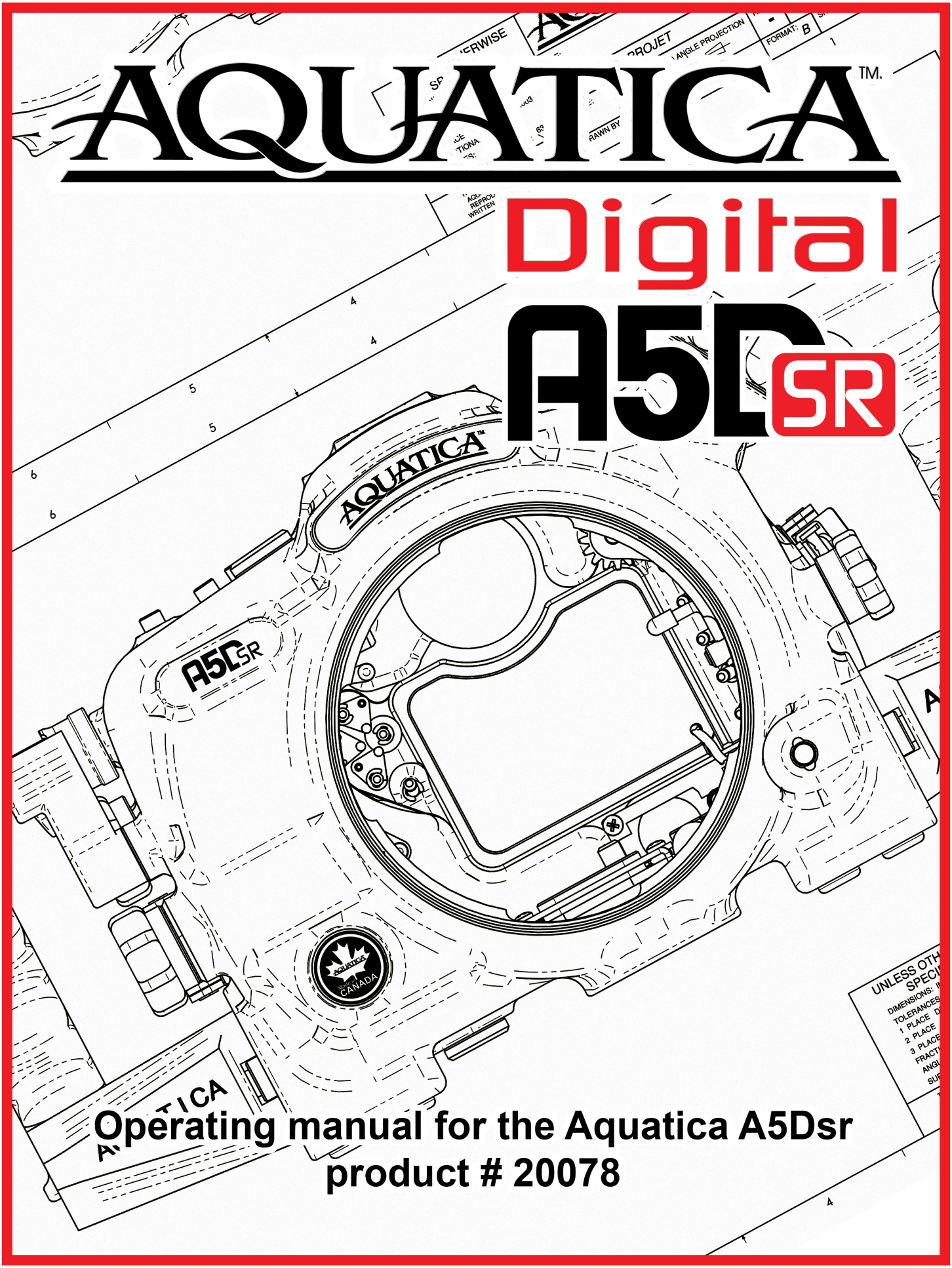
AQUATICA™

Digital A5D SR



Operating manual for the Aquatica A5Dsr product # 20078

Content

AQUATICA Digital

FOREWORD

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

The AQUATICA Pro Digital Housing is the result of a long and continuing relationship with the most demanding underwater photographers in the world. Each housings is handcrafted, quality checked and pressure tested to a 300 feet equivalent 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 Pro 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 Canon 5Ds and/or 5Dsr DSLR.

This manual assumes that the User is already familiar with the Canon 5Ds and/or 5Dsr camera. If not, please read the Canon 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* section on this manual.
- Ensure that the spring loaded secondary lock is properly engaged on the latches to prevent their accidental opening.

SAFETY RECOMMENDATIONS

Please carefully read the following precautions and recommendations:

Improper transportation, handling or use of this housing might cause a flood or malfunction. See Storage and transportation of housing and ports section on page14

Never remove, change a port or open the housing in a location where sand or similar foreign material might come in contact with an O-ring. Be wary of strong wind as it could potentially be carrying sand. Always perform a simple seal test without the camera inside after doing maintenance.

Non authorized use of third party accessories, as well as modifications and/or alterations not specifically authorized by Aquatica may affect performance, cause poor functioning of the controls or impair the sealing integrity of the housing.

Always handle port carefully, like the sensitive optics they are, protect them when not in use to avoid scratching the acrylic or glass surface of the ports and windows.

Always confirm that the ports remain properly attached before rinsing the housing. An optional port locking collars is available (#18469) for securing larger dome to the extension ring. When rinsing without a wired strobe, confirm that the bulkhead strobes connectors are sealed with their plug.

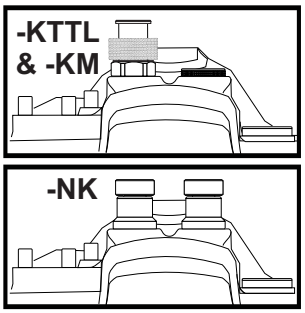
Aquatica housings can be adapted to various types of strobe connectors. These conveniently provides your camera system with access to the latest strobes technology currently available on the market.

Standard options available are:

20078-KTTL Supplied with an Internal Ikelite TTL circuitry and single Ikelite type strobe connector.
* see dedicated intructions enclosed, if housing was ordered with this option.

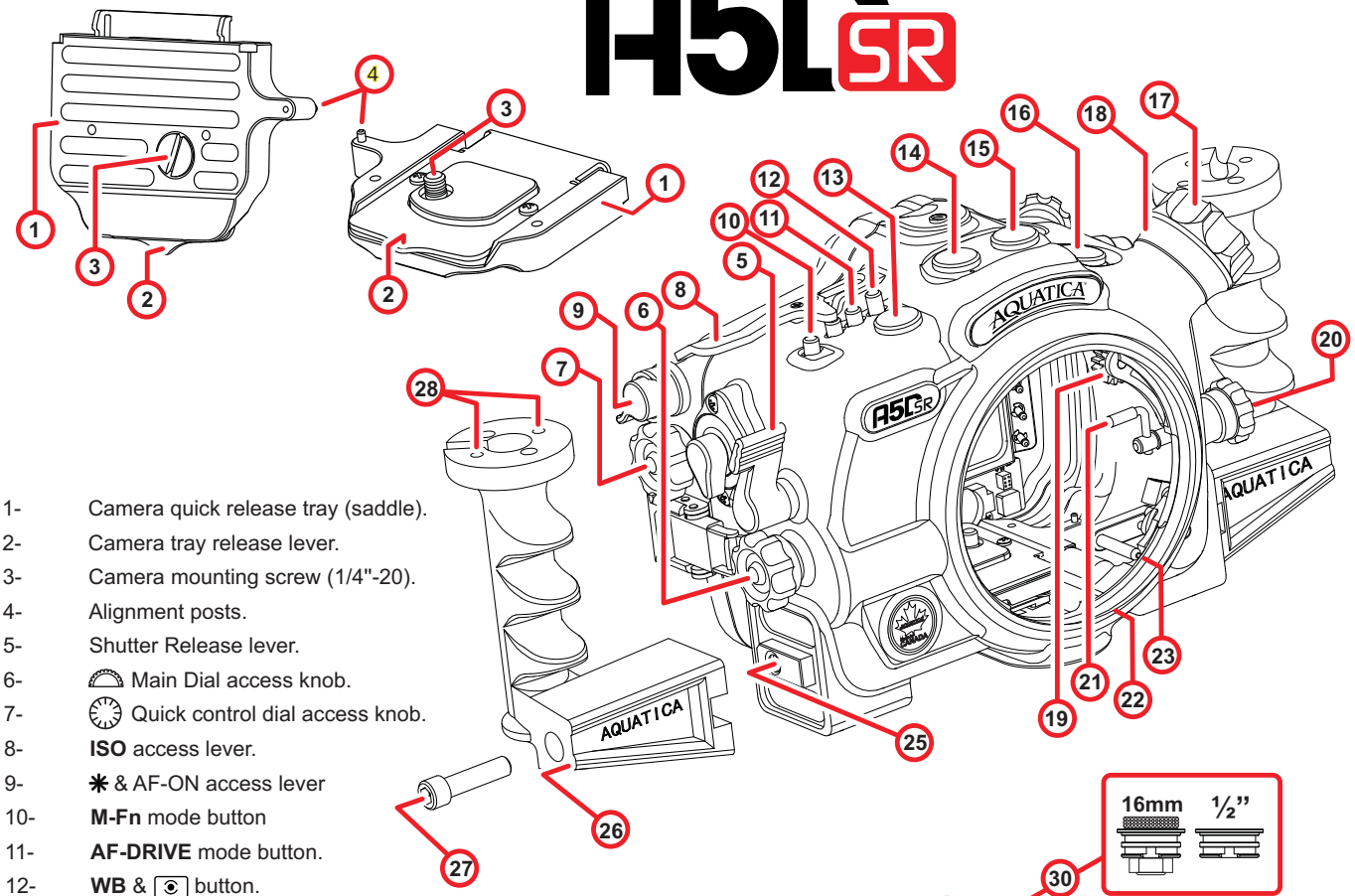
20078-KM Supplied with one Ikelite manual type strobe connector, for manual exposure only.

