Using Your New Black Cat II Plus Radar – 9 Steps from Start to Finish

You've just received a big box (or boxes) with the JAMAR Black Cat II Plus Radar Recorder and all the accessories that go with it. So right about now you're probably thinking, 'Where do I start?' Don't worry, that's what this guide is for. We'll take you from unpacking the equipment to producing reports in 10 easy steps.

● Step 1 – Unpacking and Checking Your Equipment

First, let's unpack everything and make sure you got everything you were supposed to get. With most orders there should be a single sheet of paper that shows the items that are part of your Black Cat II Plus kit and the quantity of each item that you should have received. Check the contents of your box\boxes against this sheet. If anything is missing, let us know.

● Step 2 – Setting up Your Computer

To program the Black Cat Radar, and to download data from it, you'll use a computer running the STARnext software.
• If your kit includes a laptop, the STARnext software has been pre-installed for you and you can skip to Step 3.
• If you purchased the STARnext software, but are using your own computer, install the software using the software provided.
• If you are using your own computer and already have STARnext, check to see that you are using the latest version and update it as necessary. The latest version of STARnext can be downloaded at *www.jamartech.com/STARnext-download*.

● Step 3 – Selecting an Installation Site

Now that we've unpacked everything and setup the computer, we're ready to select a site for doing some data collection. When choosing a site to install the Black Cat Radar, keep in mind that the Black Cat will need to be mounted to a pole (typically a utility pole) or tree, so the site will need to have one of these available for use.

For the best results, the installation SHOULD be: at a 45 degree angle to the flow of traffic. Six to ten feet back from the road. At least six feet above the ground. Where the far lane is no more than 50' away. Where traffic is free flowing.

The BC II+ Radar SHOULD NOT be installed: at an intersection. Near where vehicles are likely to park. Where the radar head is at an extreme angle. Where pedestrians are likely to be crossing. Where the Radar's "view" is obstructed.

● Step 4 – Installing the Black Cat II Plus Radar

Once a site has been selected, the Black Cat II Plus Radar can be easily mounted using the installation kit. For the most accurate results, install the mounting bracket at a 45 degree angle to the traffic.

Insert the pegs on the back of the Black Cat II Plus Radar's mounting bracket into the large holes of the pole mounting bracket and slide the Radar down to secure it in place.

Depending on how high you mount the BC II+ Radar, you may need to tilt the unit so it is facing down into the traffic lane. This is done by adjusting the bracket on the back of the Radar. Loosen the top bolt on the bracket (there is one on each side) using the provided hex head allen wrench. Once loosened, the unit can be tilted down. The allen wrench can then be used to retighten the bracket. The maximum pitch the BC II+ can have is approximately 20 degrees.
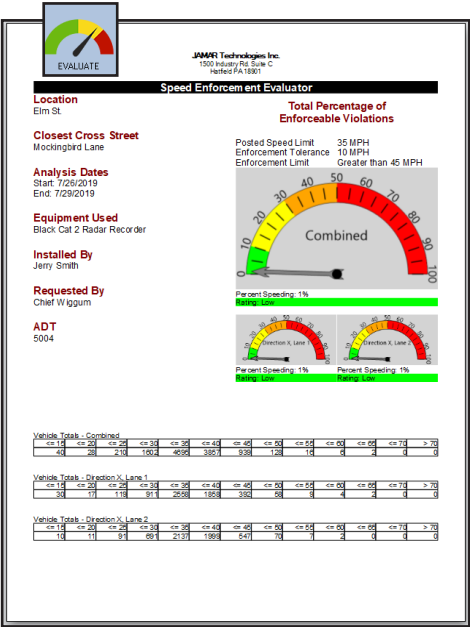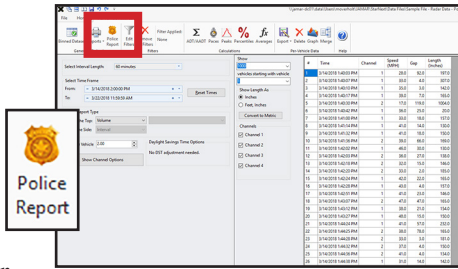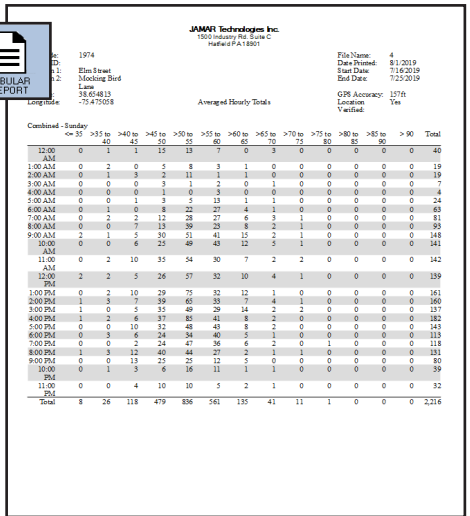

