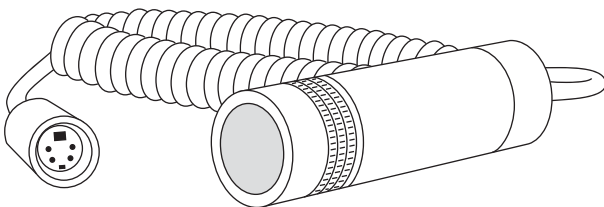


# *viosport*

Owner's Manual

# *viotac*



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## Welcome: A note from our President

---

Thank you for choosing V.I.O. - dba Viosport and Viotac - cameras and accessories; I am confident you will find our equipment to be of the highest quality in the industry. We are committed to the success of your video pursuits and take great pride in our products and professional level of customer service and support.

The art of capturing video is best achieved when you're familiar with your equipment; therefore, we ask that you read this manual in its entirety and retain for future reference.

Visit our websites regularly for new product releases, shooting techniques and industry news. Be sure to check out our video gallery – how do your videos compare?

Enjoy your new equipment.

David Ollila  
President  
V.I.O., Inc.

[www.viosport.com](http://www.viosport.com)  
[www.viotac.com](http://www.viotac.com)

---

# Welcome: Cam Care & Safety Precautions

---

PLEASE READ THE INFORMATION AND FOLLOW ALL INSTRUCTIONS BEFORE USING THIS PRODUCT.

---

## Viosport Helmet Cam

### CARE:

- Clean and inspect after every use. Be sure to use a non-abrasive cloth when cleaning the lens.
  - Inspect all plug terminals to make sure that they are clean and in proper alignment.
  - Never force a connection.
  - Always hold the cable end to connect and disconnect.
  - Store your equipment in a cool, dry place.
  - Check all cables for cracks or exposed wires; if a cable is suspect, discard and replace.
  - Cameras are not serviceable – do not attempt to open the case as this will void any possible warranty. The Adventure Cam 3 and S.C.O.U.T. Cam have replaceable lenses, removing the front lens cover will not cause damage and will not void your warranty.
- 

## Viosport 12v Rechargeable Battery Pack

### IMPORTANT WARNING:

Charge the Li-Ion battery with the charging unit and power adapter included in the package only! Inserting any other power adapters may damage the device, destroy the battery pack, void the warranty, and/or cause injury to the user.

### CAUTIONS:

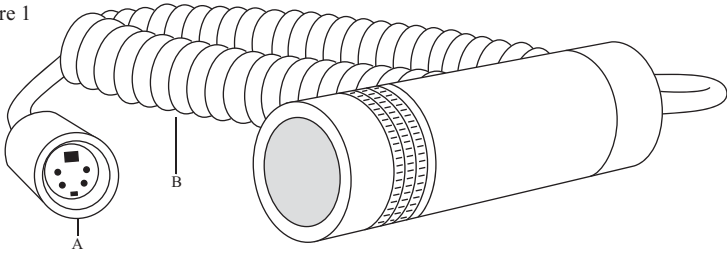
- Always unplug the charger when not in use.
- Always replace frayed or damaged wires and broken plugs immediately.
- Always use the charger with the original AC adapter.
- Always unplug your AC power adapter from the wall outlet before cleaning.
- Do not store, place, or use the AC power adapter where it could come into contact with water or moisture.
- Do not recharge the battery under direct sun light.
- Do not short-circuit the metal contacts of the battery pack.
- Do not disassemble, deform, or reconstruct any part of the battery and charger kit.

### NOTES:

- It is normal for the AC adapter, charging unit, and battery to become warm during regular operation or when charging.
- If the charger does not charge the battery, check to see if the battery is already fully charged, dead, faulty, or worn out. All rechargeable batteries will eventually wear out after being charged for a certain numbers of cycles.
- Always keep metal contacts clean by wiping the surfaces with a dry, soft, and clean cloth.
- Remove the battery from the camcorder, Viosport Adventure Camera, and/or charger after use. These devices will continue to drain a small current from your battery even if they are turned off.
- All batteries will naturally discharge over time even if they are not in use. Be sure to recharge the battery on the same day or the day before you plan to use it.

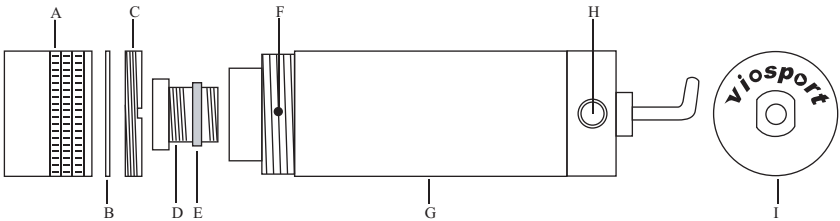
# Products: Adventure Cam

Figure 1



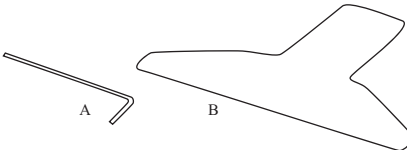
- A. Viosport custom 4-pin plug
- B. Coiled cable

Figure 2



- A. Lens cover
- B. Neutral density filter
- C. Retaining ring
- D. Lens
- E. Tension device
- F. Set screw
- G. Main body
- H. 1/4-20 female thread
- I. Rear of camera

Figure 3

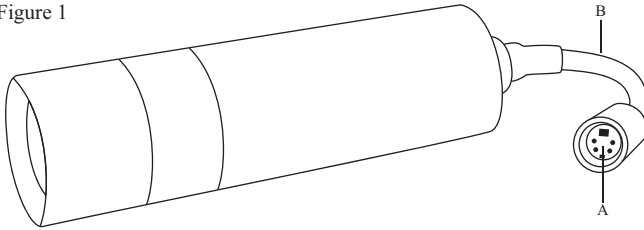


- A. Allen wrench
- B. T wrench

Resolution	520 TV Lines	Light Sensitivity	0.2 Lux F 2.0
CCD Chip	Sony Ex-View $\text{\textcircled{R}}$ 1/3"	Power Supply	12 VDC (+/- 10%)
Lens	3.6mm	Power Consumption	1.2 W (+/- 10%)
Field of View	72.5 degrees	Weight	105g
H x V (pixels)	NTSC: 811 x 508	Dimensions	23mm ( $\text{\textcircled{O}}$ )
	PAL: 752 x 582		x 80mm (L)
Outer Casing	Silver		

