

## 2010 Tachyon XC Instruction Manual - English

# Tachyon™ XC

# 2010



Website: [www.tachyoninc.com](http://www.tachyoninc.com)  
Email: [support@tachyoninc.com](mailto:support@tachyoninc.com)

Dear Customer,

Thank you for buying the 2010 Tachyon XC. The 2010 Tachyon XC is the latest generation video and still helmet camera designed for filming extreme action in extreme conditions. It is very rugged and very simple to use, while delivering 30FPS of quality video.

The Tachyon XC is shockproof, waterproof, and foolproof. Take it anywhere on land, into the sea, and into the air and bring back your stunts, adventures, and bloopers. It comes with a remote control and custom-designed mounting accessories. A patented shock-proof battery system eliminates an all-too-common problem among other action cameras; the loss of power and recorded files caused by the jarring loose of the batteries. This innovation ensures that videos taken in challenging and perhaps impossible-to-repeat situations will not be lost.

And unlike other action cameras which need to rely on an external waterproof case, the Tachyon XC's housing is already waterproof, allowing you to film to a depth of 2 Atmospheres (34 feet or 10.3 meters) and protecting the camera from adverse elements.

The Tachyon XC provides multiple recording levels, allowing you to customize your video's resolution and recording times according to your needs. It also has a stealth recording mode, ideal for surveillance videos. It makes use of the common 1GB, 2GB, and 4GB memory cards, but it is also the only helmet cam on the market that is compatible with 8GB, 16GB, and 32GB memory cards. This can give the user up to 64 hours of video on a single card.

### **About Tachyon**

Tachyon, Inc. is a company that deals in extremes: We make extremely cool products for extreme people who engage in extreme activities. In order to make the best products, Tachyon, Inc. does not compromise on materials or on the quality of construction. We exceed industrial standards to ensure that our products exceed your expectations.

Please be sure to set up your new action camera using the following instructions. If you have any questions feel free to contact us.

The Management  
Tachyon, Inc.

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# Tachyon<sup>TM</sup> XC

## 2010



## Included in the Box:

- 1 - Tachyon XC
- 2 - Remote Control
- 3 - Battery Cartridge
- 4 - General Mount
- 5 - Side Mount
- 6 - TV Cable
- 7 - USB Cable
- 8 - Logo Stickers (not pictured)

## Quick Start

The Tachyon XC is preset to the Superior-Level S-Video recording mode, which gives you the highest quality recordings. And because the Tachyon XC can take up to 32GB memory cards, you will have no problem saving large, high-quality video files.

To get started, insert two AA lithium batteries into the shockproof battery cartridge. Then insert the cartridge into back of your Tachyon XC.

In the narrow slot to the left, insert your memory card.

We highly recommend using a class 6 memory card or above, with 10MB/s or above speed. 4, 8, 16, and 32GB cards are all compatible with the Tachyon XC, but we recommend using an 8GB card that will give you two hours of recording time at the highest level.

[2010 Tachyon XC Unboxing Video](#)

Class 4 cards may also work but will deliver video that is not as smooth.

*(See Table)*

For batteries, we recommend Energizer Ultimate Lithium for longer battery life. *In cold weather, use ONLY this kind of battery.*

**Warning:** Do **NOT** use rechargeable batteries, as they may be too large for the battery cartridge and could become stuck inside your camera.

Once your batteries and memory card have been inserted, turn on your Tachyon XC by holding down the Power button (Bottom Left Button - outlined in red) until you hear the double-beep sound and see the LCD light up. You will need to hold it longer than most power buttons because it is designed not to shut off easily in the kind of rough situation that this camera is designed for.

To begin taking videos, hold down the **START/STOP** button (Top) until you hear another beep. You will notice that the time counter has begun to advance and the video icon is flashing. You are now shooting video!

Hold down the **START/STOP** button again to stop filming.



