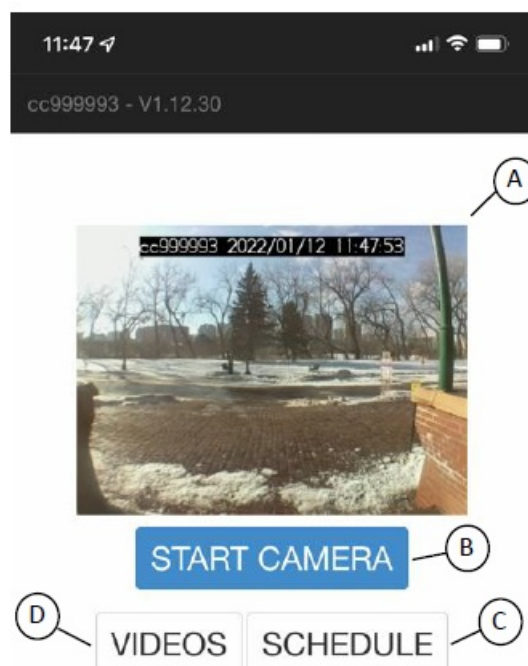
Manual Recording Video

Once you are in the countCAM3 Dashboard, you can start recording videos. To initiate a manual recording, press the START CAMERA button under the live view. This button should change to STOP CAMERA, and a light begins to blink on the front of the countCAM3 indicating recording is in progress. To stop the recording, press STOP CAMERA.
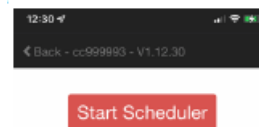
Setting a Recording Schedule

The countCAM3 allows users to set a recording schedule other than 24-hour per day. To access the scheduler, press SCHEDULE. The scheduler allows users to select recording hours. The date of recording CANNOT be selected. To set a scheduled start time:

1. Click 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 record that hour. If the checkbox is deselected, the camera will turn off and not record until the next checked hour.

Figure 2.2 – Recording Schedule ON

Save the selected schedule by clicking SAVE SETTINGS at the top of the scheduler page. When a recording schedule is active, a warning shows 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, you may want to consider collecting an extra hour before your desired recording schedule. After selecting a schedule, it can be turned on/off 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. The scheduler is on when the STOP SCHEDULER and SAVE SETTINGS buttons are at the top of the screen. Figure 2.2 shows an example schedule that starts recording at 06:00 a.m. and stops recording at 07:00 p.m., for a total of 13 hours. Figure 2.3 shows what the Scheduler will look like if no Schedule is active.

The set schedule REMAINS IN PLACE until manually changed or turned off and does not reset with the on/off switch. We recommend checking the scheduler before starting a recording to ensure the appropriate recording times are selected. There is no way to recover hours you wanted to record that were unchecked in the scheduler and thus not recorded. Selecting the Recording Quality

The countCAM3 provides five recording quality selections that can be selected in the dropdown menu on the main countCAM3 Dashboard page. These include:

- 10fps, Low Quality – 480×360 at 10 frames per second
- 10fps, Balanced – 640×480 at 10 frames per second
- 25fps, Balanced – 640×480 at 25 frames per second
- 10fps, HD – 1296×972 at 10 frames per second
- 25fps, HD – 1296×972 at 25 frames per second

We recommend defaulting to the 10fps, Balanced quality as this provides video qualities similar to the countCAM2 with small file sizes. The 25fps, Balanced quality options will generate files roughly 2.5 times larger than the 10fps option.
To reduce file sizes, use Low Quality on small intersections or point count locations. We recommend only using the HD resolution for short recordings of up to four hours as they can generate very large file sizes up to 1.5 GB per hour.

Reviewing Videos

Press the VIDEOS button to view or download the recorded videos in the Video Dashboard. We recommend downloading videos using the USB-C cable for the fastest download speeds instead of the WIFI connection. A full description and instructions for navigating the Video Dashboard are in Chapter 4: Retrieval, later in this manual.

