



Setup, Use and Care Guide

HC7 Housing

Gates Underwater Products, Inc

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www.GatesHousings.com

Gates Housing Setup and Use

Congratulations on owning a new **Gates** housing! You've selected a product that will provide years of value and reliable service. This housing was custom designed for the HC7 camera for a compact and easily transportable package. Please read through this entire guide to familiarize yourself with the Gates HC7 housing. The following easy setup guidelines will explain how to prepare and use your camera and housing so you'll get the best results from your video endeavors.

First Time Use

Every Gates housing is pressure tested before leaving the factory to ensure a watertight seal. As a precaution, however, it's a good idea to first use the housing **without** your Sony HC7 inside. Rough or abusive handling during shipment could have caused unnoticed damage after leaving the factory. In addition, you can get a good feel for the use of an underwater housing without worrying about getting a good shot. You can simply concentrate on the technique of holding the housing in position while fine tuning your buoyancy.

After removing the housing from its shipping container or Gates Pak, carefully inspect for any damage that may have occurred during shipment. If you discover any then contact Gates or your dealer immediately for assistance.

Preparing the Housing

- ✓ Two stainless steel safety latches secure the housing halves. They have a positive locking feature, so to open them you must first depress the center bar release while lifting the rear lever.
- ✓ Separate the rear half of housing from the front.
- ✓ Remove the camera mount plate from the housing by loosening the gold thumbscrew. Note the positioning of the mount plate for later installation with the HC7 camera attached.
- ✓ Pull out the left side controls on the HC7 housing about 2 inches or until they stop.

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Preparing the HC7 Camera

Your Sony HC7 will need some preparation before installing into the housing.

- ✓ **Remove any lens caps or external lenses** you may have added to the front of the camera.
- ✓ **Install** a tape, Memory Stick, and charged battery.
- ✓ **Tighten the hand strap** to its shortest position and tuck the 'tail' back into the hand strap.

✗ **CAUTION:** Failure to perform this step may result in the hand strap becoming caught in the housing seal and accidental flooding.

- ✓ **Install the camera** onto the mount plate using one of the short ¼-20 flat head screws threaded into the tripod mount found on the bottom of the camera. A screwdriver or coin may be used to tighten snug, but do not over tighten.

Installing the HC7 Camera into the Housing

- ✓ **Carefully slide camera on its mount plate** into the front housing half. The front of the mount plate will locate between two alignment guides and the gold thumbscrew will slide into the slot in the tab below the rear of the housing.
- ✓ **Secure the camera** by tightening the gold thumbscrew.
- ✓ **Press in controls.** When the camera is installed into the front housing half, press in controls on the right and left side of the housing (except the zoom control) until they touch the camera and see that they work properly (refer to the next section for more detail on controls)
- ✓ **Open the LCD fully.** It should contact and rest against a small tab on the far left inside of the housing. Now push in the zoom control and confirm operation.



Closing the housing

- ✓ **Carefully inspect** o-ring on back half and sealing surface on front half. Make sure they are clean and in good condition.
- ✓ **Place back half onto the front** housing half. You will clearly see when the housing halves align and seat together properly.
- ✓ **Locate and close** the two latches at the same time.

✗ **Caution:** The safety latches must be **closed** and **locked** prior to use to avoid opening underwater. **It is your responsibility to make sure the latches are secure, locked, and in good condition. DO NOT enter the water with a faulty latch. Gates will replace a damaged or faulty latch free of charge.**

- ✓ **Carefully inspect the parting line** between front and rear housing. If this line is not even all the way around, remove the back and determine the reason. (O-ring out of place, hand strap interference, etc.) *Failure To Do This May Result In A Wet Camera!*
- ✓ **Press controls** in until they touch camera buttons. Note positioning of each control as it touches the camera button/switch it is designed to actuate.
- ✓ **Power up the camera.** Check all controls for the proper operation before entering water.
- ✓ **Check the Port.** It should be seated flush on the front bulkhead with no uneven gaps. If the port is not seated properly, remove the port and re-install per directions in a subsequent section of this document. Also check that the dot or indent on the port is aligned with the dot on the housing.



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Handle Installation

- ✓ **Remove the knurled brass retainer** from the handles, then place the handles just behind the dovetail found on the bottom of the housing (see photo).
- ✓ **Slide the handles** onto the housing dovetail. It may take firm pressure to fully seat the handles until they come to a solid stop.
- ✓ **Attach the knurled brass retainer** to secure the handles onto the housing.



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Controls

Your Gates housing utilizes 100% mechanical controls to provide you with the most reliable operation possible. They are all rotational in nature to provide smooth and consistent operation. There are no batteries to change and little maintenance to perform (see 'Housing Care and Maintenance' section).

The housing controls are designed by Gates engineers, to the extent possible, to feel and behave like the camera controls. With time and use, the housing controls will become quite familiar and you'll find operating them requires similar 'finesse' as the camera controls.