## Setting the Clock

There is no need for you to set the clock or calendar before using your camera. But if you want to do so, hold down the **MENU** Button for two seconds until you hear a beep, release and then press again - (but don't hold) the **MENU** Button to cycle through the icons until you reach the Calendar Icon. Press **START/STOP** to select the calendar.

This will take you to your calendar settings, which include the Year (**YY**), Month (**MM**) or Day (**DD**), Hour (**Hr**) and Minute (**Min**) numbers. To change the activated number, press (but don't hold) the **MENU** Button until the correct number appears.



When the number is correct, press the **START/STOP** Button. This will take you to the next number. Repeat until your time and date are correct.

The clock is a 24-hour clock, so 6:30PM should be entered as 18:30.

If you make an error, or if you just wish to exit the setup menu, press and hold the **MENU** Button for two seconds.

If you remove your batteries for more than a few minutes, your time and date settings will be lost.

## Recording & Remote

To begin recording a video, press and hold the **START/STOP** Button until you

hear a beep sound and the numbers on the LCD begin to advance. Press the button once again to stop (double beep).

To use the TACHYON XC's remote controller, you must first insert 2 AAA batteries. Then point it towards the front of your camera and press the large **START/STOP** Button to start recording. You will see the green LED turn to red. This means that you are recording. Press again to stop and the LED will turn green.

See set-up video above.

**Remember:** The Remote Controller is **NOT** waterproof!

When shooting 3D video with the Tachyon XC 3D System it is very important that you start both cameras at exactly the same time. Your remote control will do this, so always use it for 3D video.



## Changing Recording Modes

To change recording modes, press and hold the **MENU** button until you hear a beep. The first options that you can change will be recording modes: **S** (Superior) is the default setting that gives you one hour of superior-quality recording at VGA resolution.

Press the **MENU** button to cycle through the other recording options. When you reach the desired setting, press the **START/STOP** button to confirm your choice.

**H** (High) will give you 2 hours of recording time. For longer recording times, but at a lower resolution, you can choose **M** (Medium) or **L** (Long) modes. On a 4GB memory card, these modes will allow you to save from 4 to 8 hours of video respectively.

To exit the menu, press and hold the **MENU** button.

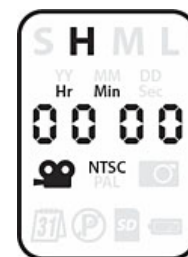
Continuous recording time is limited to 30 minutes. This allows your camera to process the data and save your files. Recording will begin again automatically after 5 seconds. You will not need to do anything.

If you are shooting 3D video, be sure to manually stop recording before that 30 minute limit. This will prevent your cameras from going out of sync when starting up again after saving your files.

If you have been recording for more than one hour, your time indicator on the LCD will switch from minutes and seconds to hours and minutes.

All recording times above are based on a 4GB memory card. Higher-capacity cards will give you longer recording times.

(See Table)



## Time-Lapse Camera Mode

To switch to camera mode so that you can take time-lapse photos, press (but do not hold) the **MENU** button. When you do, you will hear a beep and see that the movie icon has changed into the camera icon.

Now every time you press the **START/STOP** button you will hear a beep sound and begin to capture a series of time-lapse photos. One photo will be taken every two seconds. The number that you see displayed on the LCD will be the number of photos remaining until your memory is full. This number will remain at 9999 for a long time, showing that you still have many, many more photos that you can take.

To return to video mode, press the **MENU** button again.



## Privacy Mode

If you want to make your recordings, both video and still, in secret, you will not want your camera beeping or showing any LED indicators. So for these secret recordings, you will need to enter Privacy Mode. Do this by holding down the **MENU** Button to enter the menu, pressing the **MENU** Button until you see the Privacy Icon, press the **START/STOP** Button to select, and then the **MENU** Button again to display either ON or OFF on the LCD. Press the **START/STOP** Button to make your selection.

Press and hold the **MENU** Button to exit the menu.

