FIRE CAM
POLICE AND FIRE SOLUTIONS

FIRE CAM OPTIMAX
USER MANUAL

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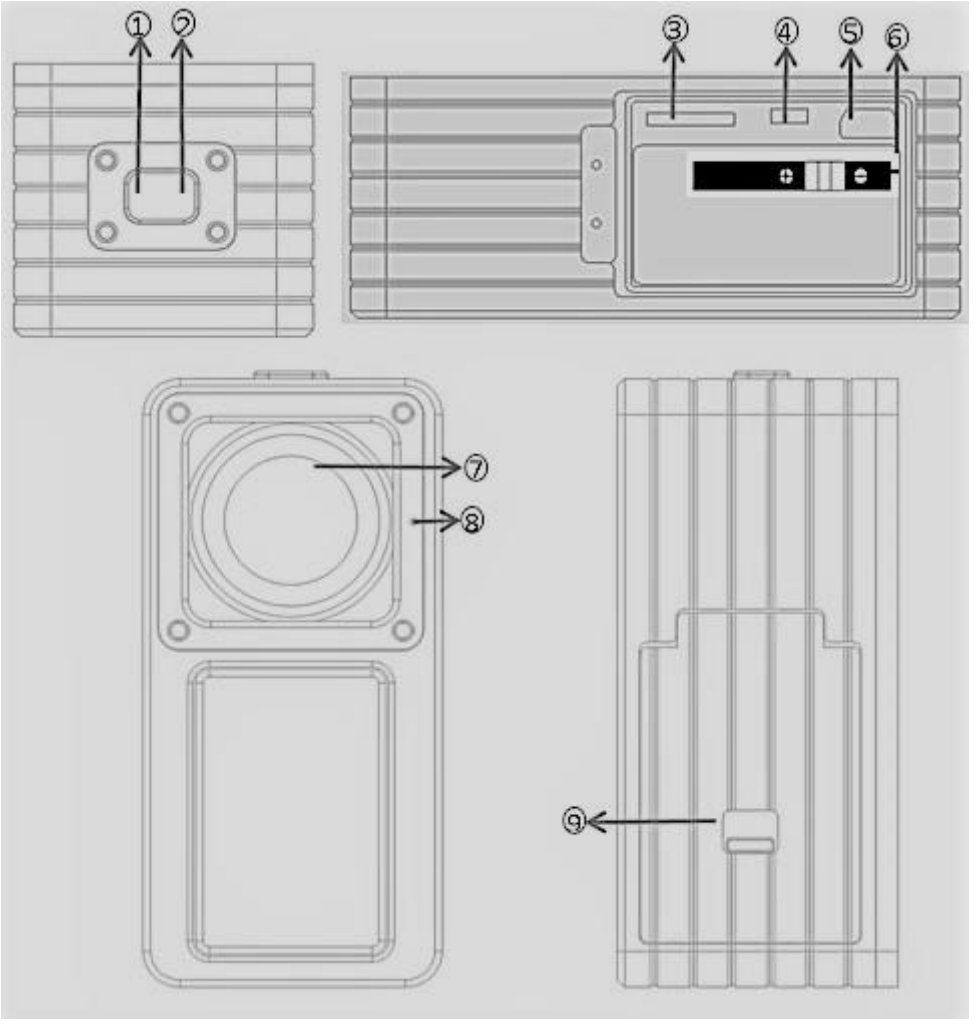
OptiMax Overview



① LED ② Power / Shutter ③ Micro SD Card Slot
④ Photo/4K/1080P Mode Switch ⑤ USB
⑥ Battery ⑦ Lens
⑧ Microphone ⑨Battery Cover

Initial Set Up

1. Open the Battery Cover located at the top of the OptiMax ⑨. Insert Battery, aligning contacts. Battery will be flush with OptiMax. Use two thumbs to evenly close hatch. It will be very tight against waterproof seal but will latch with even pressure.

2. Make sure the OptiMax is OFF before adding or removing the memory card. Install a micro SD memory card (minimum speed Class 10/U1, up to 128GB) into the rear slot. To insert the micro SD card, slide the micro SD card into the card slot on the back of the OptiMax with the card label facing to the front of camera. The micro SD card will click into place once it is inserted past flush with the OptiMax. Use your fingernail to do this.

