

## **SNAPPER-XP/S8 OWNER'S MANUAL**

Congratulations on your purchase of the Bonica's Snapper XP, with the innovative extra protection against moisture provided by the Snapper Skin. The system consists of the Digital Camera, the Skin and the Housing. Please read this carefully as the integrity of the system is necessary to protect your camera from moisture damage.

The Snapper Skin is made of silicone, the same material as most quality diving mask. The front lens is tempered optical glass and the back lens is made of polycarbonate. The silicone Skin is elastic and quite tough, but can be cut by sharp object or torn if stretched overly, especially in thin areas around the buttons. Stretch it by grabbing the thicker areas around the edge of the opening while avoiding direct pressure on the thin areas. Do not use if it is torn. Never take your system into water without the protection of the Skin. Moisture damage of the digital camera is not under warranty.

The Snapper Skin by itself is rated to 3 feet (1m) only, hence it is not designed for swimming and snorkeling. It protects the camera from rain, snow, sand and scratches. Use the camera in the Skin for any outdoor activities. However, for submerged use, always have it inside the housing. While inside the housing, there is a bracket on the case-back that presses the lens onto the silicone Skin, so in case the housing leaks, water at high pressure will not be able to penetrate into the Skin.

Your housing has been manufactured from the finest materials today's technology has to offer and can readily deal with the harsh environment found at depth and in seawater. All metals are either marine grade stainless steel or nickel-plated solid brass. The housing is manufactured from tough polycarbonate but it is a plastic so it can be scratched. The lens is tempered optical glass, which can also be scratched if not treated with respect. The main seal is made of silicone and does NOT need any grease and is relatively maintenance free.

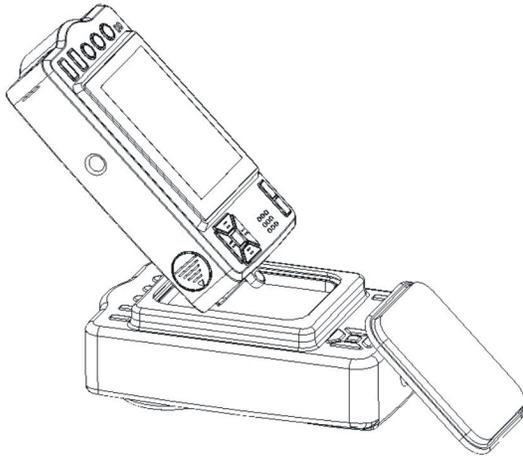
### **! IMPORTANT!**

Use only a soft damp cloth to wipe the housing and the Skin - never use solvents - use microfibre cloth to remove any dirt or fingerprints on the lens surface - never use hot water or glass cleaner on any of the lenses and scratches are not covered under warranty.

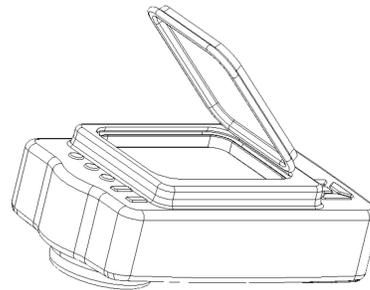
## **HOW TO PUT ON THE SNAPPER SKIN**

(See the video-clip on Snapper Skin Installation and Removal)

- 1.0 Preparation - Load a fully-charged battery into the camera. Insert any SD memory card if necessary. Ensure that both the small plastic covers on the USB port and video port are closed. The Macro Lever at the front next to the lens should be set to normal (indicated by the ▲ icon). Turn on the camera to ensure all is working fine. Turn it off again. The camera is ready to go into the Snapper Skin which must be completely dry inside and out. Work in a clean area free from dust and sand.
- 2.0 Insertion - Insert the Camera into the Skin through the opening as shown in the drawing-1. Note the orientation of the Camera and the Skin. The end of the Camera with the lanyard attachment post goes in first. With one end of the Camera fully inserted, use fingers to grab the Skin by the corners of the opening and stretch it over the other end of the Camera. Now that the Camera is complete inside the Skin, nudge the Skin so that the buttons of the Camera line up under the Skin and the edges of the opening of the Skin is resting squarely on the LCD of the Camera.