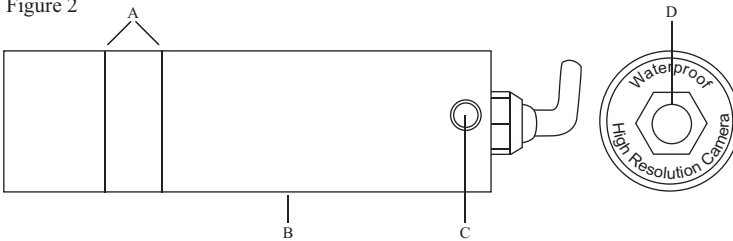
# Products: Adventure Cam H2O

Figure 1



- A. Viosport custom 4-pin plug
- B. 4.5" pigtail cable

Figure 2



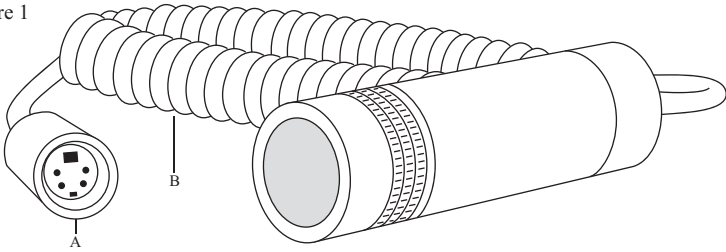
- A. Warranty seal
- B. Main body
- C. 1/4-20 female thread
- D. Rear of camera

Resolution	480 TV Lines
CCD Chip	Sony Hyper HAD @ 1/3"
Lens	3.6mm
Field of View	93 degrees
H x V (pixels)	NTSC: 510 x 492
	PAL: 500 x 582
Outer Casing	Silver

Light Sensitivity	0.05 Lux F 2.0
Power Supply	12 VDC (+/- 10%)
Power Consumption	3 W (+/- 10%)
Weight	196g
Dimensions	32mm (Ø)
	x 110mm (L)

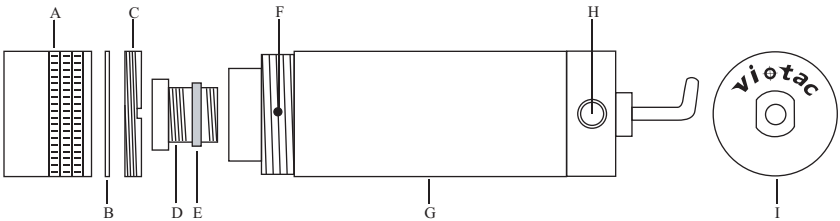
# Products: S.C.O.U.T. Cam

Figure 1



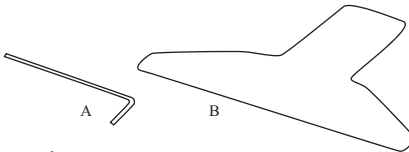
- A. Viosport custom 4-pin plug
- B. Coiled cable

Figure 2



- A. Lens cover
- B. Neutral density filter
- C. Retaining ring
- D. Lens
- E. Tension device
- F. Set screw
- G. Main body
- H. 1/4-20 female thread
- I. Rear of camera

Figure 3

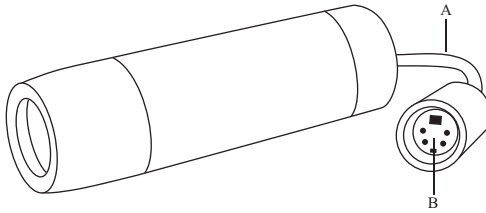


- A. Allen wrench
- B. T wrench

Resolution	520 TV Lines	Light Sensitivity	0.2 Lux F 2.0
CCD Chip	Sony Ex-View ® 1/3"	Power Supply	12 VDC (+/- 10%)
Lens	3.6mm	Power Consumption	1.2 W (+/- 10%)
Field of View	72.5 degrees	Weight	105g
H x V (pixels)	NTSC: 811 x 508 PAL: 752 x 582	Dimensions	23mm (Ø) x 80mm (L)
Outer Casing	Matte Black		

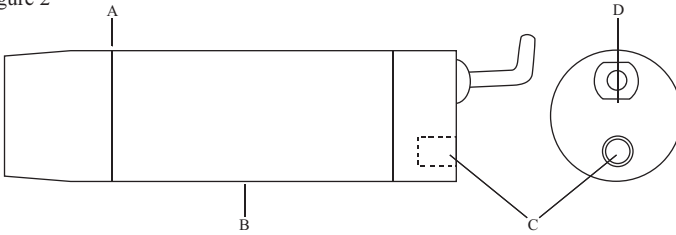
# Products: Adventure Cam II

Figure 1



- A. Viosport custom 4-pin plug
- B. 3" pigtail cable

Figure 2



- A. Warranty seal
- B. Main body
- C. 1/4-20 female thread
- D. Rear of camera

Resolution	380 TV Lines	Light Sensitivity	1 Lux F 2.0
CCD Chip	Panasonic 1/4"	Power Supply	12VDC (+/- 10%)
Lens	2.9mm	Power Consumption	130mA (+/- 10%)
Field of View	90 degrees	Weight	80g
H x V (pixels)	NTSC: 510 x 492	Dimensions	22mm (Ø)
	PAL: 500 x 582		x 76mm (L)
Outer Casing	Black		