● Step 9 – Producing Reports

If you have collected your data in the recommended Per Vehicle format, once your study opens you'll see the Per Vehicle window. To produce reports from your data, click the button labelled *Police Reports* and the Police Reports screen will appear.

There are a number of PD reports to select from such as the Data Summery and the Enforcement Scheduler. the reports. The other buttons will produce reports as discussed below.
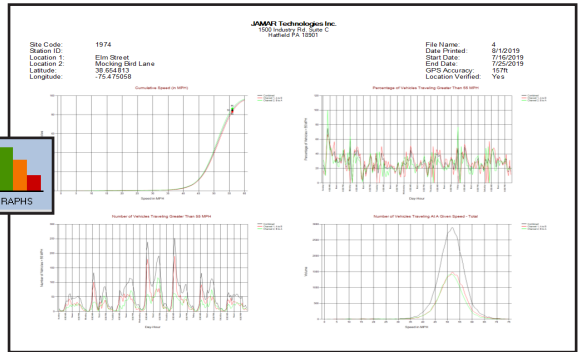

The **Speed Enforcement Evaluator** is a one-page report that concisely displays whether or not a speeding problem exists, based on the percentage of enforceable violations. The report makes for an excellent hand-out at public meetings and is *highly* customizable.

Designed to make scheduling enforcement more effective, the **Best Times for Enforcement** report details what times of the day have the largest number of enforceable violations.
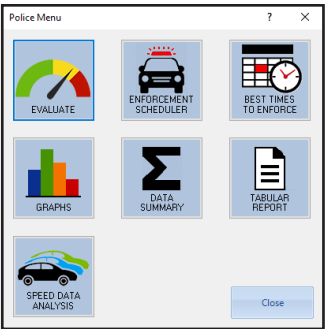

The **Tabular Reports** option gives you another way to show your speed data. You have the option of One Line Summary, One Day Per Line or Hourly Data.
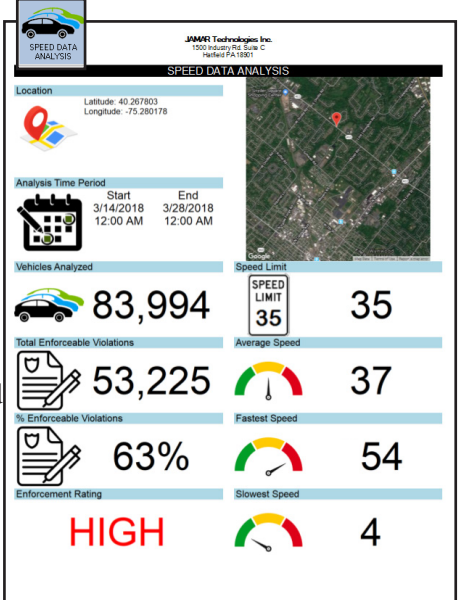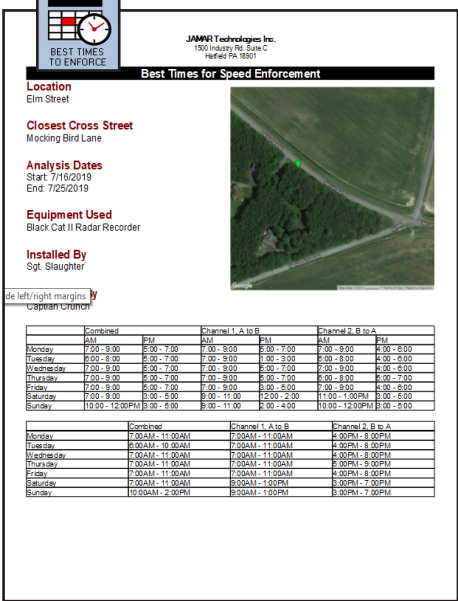
The **Speed Data Analysis** Report gives you a clear and concise overview of the count showing values like Total Vehicles counted, Average Speed as well as fastest and slowest vehicles.