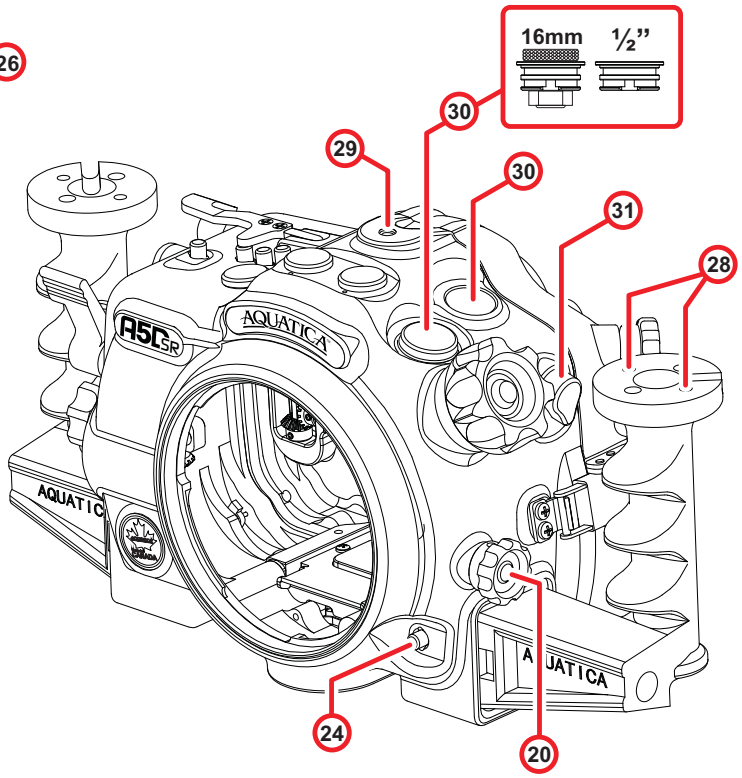
20077-NK: Two Standard Nikonos type 6 pins connectors.



AQUATICA™ Nomenclature

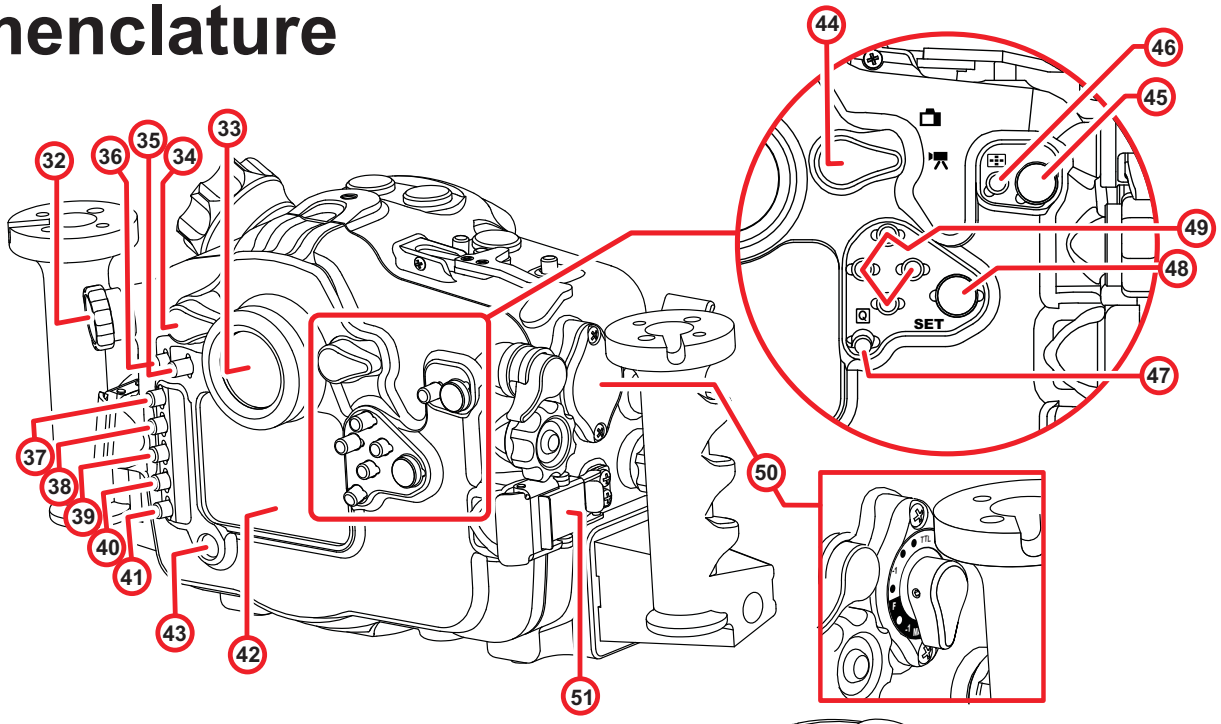
A5D SR

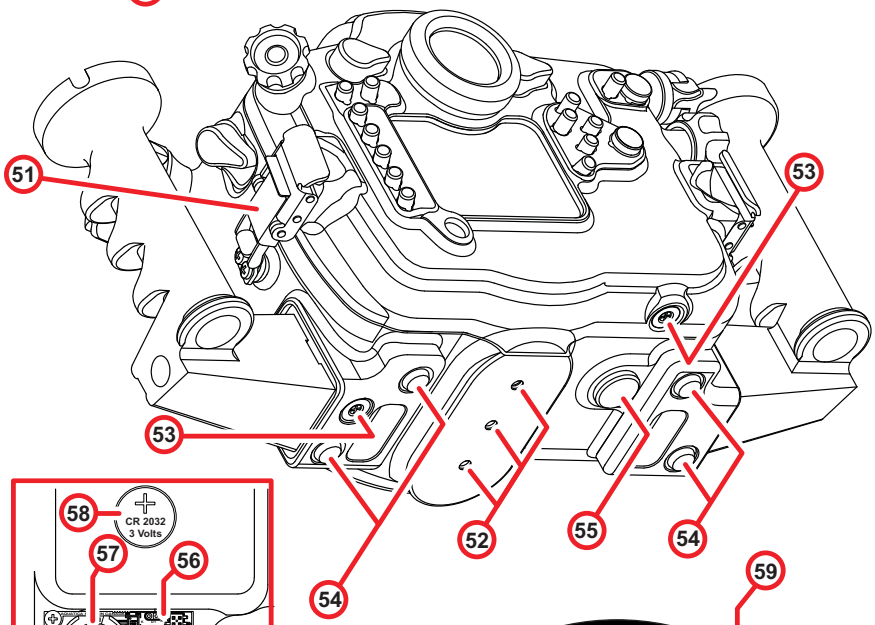


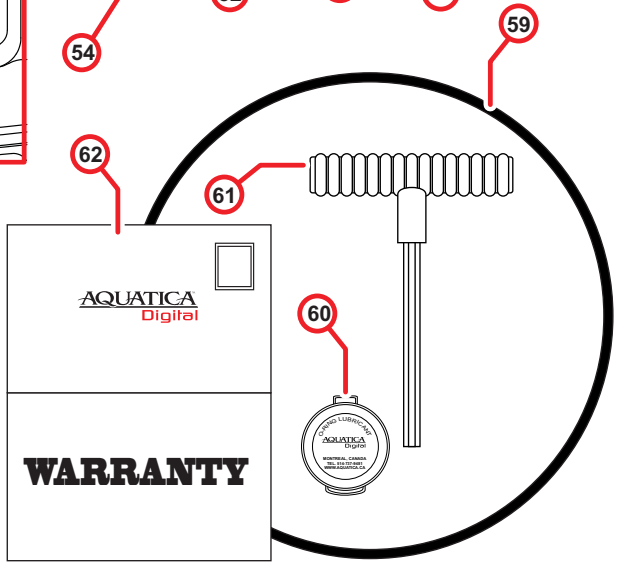


1- Camera quick release tray (saddle).
2- Camera tray release lever.
3- Camera mounting screw (1/4"-20).
4- Alignment posts.
5- Shutter Release lever.
6- Main Dial access knob.
7- Quick control dial access knob.
8- **ISO** access lever.
9- ✱ & AF-ON access lever
10- **M-Fn** mode button
11- **AF-DRIVE** mode button.
12- **WB** & button.
13- Accessory Bulkhead Plug (1/2” Diameter).
14- Strobe connector bulkhead (main).
15- Strobe connector bulkhead (secondary).
16- Accessory Bulkhead Plug (16mm Diameter).
17- Focus/Zoom control knob.
18- Focus/Zoom control release disc.
19- Focus/Zoom control pinion gear.
20- Lens release knob.
21- Lens release knob lever.
22- Bayonet flange.
23- Port release securing pin.
24- Port release push button
25- Grips 5/16”-20 mounting holes (one per sides)
26- Grips (left and right hands).
27- Grips 5/16”-20 fasteners (one per sides)
28- Grip's Accessories mounting holes (1/4”-20).
29- Top accessory mounting hole (1/4”-20).
30- Mode Selector port window
31- Mode selector lock release lever

Nomenclature







32- Mode selector access knob
33- Removable Viewfinder Eyepiece.
34- **POWER** switch.
35- **INFO** button.
36- **MENU** button.
37- Creative photo button
38- **RATE** button
39- Index/Magnify/Reduce button
40- Playback button
41- Erase button
42- Rear LCD Monitor port window.
43- Moisture & Vacuum sensor LED window
44- Live View mode selector
45- **Start/Stop** recording button
46- AF Point selection button
47- (Quick Control) button
48- **SET** button
49- Multi Controller button array
50- TTL Exposure control lever (Optional)
51- Latches (one on each sides)
52- Tripod/accessories three mounting holes (1/4”-20)
53- Sacrificial anodes (2x)
54- Rubber anti skids pads (4x)
55- Accessory bulkhead Plug (1/2” Diameter).
56- Moisture/pressure sensor alarm
57- Moisture/pressure sensor alarm battery compartment
58- Moisture/pressure sensor alarm battery (CR 2032, 3 Volts)
59- Spare main O-ring
60- O-ring lubricant container
61- Large hexagonal wrench
62- Warranty card

AQUATICA Digital

CONTROLS IN DETAIL

1- Camera quick release tray (saddle): Used to attach camera and slide in housing.