Drawing-1



Drawing-2

- 3.0 Lens Installation – The Lens should be installed with the center raised outward (see drawing-2). There is a groove along the edge of the opening of the Skin. Insert one side of the lens into the groove, and work along an adjacent side to fit the lens into the groove until all four sides are in. It is important to check to ensure the edge of the Skin is wrapping around the lens evenly, both inside and outside. You do not have full protection of the Skin if any part of the edge is displaced or bent on top or under the Lens.
- 4.0 Removal of the Skin – Remove the Skin only when its outside is thoroughly dry. The Skin can be removed by reversing the above procedure. The door of the camera's battery compartment may be opened during the process, just close it afterwards. In case the front circular lens of the Skin comes out during the removal process, make sure its edge is clean and re-insert it into the double-lip construction of the Skin.

## **HOW TO LOAD THE CAMERA INTO THE HOUSING**

Open the housing back by releasing the latch, if it resists it's because the security lock is in place - slide it upward to release.

### ◀ **Important** ▶

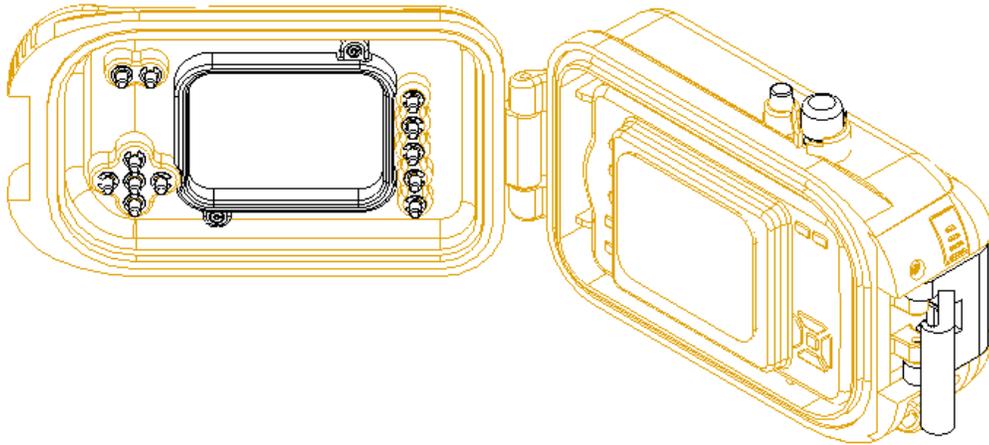
Be sure your arms, hands, head, and dive suit are **ABSOLUTELY** dry before opening the housing. If possible, open the housing in an air-conditioned or otherwise dry cool room. Have a dry towel handy. Keeping the inside dry is important to avoid condensation of moisture on the lens during the dive.

### ◀ **Important** ▶

Any grit, sand particles or salt crystals gathered around the O-ring or corresponding edge may cause leakage during your next dive. Dirt on the camera lens and the glass port of the camera housing may appear as black spots on your pictures.

### ◀ **Important** ▶

The O-ring on the housing is made from a formulated silicone which requires no lubrication; some **lubricants can damage the silicone and the seal**. Keep the silicone and all sealing surfaces clean, as even a hair can cause leakage. Check the O-ring every time you close the housing: if it is cut or worn, it should be replaced by an authorized repair.