Phone/Tablet Shortcut

To avoid typing the device ID into a web browser with each use, create a shortcut to the Dashboard on your mobile device with one of the following processes:
Android Devices:

1. Turn on a countCAM3 and connect to the device's WIFI network, as mentioned at the start of this chapter.
2. Open Google Chrome and type, **http://192.168.19.19**. This should open the countCAM3 Dashboard.
3. Once the Dashboard is visible, tap the menu icon (3 dots in the upper right-hand corner) and tap "Add to Home Screen."
4. An icon on your phone or tablet should now appear. This shortcut leads to the countCAM3 Dashboard of any countCAM3 device your phone/tablet is connected to via WIFI.

iOS Devices:

1. Turn on a countCAM3 and connect to the device's WIFI network, as mentioned at the start of this chapter.
2. Open Apple's "Shortcuts" application and tap the + in the top right corner.
3. Click "Add Action" and then "Apps."
4. Navigate to your preferred web browser and tap on the icon.
5. Tap "Open URLs" and type **http://192.168.19.19** into the URL window and click Next in the top right-hand corner.
6. Add a shortcut name such as "countCAM3 Dashboard," and the shortcut will be added to the Shortcut main page.
7. If you want to create an icon on your homepage, click on the menu icon (3 dots) on the countCAM3 Dashboard Shortcut and click the menu icon on the second page.
8. Within this menu, you can edit the icon image by clicking on the default image shown. You can also add a

shortcut directly to your phone by clicking "Add to Home Screen."

9. An icon on your phone or tablet should now appear. This shortcut leads to the countCAM3 Dashboard of any countCAM3 device your phone/tablet is connected to via WIFI.

Installation

Location Selection

Install the countCAM3 on a signpost or utility pole. When possible, the camera should be 50-150 feet away from the center of the intersection, and all movements should be visible within the camera view.

- Avoid locations where objects may obstruct views.
- 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 to minimize the impact of sun glare on the video.

Installing the countCAM3

- Slide the countCAM3 portion of the mounting bracket onto the device and position it midway on the countCAM3. Use a Philips screwdriver to tighten the bracket.
- Attach the countCAM3 to the adjustable pole using the mounting bracket. Use the wingnut on the mounting bracket to tighten the tilting mechanism at the appropriate angle (Figure 3.1).
- Turn on the countCAM3, extend the aluminum pole, and position it on the signpost or utility pole. Make sure the countCAM3 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.
- Use one hose clamps to fasten and hold the adjustable pole to the mounting location. Once fastened, install a second hose clamp paired with the lock bracket and padlock to avoid theft. Always use at least two hose clamps when setting up the countCAM3 device and extension pole, but only one needs a padlock.

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 by tapping and reviewing the SCHEDULE section.
- Review the VIDEOS page to ensure sufficient storage is available for your videos.

If recording manually, tap START CAMERA and ensure the camera LED changes from solid to blinking before leaving the intersection. If using the schedule, ensure the schedule is active by checking for the schedule warning on the main page.

Retrieval

Picking-up the countCAM3

After the recording has ended, carefully take down the countCAM3.

- If the countCAM3 is still recording, depress the power button to turn off the device, or connect to the countCAM3 and press STOP CAMERA.
- Place the countCAM3 in a storage bin or container to avoid damaging the countCAM3.

Downloading Video Files

Retrieve the collected video from the countCAM3 by connecting the device to a computer with the following steps:

- Ensure the countCAM3 is turned OFF.
- Connect the countCAM3 to your computer using the provided USB cable.

