

ActionCam Specifications V2:

- 1/4" CMOS WXGA HD Sensor / H.264/AVC1 DSP / Hynix 512M DDR2 / Built in Audio Codec
- Built in Rechargeable LIPO Battery (200mah), with Battery Charger Manage IC
- Video: 1280 x 720 HD, 30FPS, optional 848 x 480 30FPS; 640 x 480 30FPS
- Video Format: .MOV (and optional .AVI)
- Photo: JPG 1280*960
- Snap Photo: JPG 1280*720
- Supports up to 32GB micro SD / SDHC memory cards
- Supports various user settings through configuration tool.
- Supports in-camera formatting
- Supports updating firmware when it's available
- USB2.0 (MSDC/PCCAM)
- Buttons: Power / Video / Reset
- Indicator LED: **Green / Red / Yellow**



ActionCam Instructions V2:

Charging:

1. **Must charge the camera before using it for the first time.**
2. Connect the camera using the USB cable to your computer or use a generic USB charger for charging.
3. Charging time is approx. 1.5 hours. The **green** indicator LED is on when charging, and **off when fully charged.**

LED Status indicators:

Since the camera has many functions, it's important to understand the meaning of the LEDs. The following LED states are for a camera **NOT** connected to the PC.

Yellow LED remains on:

- Camera is in Video recording standby mode.

Yellow LED slowly flashes 15 times and then the camera turns off:

- The memory card is full or not inserted.

Yellow LED constantly slowly flashes (1 sec. On, 1 sec. Off):

- The camera is recording video. This is the "Video Recording Indicator" (see Camera Configuration Tool below) must be turned **ON** for this to work.

Yellow LED flashing very fast:

- Firmware update in progress. **DO NOT** press any buttons until all LEDs are off.

Yellow LED flashes quickly 5 times and then the camera turns off:

- This indicates a serious error condition. See Trouble Shooting.

Red LED remains on:

- Camera is in Photo recording standby mode.

Red LED flashes 20 times and then the camera turns off:

- Low battery.

Red LED flashes 3 times and then the camera turns off:

- The camera is turning off, either automatically or manually.
- Note: The camera will only flash while turning off if the Recording Indicator has been configured to be on while recording. The LED will not flash if the Recording Indicator has been configured to be off while recording (secret mode).

Green LED is on:

- The battery is charging.

Memory Card:

- This camera has no built in memory. It requires an extra micro SD memory card to work. The camera supports up to 32GB micro SDHC card. Class 4 or above is recommended.

Automatic Power Off:

If the camera is in Standby mode (Video mode or Photo Mode) you must take a picture(s) or start a video recording within *30 seconds. The camera will automatically turn off after *30 seconds of no activity.

*This value can be set using the setup program. Automatic Power Off can also be disabled.

Turning the Camera ON:

Press and hold the Power Button for max. 2 secs. until the Red LED turns on.

- If the camera has been configured with "Auto Record" set to On, the camera will automatically begin recording after 4-5 seconds. The yellow LED will blink 3 times indicating that the recording has started. If the camera has been configured to show the recording indicator while recording, the yellow LED will slowly flash at 2 second intervals, otherwise the yellow LED will be off.
- If the camera has been configured with "Auto Record" set to Off (default setting), the camera will switch to video standby mode after about 1 second and the Yellow LED will turn on.

Turning the Camera OFF:

Press and hold the Power Button for about 3-5 secs. The red LED may also blink 3 times – see "LED status indicators".

Note: If the camera is recording, the recording should first be stopped (see below).

Switching Between Video and Photo Standby Modes:

The camera can be switched between Video Standby and Photo Standby by briefly pressing the power button. When the camera is in Video Standby, the Yellow LED will be on. When the camera is in Camera Standby, the Red LED will be on.

Video Recording (from video standby mode, Yellow LED on):

Start video recording.

- Briefly press the shutter/Video button. The yellow LED will flash 3 times to indicate that recording has started. If the camera has been configured to show the recording indicator while recording, the yellow LED will slowly flash at 2 second intervals, otherwise the yellow LED will be off.

Stop video recording.

- Briefly press the shutter/Video button. The yellow LED flashes twice.

Take a Photo (snapshot) while recording:

- Briefly press the power button to take a picture. The yellow LED will flash twice.

Taking Pictures (from photo standby mode, Red LED is on):

- Briefly press the shutter/Video button. The yellow LED flashes twice and then turns back on.

PC Camera (Webcam) Mode:

- Remove the flash memory card.
- Connect the camera to the PC using a standard USB cable.
- Press the Power Button for max. 2 seconds until the Red LED turns on. The yellow LED will turn on while initializing the connection to the PC. It will turn off when connected and the red LED will turn back on indicating a successful connection.
- ► If this is the first time you have connected the camera in WebCam mode, Windows will automatically install the required drivers.
- The camera is now in Webcam mode.
- Start your favorite WebCam software, such as AMCap. If your screen is black, the software is not configured correctly. Make sure the program shows the "USB PC camera" as the "device" selected for video capture. If this option does not show in the "device" option list, restart the webcam program and check again.