2- Camera tray release lever: Press to release camera tray from housing.

3- Camera mounting screw (1/4''-20): Used for securing the camera to tray.

4- Alignment posts: Help maintain proper alignment of the camera on the tray.

5- 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.

6- Main Dial access knob: This knob rotates clockwise and counter clockwise. Use it alone or in combination with other controls to select or set various camera functions or modes. In "Manual" the exposure mode controls the shutter speed settings (see camera manual).

7- Quick Control dial access knob: this knob rotates clockwise and counter clockwise. Use it alone or in combination with other controls to select or set various camera functions or modes. Refer to camera manual for in depth use.

8- ISO: Press on lever to engage the ISO speed value button of the camera, turn main dial knob to select value

9- Star (*) & AF-ON access lever: Pull the lever and rotate this collar to select access to the AF-ON or the STAR button access of the camera. Both the AF-ON feature and the Star are customizable button, these are important controls for video shooting and care should be taken to fully under stand their working and subtleties.

10- M-Fn mode button: press to engage, refer to camera manual for a list of the functions that can be assigned to this button.

11- AF-Drive mode button: Press to engage, select the drive mode using the Quick Control access knob, or the AF area by using the Main Dial access knob.

12- WB & Meter Mode button: Press to engage, use Quick Control dial access knob to select WB setting and/or Main Dial access knob to select the metering mode.

13- Accessory Bulkhead Plug (1/2" Diameter): This can be used for mounting accessories such as a remote trigger, vacuum valves or monitor.

14- Strobe connector bulkhead (main): This bulkhead connector is normally used as the main connection, configuration may vary according to an owner's preference.

15- Strobe connector bulkhead (secondary). This bulkhead connector is normally used as the secondary connection, configuration may vary according to an owner's preference.

16- Accessory bulkhead adapter plug: This large diameter access plug can be used for mounting accessories such as a remote trigger, vacuum valves or HDMI monitor, it has a 16mm and ½" adapter sleeves that are included.

17- Focus/Zoom control knob: Turning allows manual focus of a single focus lens or rotation of the zoom mechanism of a lens.

18- Focus/Zoom control release disc: Lifting and rotating this disc to its resting post will retract the pinion gear (key # 18); doing so, along with pulling the lens release lever (# 19) will allows the camera and lens to be pulled out from the housing as a unit.

19- Focus/Zoom control pinion gear: Engages and operates the focus or zoom gear attached to the lens.

20- Lens release knob: activates the lens release button on the camera allowing easy removal of the lens, pulling this out along with the zoom knob release disc (# 17) will allows the camera and lens to be pulled out from the housing as a unit.

21- Lens release knob lever: Applies pressure on the camera lens lock button.

22- Bayonet flange: allows the mounting of different ports and extension rings on the housing.

23- Port release locking pin: secures the port or extension in place, to remove press port release button (# 24).

24- Port release mechanism button: Pressing will release the locking mechanism when removing a port or extension.

25- Grips 5/16"-20 mounting holes (one per sides): attachment point for the housing grips.

26- Grips (left and right hands): Removable grips for handling the housing, allows the mounting of strobe arms and accessories.

27- Grips 5/16"-20 fasteners (one per sides): Use with included hexagonal wrench (#61) for securing the grips to the housing.

28- Grip's Accessories mounting threaded holes (1/4"-20): These are provided for mounting strobe arm or other accessories.

29- Top accessory mounting threaded hole (1/4"-20). Mounting point for accessories or focus light.

30- Mode selector port window: Enables viewing of the different shooting mode options.

31- Mode selector release lever: This lever disengages the lock on the mode dial of the Canon camera, once engaged; the mode dial can be rotated using the Mode Dial Access Knob (# 32).

32- Mode selector access knob: Rotate to select the proper shooting mode, care should be taken to understand the various combinations available.

CONTROLS IN DETAIL, CONTINUED

33- Removable Viewfinder Eyepiece: This Galileo type view finder offers a full view of the camera viewfinder and its information display. For an enhanced larger view, this viewfinder can be removed and replaced with one of our two optional Aqua View Finders, available in 45º & 180º version.

34- POWER switch: Rotate right or left to turn the camera power ON or OFF.

35- INFO button: This button will activate the rear LCD and display all pertinent shooting information.

36- MENU button. Press to activate menu display, scroll using main or quick dial control knob and select using SET function button.

37- Creative photo button: Press to select the picture style.

38- Rating button: Press to protect the selected image.

39- Index/Magnify/Reduce button: Press to search, magnify or reduce images, use in conjunction with Quick Control access knob and main dial knob.

40- Playback button: Press to review an image, scroll using the Quick Control access knob.

41- Erase button: press to delete images from the memory card of the camera.

42- Rear LCD Monitor port window: This port window allows viewing of the recorded images and is used in the Live View as well as in the Video mode for framing and composing. It also allows viewing of the entire menus selection as well.

43- Moisture & Vacuum sensor LED window: Gives visual access to the moisture and pressure sensor status LED.

44- Live View mode selector: Rotate left or right to select Live View or the Movie mode.

45- Start/Stop recording button: This oversized red button activates recording in video mode.

46- AF Point selection button: Push to select the AF pattern, navigate using the Multi-Controller or using the Main dial or /and Quick Control access knobs.

47- Q (Quick Control) button: press to activate the Quick Control feature, navigate using the Multi-Controller or using the Main dial or /and Quick Control access knobs.

48- SET button: Press to approve selection of menu or chosen mode features.

49- Multi Controller button array: Use to navigate through the multiples options of the menus, modes and features of the camera.

50- TTL Exposure control lever (Optional): This lever offer exposure control over the strobes, see TTL instruction if your housing is equipped with this option.

51- Latches: Two heavy duty latches with safety locks to protect against accidental opening.

52- Tripod/accessories mounting holes: Three 1/4” X 20 holes are provided for mounting strobes trays or accessories.

53- Sacrificial anodes (2x): zinc anodes are installed to protect your housing against salt water corrosion; these are made to deteriorate faster than the other strategic parts of your housing, hence the name sacrificial anodes. These anodes need to be replaced by the user as needed.

54- Rubber anti skids pads (4x): rubber pads are provided to protect the housing and preventing it from sliding on wet decks.

55- Accessory Bulkhead Plug (1/2” Diameter): This can be used for mounting third party accessories connectors.

56- Moisture/pressure sensor alarm: Moisture/pressure sensor alarm: This alarm works both as a water detection device and an ambient pressure sensor.

57- Moisture/pressure sensor alarm battery compartment: This battery compartment holds the battery for the moisture/pressure sensor. Carefully read instruction re garding installation of the battery.

58- Moisture/pressure sensor alarm battery: CR 2032, 3 Volts, this battery powers the sensor. Carefully read instruction regarding its installation.

59- Spare main O-ring: A spare main O-ring is supplied with the housing.

60- O-ring lubricant container: Used for lubricating the housing O-ring.

61- Large hexagonal wrench: Use for attaching the grips (# 24) with the provided fasteners (# 25).

62. Warranty card: Please fill and return this warranty card to Aquatica as instructed.

PREPARATION OF THE HOUSING

Two hand grips are provided, these attach on the sides of the housing with the supplied screws and hexagonal wrench.

Mount the necessary shoes or brackets onto the 1/4”-20 threaded holes located on the top of the hand grips. Three threaded holes of the same size are located on the bottom of your Aquatica housings for mounting accessories such as lighting support, trays, brackets or tripod. A similar sized hole, located on the top the housing, allows the mounting of a video light, focusing light, or buoyancy compensating devices.

Mount your strobes and their arms on the housing and connect the sync cord to the housing’s strobe bulkhead. Before using electrical type sync cords, carefully read the section (page 12) pertaining wired connection and refer and follow your strobe manufacturer manual and their recommendations.

For proper handling and maintenance of O-rings be sure to read the section titled “Maintenance of the housing and ports” (Page 14 & 15)

PREPARATION OF THE PORTS

Underwater photography typically requires the use of a dome port for Wide Angle or a flat port for close up and macro photography. Your lens and subject selection should dictate the type of port you select. Flat Macro Ports are available in three (3) version (product # 18426, 18428 or 18429), and Dome Ports in four (4) sizes ranging from 4” to 9.25” (Product # 18405, 18407, 18409 or 18410).