The **Graphs** selection gives you access to a variety of graphs that display vehicle speed and vehicle length info in different formats. Hit the *Print* button to print them all.

This Quick Start guide covers the basics needed to get started with your Black Cat Radar. The full User's Manual can be downloaded at www.jamartech.com/manuals.
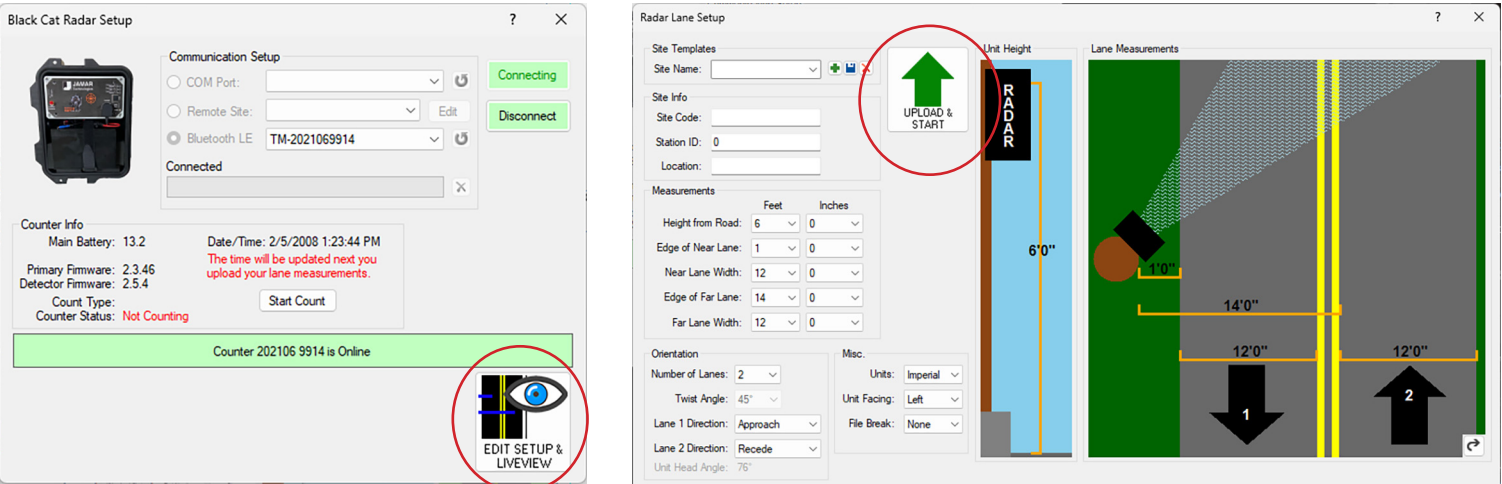
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● Step 5 – Setting Up a Study: Programming the Black Cat

Once the Black Cat Radar is installed, we're ready to program it to record data. Open the door of the Radar. If the battery is not already connected, connect it to the radar head to provide power.