How to Connect with Computer / Removable Disk Mode:

- Make sure a memory card is inserted.
- Connect the camera to the PC using a standard USB cable. The green LED may turn on indicating that the battery is charging.
- Press the Power Button for max. 2 seconds until the red LED turns on. The Yellow LED will turn on while the connection is being initialized and turn off when the camera is connected. The red LED may remain on or be turned off. The Green LED may also be on, indicating that the battery is charging.
- The camera is now in Disk Mode and a new removable drive should be available on your computer. This may take up to 30 seconds.
- ► Note 1: The Red LED will flash during all read/write data transfers with the camera.
- ► Note 2: You may also turn on the camera before connecting to the PC.

In-Camera Formatting:

The Camera contains a built-in formatter which may be used to format the SD card. Do not format SDXC cards (cards with a capacity of 64GB and more) see below "Breaking the Rules".

- Connect the Camera as a Removable disk (see above).
- Press and hold down the Shutter/Video button. **DO NOT RELEASE the button.**
- Disconnect the camera from the computer.
- After about 4-6 seconds the camera will turn off (the red LED may also blink 3 times – see "LED status indicators"), indicating that formatting is completed.
- Release the shutter/Video button.

Camera Settings Configuration Tool:

This camera supports various user settings which can be modified by using a text editor, such as Notepad and editing the "SYSCFG.TXT" file.

A "SYSCFG.TXT" file can be automatically generated by the Camera and will be placed in the card's root directory. The camera's parameters are self explanatory. It is important not to change the sequence of the square brackets and not configure invalid combinations. For example, never combine a clip longer than 5 minutes with the continuous loop. If you enter invalid combinations or values, the Camera will not perform as expected.

The "SYSCFG.TXT" file can be automatically generated as follows:

1. Disconnect the camera from the PC and turn it off.
2. **Press and Hold Down the Shutter/Video button. DO NOT RELEASE the button until step 6.**

3. Press the **Power button** until the camera **YELLOW LED** turns on. This will take about 1 second.

4. **Release the Power button.**

5. **Wait** until the **Yellow LED turns off**. This will take about 8-9 seconds.

6. **Release the Shutter/Video button.**

The camera is updated with the parameters defined in the "SYSCFG.TXT" file by using exactly the same method as outlined above. Once completed, the "SYSCFG.TXT" file will be deleted from the card's root folder.

You will be able to modify the following settings:

(**Set Date and Time**); (**Time Stamp On/Off**); (**Auto Shutoff Off/30sec/1min/2min**); (**Auto Record On/Off**, will start recording upon powering ON); (**Record Indicator On/Off**); (**Loop Recording On/Off**); (**Video Data Rate 7 or 10 Mbps**); (**Rotate Video 180deg Yes/No**); (**Audio Volume Off/Low/Med/High**); (**Video Clip Length 5/20/40/70 Mins**); (**Video Frame Size 1280x720/848x480/640x480**); (**Photo Frame Size 1280x960/1280x720**)

There is a configuration tool available for download on the **PED Products** website.

Updating Firmware:

When needed, or a new firmware version is available, you can update the firmware. Visit **PED Products** website or contact **PED Products** for more information

Recording Videos while Charging:

With this camera, it is possible to charge the battery and record at the same time using a standard external USB 5V DC power supply. The power supply may be mains driven (normal household wall plug), or run off batteries, including the car charger USB plug (optional accessory) and cable supplied with the camera.

When turned on, the camera checks for an electric signal on the two Data wires. If a signal is found, the camera assumes it is connected to a PC and recording will not be possible – see below "Recording when directly connected to a PC".

For recording video or taking pictures using a standard external power supply connection, the USB power supply can be connected at any time, i.e. before the camera is turned on, before the recording is started, or after the recording has been started.

► If external power is connected and the camera is then turned on, the camera will check the data lines to determine if it is connected to an external power supply or to a computer. Because of this, it will take up to 5 seconds until the camera is "ready", even though the yellow LED turns on much earlier.

Recording Videos When Directly Connected to a PC:

With this camera, it is possible to charge the battery and record at the same time while connected to a PC. In order to record video while the camera is connected to a PC, the video recording must be started before the camera is connected to the PC. It is not possible to record if the camera is turned on while connected to a PC. Likewise it is not possible to take pictures while the camera is connected to the PC.

Trouble shooting

Q. The camera is not recognized as a removable disk or as a Webcam.

A. The operating system must be XP or greater. The camera must be connected using a standard USB cable.

Confirm that the cable is not defective by attaching another USB device using the same cable. Do not use a USB hub.

Try using another USB port. Defective cables are the most common problems when the camera is not correctly recognized by the PC.

