W.D.D.O. Standard Operating Procedures for Camera System Use in Double Blind Scent Detection Canine Team Certification Testing

1. **General**
   A. A camera system may be used to remotely observe the handler during all testing scenarios in place of a Proctor. The Testing and Certifying Officials will monitor the team's progress as the team challenges the test to ensure that all rules outlined in the W.D.D.O. Double Blind Canine Scent Detection Certification Test Overview Sheet are followed.
   B. Remote access to the camera system is reserved for W.D.D.O. approved Testing and Certifying Officials, Board Members, and Certification Committee Members only.
   C. W.D.D.O. approved Testing and Certifying Officials, Board Members, and Certification Committee Members are the only individuals allowed to view testing scenarios utilizing the camera system, with the following exceptions on a case by case basis:
      i. A tested handler's supervisor or employer may request to observe the test scenario(s) along with the Testing/Certifying Official. The Testing Official may approve an exception of this type.
      ii. A tested handler may request that another individual(s) be allowed to observe the test scenario(s) along with the Testing/ Certifying Official. The Testing Official may approve an exception of this type.
      iii. A tested handler may give W.D.D.O. permission for others to observe the test scenarios for the purpose of demonstrating how tests are conducted. This type of exception must be approved in advance by the W.D.D.O. Board of Directors.
      iv. All individuals granted permission to observe testing scenarios must do so with a W.D.D.O. Testing or Certifying Official, Board Member, or Certification Committee Member. Usernames and passwords to gain remote access to the camera system will not be granted to any individuals not specifically mentioned in this document.
   D. Where required by state law or in such situations where deemed necessary by the Testing Official and/or Certifying Official a Proctor is to accompany tested handlers during the test and record all areas chosen by the tested handler as containing hides on the Handler Answer Sheet, as well as ensure that all rules outlined in the W.D.D.O. Double Blind Canine Scent Detection Certification Test Overview Sheet are followed. If for any reason, the camera system is unavailable for use in monitoring the tested team's progress during the testing scenario, a proctor must be assigned to accompany the tested handler.
      i. The Proctor must be a third, disinterested party with no financial or other interest in the outcome of the test.
      ii. The proctor must have no prior knowledge of where, or if any hides are placed in a given area.
      iii. Upon completion of the testing, the Proctor will attest through his or her signature on the Handler Answer Sheet, to the test's accuracy and propriety.

2. **Setup** – All camera system hardware settings are preset, and should operate correctly if setup is completed according to the following guidelines. If problems arise, consult the trouble shooting guide at the end of this document.

   A. **Power Up Procedures:** Each piece of hardware in the camera system should be powered up in the following order to minimize technical difficulties, or delays in bringing the camera system to an operational status.

      1) Power up the Verizon Mifi device.

Power Button is on the side of the unit

Signal Strength

Battery Level

Signal type

   i. Allow the Verizon Mifi device to boot up, and ensure that it has an adequate signal.
   ii. If the signal type is less than 4G with a signal strength less than five bars, move the Verizon Mifi device to a location where the signal may be better, such as next to a window.
   iii. If the signal strength allows, try to position the Verizon Mifi device near the center of the testing area.
   iv. If the Verizon Mifi device has an inadequate signal and alternative WiFi service is available, refer to the **Changing WiFi** section in the Troubleshooting Section of this document for instructions on switching networks. Public networks that require a browser login will not work.
   v. The Verizon Mifi device should be monitored to ensure battery remains at an acceptable level. If needed connect the charger.

      2) Power up the Range Extenders.
   i. Attach the antennas to the range extenders. Antennas are marked one, two, and three, and correspond to numbered connections on the range extenders. Ensure that the correct antenna is connected to the correct antenna post.
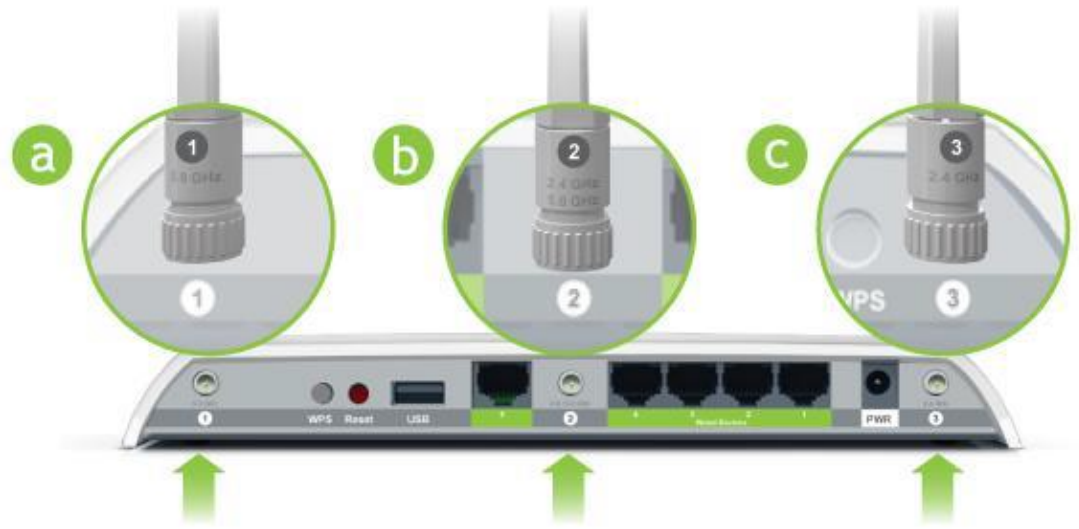
     ii.   Place the range extenders equidistant from the Verizon Mifi device within the testing area. If possible place the range extenders within line of sight from the Verizon Mifi device.