When in Privacy Mode and starting your recordings with the remote, you will hear the usual beeps and see the LED flashing for a few seconds. The camera will then become quiet with no further LED lights showing. This is so that you can be sure the camera has really started to record when you are not close enough to see the LCD.



## Memory Card Status

This memory card icon indicates that the card has been inserted. If you see the memory card Icon flashing, it means that your card memory is full. Download your files to your computer to make space for new videos or images.

**If you ever see "err" on your LCD, this means that there is some problem with your card. Either it is not inserted all the way, it is locked, or it has perhaps been damaged in some way.**



## Battery Indicator

This top icon (Full Battery) indicates that your batteries are charged and ready to use, while the middle icon (Low Battery) indicates that your battery power is low and will soon be completely drained (bottom icon).

Once you see the low battery indicator, we suggest that you press **START/STOP** to stop the recording and immediately change your batteries.



## Sound Recording

To ensure waterproofing, the microphone of the Tachyon XC is sealed inside the case. This ensures that your camera will function well in extreme situations. **But your sound-recording quality will be a bit lower than on a camera that is not designed to be waterproof.**

*To improve sound recording, you may open the back door of your camera. But it would not be a good idea to do this when you are shooting outside in an area where any dust or water could enter your camera. And it is not a good idea to open the door if you are moving about. The door will rattle and create a lot of noise in your recording.*

## Shock Resistance

Tachyon, Inc. has patented a shock-resistance system that keeps your batteries in place and connected in event of severe jarring. Disconnected batteries would result in the shut down of the camera and the loss or corruption of your video files.

Always remember that your body makes a great shock absorber. So videos taken with the camera attached to your body will be smoother than videos taken with your camera is attached to something, such as a bicycle, that you are riding.

## Waterproofing

The Tachyon XC is designed to work under water to a depth of 2 atmospheres (34 feet or 10.3 meters) for a maximum of 30 minutes. It will keep recording to a greater depth, but due to the water pressure the buttons may no longer function until you return to a shallower depth.

To ensure waterproofing, be sure to keep the rubber seal around the rear door clean and the door closed properly.

**Remember:** The Remote Controller is not waterproof!

## Heat

Although the TACHYON XC is designed to handle extreme situations, it would be best not to leave it sitting in strong sunlight or on or near any hot objects.

Tachyon, Inc. is not responsible for any damage resulting from improper use.

## Batteries

The Tachyon XC requires good-quality batteries to support its high-capacity functions, so low-cost carbon-zinc batteries are not recommended. For best results, use Energizer® Ultimate Lithium Batteries. In cold weather, use ONLY this kind!

- **DO NOT** mix new and used or different kinds of batteries.
- **DO NOT** use rechargeable batteries.
- **DO NOT** try to force your batteries into the Tachyon XC if they are not going in easily. You may have inserted them incorrectly, or you may be using batteries that are too thick.

Duracell® or Energizer® Alkaline Batteries - approx. 4 hours (*at room temperature - much less when cold*)  
Energizer® Ultimate Lithium Batteries - 10 + hours

*Tachyon, Inc. is not responsible for the above reference data. Over the life of your camera, battery technology may continue to improve, so you should make use of the most advanced non-rechargeable batteries available.*

**Optional Green Power Pack** (may also be used with the 2009 Tachyon XC)

***We have made major improvements in the Power Pack since the printing of our instruction manual. So please use this online manual as the most up-to-date reference.***

The Tachyon XC Optional Green Power Pack can be used to plug your camera into a wall socket or into your car's lighter adaptor.

This will give you unlimited power when plugged in, and just over an hour of power when **fully charged** and unplugged.





You should get around 65 minutes for the 2010 XC and 75 minutes for the 2009.

*These times are for room temperature. Colder conditions will result in shorter times.*

The optional Green Power Pack is available on our [Order Page](#).