To help familiarize you with the housing controls, Gates recommends reviewing each control individually, how it actuates the corresponding camera control, and operating it to get a 'feel' for the control. You can view all front housing controls with the housing open. After reviewing all controls, perform a 'simulated' dive by operating the controls as you would in the water.

One final note about controls: when operating any control *out of water*, you may need to press the control against the housing, into the position it would naturally find while under water pressure. The controls are designed to operate properly in this position.

Power (Tape/Memory/Play-Edit/Off)

This control is easily identified by the **green** color. This control toggles the camera through 3 modes when rotated slightly counterclockwise: 'Tape' (for video), 'Memory' (for digital stills captured to a Memory Stick), Play-Edit (for playback). When rotated slightly clockwise, the control moves to the 'Off' position. These positions are exactly like that found on the camera switch and you can see the switch move into each position through the window as it changes between modes.



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Record/Standby

The Record Standby control is red, and operates by a short upward motion on the lever trigger. Press once to record, press again for Standby. You will 'feel' the record/standby button on the camera actuate through the control as it is depressed. This control will return to its neutral position automatically.

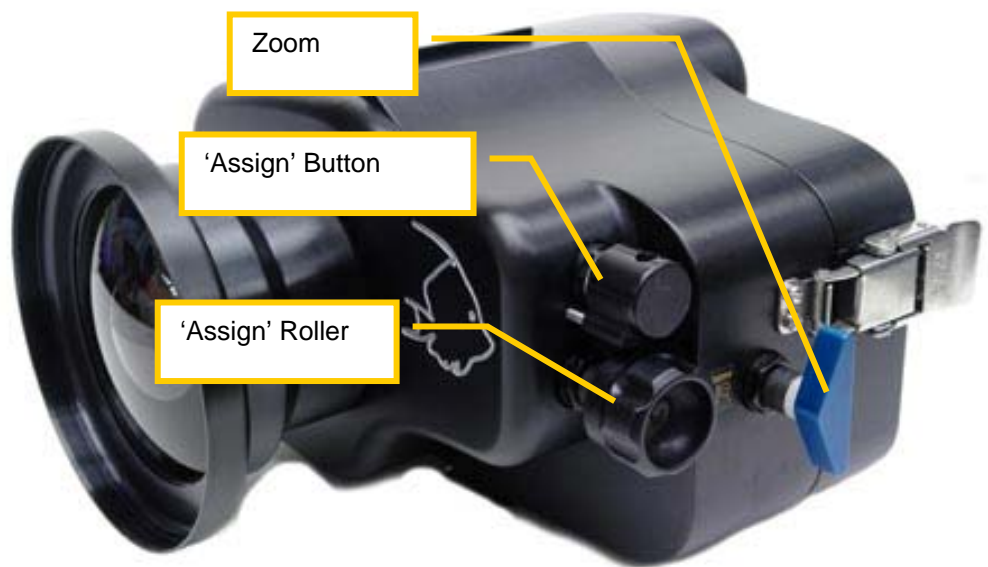
Still Photo

This control operates with a short forward motion on the lever trigger, and you will feel the photo button on the camera depress.

'Assign' Control

This control depresses the 'assign' button on the camera. In the menu system of the HC7 this button can be assigned several functions including focus, white balance shift and exposure.

Note that the control will not depress unless the pin on the knob is aligned with the small hole on the housing. If you will be using the housing for deep dives (below 150 feet), rotate the control so the pin does not align with the hole to avoid depressing under pressure.



'Assign' Roller

Once the camera button has been activated, the 'Assign' Roller control will adjust the function you have chosen for this feature.

Note that neither of the previous two controls are labeled as they can be assigned different functions by the user.

Zoom

The Zoom control, identified by a blue color, is operated by a slight rotation in either direction.

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Filter

The Color Correction Filter control is found on the front of the housing. Rotation of the trigger arm will move the filter in or out of position in front of the camera.



White Balance (optional)

If you have the white balance control installed it will be found in the rear view window. It will locate over the lower right corner of the LCD. The control will rotate and depress, contacting the areas of the LCD required to manually set WB. Specifically, the order is: PMENU→WHITE BALANCE→WB ICON→OK. Prior to diving you must set the WB menu to ONE PUSH for proper operation. It cannot be set to AUTO, OUTDOOR or INDOOR.

Further, you must setup the LCD menu structure to allow the white balance control operation, as follows: PMENU→PMENU SETUP→SORT→ move WB to position #6.



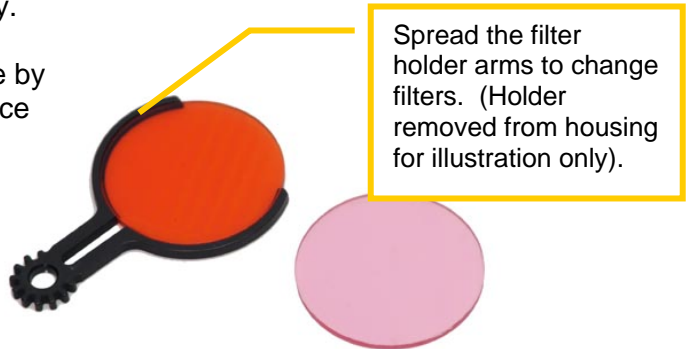
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Changing Filters

The color correction filter in your housing may be changed to accommodate different gradient filters. “Blue water” and “green water” are the two most common, recognizable by their orange and purple color, respectively.