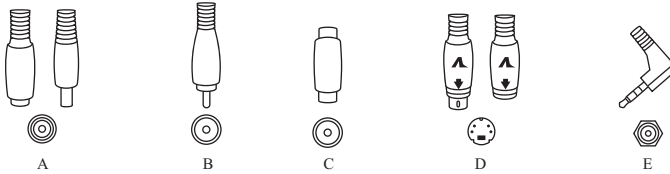


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## Products: Plug Types

---

Figure 1



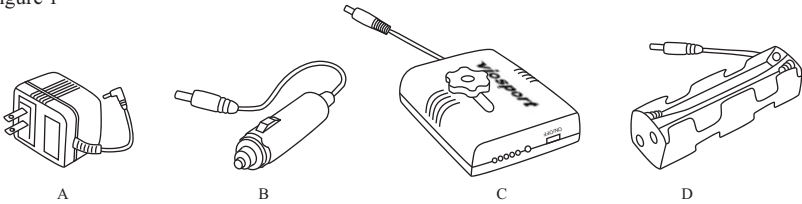
- A. 2.1mm power source plug
- B. RCA plug
- C. RCA female/female adapter
- D. Viosport custom 4-pin plug
- E. 3.5mm A/V plug

---

## Products: Power Sources

---

Figure 1



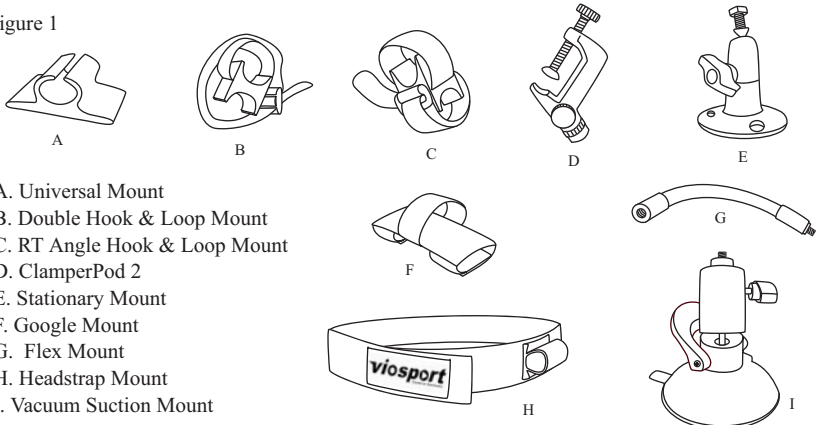
- A. AC 12V power supply
- B. 12V cigarette lighter power cord
- C. 12V rechargeable battery
- D. 8 "AA" battery holder

---

## Products: Mounts

---

Figure 1



- A. Universal Mount
- B. Double Hook & Loop Mount
- C. RT Angle Hook & Loop Mount
- D. ClamperPod 2
- E. Stationary Mount
- F. Google Mount
- G. Flex Mount
- H. Headstrap Mount
- I. Vacuum Suction Mount

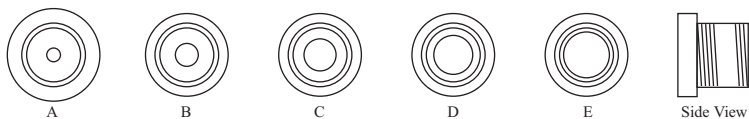
Please visit [Viosport.com](http://Viosport.com) or [Viotac.com](http://Viotac.com) for updates on new mounts and how to use them.

---

## Products: Lenses

---

Figure 1



- A. 2.5mm: 92.5°
- B. 2.9mm: 88°
- C. 6.0mm: 47.5°
- D. 8.0mm: 36.5°
- E. 12.0mm: 24.5°

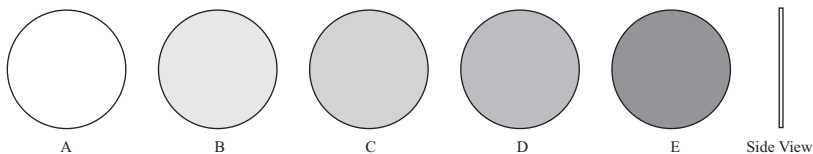
\*Lenses are only compatible with the Adventure Cam 3 and S.C.O.U.T. Cam.

---

## Products: Neutral Density Filters

---

Figure 1



- A. 100% (clear glass replacement)
- B. 80%
- C. 50%
- D. 30%
- E. 10%

\*Density percentages are the amount of light let into the camera.

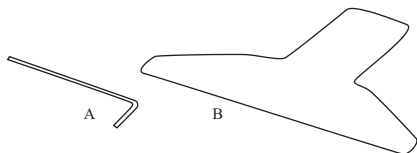
\*Neutral density filters are only compatible with the Adventure Cam 3 and S.C.O.U.T. Cam.

---

## Products: Lens and Filter Tool Kit

---

Figure 1



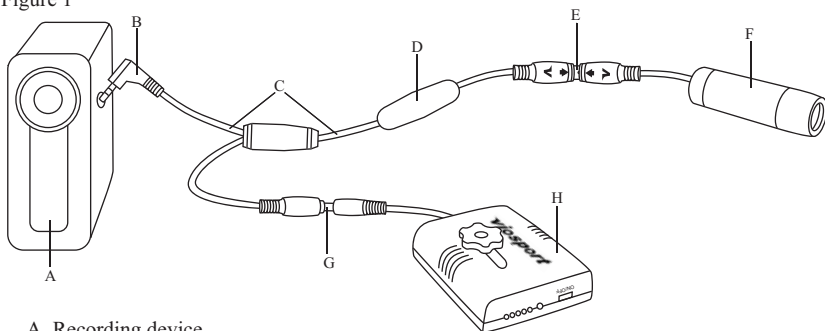
- A. Allen wrench
- B. T wrench

---

# How To: General Connections

---

Figure 1



- A. Recording device
- B. A/V plug (3.5mm plug shown)
- C. Patent-pending A/V cable
- D. Integrated microphone
- E. Viosport custom 4-pin plug connection
- F. Viosport helmet camera
- G. 2.1mm power source plug connection
- H. Power source (rechargeable battery shown)

\*Images are not to scale. Individual products may vary.

