

# AQUATICA™ Digital

**AD300**



**INSTRUCTION MANUAL FOR**  
**AQUATICA AD300**  
**Housing for the Nikon D300**

## **FOREWORD**

Thank you for having selected the AQUATICA Digital Camera Housing System for your underwater photography.

The AQUATICA Digital Housing is the result of a long and continuing relationship with the most demanding underwater photographers in the world. Each housing is handcrafted, quality checked and pressure tested to 300 feet by a small group of specially trained individuals, each of whom takes the utmost pride and satisfaction in offering the best underwater camera housing in the world.

The Aquatica Digital Housing was designed for optimum technical and optical performance and to provide easy and efficient underwater access to essentials functions and controls of the Nikon D300 DSLR.

This manual assumes that the User is already familiar with the Nikon D300. If not, please read the Nikon instruction Manual before attempting to use the housing.

With basic care and maintenance, your AQUATICA housing will give you a lifetime of enjoyment and satisfaction in producing underwater images.

Please read this manual carefully before using your housing for the first time and note that: wherever cited the right hand is your right when using the housing.

## **SAFETY PRECAUTIONS**

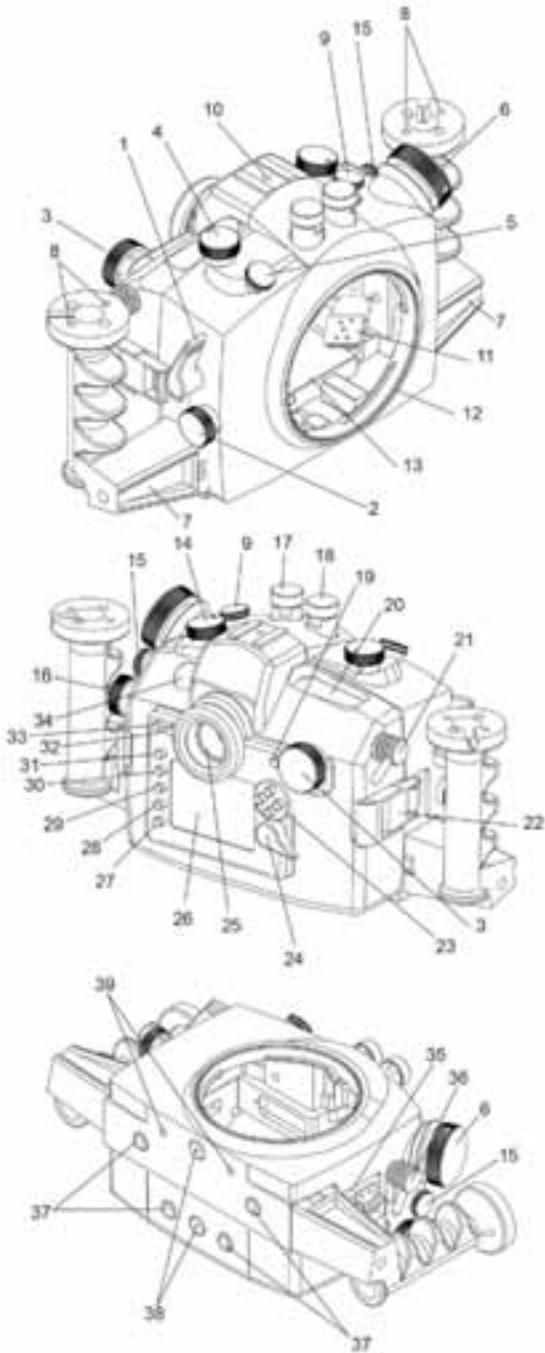
Improper transportation handling or use of this housing might cause a flood or malfunction.

Please read and follow the following precautions:

- Store and transport the housing in a sturdy, shock proof container and avoid travelling with the camera mounted inside the housing as impact forces especially on the external push buttons will be transferred to the camera.
- When travelling by air, either remove the port or open the housing.
- Never change a port or open the housing in a location where sand or similar foreign material might come in contact with an O-ring.
- Use of accessories or modifications and alterations unauthorized by the manufacturer may result in flooding or poor functioning of the controls
- Be careful when opening the housing as the pressure buildup inside the housing will exaggerate the force of the latch spring. Keep fingers away from the path of the latches.
- Whenever changing ports or O-rings, perform a simple seal test with out the camera inside.
- Avoid scratching the acrylic or glass ports and windows.
- Make sure that all ports remain properly attached before rinsing the housing, especially when rinsing without a strobe make sure the Bulkhead connector is sealed with its plug.
- Never attempt to operate the camera in autofocus mode with the lens mounted focus gear engaged with the housing gear.
- The main O-ring seals should be maintained and cleaned on a regular basis. Read and follow the Care and maintenance instructions on this manual.
- Ensure that the spring loaded secondary lock is properly engaged to prevent the accidental opening of latches.