There are occasions where an extension ring might be required to either, optimize the optical performance of a dome, or for adding sufficient space to accommodate a longer macro lens:

Macro Port Extension Rings: These aluminum rings extend the internal space of a Flat Macro Port, some shorter macro lens do not require using one, but longer lenses (100mm and longer) will need one in order to provide the necessary space to accommodate them.

Dome Port Extension Rings: When using a wide angle or zoom lens, the Dome Port may require the use of an extension ring, this is done both for physically accepting the lens and to closely match the position of the optical center of the dome and the lens as can possibly be done.

The Aquatica 6” and 8” dome ports have removable dome shade, without the shade, a circular 180° Fisheye lenses can be used to its full potential, when using standard type of lenses, the use of a dome shade is highly recommended as it improve contrast, reduce glare and offer an added protection for the dome delicate surface

A comprehensive lens chart listing of the lenses supported and their required extensions and/or accessories is supplied at the end of this manual. For the latest updated version of this lens chart, Please refer to the Canon Type 4 Lens Chart available on our website:
http://www.aquatica.ca/en/products_zoom.html

Cleaning the port:

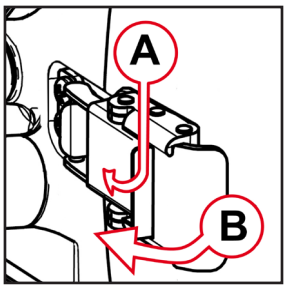
Dirt, grease or fingerprints on the port, especially on the inside, can adversely affect the quality of the image. Acrylic ports should be cleaned with plastic cleaner and glass ports with an appropriate lens cleaner.

Lubricating the port and extension ring O-ring seal:

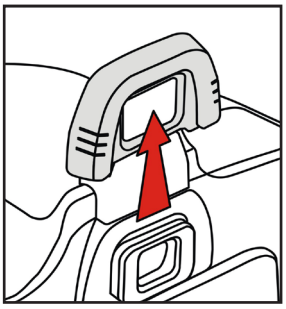
Before using a port or extension ring, remove the O-ring on the rear and lightly coat it with silicone grease, clean its groove before installing it back.

For more information concerning the care and maintenance of your ports and their O-rings, please refer to the section titled “Maintenance of the housing and ports” Starting (page 14).

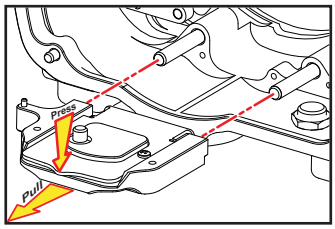
CAMERA PREPARATION AND INSTALLATION



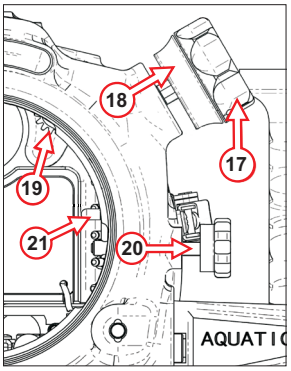
To open the rear of the housing, start by pressing on the safety tab (A) and then lift the latch up (B), it is advisable and easier if both latches are opened simultaneously



Important Note: Prior to installing the camera in the housing, remove the rubber eye cup, the camera strap and clips, and/or any object that might obstruct installation, third party camera strap hookup should be removed. It is advisable before inserting the camera in the housing, and in order to save valuable time underwater, to pre-set your camera shooting preferences in advance,

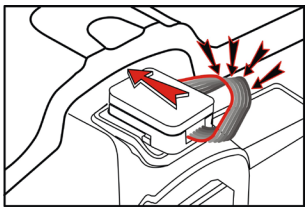


1- Remove the quick release tray (# 1) from the housing by pressing down on the lever (#2) and pulling the tray out as shown below. Carefully place the camera on it, making sure that the camera is properly aligned and secured against rotation or movement on the alignment pin (# 4). Align the Tripod Socket of the camera with the mounting screw (# 3). Tighten the mounting screw securely while ensuring that the camera position is not altered.



2- Pull out the lens release lever (#20) and zoom/focus knob assembly by lifting and rotating the disk (# 18) so that it rest on the dowel pins underneath as per.

3 - If using the optional Hydrophone connect the plug to the camera audio jack, and tuck the rubber flap of the microphone plug cover safely out of the way.



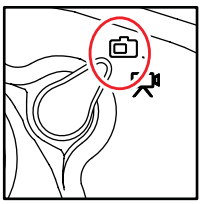
4 - Slide the quick release tray (# 1) back into place; it will lock itself into place.

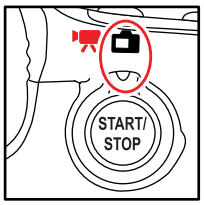
5 - insert the hot shoe as illustrated (If the housing is equipped with the optional Ikelite TTL circuitry, please refer to its separate instruction sheet.)

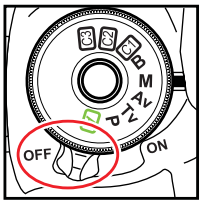
CLOSING OF THE HOUSING

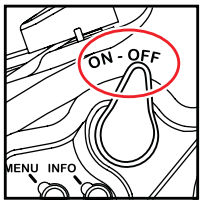
Before closing the housing always verifies that:

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.
4. The ON/OFF and Live View levers are in the same position on both the camera and the housing.









To close the housing simply:

i. Join the front and rear halves of the housing using the two dowel pins at the bottom of the housing as a reference.

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 side 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.

v. Activate all controls of the camera, confirming that the camera is aligned as it should and that none of the controls are obstructed.

AQUATICA Digital

PREPARATION AND INSTALLATION OF THE LENS

There are a number of lens gear available and various way of mounting them to a lens, all depending on their design. Using the right gear and correctly mounting it on the lens is a very important step for a smooth operation of the Zoom or Focus control. Carefully follow the directions found on each gear packaging. Please note that the use of Canon EF and EF-S compatible lenses is mandatory. A comprehensive list of the supported lenses for this housing and their respective gears and domes ports is supplied along with this manual. The lens charts are regularly updated as newer lens are made available, for the latest available version of this housing lens chart please visit our Lens Chart section at **http://www.aquatica.ca/en/products_zoom.html**

Notes: On some lens /dome port combination, a close up lens (Diopter) might be required or desirable. This is intended to correct the minimum focusing distance of the lens so that it can focus on the virtually projected image created by the dome. Refer to the appropriate lens chart to see if a diopter is required for your lens/port combination.

Zoom lenses: Mount the gear on the lens zoom ring. The housing focus/zoom control (key #9) then becomes the exclusive method of controlling the zoom. Focusing of the lens is then achieved by using the camera's autofocus system, or on certain Wide Angle zoom lens, it will be possible to access the manual focus via a dedicated port extension ring equipped with a manual focus access knob

Prime Lenses: They can be used in Auto Focus or if a focus gear is available for this particular lens, it can be operated in manual focus. For Manual operation, the camera focus selector need to be set to the manual focus position, then a focusing gear (if available for this lens) will need to be mounted on the lens.

WARNING: If the lens is a not of the USM type, never attempt to operate it with the camera in autofocus mode with a mounted focus gear engaged. This will strain the focus mechanism motor and might damage your lens.

Gear installation on the lens:

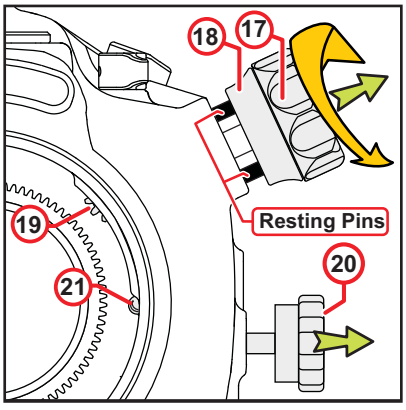
Slip-on gears (gears without mounting screws): Slide the gear over the lens and align on the Focusing or Zoom ring or push until the gear cannot move any further up the lens.

Gears with adjustment screws: Tighten the set screws lightly and evenly, approximately ½ a turn at a time, carefully working your way around the gear until all the screws are equally tightened, verify that the zoom and/or focus mechanism rotate smoothly and that the gear remains concentric with the lens body.

CAUTION: Do not over-tighten the set screws, doing so might bind the lens and restrict the rotation of the Focus or Zoom ring and possibly damage the lens mechanism. Conversely under-tightening these screws might cause the gear to slip or lose its alignment.

LENS INSTALLATION
Note: Always take extra precaution to protect the sensor from airborne dust or particles whenever installing or removing a lens.

With the camera installed the housing, push the lens release lever (#21) into the proper position so has not to obstruct it operation later, through the port opening in the front of the housing install the lens in the normal recommended way. If the lens is equipped with a zoom or focus gear, confirm that the gears are properly installed and aligned. Check the meshing of the lens gear with the pinion gear (#19) on the housing by rotating the Focus/Zoom control knob (key #17) several times to make sure the gear rotates smoothly and does not slip.



CHANGING A LENS (REMOVING A LENS)
The Aquatica Housing provides two methods for removing and replacing a lens. It can be done either from the front by removing the port or through the rear, by removing the camera mounted on its quick release tray (key # 1)

From the front: unlock and remove the port and/or extension ring (see chapter: Mounting a port and/or Extension ring on the housing). If a gear is mounted on the lens, access to the camera lens release button is still possible using the lens release lever (key #20) on the housing.
Or
Pull out the Lens Release Lever (key #21) out of the way, lift and rotate the Zoom Focus Release Disc (key #18) clear, open the housing back cover, remove the hot shoe from the camera and pull out the complete camera & lens from the housing, replace the lens and reinstall in the reverse order.