---

## How To: Connect Cable to Cam

---

All models of the Viosport Adventure Cams have interchangeable cables and follow the same procedure.

To plug the male mini-din 4-pin connection from the Viosport audio/video (A/V) cable into the female connection on the Adventure Cam.



1. Line up the arrows on the connectors and push together. Be sure the connectors 'click' into place to ensure a secure, waterproof connection.

---

# How To: Connect Cam to Recording Device

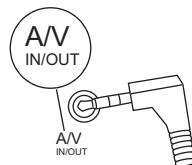
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There are several types of audio/video (A/V) input plugs into recording devices. Use the manual from your recording device to find the location of the input, as well as what type of input is on the device.

## Devices with Composite Mini-plug input:

Use either the 2.5mm or 3.5mm Viosport A/V Cable to connect directly to recording device.

1. Plug the male mini-plug on the Viosport A/V Cable into the A/V input terminal on the recording device.

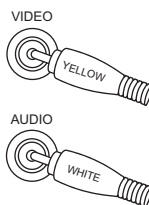


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## Devices with RCA inputs:

Use the RCA Viosport A/V Cable to connect directly to the recording device.

1. Plug the yellow, (male) RCA plug into the yellow or VIDEO input terminal on the recording device.
2. Plug the white, (male) RCA plug into the white, red or AUDIO input terminal on the recording device.

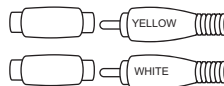


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## Devices with inputs not described above:

Use the RCA Viosport A/V Cable in conjunction with two RCA female/female adapters to connect to the A/V Cable supplied with the recording device (for clarity, we'll refer to this cable as the RD A/V Cable).

1. Attach the RCA female/female adapters to the male RCA ends on the Viosport A/V Cable.
2. Plug the yellow RCA plug into the yellow RCA plug on the RD A/V cable and plug the white RCA plug into the white RCA plug on the RD A/V cable.
3. Plug the RD A/V cable into the A/V input on your recording device.



\*Some RD A/V cables may have connections that are not used.

---

# How To: Connect Cam to Power Source

---

Your Adventure Cam runs on 12 volts of power.

## Viosport Battery Holder

1. Properly place 8 “AA” batteries into the battery holder.
2. Plug the male power connector from the battery holder into the female power connector on the Viosport A/V Cable.

Depending on conditions of use, the Viosport Battery Holder could give you up to 12 hours of run time. In order to conserve battery power, unplug the Adventure Cam from the battery holder when not in use.

---

## Viosport Rechargeable Battery Pack

### Use:

1. Plug the male power connector on the battery into the female power connector on the Viosport A/V Cable.
2. Turn the Power Switch to the “ON” position.

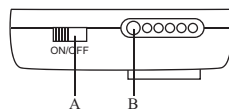
If desired, attach the Li-Ion battery to the bottom of your recording device with the tripod bolt built in the battery pack.

In order to conserve the battery power, turn the power switch to the “OFF” position and unplug the Viosport Adventure Cam from the battery when not in use.

Depending on conditions of use, the Viosport Rechargeable Battery could give you up to 6 hours of run time. In order to conserve battery power, unplug the Adventure Cam from the battery holder when not in use.

### Charging:

1. Push the CHECK button, located next to the 5-LED fuel gauge (B). The number of lit LED lights indicates the remaining power level in the battery from Low (one LED) to High (five LED's).
2. Turn the power switch to the “OFF” position (A).
3. Insert the output plug of the AC power adapter into the charging unit and plug into an AC outlet. The GREEN LED indicator on the charging unit will light up to indicate it is powered properly and ready for use.
4. Plug the cable of charging unit into the socket of the battery. The LED indicator on the charging unit will turn RED to indicate the battery is receiving charge. As soon as the battery is fully charged, the same LED indicator will turn GREEN to indicate your battery is fully charged and ready for use. Disconnect the charger from the battery after the battery is charged.



The battery will take approximately 2.5 hours to charge.

---

# How To: Connect Cam to Power Source

---

## Viosport Cigarette Lighter

### Use:

1. Plug the male power connector on the cigarette lighter power cable into the female power connector on the Viosport A/V Cable.
2. Plug the cigarette lighter power cable into a 12v cigarette lighter.

In order to conserve power, unplug the Viosport Adventure Cam from the cigarette lighter when not in use.

### Charging Rechargeable Battery:

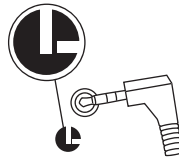
1. Push the CHECK button, located next to the 5-LED fuel gauge. The number of lit LED lights indicates the remaining power level in the battery from Low (one LED) to High (five LED's).
2. Turn the power switch to the "OFF" position.
3. Insert the output plug of the cigarette lighter power cable into the charging unit and plug into a cigarette lighter outlet. The GREEN LED indicator on the charging unit will light up to indicate it is powered properly and ready for use.
4. Plug the cable of charging unit into the socket of the battery. The LED indicator on the charging unit will turn RED to indicate the battery is receiving charge. As soon as the battery is fully charged, the same LED indicator will turn GREEN to indicate your battery is fully charged and ready for use. Disconnect the charger from the battery after the battery is charged.