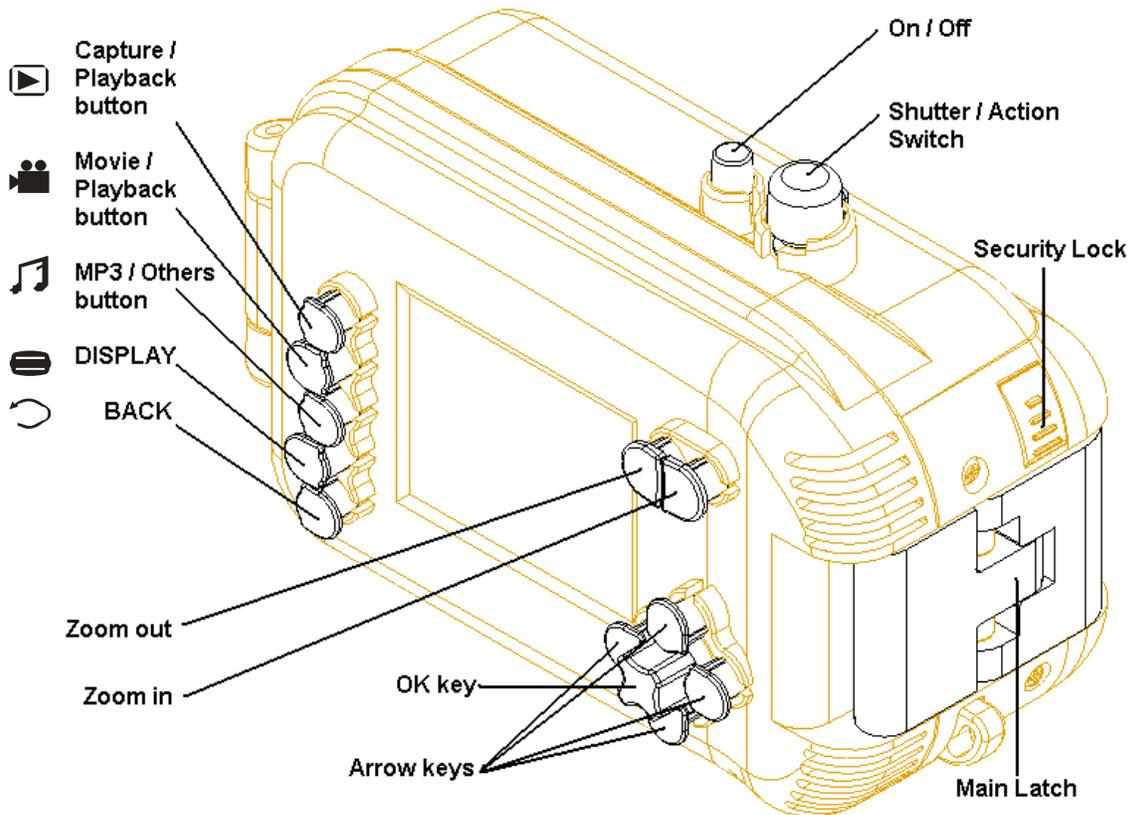
## Condensation

Condensation collecting inside the housing lens is always a potential problem but generally this can be overcome with a few simple procedures before your dive. The two factors that play a role are, 1) extreme difference in temperature between ambient air and the water, and 2) the degree of humidity in the air at the time the housing is closed & sealed. To reduce the likelihood of condensation occurring undertakes the following: Prepare and close the housing in an air-conditioned room where the humidity is less than the outside air.

Never, never leave your camera or housing in the sun. Ideally, always transport the camera & housing in a carrying case or wrapped in a dry towel if you don't have a case. If fogging remains a concern, an anti-fogging spray on the inside port lens of the housing is a final solution to the problem.

## After Your Dive

The housing (and strobe) must be fully rinsed in fresh clean water after each dive to remove salt and detritus from the housing. Work the controls several times while submerging the housing to dissolve salt buildup. Dry the housing thoroughly, makes certain there is no chance of water dripping from your hair or body. When you're confident everything is dry, open the housing by sliding the latch lock upward and releasing the latch.



## In Case the Housing Leaks

Since the digital camera is protected by the Skin, there is no need to abort the dive. When you are out of the water, shake off excess water and wipe dry. Open the housing and remove the Skin with the digital camera.