FOCUSING MODE

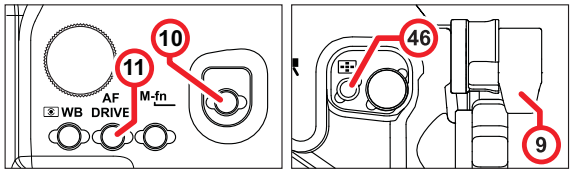
Various focusing options are offered on the Canon 5Ds, 5Dsr and 5D Mk III, these can be accessed by either navigating through the menus or by pressing the following buttons.

11- Drive Mode selection button, also used for AF Operation/Af method selection.

10- M-Fn button, gives access to the AF area

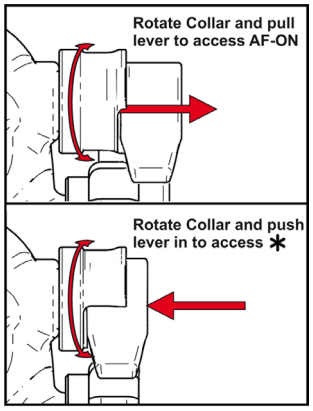
46- AF Point Selection button

9- (*) Star /AF-ON lever



Once a button is engaged, use the Main control knob (# 6), Quick Command knob (# 7) or Multi Controller buttons (# 49) to slect the desired options.

For more detailed information concerning the operation of the different focus modes consult the Canon ® instruction book for the camera model you have. Taking full advantage of the AF-ON and Star (*) lever access on the housing dedicated lever (# 9) can also greatly contribute to the performance of the autofocus performance underwater.

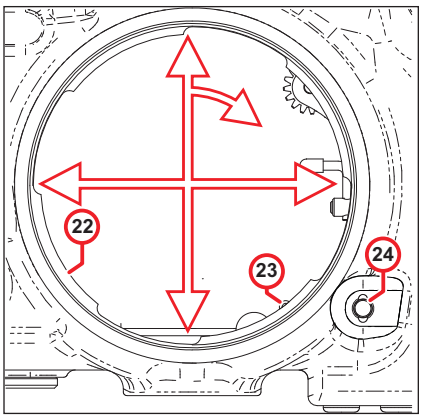


AF-ON & STAR LEVER

The lever in the rear right portion of the housing (#9) can be used to access the AF-ON and/or the * (star) buttons, just pull outward or inward to access the desired function, then rotate the collar, theses two buttons can be assigned a variety of custom function to conform to your personal style of shooting, we suggest that you refer to the Canon 5 instruction manual to pull the maximum out of these highly creative features.

MOUNTING A PORT AND/OR EXTENSING RING ON THE HOUSING

Before mounting the Port on the Housing always ensures that the port O-ring is clean, lubricated and properly seated in its groove. Inspect the sealing surface on the housing to confirm that it is clean and free of physical damage.



The *AQUATICA A5Dsr Pro Digital* Housing System features a locking mechanism (#24) for its bayonet (#22)

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 press the port lock button (# 24) down, to retract the port release securing pin (#23) and rotate the Port clockwise until it stops and then releases the port lock button (#24). 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 or extension and that it is safely locked 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.

Connecting lighting equipments to the housing

You can mount the necessary shoes, brackets or Base Ball for your lighting onto the threaded holes on the top of the hand grips. Use of the Aquatica TLC Strobe Arm System is recommended.

There are three 1/4”-20 threaded holes on the bottom of the housing that can also be used for various applications. For example, a mounting tray can be fitted on the bottom of the housing.

Lastly a 1/4”-20 threaded hole on top of the housing is ready to accept an Aquatica bracket or Base Ball that can hold a focusing light or an extra strobe arm.

Strobe setup:

Your Aquatica 5Dsr Pro Digital housing is supplied with two Nikonos type connectors which are in turn connected to a switch board circuit. (This housing can also be supplied with a single Ikelite bulkheads connector in manual or TTL configuration).

The strobes sync cords O-ring should be lubricated with the recommended O-Ring lubricant from your strobe manufacturer, Also advisable is to put a light coat of the lubricant on the threads of this connector, doing so reduces the risk of corrosion. Your Canon Digital camera design does not allow flashes to be connected directly to the camera and be used in eTTL unless they are original Canon flashes in third party housing with the required connector and cords.

IMPORTANT NOTE FOR STROBE SYNC CORD O-RINGS: You should only use to the recommended O-ring lubricant from your strobes manufacturer on your sync cords O-ring and never on your Aquatica housing O-rings. Some lubricant may not be compatible with the material used in our or other manufacturer O-ring materials, swelling and damage to the O-ring could results from doing so.

Some sync cord on the market have been known to contain poor quality and highly conductive material in the construction of the bulkhead plug, removing the sync cord frequently, cleaning the threads and lubricating them is the first step in preventing the sync cord from locking up in the thread due to the sync cord corrosion built up.

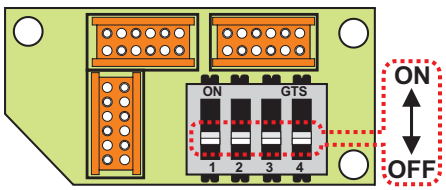
On top of your housing, you will find two Nikonos type bulkhead connectors, the main and secondary connectors are wired through a switch board that gives the user the option of alternating between TTL and Manual flash exposure. (By default you housing is delivered with the switch board set to full manual), if eTTL exposure is desired then it can be made in either of the two following methods:

1) By using a single flash from Canon (or other brand eTTL compatible brand) in a designated underwater housing connected with a 6 pins TTL sync cord to a compatible 6 pins connectors on your Aquatica housing.

2) By using an external eTTL converter connected to the main Nikonos type 6 pins connector on your Aquatica housing. On this converter, one or two underwater strobes with compatible TTL cords can then connected, (confirm compatibility of the strobes and converter with their respective manufacturers).

<u>Set up instruction for eTTL operation</u>

Using the tip of a pen push the switches 1, 2, 3 & 4 to the ON (up) position, this will activate the connections on your main 6 pins bulkhead connector allowing eTTL communication between the camera and the housed flash or eTTL converter.



<u>Set up instruction for manual operation</u>

All switches must be in the OFF (lower) position, in this case all eTTL connections are disabled and only the ground and sync are left active, this will allow two underwater strobes or housed flashes to be connected directly via the main and secondary bulkhead.

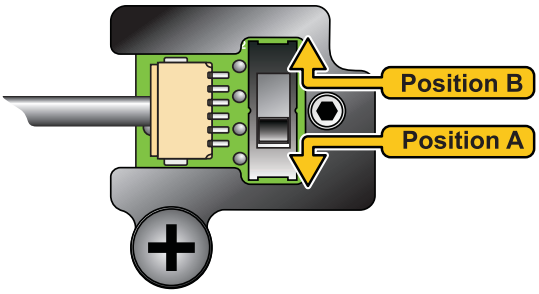
For Aquatica housing with the optional Ikelite integrated conversion circuitry

The A5Dsr model # 20078-KTTL is a housing is equipped with an Ikelite designed and patented TTL conversion circuitry. Once attached to the housing, you should turn the strobe on first before turning the power on the camera.

When used with current Ikelite DS Strobes, the TTL Conversion Circuitry provides real flash exposure with over and underexposure compensation from +1 1/3 to - 1 1/3 f-stops in 1/3 stop increments. The Conversion Circuitry also offers Manual exposure control with 3 f-stops of under exposure control in 1/2 stop increments. The Conversion Circuitry is powered by the Ikelite DS Strobe when connected to the housing with the 4103.51 single or 4103.52 dual sync cord. When using two strobes with the dual sync cord, the primary strobe connected to the cord without the red band, must be turned on to power the Conversion Circuitry. Always keep both strobes connected to your dual sync cord underwater.

Setting the Conversion Circuitry Strobe ID Switch

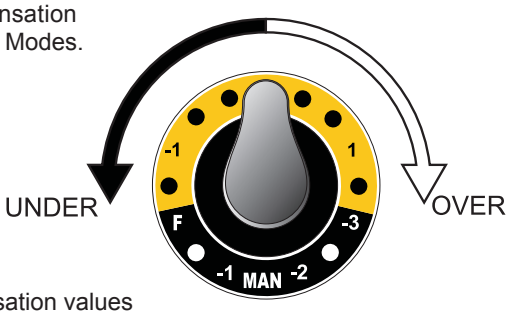
Inside the housing of the A5Dsr housing is a switch for setting the DS Strobe ID. Set the switch to the Model of DS Strobe being used.



Use **(A) for DS-51** or **(B) for DS 161,160, 125 & 200.** Whenever using two Ikelite strobes of different models such as a DS51 and a DS161, set the ID switch to (A) DS51 or the smaller strobe.

Using the Conversion Circuitry (Set DS Strobe to TTL mode)

Mode and Compensation Dial (see illustration)
Note that the TTL compensation values are located in the yellow band. Manual compensation values are located in the black band. Rotate the Dial to switch between TTL and Manual Modes.

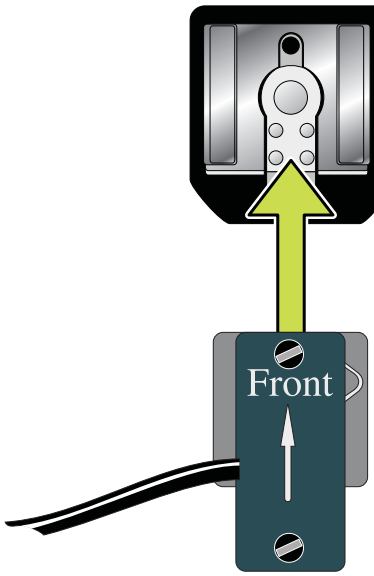


TTL Mode compensation values are indicated in the yellow band. Place the Setting Indicator to TTL for NO Compensation. Rotate the dial either direction to select +/- compensation. Place the Setting Indicator to the desired compensation value. Note that in TTL, compensation values are in 1/3 f-stops.