## Memory Cards

We recommend in the manual that you use an 8GB memory card. They are now a reasonable price and will give you two hours of recording time at the highest quality. Other cameras need to compress their files to a lower quality to fit on the smaller cards that they can use.

But if you have or would like to buy an 4GB, 16GB, or 32GB card, be assured that they are fully compatible with the Tachyon XC. The larger cards will be able to store up to 8 hours of the highest-quality video and many, many days of time-lapse photographs.

Please remember, though, that not all cards are the same. Faster cards are better than slower cards. So for smoother videos, we recommend class 6 cards with 10MB/s or above speed.

Tachyon offers compatible cards on [our online store](#).

## Mounting



The Tachyon XC comes with one set of mounting accessories:

The Swivel Mount (Top) can be mounted on a typical camera tripod and allows the camera to be rotated in any direction. With its flat bottom, it can also mount to any flat surface.

The General Mount (Middle) is the best mount for attaching your camera to the top of a helmet.

The Side Mount (Bottom) is perfectly contoured for the side of your helmet or head and slips easily over your goggle straps.

For these mounts, we highly recommend using our optional 3M Dual Lock™ Fastening Strips to mount them to your helmets or other surfaces. See details [here](#).



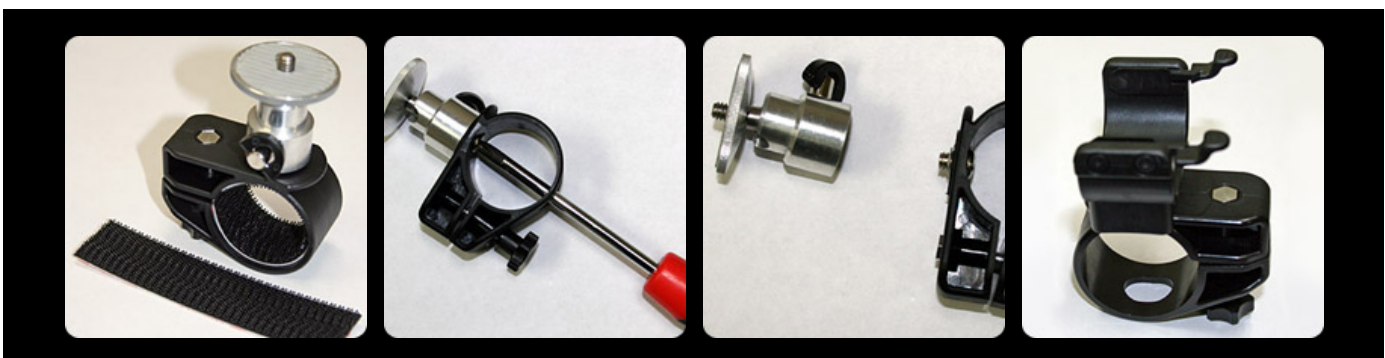
Plastic zip ties (included) and rubber bands can also be used, and are highly recommended, to secure your mounts to difficult surfaces such as biking helmets.



A uniquely-designed Handlebar Mount (*Photo above, on motorcycle*) (**Optional**), that mounts securely to most tubular surfaces and allows a wide range of tilt and rotation, can be purchased separately. These are ideal for mounting your camera on bikes, motorcycles, or gun barrels. This mount comes with 3M Dual Lock™ Fastening Strips for a strong, secure grip.

It works as an extension of the Swivel Mount or General Mount.

The top metal part may be removed with a screwdriver and the top of the General Mount screwed on to the plastic base. This lowering of the mount may give better stability in rough situations.



To purchase this or additional sets of mounts and accessories, please visit our [online store](#).

For added security when in extreme environments you may wish to secure your camera with a bit of fishing line, or something similar, to your person or your vehicle. Pass the line through the latch on the rear door and close it tight. This will prevent your camera from being lost in water or snow in case of any accident.