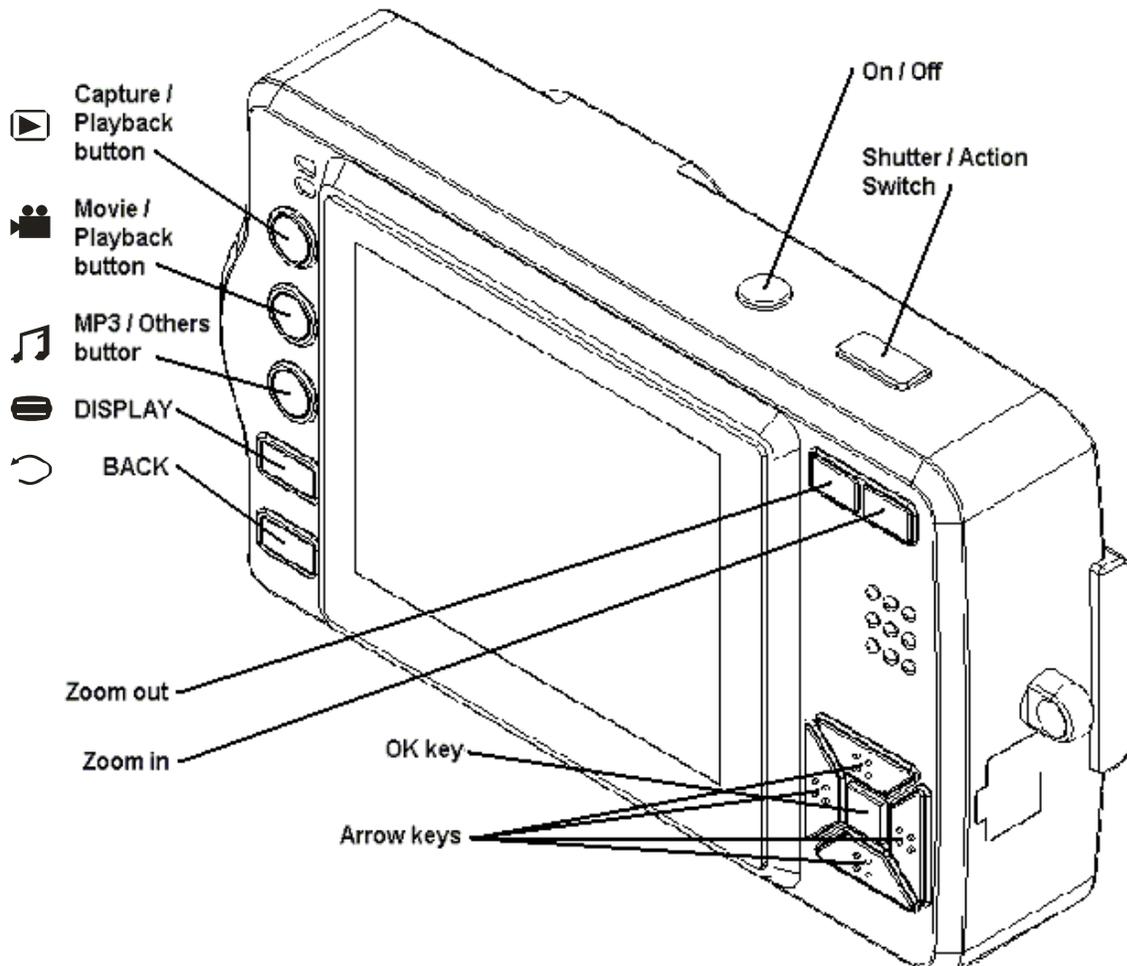
Wipe dry the outside of the skin and remove it from the camera. Check that no water has penetrated the Skin and that the digital camera is functioning properly.

Wipe dry the interior of the housing. Inspect the main o-ring for dirt, sand, salt or any damage, cuts or nicks. If the o-ring is damaged they will have to be replaced. If they seem ok, conduct a water test by placing a coloured paper towel inside without the camera. Hold the housing at least 1 foot (0.3m) underwater for a few minutes, while working each control at least ten times. If no water appears to have entered, tie it to a weight and submerge for 30 minutes. Retrieve the housing and thoroughly dry before opening. If the paper towel shows no sign of moisture you can assume there is a full seal.