- Once the green LED illuminates, open a web browser and navigate to the countCAM3 Dashboard URL:
  - Type the "http://cc<deviceid>.local" (i.e. "http://cc000519.local/") into the web browser and hit the Enter Key.
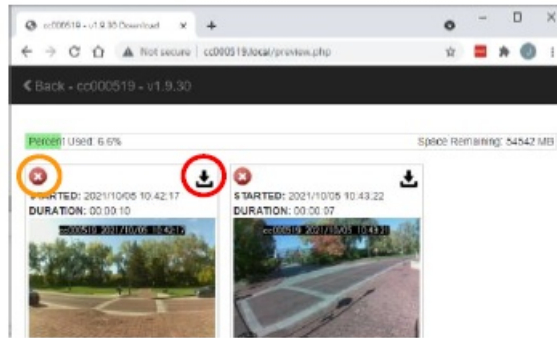
Figure 4.1 – Video Dashboard

VIDEO IN PROGRESS
STARTED: 2021/10/05 10:50:55

cc000519 2021/10/05 10:50:55

Once in the countCAM3 Dashboard, click VIDEOS to access your stored videos. All recordings on the device are shown on this page (Figure 4.1) with their start time, recording duration, and a screenshot. If a video is recording, "Video in Progress" is visible on the specific video when viewing in the video Dashboard (Figure 4.2). Additionally, a video may show "Processing Video, Please Wait…" (Figure 4.3). This message means the video is still being prepared for download. If a study shows "Processing Video, Please Wait…" wait ten minutes and click the refresh button. In the rare instance you get this message, you can unplug the countCAM3, leaving its power on and download a different device while this countCAM3 finishes its video processing step. To download your video, click the black download icon on the top right of the video (circled in red in Figure 4.1). You can also view the video within the Video Dashboard by clicking on the video screenshot. The countCAM3 automatically stops and starts a new video at midnight, which means the maximum video length from the countCAM3 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 countCAM3 after a successful download is confirmed and you have the videos saved to your hard drive or a flash drive. Delete videos by clicking the red circle with the white "X" on the top left of the video (circled in orange in Figure 4.1). The available storage on the device is shown at the top of the VIDEOS page. Once deleted, videos cannot be recovered, so please ensure your videos have been downloaded first!

Using the power BANK

The powerBANK External Battery Pack allows you to extend the recording time of your countCAM3 by 50-hours.

Charging the powerBANK

• Plug the 3-pin charging cable into the charging port located on the bottom of the powerBANK and the Type-A electrical plug into an outlet.
• The powerBANK fully charges from empty within 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 device to see the current battery level, the same as with the countCAM3.

Installing the powerBANK

- Connect the powerBANK cable to the countCAM3 and then to the powerBANK, ensuring the correct port is used on the powerBANK.
- Set up the countCAM3 and extension pole as discussed in Chapter 3.
- Use an additional hose clamp and locking bracket system to fasten the powerBANK to the signpost or utility pole (Figure 4.1).
- Gently coil any excess cable around the device.

The powerBANK can be mounted towards the top of the extension pole to minimize tampering or vandalism. If using this technique, we recommend mounting the powerBANK mid-pole, high enough to be out of reach but low enough to reduce wind load. Boosters and powerBANKs must be installed on a fully charged to mostly charged countCAM. This means if more than 50 hours of additional runtime is needed two powerBANKs 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 is installed on a countCAM that is not sufficiently charged the booster will be unable to extend runtimes.

Information and Support

Visit our help center at (**https://helpcenter.spacksolutions.com/knowledge/countcam3-help**) for documentation and setup videos. If you need additional help, click the 'Open a Ticket' button at the top of www.SpackSolutions.com. You may think you'll get a faster response with a phone call or a general email, but we assure you the fastest way to get the help you need is to use our ticketing system as multiple people monitor that channel.

Documents / Resources

Spacksolutions CAM3 Controlling the count [pdf] User Guide
CAM3 Controlling the count, Controlling the count, count

References

- 🌐 **countCAM3 Help: - Help Center**
- 🌐 **Download: RNDIS Driver**
- 🌐 **How do I update the countCAM3 firmware?**