---

# How To: Connect LANC to Recording Device

---

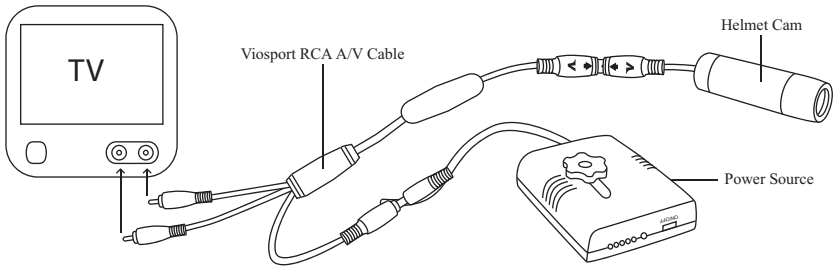
1. Locate the LANC terminal on the camcorder. Plug the LANC remote into the LANC terminal.
2. Make sure your camcorder is in VCR, VTR, or PLAY mode to use it in conjunction with the LANC remote control and Viosport Adventure Cam.



---

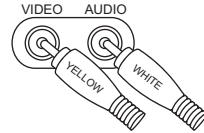
## How To: Connect Cam to Television

---



1. To connect your cam to your TV you must use the Viosport RCA A/V cable (shown above).  
\* Your television must accept RCA input or be connected to a VCR or DVD player with RCA input in order to connect the Viosport camera system.

2. Plug the yellow (male) RCA plug into the yellow or video input terminal on the television and plug the white (male) RCA plug into the white, red, or audio input terminal on the television.



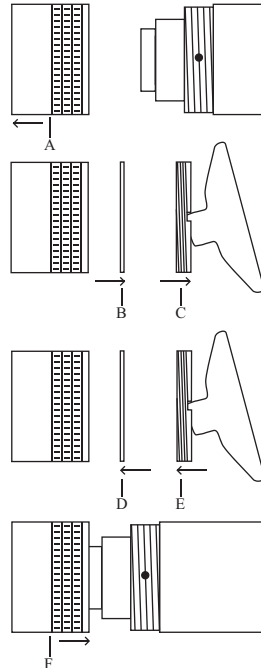
\*Be sure to have the Television on the AUX or A/V input channel.

---

## How To: Change the Neutral Density Filters

---

1. Remove the lens cover by twisting it counter clockwise (A).
2. Inside the lens cover is a retaining ring. Insert the T wrench from the Tool Kit into the notches of the retaining ring and turn it counterclockwise until the retaining ring is completely removed. Once the ring is loosened, it may be faster to use your fingers (C).
3. Safely remove the filter by turning the lens cover upside down into the palm of your hand or on a soft, flat surface (B).
4. Before inserting a new filter, use a soft cloth to clean off any dirt or fingerprints. Carefully place the clean filter into the lens cover (D).
5. Insert the retaining ring into the lens cover and turn clockwise with the T wrench. Be careful to avoid cross threading. The retaining ring should be tight enough to hold the filter in place, but not too tight that the filter cracks or chips (E).
6. Return the lens cover to the main body by turning clockwise (F).



**Please Note:** The Neutral Density Filters are not compatible with the Wide Angle Lens Cover.

---

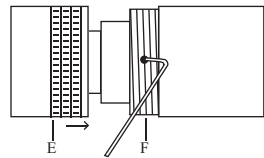
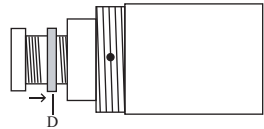
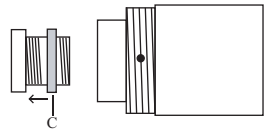
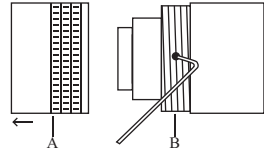
# How To: Change the Lenses

---

Before you begin changing the lenses, we recommend hooking your cam to a television or recording device to check the focus. Please refer to the How To: Connect Cam to Television on page 14 of this manual for proper hookup instructions.

## Removal:

1. Remove the lens cover by twisting it counterclockwise (A).
2. On the threaded section of the main body of the cam, there are two sets of screw holes. DO NOT completely remove the set screws – as they are very small and easily misplaced. With the Allen wrench from the Tool Kit, turn the set screws counterclockwise to loosen (B).
3. Remove the lens and tension device, if applicable by turning it counterclockwise (C).



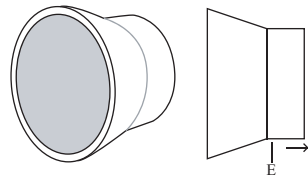
## Replacement\*:

4. Choose the lens that fits your Field of View requirements (see Lenses on page 9). Insert the new lens and tension device into the main body and turn clockwise (D). Be careful to avoid cross threading.
5. Find a point of reference that is the approximate distance that you will be recording. Refer to your television or recording device display to focus the new lens. Turn the lens either clockwise or counterclockwise to ensure that the image is focused clearly.
6. With the Allen wrench from the Tool Kit, turn the set screws clockwise to tighten (F).
7. Return the lens cover to the main body by turning clockwise (E).

\*If using the 2.5mm: 92.5° Wide Angle lens please see the special notice below before returning the lens cover.

## Special Notice: Using the Wide Angle Lens

Because the 2.5mm: 92.5° (wide angle) lens is slightly larger than our other lenses, an additional lens cover was developed to ensure optimal performance. The new Wide Angle Lens Cover accommodates the longer lens to eliminate the shadowing on the corners of your footage. Please use the Wide Angle Lens Cover whenever using the Wide Angle Lens.



## Please Note:

The Wide Angle Lens Cover is not compatible with the neutral density filters. If you wish to use the filters with the Wide Angle Lens you will have to use the original lens cover. Tightening the regular lens cover while using the Wide Angle Lens may cause the glass to break. Also, shadowing may occur on the corners of your footage. Viosport / Viotac will not be responsible for any damage incurred if customers choose to use this method for using the Wide Angle Lens.



---

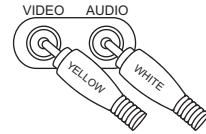
# How To: Focus the Lens

---

We recommend plugging your cam into a television to check the focus, as the TV will provide you with a large precise view of the image. If you choose to focus the lens using your recording device; please connect your cam to the device using the appropriate connection on page 11 of this manual, turn your camcorder on in VCR, VTR or PLAY/EDIT mode, and continue to step 2.