- ✓ **Removal.** The color filter is held in place by the spring action of the filter holder. Notice also the filter rests against a small step around the edge of the filter holder. To remove, push the filter away from this step. You may find the filter also has a small amount of silicone adhesive applied to secure it in place. Remove any residue of this adhesive before installing another filter.
- ✓ **Installation.** Rest the filter against one side of the filter holder, then gently spread the filter holder apart while pressing the filter into it. It will ‘snap’ into place when seated.
- ✓ **Cleaning.** You will likely have fingerprints on the filter after installing, so clean the filter according to the directions in the “Cleaning Ports and Filters” section.



Changing Ports

Gates offers several ports for your HC7 housing, which attach with a bayonet-style mount. Port changes are easy and straightforward:

- ✓ **Removal.** You will see alignment dots on the housing and on the port. When aligned the port is fully engaged and ready for underwater use. Turning the port 90 degrees, or ¼ turn in either direction to face the dot left or right allows the port to release from the front of the housing. Gently pull the port directly away from the housing to do so.
- ✓ **Inspect the o-ring** -- Before installing a new port, perform an inspection and lubrication of the sealing o-ring. See “O-ring Care and Maintenance” in this Use and Care Guide for specific details.
- ✓ **Installation.** Mounting a different port is directly the opposite: Insert the port into the front bulkhead of the housing with the alignment dot on the port facing left or right, or ¼ turn away from the dot on the top of the housing. You may need to gently push the port into the bulkhead to fully seat the port. Then turn the port until the dot on the port aligns with the dot on the housing. Be sure the port is fully seated and flush with the housing. You should see no gaps between the port and the housing.

Align dot or indent on port and housing.



⚡ **Caution:** The Port must be fully seated and flush with the housing to avoid flooding.


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Cleaning Ports and Filters


Gates ports can be cleaned readily by following these simple guidelines.

- ✓ **Dust or Lint** can be blown with compressed air, preferably from a can. **Do not clean the surfaces if it is unnecessary.**
- ✓ **Salt deposits or sand** may also be removed with compressed air. Use a soft lens brush if necessary to brush away foreign material that remains.
- ✓ **If necessary, rinse fresh water** over the outside of the port to loosen any residual salt or sand that may remain. Do this with the **port sealed** on your housing to keep water away from the rear of the port.

 **Caution:** Do not submerge port models GP25A or GP35A wide angle ports in water when separated from the housing! These ports are not sealed from the backside and damage will result if submerged.

- ✓ **Only if necessary, clean the port** using a mild glass cleaning solution and a non-abrasive, lint free cloth. **Use light circular strokes** when wiping away cleaning solution and any foreign material. Excessive pressure used when cleaning dirty lenses (e.g., rubbing sand into the lens surfaces) may damage coatings. *Use a light touch.*

 **Caution:** Not all cloths are lint free and non-abrasive! Use of an abrasive material (such as cotton balls and cotton fabric) may scratch the glass and/or coating of Gates ports and will void the warranty.

 **Tip:** Gates offers approved cleaning solutions and lint free cloths as accessory items. Use of these materials will not void your warranty.

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Diopters

Diopters may be used with the HC7 housing and the FP25 Flat Port for close up/macro imaging. There is sufficient space between the camera and port to utilize up to three diopters stacked on the camera.

Note the Filter cannot be used with diopters. When installing the camera with diopters ensure the filter is positioned as far as possible away from the port opening.

Lighting Systems

Your housing comes ready to accept different lighting systems depending on your requirements. If you purchased lighting systems from Gates you will find a separate document to guide you through installation to your Gates HC7 housing.


Housing Care and Maintenance

Proper care of your Gates housing is important to provide you reliable operation and long life. You'll find all the guidelines in the "Housing Care and Maintenance" document included with your Gates housing. You can also find it on Gates web site at www.gateshousings.com.

O-Ring Care and Maintenance

Your Gates housing has 2 serviceable o-rings. One is located between the mating halves of the housing (the large orange one), and the other is located on each Port.

Servicing the o-rings is easy, and covered in the "Housing Care and Maintenance" document in this package, and on the Gates website at www.gateshousings.com.

 **Caution:** Do not lubricate the large orange o-ring! It is a special silicone o-ring and can be damaged by petroleum-based lubricants.

 **Caution:** *Never* use metal tools or objects for removing o-rings!

Customer Support

If you have any questions or require further assistance with your Gates housing, contact your dealer or Gates directly and we'll be happy to assist.

Email: Customersvc@GatesHousings.com
Phone: 858-272-2501
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