Q. The yellow LED flashes once per second 15 times and then turns off.

A. There is no micro SD card inserted, the card is not properly inserted, the card is full or the card is defective. The card must be inserted with the gold contacts facing upwards, towards the buttons. There should be a distinct spring action when inserting the last 5 mm and there should be no friction whatsoever. When the card is pushed 1 mm inside the body the card should latch with a distinctive click. Never force the card, and never push the card more than max. 1 mm into the camera body. Sometimes the card holder metal frame is not positioned properly in the body and is clearly visible in the card slot. If this is the case, insert the card above (on the button side) of the visible metal frame.

Q1. After I turn the camera on it immediately turns off (the red LED may also blink 3 times -see "LED status indicators").

Q2. When I press the shutter button to take a picture or make a video, the camera reacts normally, but after about 30 seconds the camera turns off (the red LED may also blink 3 times -see "LED status indicators").

Q3. When I press the shutter button to take a picture, the red LED is on as normal, but I can also see the yellow LED flashing at the same time. After about 30 seconds the camera turns off (the red LED may also blink 3 times - see "LED status indicators").

A. This indicates that the SD card is full or data on the SD card is not as expected. Maybe the card was previously used in another device. Format the card and try again. If this fails, try another card.

Q. The camera does not react. The green LED may be on or off.

A. The firmware may have entered a continuous loop, or the battery may be discharged.

- Make sure the battery is fully charged.
- Use a paper clip or similar object to press the Reset button. This should force the camera to be turned off.
- Wait 10 seconds.
- Turn on the camera.

Q. With or without an inserted card, the yellow LED flashes 5 times fairly quickly (about once every 1/4 second) and then turns off.

A. This can happen when a firmware file is not updated correctly. The camera will also no longer react to button presses.

- Remove the card from the camera and use a paper clip or similar instrument to briefly press the reset button. The camera will most probably flash 5 times.
- Using a card reader or another camera connected as a removable device, copy a known good firmware file (FWMICDVR.BIN) to the card.
- Insert the card into the defective camera. **DO NOT** turn it on.
- Briefly press the reset button.
- The yellow LED should flash quickly for a few seconds while the firmware is updated.
- Remove the card and, using an external card reader or the "Backdoor" method, delete the firmware file (see Firmware Update).

Q. Playback is erratic or stutters or the playback colors are psychedelic or the video flashes, has corrupted blocks etc.

A. Always first copy the video file from the memory card to your hard drive.

- Your PC or graphics card may not be powerful enough to playback the video stream.
- You may not have enough memory installed in your PC.
- Use VLC Media Player. Window Media Player often chokes on underpowered machines.

Using the ActionCam:

Removing Camera from the Mount:

Removing the camera from the holder is necessary to remove the SD memory card, change mounts and clean the lens. Actuate the **Camera Release** tang just enough to clear the rear of the camera, then lift camera out.

Using the different Mounts:

With the camera removed the **Mount Screw** is visible, remove screw to remove existing mount.. Axial "Vee" feature is exposed, the ActionCam can be used in this configuration with Ty-wraps thru the slots in the bottom of the housing (front & rear). If a different mount is required fasten in place using the screw removed. (Use caution to not over tighten the mounting screw)

Inserting the Camera into the mount:

Before inserting the camera check to see that the (4) vibration dampening pads are in place. (2) Cylindrical in the nose, (1) on the floor of the nose and (1) in the rear center on the Tang, also make sure the memory card is fully seated. Placing the camera in the holder is just like putting your foot in a shoe. It may be necessary to pull the **Tang** back slight, once camera is fully inserted insure the **Tang** is on top of the rear of the camera.

Using the ActionCam with Magnet Mount:

When using the ActionCam with the Magnet Mount, it is a good idea to use a Ty-Wrap thru one of the lower slots in the housing to another point on the vehicle, (as seen in the picture below) as a tether. Should the magnet break loose the camera will remain attached.

Using the ActionCam with the horizontal "V" Mount:

This mount is used to mount to a round object, such as a rollbar. Use the (2) channels on top of the mount to fasten with Ty-wraps. The pad on the bottom is used for vibration isolation dampening and for friction. (note: the camera can be mounted upside down and video can be flipped using user configuration tool)

Using the ActionCam with the Threaded Mount:

This mount with the 1/4-20 thread is used to mount to a typical Tripod. (Use caution to not over tighten the mounting screw)

General notes for usage, mounting and video quality:

- ActionCam with the Weather Cover and Lens Cover is weather proof, but not submersible.
- Avoid high heat areas, such as near exhaust systems.
- Mount on as rigid a location as possible.
- Avoid long "diving board" type mounts.
- Aiming verification can be achieved by connecting to a laptop with USB and using the webcam function.
- Understand the user configurable settings to ensure proper camera function.
- Full battery charge will last between 30-40 minutes.
- ActionCam can be externally powered via Car Charger, Extender Battery or USB Power Source.



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