## Preview and Playback

You can preview what is being viewed by your Tachyon XC through your TV or other media player by connecting it to the TV/Player with the included TV cable. Plug it into the bottom jack on the back of your camera, labeled **TV**. When you turn the XC on, the live image will appear on your TV.

To play back your video or still image files on your XC, press and hold the **START/STOP** Button.

When you do you will see one of the two menus below. The one on the top appears when a video file is active, and the one on the bottom appears when a still photo is active.

Follow the directions on the menus to view, play, pause, or delete your files.

To return to preview, disconnect your cable and then reconnect.

*You cannot record video while connected to the TV.*

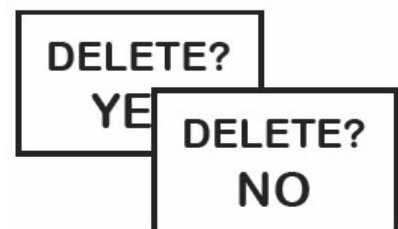


## Deleting Files

To delete the active file while connected to your TV, press and hold down the **MENU** Button. When you do, you will see the display (Right) on your LCD:

Press the **MENU** Button to toggle between Yes and No.  
Press **START/STOP** to confirm your choice. If you press NO, you will return to the playback of your files.

To delete files without connecting to your TV, remove your memory card and insert it into your computer (or into a card reader and then your computer). You can then use your computer's file manager to delete your files.



## NTSC and PAL

NTSC and PAL are two different TV systems. NTSC is used in the USA, Canada, Japan, Korea, and Taiwan, while PAL is used in the EU and most of the rest of the world.

When you plug your XC into your TV with the included TV cable, you will see on your LCD, TU (TV) and below it a little flashing NTSC. If you are in an NTSC country, press the **START/STOP** Button to set NTSC. If you are in

a PAL country, press the **MENU** Button. This will change the flashing NTSC to a flashing PAL. When you press the **START/STOP** Button, you will set PAL and be able to play your videos on your PAL TV.

There is no need to set NTSC or PAL before you record your videos. Your videos will be compatible with both systems.

## Connecting to your Computer

The Tachyon XC also comes with a USB cable. Plug it into the top jack inside the back door of your camera, labeled with the USB symbol.

We suggest that you save your files to your computer as soon as possible after recording.

But if your computer is able to read memory cards, we highly recommend removing the card from your Tachyon XC, plugging it into your computer, and copying your video or picture files to your computer. This will not only save the batteries of your cameras, but video files watched directly from the card may not run as smoothly as files that have been copied to your computer's hard drive.

*Please note that because the Tachyon XC is not a mass-storage device, files cannot be written from your computer to the Tachyon XC.*



## Storage

As with most electronic products, it is better if you take the batteries out if you don't plan on using them. Leaking or expanding batteries could cause damage to your connections, or even become jammed inside your camera.

It is also a good idea to remove the batteries from the cartridge and the cartridge from the camera and leave the back door open. This will relieve pressure on the springs, contacts, and rubber seal. If you do leave the back door open, it is probably a good idea to keep the camera in a Ziploc bag, to prevent dust or dirt from getting inside.

If using your camera in salt water, be sure to rinse it in fresh water after use. The salt can cause rusting of metal parts. Also be sure to clean any sand from around the seals, as this could allow water to enter the workings.

Store your Tachyon XC in a cool dry place.

## Operating Systems

Windows XP/Vista and Apple Mac OS X

*The Tachyon XC 3D Video Maker program is compatible only with Windows XP/Vista.*

## Formatting the Memory

If you notice that your video playback is corrupted, you can't save any videos, or your card doesn't hold the full amount it is supposed to, it is recommended that you reformat your card memory.

With your card inserted, press a pin or paper clip into the hole between the USB and TV jacks (inside the card icon). When you do, the LCD will show "no". You can press the **START/STOP** Button to abort formatting and return to normal operation, but if you really want to format your card, toggle to "yes" by pressing the **MENU** Button. Pressing the **START/STOP** Button will then format your memory card.