Manual Mode compensation values are indicated in the black band. Rotate the Dial to place the
setting indicator to the desired compensation value. Note that in manual mode, compensation values are in 1/2 f-stops from (F) full power to -3 f-stops. Set DS Strobe to TTL mode. This will allow the strobe power to be varied in manual mode.

Attaching the Flash Connection for external strobes

When using an external strobe, connect the housing hotshoe connector. Slide the connector into the hotshoe mount on the camera from the back of the camera as shown. Slide the connector forward until it stops. Make sure the hotshoe is all the way forward in the camera mount to assure a good connection.



Using Non-Ikelite or Ikelite Non-DS Strobes (Strobe 50, 100A, 200, 400) with this Housing

The Conversion Circuitry is automatically disabled when used with a Non-Ikelite or Non-DS Strobe. These Strobes can be used in their manual mode utilizing any power settings provided on the Strobe.

For a complete list of compatible models of strobes, please check with Ikelite (www.ikelite.com) to confirm that your strobe is compatible with this TTL circuitry

FIELD MAINTENANCE

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.

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 operate all the controls several times to flush out any residual salt water.

Be sure to inspect 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.

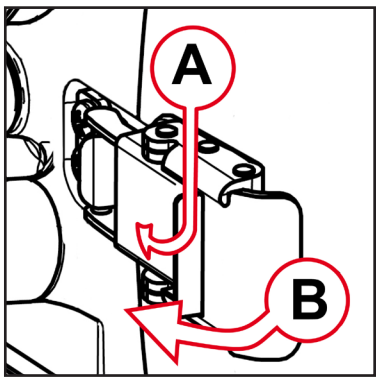
Of the Ports:

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. Use of pressurize air from a dive tank is not recommended, the force of the air stream may easily dislodge a port or O-ring, It is advisable that ports and extension O-rings should be removed and serviced after every dive.

Of the Latches:

The two latches of the AQUATICA Digital are equipped with safety locking tabs, their locking action prevent accidental opening of the latches. To open push the safety locking tab (A) and then lift the two latches (B) simultaneously as per illustration. When closing and prior to the immersing the housing always ensure that the locking tab mechanism is engaged. 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.



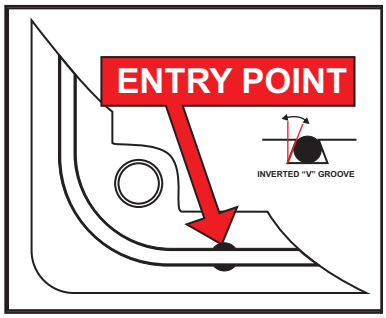
Of the O-Rings:

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 and inspected on a daily basis and the port O-ring should be cleaned every time a port or extension is changed or removed.

Of the sacrificial anode:

Two anodes (# 53) are attached to the bottom part of the housing. These prevent corrosion caused by electrolysis, as time goes they will deteriorates and eventually will require replacing, contact your dealer for replacement (parts # 19220).

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 dull pointed object or the edge of a credit card usually works well.

Note: The main O-ring is inserted in an inverted V groove to prevent it from popping out accidentally, to remove, use a dull pointed object and insert in the side of the small opening on the lower left hand side corner of the front of the housing. Do not use sharp objects or excessive force; this could result in damage to the sealing surface.

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 cotton swab. Be sure to remove any lint the cotton swab 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.

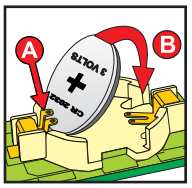
7. Make sure that the O-ring is properly (evenly) installed in the O-ring groove.

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.

Warning: Use only recommended Aquatica O-ring lubricant (# 19213) on the Aquatica Housing (and use the recommended O-ring lubricant of your strobe manufacturer on their components O-rings), Petroleum based lubricant used by some manufacturers for their Silicone based O-rings can and will swell the material of our O-rings, this will render the O-ring very difficult to install and more likely will end up being damaged or pinched resulting in dire consequences

Internal O-rings on the housing controls are not user accessible, while these O-rings are not as susceptible to damage as they are not exposed, rinsing properly with fresh water to flush out salt crystals and sand residues will be the proper way to assure trouble free operation. It is recommended by Aquatica to have the housing serviced on a yearly basis. Aquatica has authorized service facility in both continental USA and Europe for this annual maintenance. Before sending any items, always contact us or the service center closest to you (these are listed on our website www.aquatica.ca).

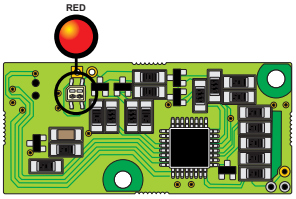
MOISTURE ALARM



This Aquatica housing is supplied with a Surveyor moisture and vacuum sensor alarm (# 57). This sensor device has two distinct purposes, a moisture detection circuitry and an ambient pressure sensor circuitry; both are integrated on the same circuit board.

A standard CR2032 battery cell (# 58) is provided as the power source, to insert the battery, first slide it in the battery compartment (#57), making sure first, that it is under the two contacts (A), and then pushing down (B) until it snap into place.

MOISTURE DETECTION FUNCTION:



Once a battery is installed, the moisture detector function of the Surveyor alarm will remain on standby and will not need be activated, in the event of any contact with water, an audible signal coupled with a blinking bright red flashing LED, will be activated and visible through the LED viewing port (# 43). Proceed to remove the housing from the water, always keeping in mind your personal safety.

To test the moisture alarm circuitry, simply moisten the tip of your finger and establish contact with the probes end, this should trigger the alarm signal, if it fails to activates, check the position of battery compartment contacts and the state of the battery itself, replace with a fresh one if necessary.

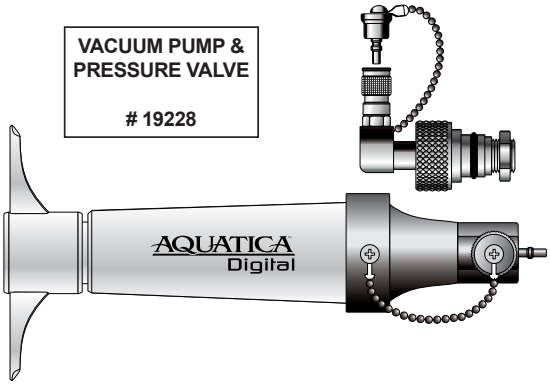
If not being used for prolonged periods of time, it is preferable to remove the battery from the sensor circuit to avoid unnecessary drain on this one.

VACUUM SENSOR FUNCTION:

The Aquatica housing being already equipped with a Surveyor moisture and vacuum sensor alarm, should you wish to take advantage of its built in vacuum monitoring feature, a pressure valves and pump, if not installed already at the factory when ordered, will be required. This valve and pump kit (# 19228) is also available separately and include the operating manual for the vacuum system.

Installation of the valves, should it need to, is straight forward and does not require specialized tooling, this valve can be installed in of the accessory buklhead holes (#13) or (#16) made for this purpose.

As is customary with any O-ring replacement, it is always suggested to validate the sealing integrity by performing a pressure test, once the Surveyor Vacuum system is fully installed, you should, prior to immersing the housing, test by extracting the pressure and monitoring the vacuum for any sign of leakage.



IMPORTANT NOTICE

CAUTION: Use only petroleum free O-ring lubricant, such as our # 19213 Aquatica O-ring Lubricant on your Aquatica housing seals. Lubricant used by other manufacturers, for silicone based O-rings, are likely to contain solvents, and will adversely affect the material of our O-rings. This potentially will make an O-ring more difficult to install and could result in the O-ring being damaged or pinched, ultimately affecting the housing sealing integrity.

Aquatica recommend to have the housing serviced annually by one of its authorized service center. Prior to sending the housing, always check our website (http://www.aquatica.ca/en/service_centers.html) for the closest service center to you, and, importantly, contact them regarding the proper shipping procedure.