# AQUATICA™ Digital

## AD300



1. SHUTTER RELEASE LEVER
2. SUB -COMMAND INPUT KNOB
3. MAIN COMMAND DIAL CONTROL
4. MODE SELECTOR / FORMAT BUTTON & EXPOSURE COMPENSATION / RESET BUTTON KNOB
5. ON / OFF ILLUMINATOR CONTROL KNOB
6. FOCUS/ZOOM KNOB
7. GRIPS (X2)
8. HOLES (1/4" X 20) FOR ARM'S BASE BRACKETS
9. FLASH EXPOSURE / FLASH MODE CONTROL
10. ACCESSORY MOUNTING HOLE (1/4" X 20)
11. HOTSHOE CONNECTOR
12. BAYONET MOUNTING FLANGE
13. MOUNTING TRAY (REMOVABLE)
14. ISO / WB / QUAL/RESET CONTROL KNOB
15. RELEASE MODE DIAL KNOB (LIVE VIEW ACCESS)
16. RELEASE MODE LOCK KNOB (LIVE VIEW ACCESS)
17. MAIN BULKHEAD FOR FLASH CONNECTOR (\*A)
18. SECONDARY BULKHEAD FOR FLASH CONNECTOR (\*B)
19. AF ON BUTTON
20. TOP LCD DISPLAY WINDOW
21. AF / AE LOCK LEVER
22. LATCHES (2X)
23. FOCUS AREA / MULTI SELECTOR BUTTONS
24. AUTOFOCUS MODE SELECTOR KNOB
25. VIEWFINDER
26. REAR VIEW DISPLAY WINDOW
27. OK BUTTON
28. PLAYBACK ZOOM IN BUTTON
29. THUMBNAIL / PLAYBACK ZOOM OUT BUTTON
30. PROTECT COMMAND BUTTON
31. MENU ACCESS BUTTON
32. DELETE / FORMAT BUTTON
33. PLAYBACK BUTTON
34. RELEASE MODE SELECTOR WINDOW
35. FOCUS MODE SELECTOR LEVER
36. LENS LOCK RELEASE LEVER
37. RUBBER ANTI SKID PADS
38. SACRIFICIAL ANODES
39. MOUNTING HOLES (1/4" X 20) FOR STROBE TRAY

\*A: Bulkheads are available in different configuration and may vary from illustration.  
 \*B: The secondary bulkhead can be used in conjunction with remote control # 19300 to trigger the camera .

## CONTROLS IN DETAIL

- 1. SHUTTER RELEASE LEVER:** Pulling the shutter release lever back part way activates the camera meter and auto focus. Pulling the lever back all the way fires the camera.
- 2. SUB-COMMAND INPUT / APERTURE KNOB:** Rotates clockwise and counterclockwise. Use alone or in combination with other controls to select or set various camera functions or modes. In "Manual" the exposure mode controls the aperture settings (see camera manual).
- 3. MAIN-COMMAND INPUT KNOB:** It rotates clockwise and counterclockwise. It can be used alone or in combination with other controls to select or set various camera functions or modes. Refer to camera manual for in depth use.
- 4. EXPOSURE MODE & COMPENSATION CONTROL KNOB:** Lift knob and position over setting to be modified, when done lift knob and reposition in neutral position. EXPOSURE MODE SELECTOR / FORMAT: Press to access the exposure mode (P,S,A,M), rotate Main Command Knob to select proper exposure mode. This button when pressed at the same time as the delete button (31) will format the card inside the camera. EXPOSURE COMPENSATION / RESET: press to engage the Exposure compensation control [+/-]. Rotate the Main-Command knob to set the desired exposure compensation value. The value will appear in the Top LCD panel and in the Viewfinder. This button when pressed at the same time as the Quality Selector button (25) will reset the camera settings to its default position.
- 5. ON / OFF / ILLUMINATOR KNOB:** Rotate to switch camera on or off or to engage illuminator.
- 6. FOCUS/ZOOM KNOB:** Turning allows manual focus of a single focus lens or rotation of the zoom mechanism of a lens.
- 7. HAND GRIPS (X2) :** Left and right grip allowing the mounting of strobe arms and accessories.
- 8. MOUNTING HOLE:** These are 1/4-20 TPI holes that are ready to accept TLC Base Brackets or TLC Base Ball for strobe arms or accessories.
- 9. FLASH SYNC MODE / EXPOSURE CONTROL BUTTON:** Turn to activate the flash mode selector function, rotate main command knob to desired flash sync mode. Exposure compensation is not accessible on non TTL strobes.
- 10. MOUNTING HOLE FOR ACCESSORIES:** A 1/4"-20 TPI hole is supplied ready to accept TLC accessories.
- 11. HOT SHOE CONNECTOR:** connects the camera to the Flash Bulkhead. Slide this Connector into the camera Hot Shoe. When detaching do not pull the cord as this might damage the electrical connections.
- 12. BAYONET MOUNTING FLANGE:** allows the mounting of different ports and extension rings on the housing.
- 13. MOUNTING TRAY:** This sliding tray is removable to allow easy access and mounting of the camera.
- 14. ISO / QUAL / WB CONTROL KNOB:** Lift knob and position over setting to be modified. When done lift knob and position in neutral position. ISO CONTROL: Position to select ISO, use in conjunction with Main Command control knob (# 3).WHITE BALANCE : Position to access white balance functions, use in conjunction with Main Command knob (# 3) and sub command dial control (# 2). IMAGE QUALITY SELECTOR CONTROL: Position to access the different image quality available on the camera, use in conjunction with Main Command knob (# 3) and subcommand dial control (# 2).
- 15. RELEASE MODE DIAL KNOB:** allows access to the cameras various release modes including Live View
- 16. RELEASE MODE LOCK KNOB:** Used to release the locking mechanism of the release mode dial. Must be engaged prior to rotating the release mode dial knob (#15).