If leakage is detected, return the housing for repair following the instructions in the warranty section.

Warning: Never store the housing away or return the housing for service with moisture inside. Doing so is considered mishandling and will void the warranty.

## The Snapper 8.0 Digital Camera



## **HOW TO USE THE DIGITAL CAMERA**

### **The Snapper 8.0 Digital Camera – A Quick Start:**

1. **Charge Battery** – The high capacity Lithium-ion battery usually comes half-charged. Always give it a full charge before using. Open the battery compartment of the camera by sliding the cover in the direction of the arrow and remove the battery by moving the latch away. Be careful not to drop the battery, as sudden impact may damage its casing and its interior. With the two battery contacts facing down, insert the battery fully into the Charger. Connect the power cord from the AC Adapter to the Charger, and then plug the AC Adapter into a wall socket. The green light on the AC Adapter comes on to indicate there is power, and the red light on the Charger comes on during charging and turns to green when the battery is fully charged. Usually, the Lithium-ion battery does not reach its full capacity until a few charges later. It does not develop “memory” problem like the NiCad rechargeable battery, so do not hesitate to charge it even if it is only partially discharged. To remove the battery from the Charger, depress the latch at the end and slide the battery complete out. Insert the battery into the camera with its contact away from the LCD. Push it completely into the camera until the latch locks it in place.
2. **SD Memory Card** – The camera comes with 16MB of internal memory and its storage capacity can be increased by adding a SD memory card up to 1GB. To install a SD Card, first turn off the camera. Open the battery compartment and insert the SD card into the slot with the connector side facing towards the LCD. Insert it fully until it clicks and locks. To remove the SD card, push the card inward and then release. It will spring out so it can be grabbed and removed. Never insert or remove the SD card while the camera is on.
3. **On/Off** - To turn the camera on, press the ON/OFF button, the green light is turned on. Hold about 2 seconds until the red light comes on, then release. To turn the camera off, hold the button for about 3 seconds.
4. **Flashes Control** – Press the Left Arrow button  to cycle through the various flash modes.
5. **Picture-Taking** - Press the shutter release to take the picture.
6. **Picture-Viewing** – Press the Capture button  once, picture thumbnails are displayed on the screen four at a time. Use the Arrow buttons to select the picture. Press the Trigger button to display the selected picture full-screen. Press the BACK button  to return to the thumbnails. When finished, press the Capture button  again to return to picture-taking.
7. **Movie-Taking** – Press the Movie button  once. The estimated maximum capture time based on available storage space is displayed at the lower-right corner of the screen. Pressing the Trigger button will start /stop the recording.
8. **Movie-Viewing** – Press the Movie button  again. Thumbnails of available movie clips are displayed. Use the Arrow buttons to select and pressing the Trigger button will play / pause the selected movie. To stop playing and return to the thumbnails, press the BACK button  once.

9. MP3 – Remove and plastic cover of the video port (which is also the audio port) and insert the plug of the earphone. Press the MP3 button  once. The available MP3 files are displayed on the screen. Use the Up/Down Arrow buttons to select and pressing the Trigger button will start / pause playing the MP3. Press the BACK button  to stop playing and return to displaying the files.