**WARNING:** *All of the video previously recorded on your card will be lost.*



## Technical Support

For technical support, please contact us at [support@tachyoninc.com](mailto:support@tachyoninc.com)

## Disclaimer

*Tachyon, Inc. will not under any circumstances be responsible for injuries or property damage incurred during the use of any of our products.*

## Video Shooting Tips

Because the Tachyon XC is an action camera, it is tuned for shooting outdoors in sunlight. But with the 2010's new high-dynamic sensor, you can now take pretty good videos indoors and in poor light as well.

In action situations you will often encounter a lot of vibration. So it is a good thing to remember that your body makes a great shock absorber. Mounting your Tachyon XC on your helmet will give you a smoother video than if you mount it on something that is vibrating hard.

Make sure you are using the Superior "S" setting for the best image quality. See your manual for how to change back to the S setting if you are now on the H, M, or L setting.

When shooting 3D with your Tachyon XC 3D System it is very important to start your recording at exactly the same time. To do this you will need to use your remote, not the buttons on the camera.

Be sure to use a fast memory card. A class 6 card rated at 10MB/s speed *or above* should do the the job quite well. Class 4 cards are also compatible, but may not deliver the smoothness that class 6 cards do.

## YouTube

Videos taken with your Tachyon XC are in VGA resolution (4:3 Aspect Ratio), which is perfect for uploading to YouTube or other video sharing sites. After uploading and processing, your videos will be available to view in YouTube's normal-quality mode, and then a few minutes later in HQ or HD mode.

To upload HD or HD Widescreen videos to YouTube you will need to edit and save them to a higher resolution than your original file. You may also change the aspect ratio from 4:3 to 16:9 in your video editing program.

Be sure to mention 2010 Tachyon XC and Helmet Camera in your title or tags so that other XC fans can find them.



If you see a split-image **3D YouTube video** embedded on one of our pages, click on the video's YouTube logo to be taken to the YouTube page. There you will see a drop-down menu below the video where you can choose your favorite 3D viewing method. Choose the first or second method to use with your Tachyon XC 3D glasses.

## Warranty

### Warranty

Tachyon products are covered by a 12 month limited warranty from the date of purchase from Tachyon, Inc. The warranty covers only defects in workmanship and materials. It does not apply to products which have been damaged due to unreasonable use or by intention nor does it cover dissatisfaction with the product. This warranty does not cover those products purchased from other individuals & resellers and is not transferable.

Tachyon, Inc.'s warranty policy only covers products purchased directly from Tachyon Inc. If you purchased the product from our website you will have been given a purchase number with your confirmation email. Please quote this number, along with your name and email address, in your dealings with us.

If you purchased the product from an authorized reseller, please contact them for their warranty information.

- (a) Tachyon, Inc.'s return policy covers only defective products. All sales are final. Monetary refunds will not be issued for any reason.
- (b) Tachyon Inc will only accept returns of defective product within 90 days of purchase, as stated in the warranty above.
- (c) All products will be exchanged for new products, and not for monetary returns.
- (d) Before products are exchanged or returned, customer must contact Tachyon, Inc. ,via email or phone. Tachyon, Inc. will help troubleshoot the problem to avoid the unnecessary returns. If it is determined that the camera is defective, Tachyon, Inc. will authorize the return, in writing, via email. Tachyon, Inc. may request sample video clips to be sent to [support@tachyoninc.com](mailto:support@tachyoninc.com) in order to ascertain the problem/defect.
- (e) Customer will pay for one-way shipping to Tachyon, Inc. There is no need to use any express or overnight service. Tachyon, Inc. will pay the shipping costs for the exchange product.

### Tachyon, Inc. shall only be liable for:

- (a) the replacement of a defective product with a new product.