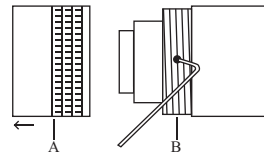
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1. Connect the Helmet Cam system to your television using the Viosport RCA A/V cable.



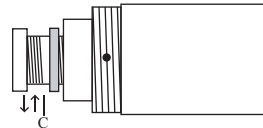
\*Please refer to the How To: Connect Cam to Television on page 14 of this manual for proper hookup instructions.

2. Remove the lens cover by twisting it counter-clockwise (A). Be careful not to touch the glass or the lens in this process as the oils in your skin that come in contact with the glass on the lens cover or the lens itself can make the image blurry.



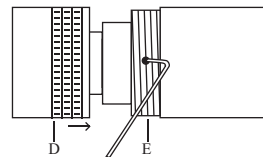
3. On the threaded section of the main body of the cam, there are two sets of screw holes. DO NOT completely remove the set screws – it is best to loosen them slightly, so they continue to have a very slight bit of pressure on the lens. With the Allen wrench from the Tool Kit, turn the set screws counterclockwise to loosen (B).

4. Find a point of reference that is the approximate distance that you will be recording (4-5 feet is generally a good distance). For best results, find a subject to focus on. A friend / family member works well here, or you can also focus on a piece of text. Refer to your television or recording device display to focus the new lens. Turn the lens either clockwise or counter-clockwise to ensure that the image is focused clearly (C).



5. With the Allen wrench from the Tool Kit, turn the set screws clockwise to tighten (E). Do not overtighten the set screws. Overtightening the screws could cause the lens to come out of focus.

6. Return the lens cover to the main body by turning clockwise (D). Make sure the lens cover is tight to ensure a water resistant seal.



\*If using the Wide Angle Lens please see page 17 of the manual before returning the lens cover.

**SPECIAL NOTE:** If your model of lens has a tension spring instead of foam tension rings and it's causing issues, try focusing the lens without the spring. If it will remain in focus without the spring, then it is ok to use only the set screws to hold the lens in place. If it will not focus without the spring, widen the circumference of the spring at the bottom.

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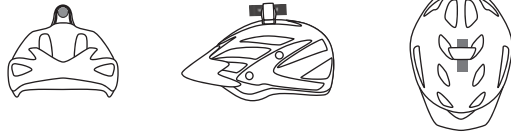
## Support: Mounting Tips

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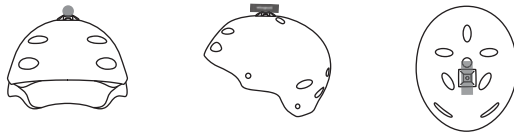
There are several ways to mount your Viosport camera to your helmet. In most cases, the best mounting position is to have the camera parallel to the ground; however, since most of your filming will be done while you are in an action-forward position (example: riding a bike), the camera may point slightly upward when your helmet is resting on a flat surface.

Here are some examples of different helmets and various mounting positions.

Deep-vented bike helmet



Smooth-surfaced  
ski/snowboard helmet



Smooth-surfaced  
full-face helmet



Smooth-surfaced  
military/tactical helmet



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## Support: Videography Tips

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- When the Viosport Camera is mounted to your helmet, keep your head steady and try not to rotate rapidly from side to side. Keeping steady will create video that is easier to watch. Most riders choose to film from their helmet. Mounting the cam to your head provides smoother video, as you act as a shock absorber.
- For compelling video, use a frame of reference, such as another person in front of you.
- When possible, keep the sun at your back.
- If you want to push your videos to the next level, try switching up your views. Our various mounting systems allow you to put the helmet cam on just about any surface you can think of.
- If you have the need for speed and lead the pack – mount the camera facing behind you to capture the agony as your friends try to catch up. You can accomplish this by mounting the Viosport Camera to your helmet pointing behind you or by mounting it using our ClamperPod2 and Flex Mount.
  - For sports involving handlebars try the RT Angle Hook and Loop Mount. Set up the camera using this mount so that the camera is pointed back at you from your handlebars.
  - The lower you mount the camera the faster the shot will look. Try mounting the camera on your shoe, your pedal, a ski, a snowboard or low on your vehicles frame. It's never looked faster.

To see a variety of creative views check out our Action Productions video gallery at [Viosport.com](http://Viosport.com).

## Support: Cam Comparison

	Adventure Cam 3	Adventure Cam H2O	S.C.O.U.T. Cam	Adventure Cam II
CCD Chip	Sony Ex-View® 1/3"	Sony Hyper HAD® 1/3"	Sony Ex-View® 1/3"	Panasonic® 1/4"
TV Lines	520	480	520	380
Low Light Lux Rating	0.2	0.05	0.2	1
Optional Lenses	5	0	5	0
Replacement Glass	yes	no	yes	no
Sun Filters	5	0	5	0
Outer Casing	Silver	Silver	Matte Black	Black
Quick Release Cable	Coil	Pigtail	Coil	Pigtail

## Support: Troubleshooting

Problem	Possible Cause	Possible Solution
<i>I see an image from my camcorder lens on my LCD – not from the helmet cam.</i>	<b>Camera not in the correct mode</b>	<ol style="list-style-type: none"> <li>1. Switch your camcorder to VCR (aka VTR or PLAY/EDIT) mode.</li> <li>2. Refer to the owner's manual to set up the device to accept input from an outside source. You can generally find the instructions in a section entitled "How to record from a TV or VCR".</li> </ol>
<i>I can't plug the Adventure Cam into a recording device with the Viosport cables.</i>	<b>Proprietary input plug type</b>	If you have a recording device that has an A/V input plug that does not match the plug-type of the Viosport A/V Cable (this applies to several Sony Cameras); follow the instructions on page 11 of this manual to connect your cam to the recorder.
	<b>No A/V input</b>	If you cannot find an A/V input plug on your recording device, your recording device is not compatible and will not work with the Viosport helmet cams.