AQUATICA™

Digital

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 RESPONSABILLITY 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_____

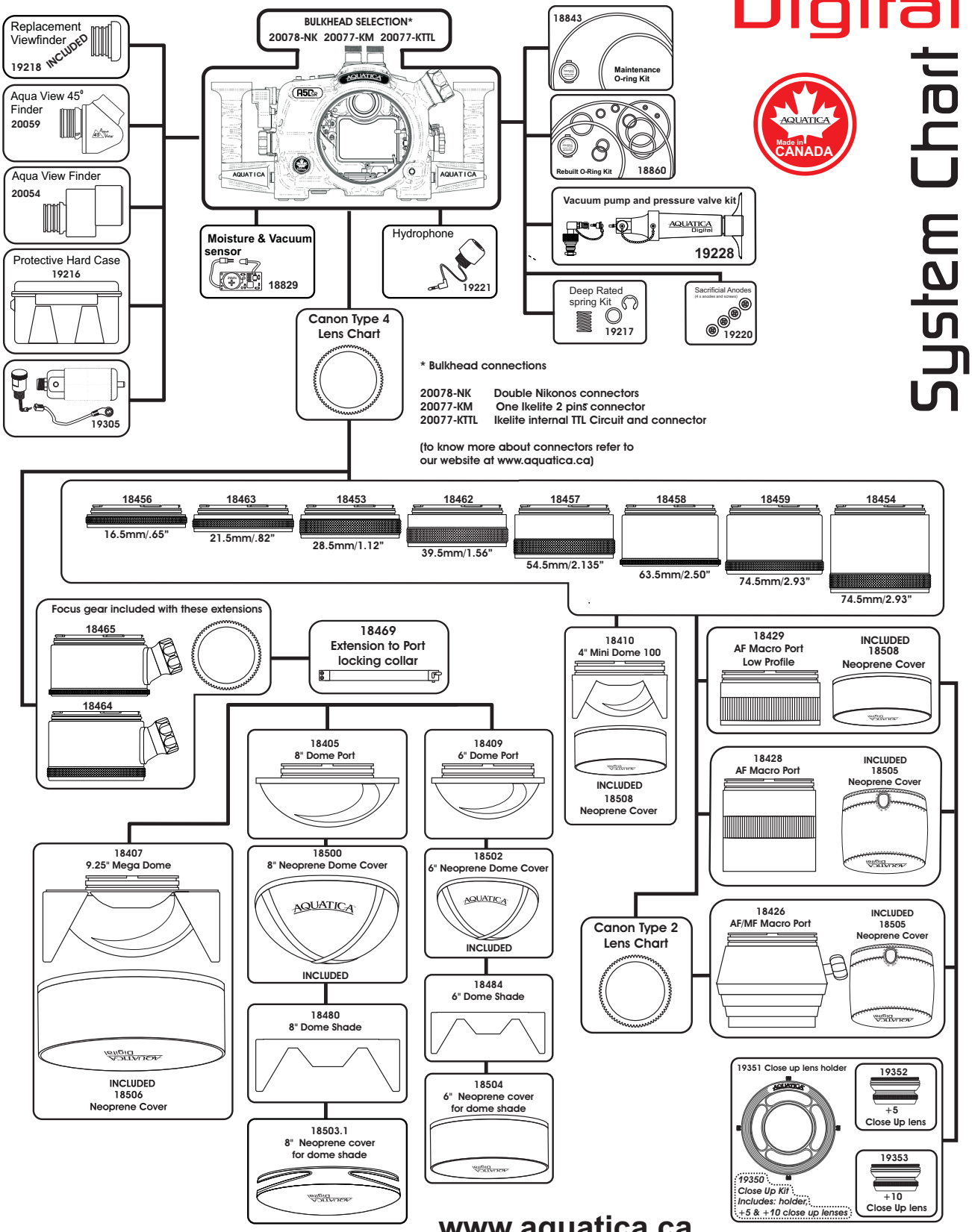
Aquatica A5Dsr

For Canon 5Dsr

AQUATICA™ Digital

System Chart

Made in CANADA



www.aquatica.ca

The DELTA 3 Line System

A Division of:
AQUATICA Digital

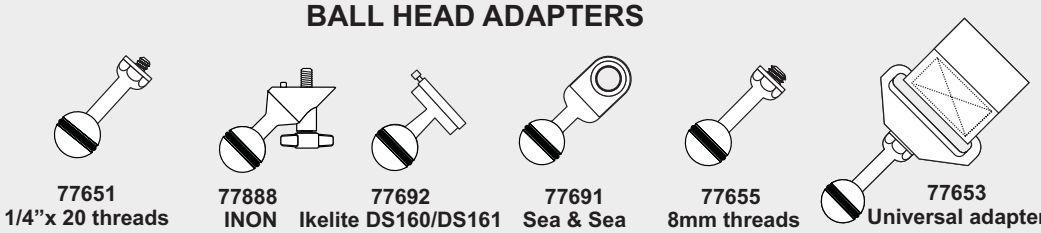
www.aquatica.ca

MADE IN CANADA

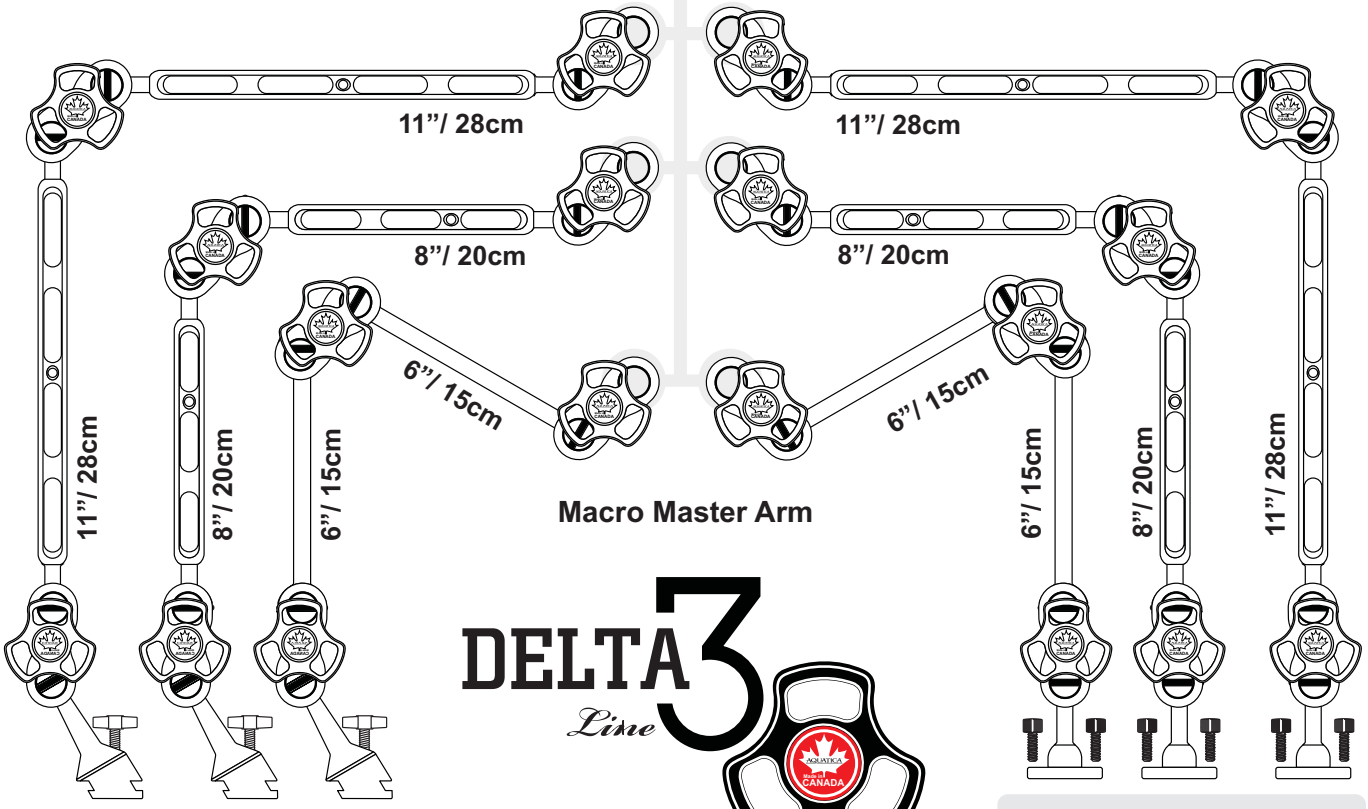
Technical Lighting Control

ARM SETS WITH BALL HEAD ADAPTER CHART

BALL HEAD ADAPTERS



77651 1/4”x 20 threads | 77888 INON | 77692 Ikelite DS160/DS161 | 77691 Sea & Sea | 77655 8mm threads | 77653 Universal adapter



Macro Master Arm

DELTA 3 Line

77512 77511 77522

77519 77514 77515

77550
T style bracket with 1/4”x 20 screws
For Aquatica housings

77552
T style bracket with 5mm screws
For Sea & Sea, Subal, Secam and other popular metric system housings

For Aquatica housing
Supplied with two 1/4”-20 cap screws and 3/16” hexagonal key wrench

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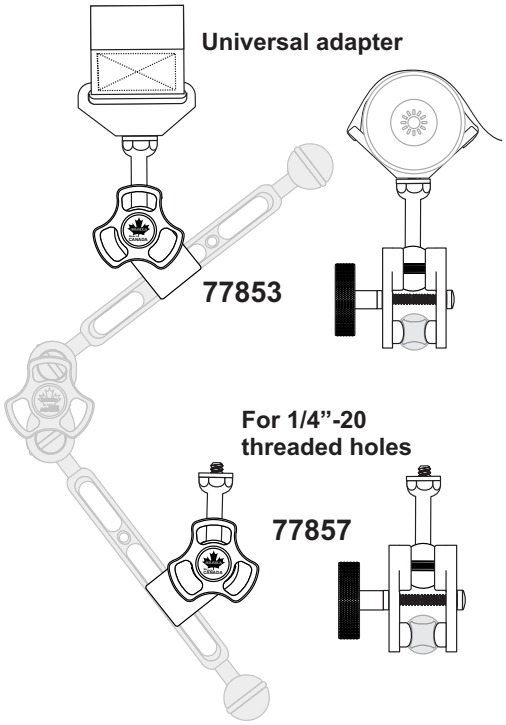
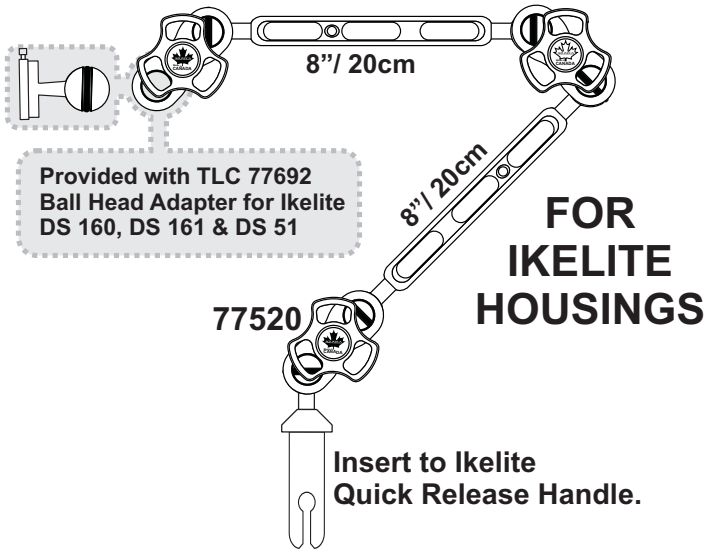
Technical Lighting Control