BC II Plus Radars have wireless Low Energy Bluetooth capability which allows you to connect without a hard wire USB connection. The STARnext software will automatically search for, and display, any units it finds powered on within its range. Note that there is no need to go through the 'Pairing' process as was common with units that used a Classic Bluetooth connection. If your laptop does not have Bluetooth you can use the USB cable as described in the full User's Manual.

Select **Setup** from the Quick Start menu, then the Black Cat Radar. Make sure you have the "Bluetooth LE" radio button selected and click the **Connect** button to have the STARnext software connect to the Black Cat II Plus Radar.

Once connected, click the *Edit Setup & LiveView* button.

Set distances for near and far lanes, as well as recorder head height. Make sure to tap '*Upload Site Geometry*' to begin the count.

● Step 6 – Checking Recorded Data in LiveView

Once the Recorder is setup and recording, the View Real Time utility should be used to check setup accuracy.

As vehicles pass the detection zone...

...the Real Time View screen should show the speed and length of the vehicles as they pass by.

Troubleshooting

If LiveView is not showing vehicle data as vehicles pass the detection zone, check that the Radar has been aimed properly. The face of the radar head should be aimed at a 45 degree angle to the road.
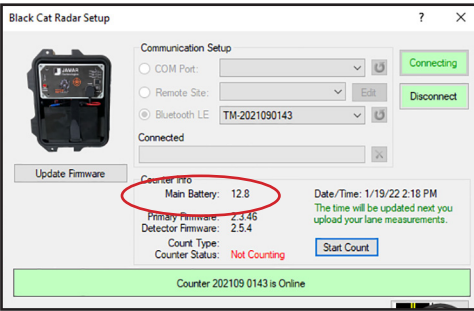
● Step 7 – Securing the Black Cat and Monitoring Battery Life

Now that the Black Cat has been installed, programmed and checked for accuracy, we're ready to leave it to do its job of collecting data. Close the front door and latch it shut. Lock the unit into the mounting bracket, and lock the door latches, using the locks provided. If you wish to add further security to the installation, the chain that was provided with the recorder can be wrapped around the pole through the bracket area, then locked in place.
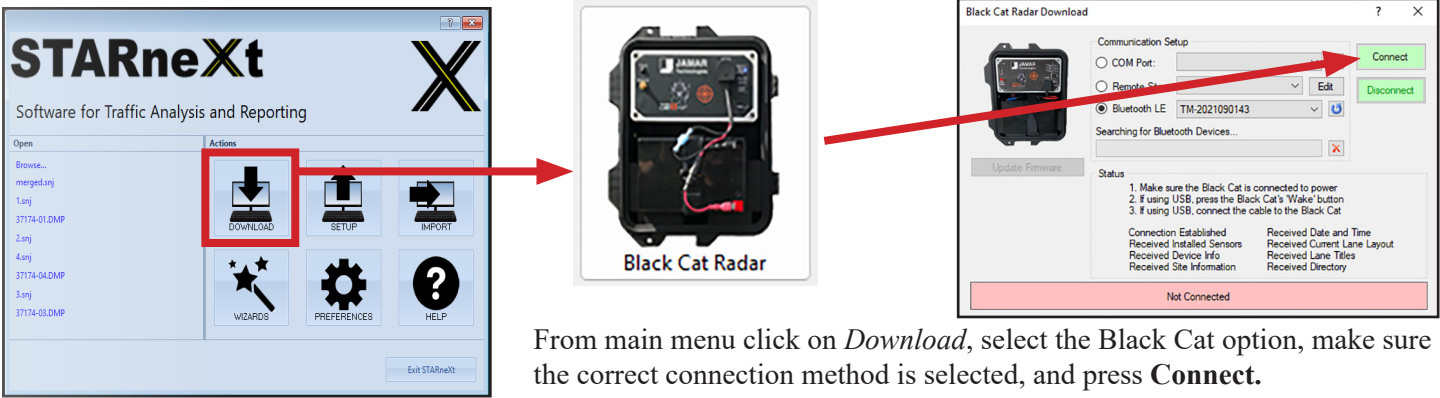

Your Black Cat will record data for about 7-10 days on a fully charged (13.2v or higher)battery. If you will be collecting data for more than a few days at a time, we recommend that you periodically monitor the charge on the battery to be sure that you get good data throughout the duration of your study. To do this connect to the Black Cat. The main battery voltage is displayed in the Radar Recorder Setup screen, as shown here.

