H20V Video System Instructions and Tips

Camera and Housing

The camera comes with a small leash and should be attached to the camera for use in and out of the housing. This leash is designed to be used with the camera mounts that come with each camera. Having the leash on the camera allows for easy removal of the camera from the housing, as the camera can be extracted by simply pulling the leash.

Attaching the camera leash to the camera can prove difficult as the leash holes are small and angled. You may try using a pin to help push and thread the leash through the leash hole on the camera

To remove the camera from the housing with no leash attached, remove the back hatch of the housing and firmly tap a side or corner of the open end of the housing downward into the palm of your hand. The camera should slowly make its way out of the back of the housing so you can grasp it.

Make certain the front lens of the housing is clean. If not, gently clean it with water and a micro fiber cloth. NEVER use a cloth if sand or dirt is on the lens – wash the sand or dirt off by rinsing the housing with water first. The outside lens has a baked on scratch resistant coating, but care must always be taken to protect the front lens of the housing from scratches.

Cleaning the inside of the housing lens must be done gently and only with a non-scratch cloth, there is no scratch protection coating on the inside of the lens. If dust or particulates get on the inside of the housing lens, try cleaning with compressed air first.

When inserting the camera, slide the camera all the way forward in the housing. The front bezel of the camera should touch the front lens in the housing. The back hatch needs to be properly oriented on the full control version of the housing. If installed upside down, the push-button on the back hatch will not engage the power button on the camera.

Test the camera in the housing before going on the dive. Make certain the button on the back hatch engages the power button on the camera and the record knob on the housing properly engages the record function of the camera.

Make any adjustments BEFORE getting into the water. Note that the record knob on the housing does NOT physically move the record slider on the camera. The record switch in the camera is magnetic and is engaged by the magnet in the record knob.

Lighting

With any underwater camera (video or still), lighting is KEY. The colors in your videos will only be as good as your lighting source. As ambient light tends to deteriorate with depth, shallow water video tend to be more vibrant and colorful than deeper water video (assuming no artificial lighting source). The time of day will also impact the amount of ambient light in the water. Mornings and evenings typically offer less ambient light than early afternoon. Also remember that water quickly refracts red and yellow light. The best lighting source is a flood light that throws even lighting over a large portion of the field of view. The temperature of the light should be as close to sunlight as possible (around 5700K). Spot lights can be used, but can sometimes result in an overly bright area in the field of view. This bright spot will either look washed out, or cause the rest of the field of view to look darker. This applies to ALL underwater video cameras – not just the Contour.

Shooting Video

Always consider your light source. You will get better results when you are shooting a subject facing the light source and the camera is facing away from the light source. Get as close as you dare! Water is a thick medium to shoot through compared to air. Reducing the amount of water between you and the subject will provide better detail of the subject. However, keep in mind that the minimum focal distance for the camera is about 18".

The camera should deal well with subjects larger than 8". With the wide angle lens on the Contour, subjects smaller than 8" this will appear small on the screen.
Hold the camera as steady as you can. Like any underwater camera system, the H2OV system will pick up any vibrations or movement while recording. The steadier you can make the camera, the better the video.

Video Configuration

. Key audio and video parameters of the Contour cameras are configurable though the Story Teller software included with the camera. The software is also downloadable from the Contour website, http://www.contour.com. Make sure you have the latest firmware for your camera model.

You may want to change some of the configuration setting of your camera depending upon the lighting conditions you will be recording in. I recommend changing the "Exposure Level" from "-1" to "0" or 1" to start with. The metering of the camera is initially set to "Average", which selects the right level based upon the entire field of view. This setting may work well if you are shooting with no artificial light or have a light source that produces even lighting. If you are using a spot light while diving, you may want to try the "Center" or even "Spot" metering settings. "White Balance" settings are adjustable with the Contour + model only.

The field of view the Contour captures varies for different video formats. The 1080p format offers the narrowest field of view. This format provides a relatively wide angle, but minimizes the "fish-eye" effect and allows small subjects to appear larger on the screen compared to the other high-definition setting. The 960p and 720p format provide wider fields of view (135 to 170 degrees). Subjects will appear smaller and more distant in these two formats. The minimum focal length for the camera is 500mm, or about 18".

Audio

The Contour has an audio pickup hole located on the underside of the camera. The camera in the housing will pick up sounds and voice underwater as sound travels very efficiently underwater. However, the camera will not pick up sound through the housing when above the surface.

Mounting

The H2OV housing is designed to be mounted a number of different ways and we offer several different mounting options with our line of accessories.

We do not recommend mounting the H2OV housing to a mask strap, doing so may result in inadvertent flooding or even removal of your mask if the camera imposes some drag when swimming or contending with current. If you wish to mount the camera to your head, it is recommended that you do so through use of a helmet. Please contact support at gregg@gmsconcepts.com for information or assistance if you are interested in a dive helmet setup.

Camera Care

. Inspect the back hatch o-ring before EVERY dive. After sealing the housing, inspect the o-ring seal to make certain it is properly sandwiched between the housing and back hatch. It should look evenly "squished" all the way around the hatch.

After each dive in salt water, you should soak the housing in fresh water for an hour. Make certain to press the power button and turn the record knob a few times while the housing is submerged in fresh water to help any air or salt water trapped in these controls to escape. Dry the housing completely before storing it. Do not store your housing for long periods with the hatch sealed; this will prolong the life of the O-ring.
Never leave the housing or camera in direct sunlight.

Video Editing

    The Story Teller software that is included with the Contour is not a full video editing package. It only allows for rudimentary clipping of video files. It also utilizes the QuickTime engine for video playback. The Contour shoots .MOV format video files that are downloadable from the camera's Micro-SD card. These files are compatible with many video players, including QuickTime. The QuickTime player is downloadable for free from http://www.apple.com/quicktime/download/.

    A more efficient .MOV player that is also free is the VLC player, downloadable from http://www.videolan.org/vlc/.

There are several good video editing software solutions available for PC users, be sure and pick one that can handle the H-264 codex format and .mov files.

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