## Controls in detail, continued

**17. MAIN BULKHEAD CONNECTOR:** Two connectors are supplied as standard and are for connecting Nikonos type Sync Cord. This is the main connector and can be ordered in 5 pins (for use with TTL converter) or 2 pins (default for manual strobe operation) and in Ikelite versionn of 5 pins (for use with TTL converter) or 2 pins (for manual strobe operation).

**18. SECONDARY BULKHEAD CONNECTOR:** This connector is available in 2 pins for manual operation in a Nikonos type, it is diconnectable and can be used in conjunction with the remote control # 19300 for remote triggering of the camera underwater.

**19. AF-ON BUTTON:** Press to activate auto focus, refer to camera manual for a description of the different options.

**20. TOP LCD WINDOW:** displays essential camera operating data.

**21. AF / AE LOCK LEVER:** Press down lever to engage auto focus or/and auto exposure, see camera manual for the different options associated to this button.

**22. LATCHES:** Two heavy duty latches are provided with safety locks to protect against accidental opening.

**23. FOCUS AREA / MULTI SELECTOR BUTTONS:** These buttons have multiple uses. They allow the selection of the focus area, in the menu mode, they are used to scroll up or down and left to right to choose from your menu selection and they are used in the delete mode.

**24. AUTOFOCUS MODE SELECTOR SWITCH:** Rotate to select the desired focusing pattern of the camera.

**25. VIEWFINDER:** A full view of the illuminated camera viewfinder displays all necessary information. It is removable and can be replaced with the Aqua View Finder # 20054 for enhanced viewing.

**26. REAR VIEW DISPLAY WINDOW :** allow viewing of menu and images

**27. OK BUTTON :** Press to acknowledge selected function.

**28. PLAYBACK ZOOM IN BUTTON:** Press to zoom in the image.

**29. THUMBNAIL BUTTON:** Press to zoom out and/or display images in "contact sheets" of 4 or 9 images.

**30. PROTECT BUTTON:** Press to protect selected image from accidental deletion.

**31. MENU BUTTON:** Press to activate menu, use multi selectors buttons (21) to navigate, press enter button (25) to choose a selection.

**32. DELETE BUTTON:** Press to delete images, use multiple selector buttons to select and press the enter button to delete. Used in conjunction with mode selector button (14) to format the card inside the camera

**33. PLAYBACK BUTTON:** Press to activate the monitor and review images.

**34. RELEASE MODE SELECTOR WINDOW:** Allows viewing of the different selector options.

**35. FOCUS MODE SELECTOR LEVER:** Rotate to select between manual, single or continuous focusing. SELECTOR LEVER FORK: Must be in M (manual) position when sliding camera in the housing, once installed, desired focus mode can be selected.

**36. LENS RELEASE LEVER:** activates the lens release button on the camera allowing easy removal of the lens.

**37. RUBBER PADS:** Those four pads are supplied to prevent your housing from skidding on wet surface

**38. SACRIFICIAL ANODES:** (3X) zinc anodes are installed to protect your housing against salt water corrosion; theses are made to deteriorate easier than the other strategic part of your housing, hence the name sacrificial anodes. These anodes will need to be replaced as needed.

**39. MOUNTING HOLES:** Two 1/4" X 20 holes are provided for mounting strobes trays or accessories.

## FEATURES

The Aquatica Digital housing serie is issued from the world's most technologically advanced underwater housing lineage, ergonomically designed to place all the essential camera controls under your finger tips and features the following:

A. A Lens Lock Release control that will activate the lens release button of camera from the outside of the housing.

B. A quick release tray, allowing fast and easy removal of camera.

C. Large ergonomic and easy to operate controls for most of the manual and computerized camera functions.

D. The following controls can be easily manipulated underwater:

- Mechanical shutter release.
- Shutter speed through Main-Command Dial
- Aperture through the Sub-Command Dial
- Focus / Zoom
- Manual / Autofocus selection
- LCD panel illumination.
- Top LCD windows information
- Auto Bracketing (BKT)
- Exposure mode (Mode)
- Exposure Compensation
- Focus Area Selector
- ISO sensitivity
- White balance
- Delete button access
- Flash sync mode
- Live View function

E. A complete selection of bayonet mounted ports including an 8 inches acrylic, a larger glass 9,25 inches diameter dome, a flat ports, and extension rings to preserve the image quality for most of the underwater usable Nikkor AF and other popular brand of AF lenses.

F. A complete line of lens gears including Auto/Manual focus selector gears and related accessories. (refer to lens chart on page 14 for more detail)

## PREPARATION OF THE HOUSING

### **1. Attach Grip Bracket to the housing:**

The housing comes with two Grips for both right and left hand grips which should be installed on the sides of the housing with the supplied screws and Allen key. Occasionally remove the grips and lubricate the screws (see Care and Maintenance: of the housing.)

Depending on which strobe system you are using, you can mount the necessary shoes or brackets onto the 1/4"-20 threaded holes on the top of the hand grips. The AQUATICA TLC strobe arm system is recommended.

There are also two (2) 1/4"-20 threaded holes on the bottom of the housing that can be used for various mounting application trays. As well there are two holes on top of the rear half of the housing for mounting accessories.

Mount your strobe and connect the sync cord to the housing's strobe bulkhead. Be sure to read the section titled "Care and Maintenance: of the O-rings."

### **2. Lubricate the Main O-ring Seal:**

Before use, remove the Main O-ring seal from its groove on the front half of the housing and carefully verify that the O-ring and the O-ring groove are free from scratches or foreign material. Lubricate the O-ring with a light coat of silicone grease.