### Tachyon, Inc. shall NOT be liable for:

- (a) injury to persons, or damage to property or consequential losses arising from the use of the product.
- (b) a product that has been tampered with, altered, or been serviced by an unauthorized agent.
- (c) damage due to the use of mounting accessories that were not included with the product or those not sold as optional accessories on our website.
- (d) loss of video or still picture files for any reason.

In the event that goods are undelivered to recipient and are returned to Tachyon Inc by post, for any of, but not limited to, the following reasons:

- a) the recipient entered his/her address on Tachyon's order form incorrectly or incompletely,
- b) the recipient refused the package,
- c) the recipient did not pick up the package in a timely manner from his/her local post office, customs office, or any other location in which the package was being held,

the recipient will be responsible for covering the shipping costs needed to resend their goods to them. The original shipping costs cannot be recovered by Tachyon Inc and will be considered payment for a service already rendered.

In the event that the recipient refuses to have the goods resent and the goods are still in like new condition, Tachyon Inc will not refund shipping costs and will charge a 15% restocking fee.

## How to get Service?

Before contacting us, please see the [FAQ page](#).

If your question is not answered there, please feel free to contact our staff us at [support@tachyoninc.com](mailto:support@tachyoninc.com)

We will get back to you as soon as we can with helpful information.

## Tachyon XC 3D System

Tachyon has now introduced a revolutionary new 3D system that can take your videos into a new dimension.

You have probably seen 3D movies at the theater, but have you ever considered filming in 3D yourself?

### **Why would you want to film in 3D?**

Why do you take movies or photographs? If it is because you want to remember what you are seeing and experiencing, 3D will do that much better than 2D, because when you look around, you look with two eyes. And so to truly capture that scene you will need a camera that also has two "eyes". This is exactly the same concept as when you record stereo sound; you record with two microphones because you have two ears. And doesn't stereo sound better than mono?

Big name studios such as Pixar, Disney, and SKG, and directors such as Steven Spielberg, James Cameron, George Lucas, and Peter Jackson are getting big into digital 3D. And now the Tachyon XC 3D System gives you the opportunity to make your own 3D video.

If you already have one 2010 Tachyon XC and would like to upgrade to the 3D System, please contact [support@tachyoninc.com](mailto:support@tachyoninc.com)

Consider sharing one of the XCs with a friend to shoot 2D videos, and then bring the two cameras together to shoot in 3D.

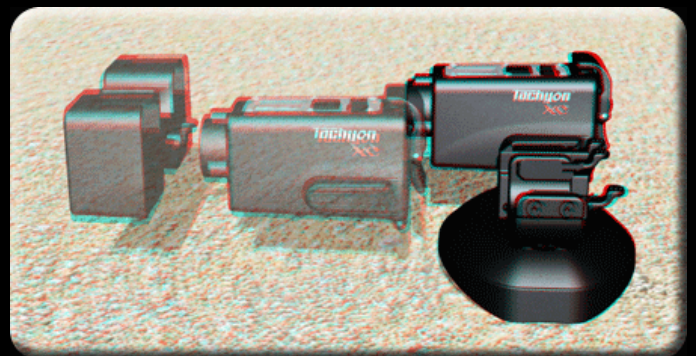
The Tachyon XC 3D System is a modular system that integrates two Tachyon XC cameras, a 3D mount, a frame, and the remote control.

The mount will easily connect to any tripod. For action shots, it is shaped to fit securely on the top of your helmet. It will also rest stably on any flat surface.

Innovative 3D video editing software is included with your package, so that the user can easily edit 3D videos that will play back on any computer. 3D videos can also be uploaded to video sharing sites in exactly the same way as normal video. Be sure to look at YouTube's 3D videos for some idea on what you will be able to do with the Tachyon XC 3D system.

Check our website for sample 3D videos, as well as tips for better 3D shooting and editing.

*This software is compatible with PCs only, and not with the Mac or Linux OS.*







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