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Solution</b>
<i>My LCD is showing a blue screen</i>	<b>Recording device needs to be set up to accept input from an outside source.</b>	<ol style="list-style-type: none"> <li>1. Be sure your recording device is in VCR (aka VTR or PLAY/EDIT) mode.</li> <li>2. Refer to the owner’s manual to set up the device to accept input from an outside source. You can generally find the instructions in a section entitled “How to record from a TV or VCR”.</li> </ol>
	<b>Adventure Cam not sending video signal</b>	Call Viosport at 888.579.2267 for technical support. If they cannot assist in getting your helmet cam working, they will issue an RMA for you to return the camera for further testing.
<i>My LCD screen shows a blinking red tape.</i>	<b>Tape not present in the camcorder</b>	Load a tape into your recording device.
<i>My LANC Remote powers the camera into CAMERA mode.</i>	<b>LANC Remote incompatibility</b>	You are using a camera with an electronic toggle to switch modes. Our LANC v.1.6 solves this incompatibility. It is designed to only work in VCR mode and will automatically put your camera in the correct mode.
<i>My LANC lights are flashing uncontrollably.</i>	<b>Tape not advanced</b>	Record just a second (or even less) and the tape will move out from its top position and the lights on the remote will return to normal. It's always recommended that you move the tape out of its top position before recording as the image quality in the first frames might be degraded.
<i>My LCD is showing a black screen</i>	<b>Helmet cam is not getting power</b>	<ol style="list-style-type: none"> <li>1. If using the rechargeable battery, make sure the battery is turned on and has a charge.</li> <li>2. If using the “AA” battery holder, make sure you properly install the batteries and that they are new.</li> </ol>
<i>The image from my helmet cam is recording to the memory card and not to the tape.</i>	<b>Pressing the main record button</b>	When recording from an outside source in VCR mode, you must refer to your recorder’s owner’s manual. You can generally find the instructions in a section entitled “How to record from a TV or VCR”.

\*Additional support can be achieved by visiting [www.viosport.com](http://www.viosport.com) or calling 888.579.2267

\*Check out our Education Productions in the Viosport video gallery for in depth tutorials on getting your camera sytem set up, how to record, and many more helmet cam topics.

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## Support: Glossary

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### **12v (12 Volts)**

Amount of power needed to operate all Viosport Adventure Cams. Too much or too little voltage may damage the camera.

### **3.5mm Mini Plug**

A terminal in the camcorder which is 3.5mm. Generally, this is the size of the A/V terminal, which is where external audio and video sources connect to the camcorder. It looks similar to a classic headphone jack.

### **A / V Input (Audio/Video)**

This is necessary to connect external audio and video sources, such as our Adventure Cams. Also known as analog input.

### **AC (Alternating Current)**

Basically: A wall outlet. Officially: Occurs when charge carriers in a conductor or semiconductor periodically reverse their direction of movement. The voltage of an AC power source changes from instant to instant in time.

### **Adventure Cam**

Viosport Camera's with the following model names: II, H20, 3 and S.C.O.U.T. Also known as helmet cam, bullet cam, head cam, POV (point-of-view) cam or mini cam, just to name a few.

### **Camcorder**

A portable electronic recording device capable of recording live-motion video/audio for later replay through VCRs, TVs, and, in some models, a personal computer. The most popular recording device for the Viosport Cameras.

### **CCD (Charge Coupled Device)**

One of the two main types of image sensors used in digital cameras. When a picture is taken, the CCD is struck by light coming through the camera's lens. Each of the thousands or millions of tiny pixels that make up the CCD converts this light into electrons. The number of electrons, usually described as the pixel's accumulated charge, is measured, and then converted to a digital value. This last step occurs outside the CCD, in a camera component called an analog-to-digital converter.

### **Composite**

Standard A/V lead for many devices such as DVD players, VCR's, camcorders. Generally 3.5mm in size.

### **DC (Direct Current)**

Basically: Battery powered. Officially: The unidirectional flow or movement of electric charge carriers, usually electron. Direct current is produced by electrochemical and photovoltaic cells and batteries.

### **Field of View**

The horizontal range of view of the camera lens. Adventure Cam II: 90 degrees, Adventure Cam H20: 93 degrees, Adventure Cam 3: 72.5 degrees, S.C.O.U.T. Cam: 72.5 degrees.

### **LANC (Lan-cee)**

A Sony remote control protocol which is built into various camcorder models. This is found only on select Canon and Sony models.

### **Lens**

A piece of glass or other transparent material used to converge or diverge transmitted light and form optical images.

## **Lithium Ion Battery**

A lithium ion (Li-Ion) battery is a rechargeable battery with twice the energy capacity of a nickel-cadmium battery. It also offers greater stability and safety. The battery has no memory.

## **LUX**

A unit of illumination equal to the direct illumination on a surface that is everywhere one meter from a uniform point source of one candle intensity or equal to one lumen per square meter.

Note: lower LUX value cameras work better in low light.

## **MD4 Extension**

Viosport's 12-foot extension cable for Adventure Cam II, H20, 3, and S.C.O.U.T. models.

## **Mini DV (Digital Video)**

A type of camcorder recording media format. Implies recording, manipulating, storing and playing back video images digitally.

## **Mount**

Device used to hold Viosport's Adventure Cams in a desired place.

## **Neutral Density Filter**

Basically: Sun shades. Officially: A thin sheet or disc of glass, plastic or gelatin having plane and parallel faces, toned to some uniform and specific shade of gray, and intended to be used over the camera lens during exposure for the purpose of reducing the intensity of the exposing light without changing its color.

## **NTSC (National Television Standards Committee)**

Standard protocol for television (TV) broadcast transmission and reception in North America. North American camcorders require NTSC version of Viosport Adventure Cams.