3. Memory card should be formatted for trouble free performance on first use and after transferring video files. All data will be erased when formatting so make sure all important video files are transferred first. Fire Cam recommends SD Card Formatter at:

https://www.sdcard.org/downloads/formatter_4/

4. When using a micro SD memory card in the OptiMax, there must be NO data from other devices on the card.
*Always try formatting the memory card first if there are any issues in startup of the camera.
*If no micro SD memory is inserted in the OptiMax, the LED on top of the camera will blink red when turned on.

Charging The Battery

Open the Battery Cover⑨ located at the top of the camera and plug the USB charger to the camera. The green light is on while charging, goes off when the battery is fully charged. Before the first use completely charge the battery, up to 3 hours. You can record up to 90 minutes(4K) with one charg**e.**

Power on/off Your OptiMax

Turn OptiMax On	Turn on the OptiMax by pressing the Power/Shutter button ② for at least 3 seconds until the blue LED turns on. The camera will vibrate once long. After releasing the button, the red LED flashes and beep three times. Auto Record is on by default. Camera will automatically beep and start recording when powered on. The red light will blink while recording. Press Power/Shutter button again to stop recording and enter standby mode.
Turn OptiMax Off	Turn the OptiMax off by pressing the Power/Shutter button ② in standby mode until the red LED flashes. The OptiMax will short vibrate twice and beep 6 times and will shut off.

Mode	Resolve	8GB	16GB	32GB	64GB	128GB
Take a Picture	5M	6000	12000	24000	48000	96000
	12M	2500	5000	10000	20000	40000
Take a Video	4K30pfs	30mins	60mins	120mins	240mins	480mins
	1080P60fps	60mins	120mins	240mins	480mins	960mins
	1080P120fps	30mins	60mins	120mins	240mins	480mins
	1080P30fps	100mins	200mins	400mins	800mins	1600mins

Basic Settings Via SETTINGS.TXT File

You can also change the settings via the SETTINGS.TXT file, the file will be created automatically on the micro SD card after the camera is turned ON after each formatting.

```
##########################################################################################
#system setting
# CAUTION: TO PREVENT SERIOUS SYSTEM CRASH, ONLY ENGLISH ALPHA-NUMERICS CAN BE USED FOR BELOW
PARAMETERS
##########################################################################################
VERSION                         = V201907241                # DO NOT CHANGE
VIDEO_RESOLUTION_CHANGE         = 0                         # (0=4k30fps<->1080p60fps,
1=4k30fps<->1080p120fps, 2=4k30fps<->1080p30fps) for switch key quickly change video
resolution)
VIDEO_TIME                      = 3                         # (0=3mins, 1=5mins,
2=10mins,3=15mins, 4=30mins) recording interval time.4K 30FPS and 1080P120FPS not support
30mins
QUALITY                         = 0                         # (0=fine, 1=good, 2=normal)
LOOP_RECORD                     = 0                         # (0=off, 1=on)
DATE_STAMP                      = 0                         # (0=off, 1=on)
TIMELAPSE                       = 0                         # (0=off, 1=1s, 2=5s,3=10s, 4=30s,
5=60s) example:Set 1,Record one frame per second
AUDIO_RECORD                    = 1                         # (0=off, 1=on)
AUTO_POWERON_REC                = 1                         # (0=off, 1=on)
AUTO_POWER_OFF                  = 1                         # (0=off,  1=3min,2=5min,3=10min)
TIME_SET                        = N2019.01.01.00:00:00      # (Y=change  N=No change
DEFAULT_SETTING                 = 0                         # (0=False, 1=True) when set to 1,
the camera will ignore other settings, set to system default and write the default settings in
this file
##########################################################################################
#end
##########################################################################################
```

*Video Resolution- Frames per second options include: Default: 4k@30fps-1080p@60fps. Other settings available: 4k30fps-1080p@120fps and 4k30fps-1080p@30fps.

*Video Time-to avoid accidental loss of video, record time is saved in time segments. 15 minute intervals is default setting. Maximum interval time in 4k and 1080p120fps is 18 minutes and 30 minutes in 1080p60fps and 1080p30fps.