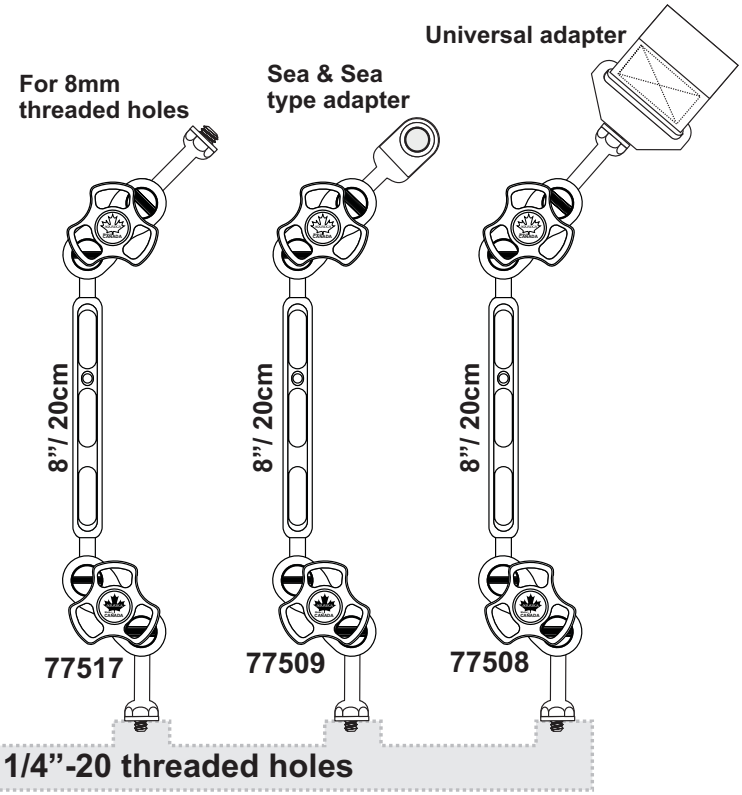
FOCUS & VIDEO LIGHT SUPPORT CHART

A Division of: AQUATICA Digital





DELTA 3 Line

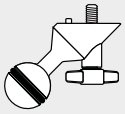


Technical Lighting Control

INDIVIDUAL COMPONENTS CHART

BALL HEAD ADAPTERS

77651
1/4"x 20 threads

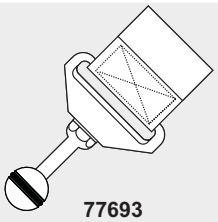


77888
INON

77692
Ikelite DS160/DS161

77691
Sea & Sea

77655
8mm threads

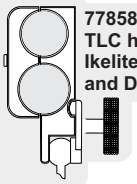


77693
Universal adapter

DELTA 3 Line

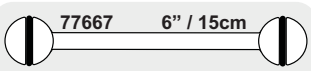
A Division of: AQUATICA Digital

77651
1/4"x 20 threads

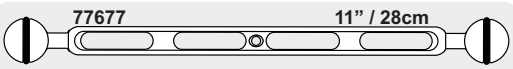


77858
TLC holder for
Ikelite TTL converter
and Double cable

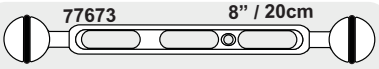
77800



77667 6" / 15cm



77677 11" / 28cm



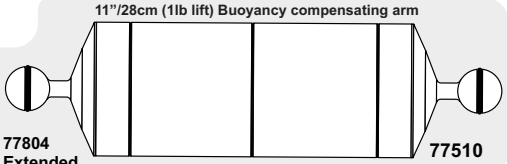
77673 8" / 20cm

77800

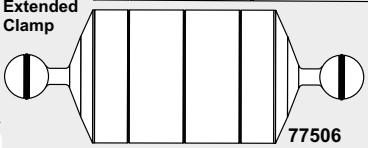
77801
Triple clamp

11"/28cm (1lb lift) Buoyancy compensating arm

77804
Extended
Clamp

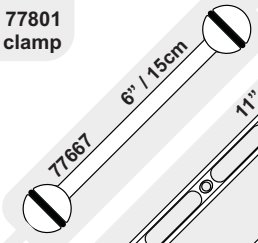


77510



77506

8"/20cm (0.5lb lift) Buoyancy compensating arm

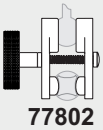


77667 6" / 15cm

77677 11" / 28cm

77673 8" / 20cm

Arm clamp
to 1" ball



77802

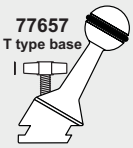
77554
4 points base

77651
1/4"x 20
threads

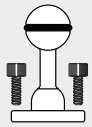
77800

77550
T style bracket with 1/4"x 20 screws
For Aquatica housings

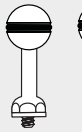
77552
T style bracket with 5mm screws
For Sea & Sea, Subal, Secam and
other popular metric system housings



77657
T type base



77553
Two 1/4"-20



77651
1/4"x 20
threads

77655
8mm
threads

77659
1/4"x 20
threaded hole

77686
1/4"x 20
threads

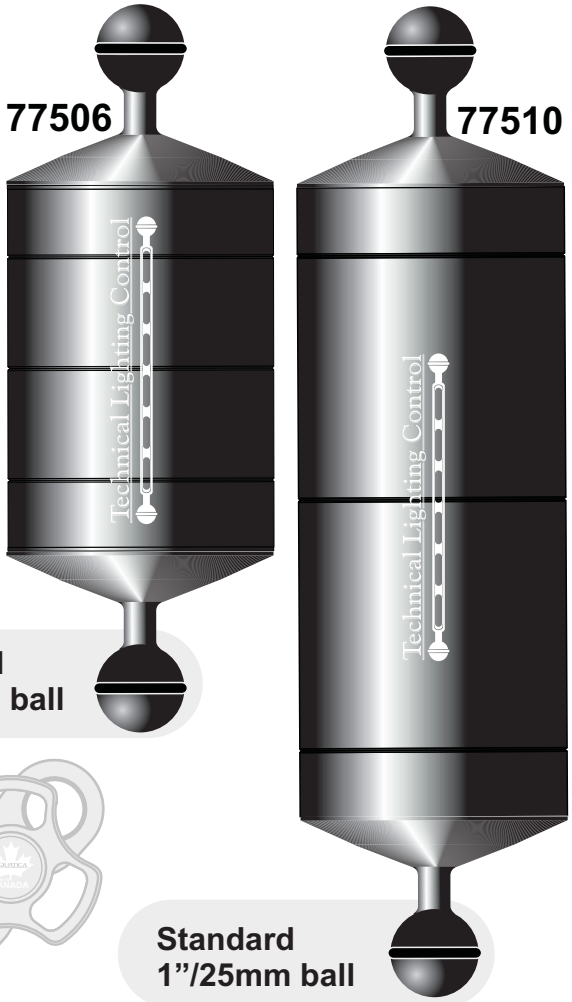
77555
For Ikelite Grip

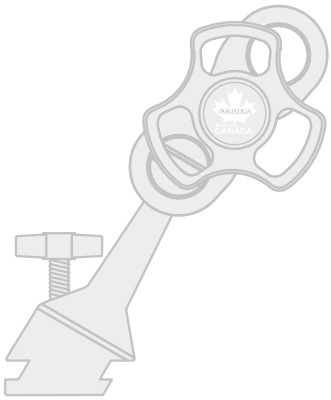
www.aquatica.ca

Technical Lighting Control

77804
Extendedball joint clamp

DELTA 3 Line





The Delta 3 line offers two buoyancy compensating arm segments, the # 77506 with a length of 8"/20cm and the # 77510 with a length of 11” 28cm, both feature a standard 1”/25mm ball on each end of the arm segment, making them compatible with most existing strobe and lighting support systems used for underwater imaging.

These buoyancy compensators are rated and tested to a depth of 330ft/100m, and are made of sturdy hard anodized marine grade aluminum. The use of this robust material means, that unlike carbon fiber, the Delta 3 line arm segments will not crack, delaminate or become unglued by the ambient pressure and workload exerted with this type activity. If our Technical Lighting Control division has learned something in its 30 years plus of making underwater lighting support for the working professional, it is that product reliability is the key issue. Our Delta 3 line buoyancy arm segment are made to offer you years of service, even in the harshest of conditions.

77804 is an extended ball joint clamp available for additional freedom of movement when using buoyancy compensating arm segments. Made of marine grade aluminum and hard anodized,it features our three lobed knob design with a tensioner spring for the ultimate control in tension adjustment.

77506: Is a 8”/20cm arm segment providing .5lb/.225kg of lift

77510: Is a 11”/28cm arm segment providing 1lb/.45kg of lift