When replacing the O-ring place the entire O-ring over the O-ring groove and start by pushing the O-ring in the corners. Work your way around the O-ring making sure the O-ring is snugly sitting in the groove.

For proper handling and maintenance of O-rings be sure to read the section titled "Care and Maintenance: of the O-rings."

## **PREPARATION OF THE PORTS**

### **1. Select the correct port:**

Depending on whether you've decided to shoot macro or wide angle photography, you will be installing either the flat AF/MF Macro Port (Product # 18426), AF Macro Port (Product 18428) or 6" Dome Port (Product # 18409), 8" Dome Port (Product # 18405) or 9.25" Glass Dome port (# 18407).

**Refer to the lens selection chart on page 14 for the recommended port .**

Or visit our web site [www.aquatica.ca](http://www.aquatica.ca) for the latest updated chart of lenses, port and accessories.

## **EXTENSION RINGS**

***Macro Port Extension Rings:*** the Macro Port will accept the AF Micro-Nikkor 60mm lens If you intend to use a longer lens such as the 105mm or 200mm Micro Nikkor you will require an extension rings that fit between the Macro Port and the housing to provide the extra space necessary for the longer lens.

***Dome Port Extension Rings :*** an extension ring might be needed to optimise the optical performance when using a wide angle or zoom lens.

In order to reduce glare, maximize contrast and offer physical protection to the dome, the use of a dome shade for the 6" and 8" dome is recommended, in the case of the 9.25" glass dome, this shade is integrated.

**Refer to the lens selection chart on page 14 for the proper extension ring if needed.**

Or visit our web site [www.aquatica.ca](http://www.aquatica.ca) for the latest updated chart of lenses, port and accessories.

### **2. Clean the port:**

Dirt, grease or fingerprints on the port especially on the inside, can adversely affect the quality of the image. Acrylic ports should be cleaned with plastic cleaner and the glass ports should be cleaned with lens cleaner. For more details be sure to read the section titled "Care and Maintenance: of the Ports."

### **3. Lubricate the port O-ring seal:**

Before using the port, remove the O-ring on the rear of the port and lightly coat it with silicone grease. For more details be sure to read the section titled "Care and Maintenance: of the O-rings."

## **PREPARATION OF THE LENS**

Depending on the lens used, there are a number of gear options possible. Using the right gear(s) and correctly mounting them on the lens is very important for a smooth housing operation. Use the following chart to determine which gear(s) to use and follow the installation directions for each gear carefully. Since the aperture control is achieved through the Sub-Command Dial, the use of AF types of lenses is mandatory. The focus/zoom gear can vary from one lens to the other.

**Refer to the lens selection chart on page 14 for compatible lens,**

If the camera is set in manual focus a focus gear must be mounted on the lens. If you are using a zoom lens with a zoom ring the camera must be on auto focus, also note that if using an 8" dome port you may need to install a closeup diopter on the lens to correct the minimum focusing distance of the lens so that it will be able to focus on the virtual image created by the dome.

### **Focus Gear installation:**

1. Set the lens to minimum focus distance.
2. Mount the focus gear over the focus ring of the lens such that the round indentation etched on the side of the gear is facing the rear of lens and is aligned with the Distance Index of the lens (for full gears, orientation is immaterial).
- 3 (a) For Slip-on gears (gears without mounting screws): Slide the gear over the lens and align the gear with the front of the lens focusing ring.  
(b) For gears with mounting screws: Tighten the three set screws evenly. Tighten each screw approximately  $\frac{1}{2}$  a turn working around the gear until all the three (3) screws are tightened, and the gear is concentric with the lens body.

**CAUTION:** Do not over-tighten these screws, as this might bind the lens barrel, thus restricting the rotation of the focus ring and/or damaging the lens. Conversely under-tightening these screws might cause the gear to slip or lose alignment.

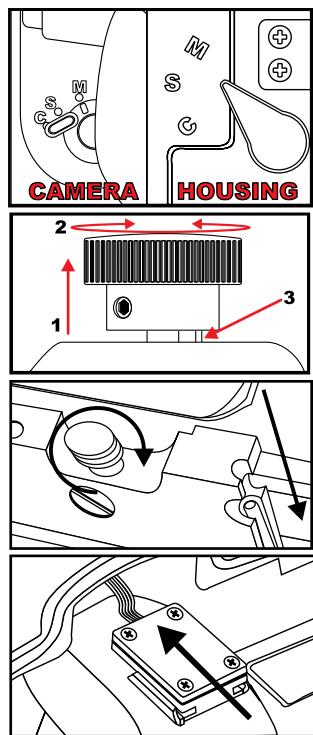
4. Rotate the focus ring several times to make sure it moves smoothly and the gear does not slip before closing the housing

**WARNING:** Never attempt to operate the camera in automatic focus mode with non AFS lens with a focus gear engaged. This might cause serious damage to your camera or to the lens.

**Zoom lenses:** When using a zoom lens, the focus/zoom gear should be mounted on the zoom lens control. The housing focus control becomes the zoom control. Focusing of lens is achieved by using the camera's autofocus system.