*Loop record- On will record over oldest video files first when SD card is full

*Date Stamp-On will stamp video/picture with date and time.
*Time Set format:
Year.Month.Day.Hour(military):Minute:Second.
Change N to Y to change and save file.
NOTE: Date/Time may reset to default after battery is discharged or removed for more than 30 minutes.

*Auto_Power_Off- Setting On will power off camera when in standby mode after 3min/5min/10min

Take a Video

To take videos with the OptiMax, make sure that the Photo/4K/1080P Mode Switch④ is set in the center for 4K or to the right for 1080p video mode. (camera front is facing down when viewing switch) Turn on the camera by pressing the Power button ②. Recording will start automatically. The red LED will blink while the video is recording. Press the Power/Shutter button ② again, it will beep twice and vibrate once to stop recording.

Take Still Pictures

To take still pictures with the OptiMax, make sure that the Photo/4K/1080P Mode Switch④ is set to the left for photo mode.
Turn on the OptiMax by pressing the Power button ②.
Press the Power/Shutter ② button to start taking photos, the red LED will blink. Press the Power/Shutter button ② again to stop taking photos and to go back to the standby mode.
In photo mode the OptiMax will take sequentially photos every 3 seconds. It stops automatically if the battery is empty or if the micro SD card is full.
*Please note that the camera can be stopped only when red LED is ON. When green LED is ON, it indicates that the file is being saved onto the micro SD card and cannot be stopped at this stage.

Playback On Your Computer

Open the Battery Cover⑨, Then, power on the OptiMax and connect with your computer via USB cable from the USB port ⑤. The camera will be recognized automatically as USB Device.
Or you can take out the micro SD card and use your own card reader to connect with your computer too. Open folders to access the video files to playback or transfer. Older PC's may not playback 4k videos correctly. Download VLC Media Player for smooth playback of your video files.

https://www.videolan.org/vlc/index.html

The device must be power on while connected with computer for data download. Don’t remove the battery. The camera will be recognized as a storage device on PC only when mode switch is set to video.

When you remove the battery while the video is playing, damage to your video data could occur!

On a MAC

Simply plug the OptiMax into your MAC with the included USB cable, turn your OptiMax on, and the MAC OS will recognize the OptiMax as an external hard drive. Ensure that the camera is set to video mode before connection to MAC.

IMPORTANT TIP FOR MAC USERS

When deleting files from your Micro SD cards you must empty the trash before removing it or unplugging the OptiMax. If you do not empty your trash the photos and videos files will not be completely erased from your cards.

LED Status Table

Status Table	Green LED	Red LED	Blue LED
Standby	Off	Off	On
Battery Charging	On	Off	Off
Taking Video	Off	Flashing	On
Taking Photo	Off	Flashing	On
Low Battery	Off	Speedy Flashing	On
No micro SD Card	Off		On
Micro SD Card Fill Up	Off		On
Data Transfer	Off		On

Glass Lens Replacement

The protective glass lens on the front is replaceable if cracked by an impact. Using a small Phillips screwdriver, unscrew the 4 screws and remove covering. Remove glass but keep the Oring in place in the groove around camera lens for the waterproof seal. Insert new glass lens onto Oring and replace cover. Make sure the hole for the microphone is at the top of camera. Do not overtighten the screws when installing.

Installing Fire Cam Opti Mount

With set screws loose, fit the mount on the front brim of the fire helmet. Snug the 2 set screws on the brim. Do Not Overtighten. The camera can be removed by simply sliding it off the mount.

NOTE: Due to the required size of the OptiMax, the housing sticks out from the front of the brim and will interfere with full face shields if installed on helmets.
*At least ½ inch of brim is required for mount to install correctly.

Contact Fire Cam Support at 618-416-8390, M-F Central Time or support@firecam.com for assistance or replacement parts.