    iii.   Plug in the range extenders and wait for it to boot up and connect to the Verizon Mifi device.

    iv.   Ensure that the range extender has a signal strength from the Verizon Mifi device of 70% or greater. To check signal strength connect your tablet, phone, or computer to the wireless network created by the extender. The wireless network id and security code are located on the back of the range extender. Open your web browser and navigate to http://setup.ampedwireless.com, or http://192.168.1.240. Click SCAN to see details of all wireless networks. The Verizon Mifi network is named Verizon-MiFi5510L-BB98**. DO NOT MAKE ANY CHANGES HERE**! After checking the signal strength, close the browser window. Repeat the above procedure for the second range extender. Range extender one connects to cameras one, two, three, and four. Extender two connects to camera five, six, seven, and eight.

3) Power up the Cameras.

     i.   Locate elevated areas in the testing rooms on which cameras may be placed to ensure a good view of the entire room. The exact placement of the camera will be fine-tuned after all cameras are successfully connected.

    ii.   Plug the cameras in and wait for the cameras to connect.

    iii.   If the indicator light on the camera is red, it is not in range of the wifi, and the range extender must be moved.

    iv.   If the indicator light on the camera is orange, it is attempting to connect to the wifi. If the indicator light remains orange for several minutes, it may not be receiving a strong enough signal from the range extender to successfully connect. Relocating the range extender may be necessary.

     v.   If the indicator light on the camera is blue, the camera is successfully connected to the wifi.

       vi.   Repeat the above steps with all cameras to be used and ensure that each is connected.

  B. Camera Placement

    1. **Accessing the Camera Feed:**
       i.   Open up the Dropcam app on your Android or Apple device, or if using a computer, open the web browser and go to www.dropcam.com. Log in the Dropcam account. For security purposes, the password may be changed at random intervals.
       ii.   For help installing the Dropcam app on your Android or Apple Device refer to the **Installing the Dropcam App** section in the **Trouble Shooting** section of this document.

    2. **Adjusting the Cameras**
       i.   Ensure that all cameras are connected.
       ii.   Click on the Camera you are about to adjust to get to the single camera view for that camera. Adjust the camera to ensure that the view of the room is sufficient.
       iii.   The camera view can be inverted if necessary depending on how it was placed. To invert the view, click on the camera to be inverted to open up the single camera view for that camera. Click on the gear icon (or settings) and select Camera Settings and change Rotate Image 180 to on or off as needed. This will cause the camera to reboot.
       iv.   Repeat for each additional camera until all cameras are properly adjusted.
       v.   When cameras are not in use for observing testing, they should be turned off to conserve bandwidth to avoid poor performance on other cameras. To do this, tap on the camera you wish to turn off to go to the single camera view. Click on the gear icon, or the setting tab, and change the slider for Camera to Off. To turn the camera back on follow the same procedure.

3. Trouble Shooting

  A. Installing the Dropcam App
       i.   For Android devices open the Google Play Store. In the search bar, type "dropcam," and hit search, or the search icon. Select the Dropcam app from Dropcam Inc, or the Nest App from Nest Labs Inc. Click Install. Once the app is downloaded, open the app and sign in.
       ii.   For Apple devices open the Appstore. In the search bar, type "dropcam," and hit search, or the search icon. Select the Dropcam app from Dropcam Inc, or the Nest App from Nest Labs Inc. Click Get. Once the app is downloaded, open the app and sign in.
       iii.   For security purposes, the password may be changed at random intervals. To get the username and password, contact a member of the Certification Committee.

  B. Changing WiFi
       i.   If the Verizon MiFi device does not have adequate signal, and an alternative WiFi network is available, it may be necessary to change networks. Networks that require a browser based login will not work.
       ii.   To change networks connect your tablet, phone, or computer to the wireless network created by the extender. The wireless network id and security code are located on the back of the range extender. Open your web browser and navigate to

http://setup.ampedwireless.com, or http://192.168.1.240. Click SCAN to see details of all wireless networks.

    iii.   Select the new network, and hit Next.

    iv.   If the new network is secured with a security key, enter the security key and hit Next. If the network does not have a security key, leave the field blank and hit Next.

    v.   In the next page, there should be two sections: 5.0 GHz and 2.4GHz. Ensure the network Id for each of these matches the network ID on the back of the range extender. For the Security key field for each of these, enter the password located on the back of the range extender, and hit Next.

    vi.   The Connection Check Screen should now come up and the range extender should reboot and apply the new settings. This may take several minutes.

    vii.   Reconnect your Device to the network created by the range extender and ensure that you have internet service.

    viii.   Repeat the above procedure for the second range extender. Range extender one connects to cameras one, two, three, and four. Extender two connects to camera five, six, seven, and eight.

    ix.   To change back to the Verizon MiFi Device, use the same procedures listed above. The Verizon MiFi device network is Verizon-MiFi5510L-BB98. The security key can be found on the MiFi device by hitting Menu and scrolling to the Wi-Fi Name/Password option and selecting open.

C. Cameras not connecting

    i.   If the Cameras are not connecting to the network setup by the range finder, it may be necessary to unplug the camera, and re-plug it in.

    ii.   Ensure that the MiFi and range extenders are close enough to connect and provide an adequate WiFi Network.

D. placeholder

4. placeholder