## CAMERA PREPARATION AND INSTALLATION

1. Set the Focus Mode Selector to the manual position on both the camera and the housing.
2. Important Note: "D" Clips that attach the strap should be removed or tucked away prior to installing the camera in the housing.
3. Make sure the ON / OFF /ILLUMINATOR knob (key # 5 ) is in the ON position on both the camera and the housing.
4. On the housing, lift both the Mode / exposure compensation knob and the ISO / WB / QUAL and rest them in between selection on the pins. Rotate the Release Mode Lock Knob (Key # 16) so the wire form inside the housing is in the up position.
5. Remove the saddle from the housing and carefully place the camera on it and ensure the camera is properly installed and aligned as follows:
  - a) The camera is properly aligned and secured against rotation or movement.
  - b) Align the Tripod Socket of the camera with the mounting screw. Tighten the mounting screw securely while ensuring that the camera position is not altered.
  - c) Confirm that the Lens Lock release (Key # 36) is lowered in the proper position. Slide the quick release tray back into place and rotate locking knob clockwise to secure tray into position as per drawing at right.
6. Once the camera is secure on the saddle inside the front half of the housing, simply slide the housing's hot shoe connector onto the hot shoe base of the camera as seen in drawing at right, also confirm that the lens release lock (Key # 36) is in the right position so that lenses can be interchanged easily later on.



## CLOSING OF THE HOUSING

### Before closing the housing always ensure that:

1. The main O-ring on the front half of the housing is clean,lubricated and properly seated for a positive seal.
2. The sealing surface on the rear half of the housing is clean and free from any scratches or physical damage.
3. All cords or wires are tucked in so that they do not interfere with the closing of the housing.

### To close the housing simply:

- i. Confirm that all controls are positioned properly, the join the front and rear halves of the housing using the two dowel pins at the bottom of the housing as a guide.
  - ii. Hold the housing with both hands and look around the sealing surface to ensure that the O-ring remained properly seated and that no cords, wires or "D-rings" are caught between the edges.
  - iii. Close the two sides latches simultaneously, reverse the process to open housing
- CAUTION:** if you feel any resistance as you attempt to close the latches, do not force the closure. Check for an obstruction and try again.
- iv. Verify that the safety locking mechanisms of the latches are properly engaged to avoid any accidental opening.

## LENS INSTALLATION

With the camera inside the housing, install the lens prepared with the gears through the port opening in the front of the housing. Ensure that the lens mounted gears are properly installed and aligned. Rotate the focus / zoom control knob to ensure that the gears are properly meshed, do not grind and that their rotation is smooth.

Note: to avoid breaking the auto-focus mechanism of the camera you should always set the Focus Control to "M" Manual when using or testing the proper meshing of a focusing gears.

## CHANGING A LENS (REMOVING A LENS)

The lens mounted gears may restrict the view and ease of access to the lens release button of camera. The AQUATICA Pro Digital Housing features a Lens Release Lever (key # 8) that is designed to trigger the lens release button of camera to allow easy removal of lens.

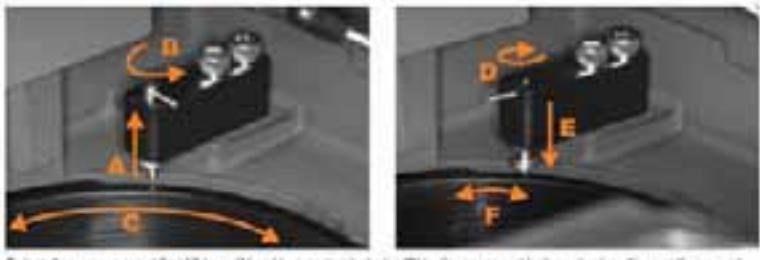
### To remove a lens, simply:

Rotate Lens Release Lever (key # 33) counterclockwise, hold and turn the lens clockwise.

## MOUNTING THE PORT

Before mounting the Port on the Housing always ensure that;

- The port O-ring is clean, lubricated and properly seated in its groove.
- The sealing surface on the Housing is clean and free of physical damage.
- The Port Release Mechanism is disengaged



To install or remove a port first lift lever (B) and turn counter-clockwise (E) to disengage port lock mechanism. Then turn then rotate the port or extension in place (D).

To lock a port or extension to the housing first rotate lever (E) clockwise and let it drop in the appropriated slot (D). This will lock the housing of the port or extension and prevent it from accidental release off the housing.

The AQUATICA Pro Digital Housing System features a bayonet mount. To mount the port or extension ring simply:

1. Place the housing on its back on a soft steady surface.
2. Place the port or extension ring inside the main port of the housing. Align one of the four alignment notches with the opening of the housing.
3. Place your hands on opposite sides of the port or extension ring.
4. Push with even force on both sides of the port or extension ring until you feel it snap into place. Make sure the bayonet is completely inside the housing.
5. Finally turn the Port clockwise until it stops. Do not force it. If there is too much resistance take the port off, check the O-ring and retry.
6. Check to ensure for the proper seating and sealing of the port on the housing.

Note : It is recommended that you familiarize yourself with this mount by trying it without the camera, this will allow you to see the inside view of the bayonet mount and of the ports or extension rings in the housing.

## MOUNTING AND ATTACHING FLASHES

Depending on which strobe system you are using, you can mount the necessary shoes or brackets or Base Ball onto the threaded holes on the top of the hand grips. Use of the Aquatica TLC Strobe Arm System is recommended. There are also two 1/4"-20 threaded holes on the bottom of the housing that can be used for various mounting applications. For example, Aquatica TLC makes a strobe arm mounting tray that will fit on the bottom of the housing. A 1/4"-20 threaded hole on top of the housing will accept an Aquatica bracket or Base Ball that can hold a small dive light or a strobe arm.