### **The Snapper 8.0 Digital Camera - Advance Operations:**

1. Basic Setup – With the camera on, press the MP3 button  twice to go into the Setup Mode. Use the Arrow and “OK” buttons to select the following from the menu. Use the BACK button  to get back to the menu if necessary. When the setup is done, press either CAPTURE  or Movie  button to exit.
  - a. TIME – The camera keeps the date/time and stamps either one or none on the picture if selected in the Stamp Mode.
  - b. BUZZER – It beeps every time a button is pressed.
  - c. LANGUAGE – Select among English, Spanish and Italian.
  - d. STORAGE – Select among the NANDFLASH (the built-in 16MB memory), CARD (any SD memory card in the slot)
  - e. TV OUT – Select the video output if connected to a TV using the video cable provided. After selection is made, press the BACK button to return to the menu.
  - f. DEFAULT – To select the factory default welcome screen when the camera is turned on.
  - g. AUTO POWER OFF – To select the time to shut down if no button is pressed.
  - h. FORMAT STORAGE – To format the NANDFLASH (16MB of built-in memory) or CARD. This is necessary if a new SD card is first put into service. This is equivalent to “delete all” if repeated.
2. Games – While at the Basic Setup Mode, pressing the MP3 button  again will enter the Game mode. There are two games: Snake and Russian, as well as two utility programs to show you the memory used and the calendar. Start and pause the game by using the Trigger button, and use the 4 Arrows and “OK” buttons to play. Use the BACK button to get back to the menu.
3. Picture-Taking Setup - In the Picture-Taking mode, the following settings are possible by pressing the OK button. Cycle through them by pressing the Left/Right Arrows and scroll down the selected menu using the Up/Down Arrows. Press “OK” again when done to exit.
  - a. CAPTURE MODE – Select the following and press OK to set.
    - i. Single Shot (indicated by the  icon at the top center of the display)
    - ii. Consecutive Shot – 3 shots are taken (indicated by the  icon)
    - iii. Voice – The camera will act as a recorder and save the audio file in MP3 format. When selected, start and pause the recording by pressing the Trigger. Listen to the recording by going to the MP3 mode. (indicated by the  icon)

- iv. Self Timer - The picture is taken 10 second after the Trigger is pressed. The red LED at the front of the camera blinks as an indicator when the timer is ticking. (indicated by the  icon)
- b. IMAGE SIZE – Select the storage resolution of the pictures taken.
  - i. 3264 x 2448 – 8.0 Mega pixel (indicated by “SH” at lower-left corner of display). Approximate number of pictures that can be stored on a 256MB card - 200.
  - ii. 2304 x 1728 – 4.0 Mega pixel (indicated by “VH”). Approximate number of pictures that can be stored on a 256MB card - 400.
  - iii. 2048 x 1536 – 3.2 Mega pixel (most common, perfect for 5 x7 photos, indicated by “H”). Approximate number of pictures that can be stored on a 256MB card - 500.
  - iv. 1600 x 1200 – 1.9 Mega pixels (indicated by “VM”). Approximate number of pictures that can be stored on a 256MB card - 800.
  - v. 1024 x 768 – 786 K pixels (indicated by “VL”). Approximate number of pictures that can be stored on a 256MB card – 1,700.
- c. IMAGE QUALITY – Select how aggressive the compression of the file before they are stored. It affects the quality of the picture. It is a compromise between time taken to store and the quality of the picture, not so much on storage space.
  - i. FINE (less compression, indicated by “\*\*\*” at lower-left of display).
  - ii. NORMAL (indicated by “\*\*”).
  - iii. BASIC (indicated by “\*”).
- d. EV COMPENSATION – Recommended to keeping the default setting of 0 (indicated at top-right corner of display).
- e. WHITE BALANCE – Recommended to keeping the default setting of Auto (indicated at top-center of display).
- f. PICTURE HUE
  - i. Sepia
  - ii. B & W
  - iii. Normal
- g. SHARPNESS – Recommended to keeping the default setting – 0.
- h. ISO – Recommended to keeping the default setting – Auto.
- i. FLASH MODE – A short-cut is available – just press the Left Arrow to cycle through the various modes while in Picture-Taking.
  - i. Flash Off (The default when the unit is first turned on.)
  - ii. Auto (Recommended while using external strobe)
  - iii. Redeye Reduction
  - iv. Slow Sync
- j. STAMP MODE
  - i. None
  - ii. Date
  - iii. Time

