CAB-CAM 6

Installation Kit Instructions

Contents

Introduction

Congratulations! You have purchased a unique technological advancement for Model Railroading that immerses you into the world of your layout.   Take photos of your layout, live-stream video over the internet, or host Remote Operations sessions.

This instruction guide is specific to the Choo Choo Vision CAB-CAM Installation Kit.

PLEASE REVIEW THE CCV USER GUIDE BEFORE INSTALLING YOUR CAMERA.   The instruction guide is located at www.ChooChooVision.com\support
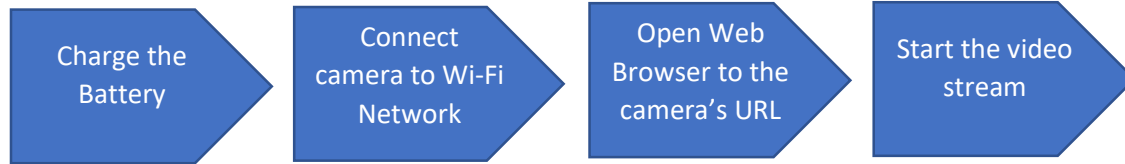
Camera Controls

1. Power ON Button
   - Press the Power ON button for 2 seconds to turn the camera ON.   The camera light will blink rapidly upon power-up.
2. Power OFF: Magnetic Reed Switch
   - To turn the camera OFF, swipe a magnet across the area above the camera lens.
3. Status Indicator Light
   - Fast Blinks for 2 seconds: Camera is starting up
   - Off after Fast Blinks: Waiting to connect to Wi-Fi
   - Steady Glow: Camera is running and has connected to WiFi
   - Off: Camera is OFF
   - Blink very 3 seconds: Camera is in charging mode.
4. USB Port (external power)
   - Accepts 5V Power from USB Phone Charger
   - Accepts Choo Choo Vision DCC Power Converter
5. Aux Port
   - Accepts secondary auxiliary magnetic switch for powering off the camera
   - Accepts Pan-Cam interface cable
6. RESET
   - Resets / Reboots the camera.

Initial Setup

It is recommended that you complete the initial setup before installing the camera into an engine or rolling stock. *Note: This section is intended to provide a quick overview of the initial start-up steps. There are additional sections in the Choo Choo Vision User Guide that provide more detailed explanations.*

The basic initial setup steps are:

Charge the Battery → Connect camera to Wi-Fi Network → Open Web Browser to the camera's URL → Start the video stream

Charge the Battery: Before using your Choo Choo Vision camera for the first time, ensure the battery is charged.

- Plug the supplied USB cable into the bottom of the camera.
- Attach the other end of the USB cable to a standard 5V cell phone charger or USB port.
- Turn the camera OFF via the magnetic swipe.
- Allow the camera to charge for 2 hrs.

Connect your camera to your local WiFi Network: The Choo Choo Vision camera must be connected to your local WiFi network. See the section titled "*Connecting a Choo Choo Vision Camera to Your Wi-Fi Network*" for detailed instructions.

Open the Camera's User Screen: After successfully connecting to your local WiFi network, open a web browser on your computer. Enter the camera's URL (printed on the back of the camera) into a web browser. The proper format is http://ChooChooVisionxxxx:xxxx where xxxx is your camera ID. *Notice the colon ":" between the ID numbers.*

- ✓ If your camera ID is 8012, you would enter http://ChooChooVision8012:8012 into the web browser address. *Take notice of the colon ":" between the two camera id values.*
- ✓ Book-mark this screen for future use.

Why does the camera require a port number? Many users have multiple cameras on their layout. Using the port numbers allows you to access multiple cameras using one external IP address.

For further information, review the Choo Choo Vision User Guide located at www.ChooChooVision.com\support

Powering your CCV Camera

Your installed CCV camera can be powered using the included DCC Power Converter.   The DCC Power Converter plugs into the USB C port on the bottom of the camera.   The two wires on the converter are to be attached to power pickup from Rail A, and Rail B. Note: The wires can be attached to either rail, there is no specific orientation.
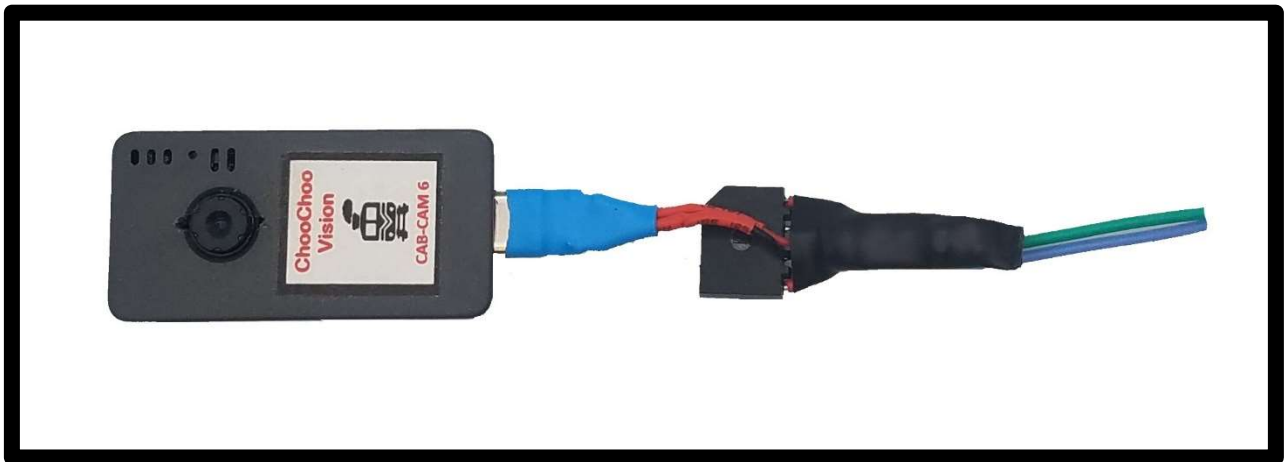
Battery: Your CCV Camera contains an internal battery.   The battery is designed to be used as a keep-alive in concert with a DCC Power converter. The battery is automatically recharged from track power using the DCC Power Converter.