The AQUATICA Digital housing is fitted with a standard Nikonos Type double bulkhead connector for strobes.

The secondary Bulkhead connector is disconnectable and a remote control cord (product #19300) attached to it, allowing the housing to be used for remote photography

- When using the Standard Nikonos sync cord be sure to lubricate the O-ring on the sync cord's connector with a light coat of O-ring grease. Also put a light coat of O-ring grease on the threads of this connector.

## TAKING A PICTURE

Following are the basic techniques. For more information and advanced photography please study the Nikon D300 instruction manual.

1. Selection of the exposure Mode (key # 4) is achieved through lifting the knob and positionning over the button to engage the desired exposure mode, Exposure Mode options in sequence are: Programmed Auto (P), Shutter Priority Auto (S), Aperture Priority Auto (A) or Manual Exposure (M) and are selected using the main sub command dial control (key# 3).

2. Control of Auto Exposure compensation (key# 4) is achieved through lifting the knob and positionning over the button to engage compensation function, select proper factor by rotating main command knob (key# 3) .

Note: When using a flash, it is recommended that the camera be used only in Single Frame Motor Drive or there is the possibility that the camera will fire before the flash can recycle.

3. Turn the Metering System Knob (key# 16) and select the metering system symbol you wish to use: 3D Matrix, Center-Weighted or Spot, in the LCD panel.

4. Pull the Shutter Release Lever partially back. This will activate the camera's meter and autofocus system.

5 If using manual focus use the Focus Knob (key # 6) on the housing or on the flat port to focus.

6 If using the Manual, Aperture or Shutter priority mode adjust the Main Command Knob (key # 3) or sub-command (key # 2) to set the shutter speed and/or aperture.

7. Pull the Shutter Release Lever (key # 1) the rest of the way until the camera fires.

## **FOCUSING MODE**

**NOTE :** Select the proper focus mode using the M/S/C selector or the optional A/M selector on macro lenses. For more detailed information concerning the operation of the different focus modes consult the Nikon instruction book for the D200 camera.

## **USING THE HOUSING**

Whenever changing ports or O-rings, it is highly advisable to perform a simple seal test without the camera inside. Strapping a weight to the housing and lowering the unit to a depth of 30 to 50 feet of water for at least 10 minutes will assure you that the seating of the new port or o-ring is proper. This test, though time consuming and often considered unnecessary, may save your camera equipment from irreparable water damage. The housing is now ready for the dive.

**CAUTION:** Never jump into the water with the housing. It is best to have the system handed to you after you have made your entry, or have it lowered to you on a rope. Make certain that ropes of other equipment stay clear of the system. When photographing, be sure to respect the environment. Avoid damaging marine life or manipulating sea creatures to obtain a pleasing photo. The housing is slightly negatively buoyant so that you can lay it down on the bottom, but avoid laying it on living coral or other delicate marine life.

### **Changing the memory card**

Always take care to thoroughly dry the housing before opening it to change memory card. Wipe the housing off with a dry towel. If possible it is suggested that the housing be blown dried by directing an air nozzle around the main o-ring before opening. Rest the housing on its front with the lens facing down, be carefull to protect the port surface, release the top latch first then the two side latches simultaneously. Lift the rear part of the housing and place it in a secure location. This minimizes the possibility of any residual water falling into the housing and on to the camera when the housing is opened or damage to the sealing surface.

### **TRANSPORTING THE AQUATICA Pro Digital housing**

Store the AQUATICA Pro Digital housing in a sturdy, shock proof container. When travelling by air, remove or loosen the port. This allows for equalization of the air pressure inside the housing to the external air pressure. Failure to do so may cause serious damage to the acrylic ports. Avoid travelling with the camera mounted in the housing. If you must do so, remove the lens as external pressure can damage the camera.

## **CARE AND MAINTENANCE**

### **Of the housing:**

After each and every salt water dive, your housing system should be soaked or rinsed in fresh water. The housing system should soak in fresh water for at least 30 minutes. During this soaking period reach into the water and operate all the controls several times.

Be sure to remove the housing's main o-ring and clean it after every use. Refer to Maintenance: Of the O-rings. To ensure that the hand grips won't fuse on to the housing due to the exposure to salt water, it is also a good practice to occasionally remove the hand grips. Clean and lubricate the bolts with a small amount of WD-40.

**WARNING:** Use WD-40 carefully, sparingly and only on metal to metal surfaces. WD-40 can damage the acrylic on the ports, the optical surfaces on lens as well as the O-rings.

### **Of the Ports:**

Care should be taken with the Dome Port and Macro Port to avoid scratches on the lens surface. The acrylic port is softer than glass so minor exterior scratches are often unavoidable. However, since the indices of refraction for acrylic and water are almost equal the scratches will not seriously impair image quality. Internal scratches(air side) must be avoided as they do not fill in with water and will affect the quality of the image.

Clean the dome using only products recommended for cleaning acrylic and a soft lint free cloth. Dust on the interior surfaces of the port can be removed with a soft camel hair brush or a blower brush. Caution must be taken when using aerosol devices as not to spray the lens material with the liquid propellant as this may seriously affect the optical properties of the port. The ports should be removed and serviced after avery dive.