## **PAL (Phase Alternation Line)**

The analog television display standard that is used in Europe and certain other parts of the world. If you are using a European model camcorder you would need a PAL-version Adventure Cam.

## **POV**

Point of view.

## **RCA**

An RCA connector is designed for use with coaxial cable. The yellow connection is for video and the red and the white are for audio. Viosport's cams offer only one channel of audio.

## **Resolution**

Resolution is the number of pixels (individual points of color) contained on a display monitor expressed in terms of the number of pixels on the horizontal axis and the number on the vertical axis. The sharpness of the image depends on the resolution and the size of the monitor. The Adventure Cam II offers 380 TV lines of resolution. The Adventure Cam H20 offers 480 TV lines of resolution. The Adventure Cam 3 and S.C.O.U.T. Cam both offer 520 TV lines.

## **Sony Proprietary Cable**

A cable that is specific to Sony devices. The current Sony proprietary A/V cable has a half-moon shape on one-end and RCA male and S-Video ends on the other.

## **VCR/VTR mode**

This mode allows the camcorder to record from an external device such as Viosport Adventure Cams.

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## Support: Customer Service

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Have a question or comment regarding V.I.O., Inc. or our products? There are several ways to get in touch with us.

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### E-mail

## ***viosport***

## ***viotac***

General Information:	<a href="mailto:info@viosport.com">info@viosport.com</a>	<a href="mailto:info@viotac.com">info@viotac.com</a>
Sales Information:	<a href="mailto:sales@viosport.com">sales@viosport.com</a>	<a href="mailto:sales@viotac.com">sales@viotac.com</a>
Customer Service:	<a href="mailto:customerservice@viosport.com">customerservice@viosport.com</a>	<a href="mailto:customerservice@viotac.com">customerservice@viotac.com</a>
Catalog Requests:	<a href="mailto:catalog@viosport.com">catalog@viosport.com</a>	<a href="mailto:catalog@viotac.com">catalog@viotac.com</a>
Warranty>Returns:	<a href="mailto:warranty@viosport.com">warranty@viosport.com</a>	<a href="mailto:warranty@viotac.com">warranty@viotac.com</a>
Resellers:	<a href="mailto:dealer@viosport.com">dealer@viosport.com</a>	
Rentals:	<a href="mailto:rentals@viosport.com">rentals@viosport.com</a>	
Government:	<a href="mailto:government@viosport.com">government@viosport.com</a>	<a href="mailto:government@viotac.com">government@viotac.com</a>
Production:	<a href="mailto:production@viosport.com">production@viosport.com</a>	
Website Technical:	<a href="mailto:viosites@viosport.com">viosites@viosport.com</a>	
Submit Tips:	<a href="mailto:tips@viosport.com">tips@viosport.com</a>	
Submit Video:	<a href="mailto:video@viosport.com">video@viosport.com</a>	

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### Phone

Our Customer Service lines are open Monday-Friday 8:00 am - 6:00 (EST). You may leave a voicemail message during non-business hours. We strive to return each call within 24 business hours.

## ***viosport***

## ***viotac***

Toll-free: 888.579.CAMS (2267)	Toll-free: 877.423.8678
Local: 906.226.9393	Local: 906.226.9343
Fax: 906.228.6566	Fax: 906.228.6566

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### Postal Mail

V.I.O., Inc.  
Viosport / Viotac  
100 North Front Street  
Marquette MI 49855

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# Support: Warranty>Returns

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## Warranty

V.I.O. warrants all merchandise against defects in material or workmanship for one year from date of purchase unless otherwise specified. The V.I.O. warranty is limited to the replacement or repair of the defective item at no charge if we determine such item to be defective. This warranty shall not apply to any item subject to misuse including static discharge, failure by Buyer to follow instructions, product modification, ordinary wear and tear, negligent or improper operation, or which has been installed or soldered or altered during assembly or use and is not capable of being tested or resold. Modification, repair, or attempted repair by anyone other than V.I.O. without the written permission of V.I.O. will void this limited warranty. Warranty is also voided on any product that is found to have an altered or tampered with serial number.

Defective items must be shipped prepaid. V.I.O. will ship the return or replacement item to the customer using UPS Ground services. If the customer shipped the item to V.I.O. using express services, V.I.O. will match the level of service for the return. If the customer did not use express shipping, but wishes to have the item express shipped to them, V.I.O. will charge the customer for the upgraded shipping charges.

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## 30-Day Return

Within 30 days of purchase, you may return any item purchased from V.I.O. for any reason for a refund, exchange, or credit towards another V.I.O. purchase. The returned items must be in original condition and packaging.

If parts are to be returned to V.I.O. due to Buyer error, Buyer may be subjected to a 15% restocking fee. If parts are to be returned to V.I.O. and merchandise is damaged or returned in non-resalable condition, Buyer may be subjected to 15-100% restocking fee. Including failure to return accessories and/or owner's manuals. No exceptions. This includes duplicate shipments, refused/unclaimed shipments, etc., items ordered by mistake, not shipped, not fitting application, unsuitability for particular application or design. No refunds on lenses, special or custom orders.

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## Lifetime Return

If your camera does not qualify for warranty due to:

- outside of one-year time frame
- failure not considered a defect by V.I.O.
- camera was not manufactured by V.I.O.

Return your camera to Viosport and we will offer you a 15% discount on the purchase of a new V.I.O. Adventure Cam.







V.I.O. Inc.  
Viosport / Viotac

100 N. Front Street | Marquette, MI 49855



***viosport***

Website: [www.viosport.com](http://www.viosport.com)  
Email: [info@viosport.com](mailto:info@viosport.com)  
Toll-free: 888.579.CAMS (2267)  
Local: 906.226.9393  
Fax: 906.228.6566

***viotac***

Website: [www.viotac.com](http://www.viotac.com)  
Email: [info@viotac.com](mailto:info@viotac.com)  
Toll-free: 877.423.8678  
Local: 906.226.9343  
Fax: 906.228.6566

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