See the Choo Choo Vision User Guide for detailed information on Camera Power.

Power ON/OFF: (USB or DCC Power Converter connected to the camera)

- Power ON: The camera will turn ON if an external power source is applied, by
  - Plugging the camera into a USB power source
  - Turning track power ON while using DCC power converter
  - Swiping the Magnetic Reed Switch while DCC Power is ON
- Power OFF: To power OFF the camera, swipe a magnet across the area above the lens or the extended Magnetic Reed Switch.   The status light will pulse 3 times and then go out, indicating that the camera has been powered OFF

Installing the Camera Kit:

- Charge the battery
- Consult the user guide on how to connect the camera to your WiFi Network and verify operation of the camera.
- Turn the camera off using the internal magnetic switch.
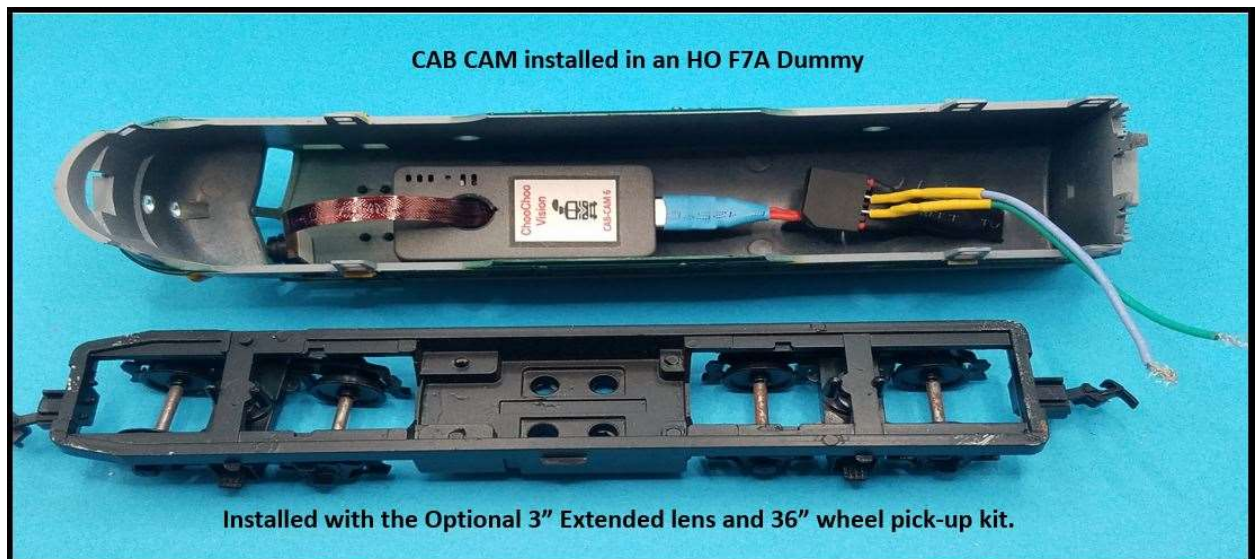
Pre-fitting the components:

- Determine how you would like to mount the camera lens.   The camera lens can be placed behind the engineer's window or be placed in a hole in the front of the CAB.
- Determine placement of the camera
- Determine placement of the DCC converter so that the wires can attach to powered wheel pickups.
- Determine placement of the Secondary Magnetic Reed Switch

Once you are comfortable with the fit and location of the components, it is time to begin the installation.

Installing the components:

- Install the heat shield to the back of the camera lens.
    - Remove the blue tape covering the heat shield
    - Remove the tape covering the back of the lens
    - Attach the heat shield to the back of the lens (tape-to-tape)
- Plug the DCC Power Converter into the bottom of the camera
- Plug the Magnetic Reed Switch into the bottom of the camera
- Mount the camera into the shell using blue mounting putty

- Mount the lens into the cab.   DO NOT COVER THE HEAT SHIELD WITH BLUE PUTTY.
- Attach the DCC Converter to the shell using blue mounting putty
- Attach the Magnetic Reed Switch to the underside of the shell
- Connect the DCC Power Converter wires to the wheel pickups.

Testing the camera installation

- Turn the camera ON by pressing and holding the Power Button for 2 seconds.
- Open a web browser and enter the camera's address
- Test the Lens alignment: Press the Start Video button. Check to see if the camera lens is aligned properly to view the track at the correct horizontal and vertical angles.
- Test the Magnetic Reed Switch: Move a magnet over the Magnetic Reed Switch.   Ensure the camera turns OFF.
- Install the Engine Shell back onto the frame.

- Place the engine on the track and turn on track power.   The camera should automatically turn on when track power is ON
- Start the video in your web browser.

Have Fun!

Product Support:

The support area of the Choo Choo Vision website contains several how-to's and tips that may answer your questions.

If you have any question regarding the setup, use, or suggestions, please feel free to contact us.

- Email: support@ChooChooVision.com
- Website: Send a request via our website www.ChooChooVision.com/contact