### **Of the Latches:**

The two latches of the AQUATICA Digital housing are designed to have a locking action to prevent accidental opening. Always ensure that the locking mechanism is secure. Watch for the build-up of corrosion or salt residue around the latches. This will appear as a white material. Lubricate the latches with a small amount of WD-40 to remove the corrosion or salt residue build-up.

### **Of the O-Rings:**

The O-rings that need to be maintained on a regular basis are the main housing O-ring and the O-ring on the lens port.

The main O-ring should be cleaned on a daily basis and the port O-ring should be cleaned daily or each time the port is changed.

### **Of the sacrificial anodes:**

The two anodes attached to the bottom parts of the housing are there to prevent corrosion due to electrolysis, as time goes they will deteriorates and need replacement, contact Aquatica for replacement and procedure of their installation.

## **TO SERVICE O-RINGS ON THE HOUSING MAIN O-RING, PORTS AND EXTENSION RINGS**

1. Remove the O-ring. It is important never to use a sharp instrument when removing an O-ring as this may damage the O-ring groove or the O-ring itself. A bobby pin or edge of a credit card works well.
2. Once the O-ring is removed, it should be examined for damage. Check to make sure that the O-ring is free of nicks and cuts and that it retains its original round profile. O-rings that appear to be damaged should be discarded immediately and replaced with new O-rings.
3. Rinse the O-ring with fresh water and dry it with a clean lint free cloth.
4. Clean the O-ring groove (where the O-ring sits) with a Q-tip. Be sure to remove any lint the Q-tip may leave behind. Inspect the groove for damage.
5. Wipe the part of the housing that the O-ring seals against with a clean lint-free cloth.
6. Re-grease the O-ring with a thin layer of O-ring grease until it appears to be smooth and shiny. Do not over grease it. Use just enough grease so the O-ring will pull smoothly through your fingers. Excessive amounts of grease will only serve to attract dirt to the o-ring.
7. Make sure that the O-ring is properly (evenly) installed in the O-ring groove.
8. To reinstall the clean and lubricated O-ring, place the entire O-ring over the groove and start by pushing the O-ring in at each corner then, push the O-ring at each side and finally, work in the rest of the O-ring. Never start at one end and work your way around the O-ring. This places uneven tension on the O-ring which may cause the O-ring to stretch resulting in excess O-ring, which will have no place to go.

There are internal O-rings on the housing controls as well. These O-rings are not as susceptible to damage as they are not exposed but they do require yearly maintenance and are not user serviceable. The housing should be returned to AQUATICA or to an authorized AQUATICA service facility for this annual maintenance. Check the Web site [www.aquatica.ca](http://www.aquatica.ca) for the closest service center.

An internal moisture alarm is available for your AQUATICA Pro Digital housing (Product # 20023). This alarm is available through your authorized AQUATICA dealer and can be easily installed.