REMARKS:
THE SPECIFICATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Technical Specifications

Optics:

- WIDE ANGLE view
- f/2.0, fixed focus glass lens

Video:

- Resolution Settings: 4K: 3840x 2160 @ 30fps
  1080p: 1920 x 1080 @60fps
- Sensor Type: 1 / 2.8” HD CMOS
- Light Sensitivity: 1.4 V/lux-sec (550nm)
- Video Format: MJPG codec, .MP4 file format
- Exposure Control : Auto
- White Balance: Auto

Audio:

- Built-in microphone

Photo:

- Resolution: 4032 x 3024
- Camera: 12.0 Mega Pixels
- Format: JPEG
- Capture mode: Auto snap shot every 3 seconds

Storage:

- Memory: Micro SD card, up to 128GB capacity (recommended Class 10 or above)
- Avg. Record Time: 15~30min/8GB

Product size: 85 x 38 x 41 mm

Weight: 204g

Operating System (for USB drive):

Win 7, Win 8, Win 10,; Mac OS X 10.6+

WARRANTY / DISCLAIMER:
Abuse of Camera IS NOT covered under warranty. Fire Cam warrants its products against defects in material or workmanship for 12 months from date of purchase unless otherwise specified. This warranty also includes the "Fire Cam Damage" warranty. If the cameras components get damaged in a fire, you are covered for one free replacement. The Fire Cam OptiMax Fire Helmet Camera's warranty is limited to the replacement or repair of the defective item at no charge if we determine the item to be defective. This warranty shall not apply to any item subject to misuse including such as failure by buyer to
follow instructions, product modification, normal wear and tear, negligent or improper operation. Abuse of camera, cable or accessories IS NOT covered under the warranty. Fire Cam products are not recommended for concrete training towers or flashover chambers where it could sustain high temps for long periods of time. Electronic damage due to over-voltage, incorrect polarity from product power supplies, or incorrect MAINS voltage is not covered under the warranty. DO NOT USE ANY AFTERMARKET CHARGERS FOR YOUR CAMERAS. Fire Cam chargers are designed specifically for Fire Cam's only. Modification, repair, or attempted repair by anyone other than Fire Cam or without the written permission of Fire Cam will void this warranty. This warranty covers the cost of factory repair, labor and parts on eligible equipment which is returned. Equipment, which is repaired under this
warranty will be
returned freight prepaid. If it is determined that the Fire Cam does not need repair, the purchaser shall pay for return shipping charges. Disclaimer: Fire Cam does not assume any responsibility for any accidents or injuries incurred to the user of the Fire Cam Fire Helmet Camera.

WARNING!
Firefighting is a dangerous activity and should only be performed by a trained professional. The end user of Fire Cam products assumes all responsibility connected with the use of this product including but not limited to continuing education, and activity that conforms to local Standard Operating Procedures. Neither the manufacturer nor any distributor assumes any liability for injuries sustained while using Fire Cam products. The Fire Cam® Fire Helmet Cameras TM are manufactured of anodized aluminum, and may retain heat for several minutes after being exposed to a heated environment such as a structure re or training re so it needs to be handled with care. The end user is responsible for installation consistent with the mounting instructions, as well as regular safety inspections of the BlackJack Holder and Fire Cam Fire Helmet Cameras. For further questions, please go to www.FireCam.com under the "contact us" page.

RETURNS:

3 REASONS FOR RETURNS:

1. Defective item.
2. Wrong item received.
3. Departmental policy that prevents use of the camera.

*All returns must be authorized. *

To receive authorization for a return, you must contact customer service to obtain a Return Authorization number known as an RA #. Upon approval, an RA form will be emailed which must be completed in full and returned with item(s). All returns that are not exchanged for another item can be refunded only within 14 days of the original purchase date and refund is subject to a 15% restocking fee and the item MUST be UNUSED / NOT DAMAGED and in the ORIGINAL box. If the requested items are not in stock by the time we process your RA, your credit card will be refunded for the value of the items returned to our warehouse to avoid further delay on your request. (in which case the 15% restocking fee will be waived).

Once you receive your RA #, you must ship the item(s) back within 7 business days to receive an exchange or the RA # will become null and void. You will be responsible for the return shipping costs. We do not refund shipping costs on returns and or exchanges.
Pack your item(s) in the original shipping box if possible and insure your package for the full value of merchandise and return it to us using the delivery service of your choice. We are not responsible for lost or damaged return packages. We will notify you via e-mail once your return has been processed.