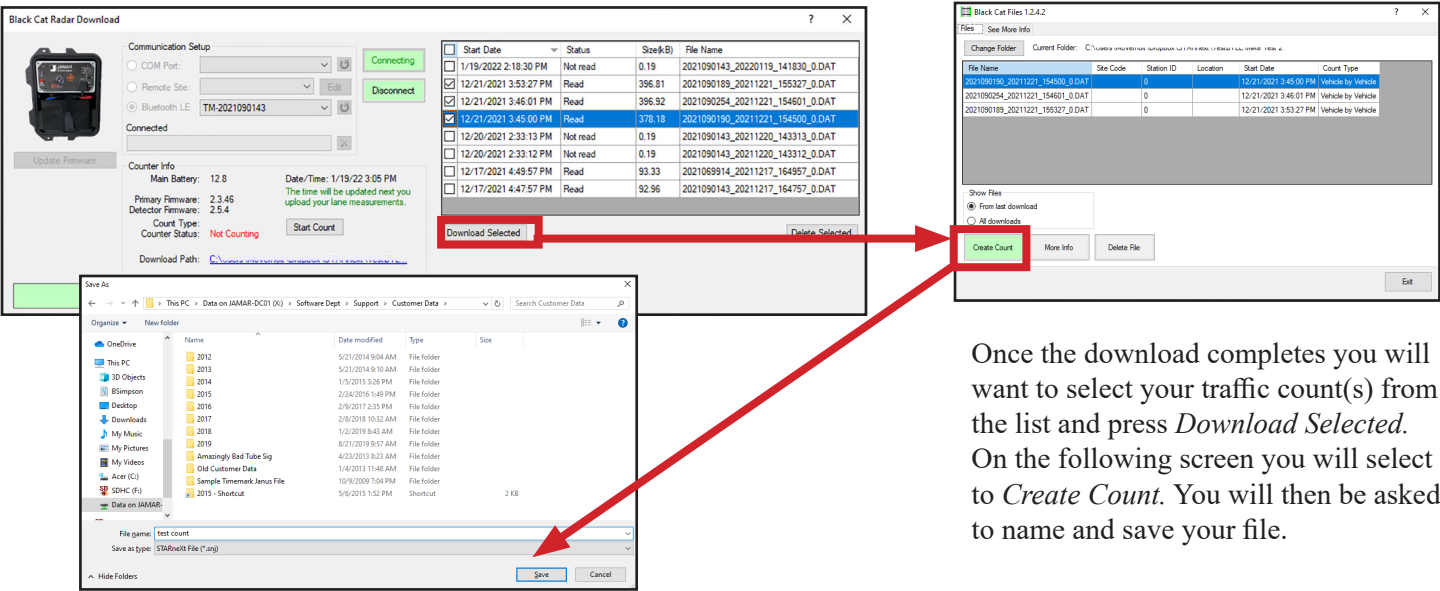Replace and recharge your battery once the voltage falls below 11.5 volts.

● Step 8 – Downloading Data from the Black Cat to the Computer

Note: The Black Cat can either be downloaded in the field to a laptop, or brought back into the office to download to a desktop.

From main menu click on *Download*, select the Black Cat option, make sure the correct connection method is selected, and press **Connect.**

Once the download completes you will want to select your traffic count(s) from the list and press *Download Selected*. On the following screen you will select to *Create Count*. You will then be asked to name and save your file.