4. Picture-Viewing Options – In the Picture-Viewing mode, the following options are available by pressing the OK button. Select by using the Left/Right Arrow buttons, and scroll down the selected menu using the Up/Down Arrow buttons:
  - a. DELETE
  - b. FILE PROTECTION
    - i. LOCKED – to lock the file to prevent accidental deletion
    - ii. UNLOCKED – to unlock the locked file.
5. Movie-Viewing and MP3 Options – In the Movie-Viewing mode or the MP3 mode, the following options are available by pressing the OK button. Select by using the Left/Right Arrow buttons, and scroll down the menu using the Up/Down Arrow buttons:
  - a. DELETE
  - b. FILE PROTECTION
  - c. EQ MODE – These are the equalizers to enhance the audio listening experience.
    - i. CLASSIC
    - ii. POPS
    - iii. METAL
    - iv. JAZZ
    - v. BASS
  - d. PLAYING MODE
    - i. REPEAT – It automatically repeats the video clip or MP3
    - ii. CIRCLE – It goes through all the files sequentially
    - iii. RANDOM – It randomly selects the next file to play
    - iv. NORMAL – It stops after playing the current file
  - e. MP3 LCD OFF – to turn off the LCD while MP3 is being played
    - i. NEVER
    - ii. 5 Seconds
    - iii. 10 Seconds
    - iv. 20 Seconds
    - v. 30 Seconds
6. Connection to Computer – A USB cable is provided to connect the camera to any PC running Windows. It is not necessary to install any driver for Windows 2000 or XP, whereas for Windows ME or earlier, you should install the driver, which is in the enclosed CD, following the prompts on screen before connecting the camera to the PC. Remove the plastic cover of the USB port of the camera and insert the appropriate plug of the USB cable. Connect the other end of the cable to the USB port of the PC. Turn on the camera. The camera will be recognized by the PC as one or two removable drives, depending whether there is a SD memory card in the camera. Each drive has two main folders: DCIM with sub-folder 100MEDIA for picture and video files, and MP3 for audio files. Transfer files in and out of the camera like normal. You should properly stop the USB Mass Storage Device on the PC before switching off the camera and disconnect the cable. Remove the battery momentarily to reset the camera.
7. Connection to TV - Remove the plastic cover of the video port and insert the plug of the video cable provided. Connect the RCA plugs to the video (yellow) and

audio (red & white) ports of the TV. Turn on the camera and select the appropriate system PAL (most European countries) or NTSC (North America and Japan) from the TV-OUT screen in the Basic Setup menu. Whatever is being displayed by the LCD of the camera is now on the TV. Use the camera to view pictures and video.

## **Warranty**

Bonica is proud to stand by the design and quality craftsmanship of the Snapper-XP camera and housing. This product is warranted to the original purchaser to be free from defects in material and workmanship for 1 year from date of purchase. If such a defect occurs, upon presentation of proof of purchase and a note describing the problem we will repair or replace, at our option, your product without charge. This warranty does not cover accidental damage, unreasonable use, torn Skin, normal wear and tear, improper handling, loss of use or consequential damages, nor does it cover repairs attempted by unauthorized persons.

Should you need to return your Snapper-XP, please contact our customer service group to obtain a return authorization number (RA #) by email or phone call, and send it directly to Bonica for service at one of the following addresses. Do not return the product to the dealer.