# AQUATICA

## Digital

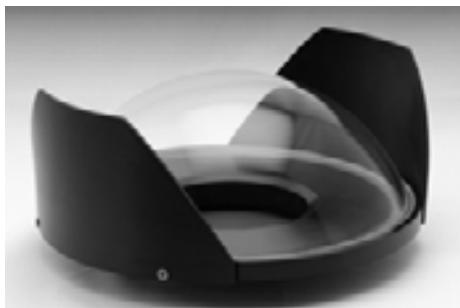
# Nikon Type 2 LENS PORT/ GEAR CHART

For Nikon D300, D200 & D80

Camera Lens	18407 9.25" dome EXTENSION	18405 8" dome Port EXTENSION	18409 6" dome port EXTENSION	Zoom (Z) or Focus (F) Dome Shade
Nikon 10.5mm f/2.8 G Ed AF DX	Not required	Not required	18480	Not required 18484 (F)18699
Nikon 14mm f/2.8D ED AF	18462	18456	18480 NR	(F)18693
Nikon 16mm f/2.8D AF	Not needed	Not needed	18480 Not needed NR	(F)18689 (F)18680
Nikon 18mm f/2.8 AF	18456	18456	18482 Not needed NR	(F)18674 (F)18674
Nikon 20mm f/2.8 AF	Not needed	Not needed	18482 Not needed NR	(F)18674 (F)18674
Nikon 24mm f/2.8 D AF	Not needed	Not needed	18482 Not needed NR	(F)18686 (F)18686
Nikon 28mm f/2.8 D AF	Not needed	Not needed	18482 Not needed NR	(F)18695/(Z)18696 (F)18695
Nikon 12-24mm f/4G IF-ED AF-S DX	18453	18463	18480 NR	(Z)18722 (Z)18722
Nikon 14-24mm f/2.8G ED AF-S NIKKOR (*2)	18458	18458	18480 NR	(Z)18690 (Z)18690
Nikon 17-35mm f/2.8D IF-ED AF-S	18457	18457	18482 NR	(Z)18711 (Z)18711
Nikon 17-55MM f/2.8 ED-IF	18457	18457	18482 NR	(Z)18694 (Z)18694
Nikon 18-35mm f/3.5-4.5 D IF ED AF	18453	18453	18482 NR	(Z)18721 (Z)18721
Nikon 18-55mm f/3.5-5.6G ED VR	18463	18463	18482 NR	(Z)18718 (Z)18718
Nikon 18-55mm f/3.5-5.6G ED II	18463	18463	18482 NR	(Z)18696 (Z)18696
Nikon 18-70mm f/3.5-4.5 G ED (*1)	18453	18453	18482 NR	(Z)18675 (Z)18673
Nikon 20-55mm f/2.8 D AF (*1)	18453	18453	18482 NR	(Z)18675 (Z)18673
Nikon 28-70mm f/3.5-4.5 D AF (*1)	18453	18453	18482 NR	(Z)18675 (Z)18675
Nikon 28-85mm f/3.5-4.5 AF (*1)	18462	18462	18482 NR	(Z)18673 (Z)18673
Nikon 24-50mm f/3.3-4.5 D AF (*1)	18453	18453	18482 NR	(Z)18673 (Z)18673
Sigma 10-20mm F4-5.6 EX DC HSM	18453	18456	18480 NR	(Z)18698 (Z)18698
Sigma 14mm F2.8 EX ASPHERICAL HSM	18462	18462	18480 NR	(F)18697 (F)18697
Sigma 15mm F2.8 FISHEYE	Not needed	Not needed	18480 NR	(F)18715 (Z)18698
Sigma 15-30mm F3.5-4.5 EX DG	18457	18457	18482 NR	(F)18670/(*3)18682
Sigma 17-70mm F2.8-4.5 DC MACRO HSM	18462	18462	18482 NR	(F)18679/(*4)18693
Sigma 17-70mm F2.8-4.5 DC MACRO	18462	18462	18482 NR	(F)18712 (F)18656
Tokina AT-X 10-17mm F3.5-4.5 AF DX fisheye	18456	18456	18480 NR	(Z)18717 (F)18691/(Z)18692
Tokina AT-X 12-24mm F4 AF PRO DX	18453	18453	18480 NR	(F)18701
NR = This lens not recommended for use with this port				
(*1) +3 diopter needed for 8" dome port & a +4 diopter needed for 6" dome port				
(*2) Older pre 2008 port may not fit due to the oversized nature of this lens.				
Macro lenses	Port 18428 Auto Focus only	Port 18426 Auto & manual focus	Port 18426 only	For use with port 18426 only
60mm F2.8 AF (*3)	Not needed	Not needed		(F)18670/(*3)18682
105mm F2.8 AF (*4)	18462	18462	18462	(F)18679/(*4)18693
105MM f/2.8 G ED-1F AF-S VR, NEW	18453	18453	18453	(F)18712
200mm F4 D AF	18454	18454	18454	(F)18656
70-180 mm f/4.5-5.6 ED AF	18454	18454	18454	(F)18691/(Z)18692
Sigma 50mm F2.8 EX MACRO	Not needed	Not needed	Not needed	(F)18701
(*3) Auto/manual focus selector available 18682				
(*4) Auto/manual focus selector available 18683				

## RECOMMENDED AQUATICA ACCESSORIES

AQUATICA  
Digital



18407 9.25" GLASS DOME



18405 8" ACRYLIC DOME



18426 FLAT MACRO PORT



20054 AQUA VIEW FINDER



18409 6" ACRYLIC DOME



EXTENSION RINGS



19216 HARD TRANSPORT CASE  
FOR AQUA VIEW FINDER

18790 PORT REAR CAP



18789 HOUSING BODY CAP



19300 BASIC REMOTE CONTROL



18480 DOME SHADE F.E.



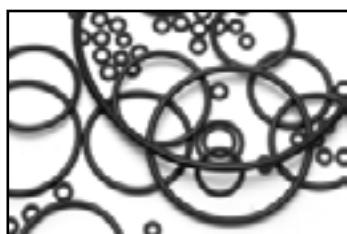
ZOOM & FOCUS GEARS



20023 MOISTURE ALARM



18480 DOME SHADE W.A..



MAINTENANCE & REBUILT  
O-RING KITS

**Technical Lighting Control™**

Please visit our website at [www.aquatica.ca](http://www.aquatica.ca) for a complete selection of our Technical Lighting Control line of strobe arms and supports.

# WARRANTY

## PLEASE READ CAREFULLY

### **One year Limited Warranty.**

Thank you for purchasing an AQUATICA manufactured product! Your AQUATICA housing is handcrafted by a small group of specially trained individuals - each of whom takes the most pride and satisfaction in offering you the best underwater camera housings in the world. All AQUATICA products are guaranteed against defects in material or workmanship for (1) one full year from the date of purchase for consumer use. These same products when used commercially will carry a 90-day warranty. No statutory warranty applies. Camera housed in AQUATICA housings are not covered under this warranty and ANY WATER DAMAGE SUSTAINED DUE TO INSTALLATION ERROR OR ANY OTHER REASON IS NOT THE RESPONSABILITY OF AQUATICA. Therefore the appropriate insurance should be maintained by the user.

Warranty does not apply to replaceable seals or damages to impacts or abrasive surfaces. Warranty applies only to products purchased from authorized AQUATICA dealers and does not extend beyond the original retail purchaser. Unauthorized modifications or repairs will automatically void this warranty. This applies to removal of serial numbers and AQUATICA identification labels.

To obtain service during or after the warranty period you must notify AQUATICA at 514-737-9481 and ship BY REGISTERED MAIL (INSURED) **ONLY**, enclosing your proof of purchase to:

AQUATICA  
3025 De Baene  
Montreal (Quebec)  
H4S 1K8

Mark clearly on your package "Canadian goods returned for repair"

Do not ship by any other means.  
Unauthorized packages will be refused.

YOUR SERIAL NUMBER\_\_\_\_\_

**AQUATICA<sup>TM</sup>**  
**Digital**