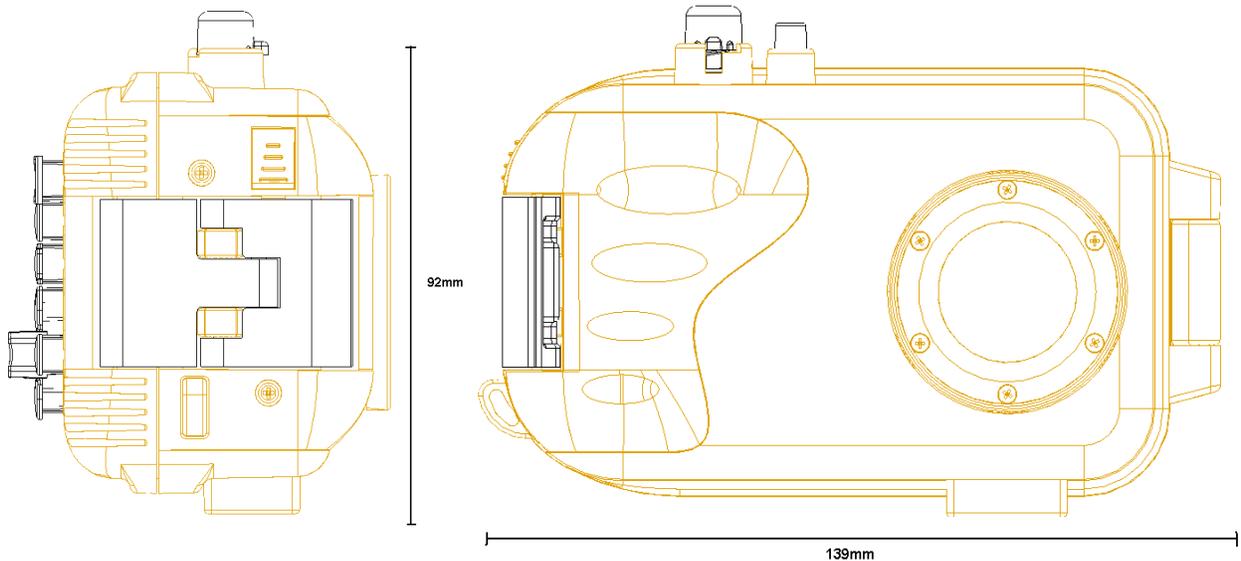
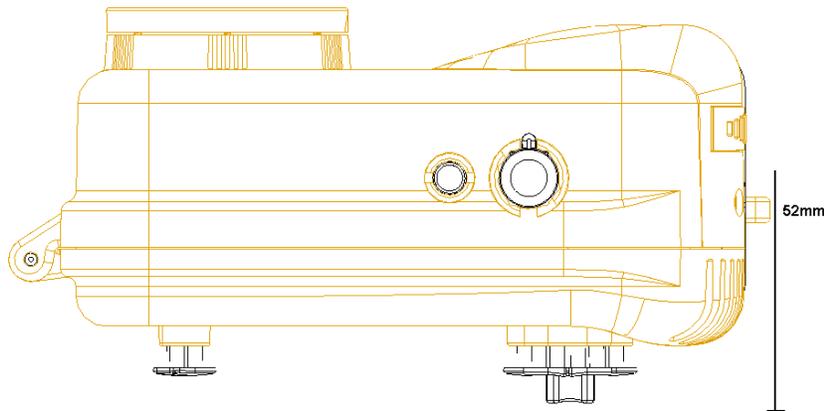
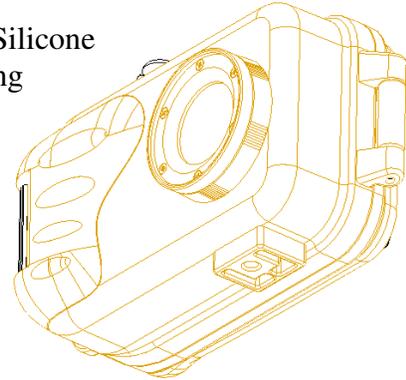
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Blaine, WA, USA 98230

In Canada:  
Bonica Precision Inc.  
12171 Horseshoe Way, Unit #110  
Richmond, B.C., Canada V7A 4V4

In case of question, please call 1-800-220-8463, or contact Bonica by email at [underwater@bonicadive.com](mailto:underwater@bonicadive.com).

## Specifications of Snapper-XP Housing & Skin

Depth rating for Housing	180ft (55m)
Depth rating for Skin	3 ft (1m)
Material	polycarbonate, polypropylene & Silicone
Weight	1.7lbs. (770g) + 52g internal silicone housing
Height	(92mm)
Width (w/o strap)	(139mm)
Depth	(52mm)
Port lens	tempered optical glass
Tripod Mount	1/4in



All sizes and weights are approximate. Design modification and color deviations as compared with the illustration are possible. Technical alteration may be made without notice.

For latest update, check the Bonica web address: [www.snapperxp.com](http://www.snapperxp.com)