

# NA - A7RV

For Sony Alpha A7RV Mirrorless Camera

PN 17433

## User Manual

Housing

FF- MIL

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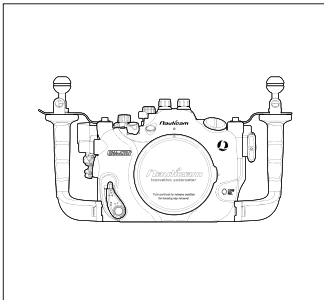
# INTRODUCTION

Thank you for purchasing this Nauticam product.

Before using the product, please read this manual thoroughly to familiarize yourself with full scope of functions on the product as well as ensuring that you will use the product correctly.

# PACKAGE CONTENTS

Make sure that you have all the included items listed below before using this product. If some items are missing or damaged, contact your local Nauticam dealer.

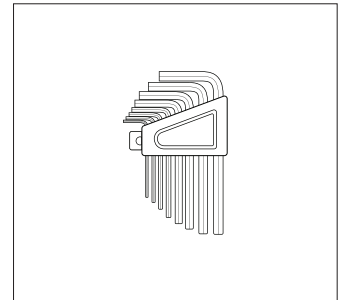


NA-A7RV

(2 x Handles with Mounting Balls, 1 x Housing Cap, 2 x Optical Fiber Mount Caps, 2 x Stainless Steel Handle Brackets)



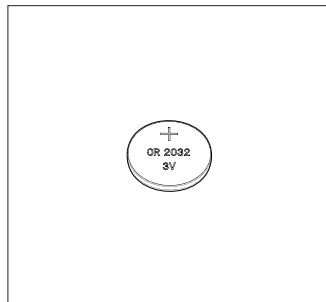
Padded Travel Case



Allen key set

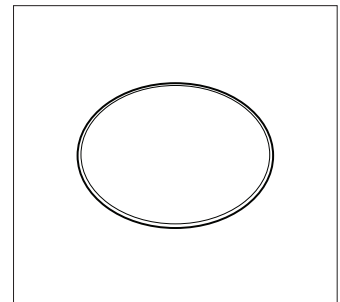


Lubricant



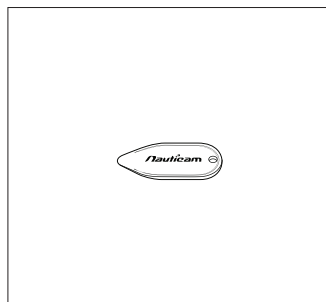
Panasonic CR2032 Battery

(pre-installed for Moisture Alarm)

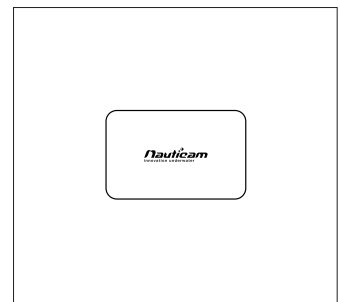


Spare Main O-ring

After purchase, we suggest that you reuse all packaging materials for future travelling.



O-ring Remover



Manual Instruction Card

# IMPORTANT INSTRUCTIONS

1

Water-tight test of the housing (without camera inside) before usage is recommended as well as any O-ring renewal and port change.

2

Do not seal the housing when travelling by air as this may lead to a pressure difference between the atmosphere and inside the housing.

3

Only the accessories specified by Nauticam must be used. Third-party accessories may result in malfunctions or damage to the product.

4

Use only Nauticam lubricant on silicone rubber O-ring.

5

Do not stretch any O-rings excessively. Only remove it using Nauticam O-ring remover.



6

Discontinue use immediately when there is a sign of leakage.

7

Do not attempt to remove parts of the housing yourself. Repairs must be done at authorized service centers only.

8

The housing should be positioned on the a stable and safe surface on land.

9

Do not expose the housing in direct sunlight for a prolonged period.

10

Do not open the housing in wet or sandy environment. Protect the housing from moisture and debris in order to prevent malfunction or leakage.

11

Prevent any sand or dust or water penetration inside the housing. Be extra careful when changing lens and inserting or removing the camera.

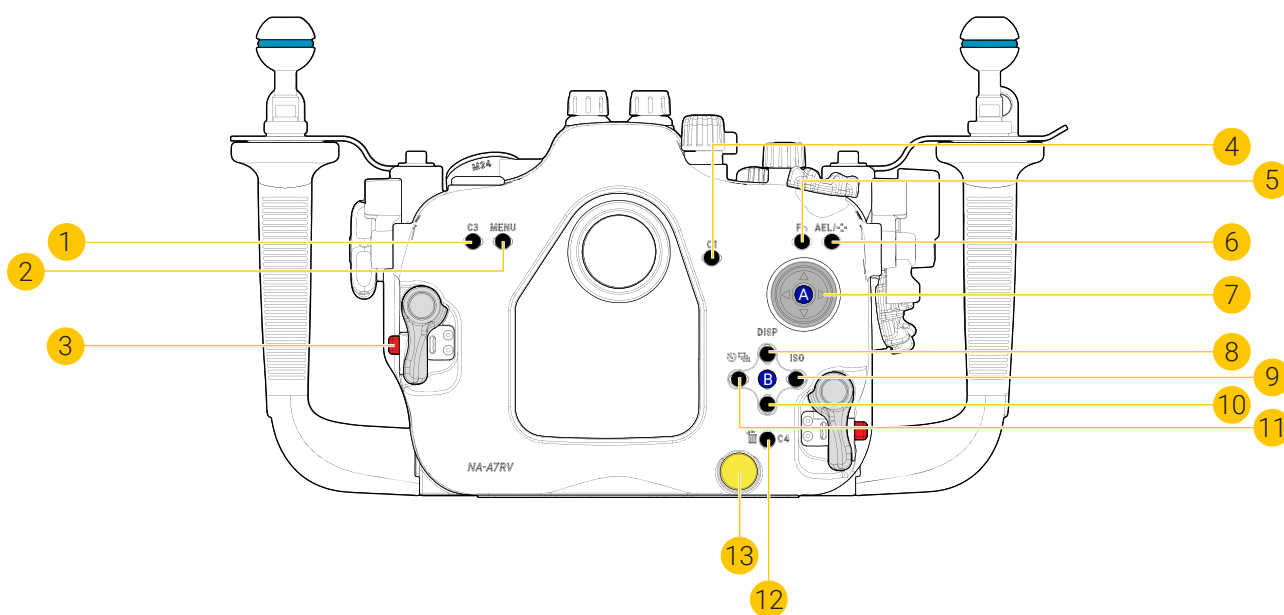


12

This product is not intended for use by children, or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised and/or given instruction by a responsible person concerning use of the product to ensure that they can use it safely.

# PART NAMES AND FUNCTIONS

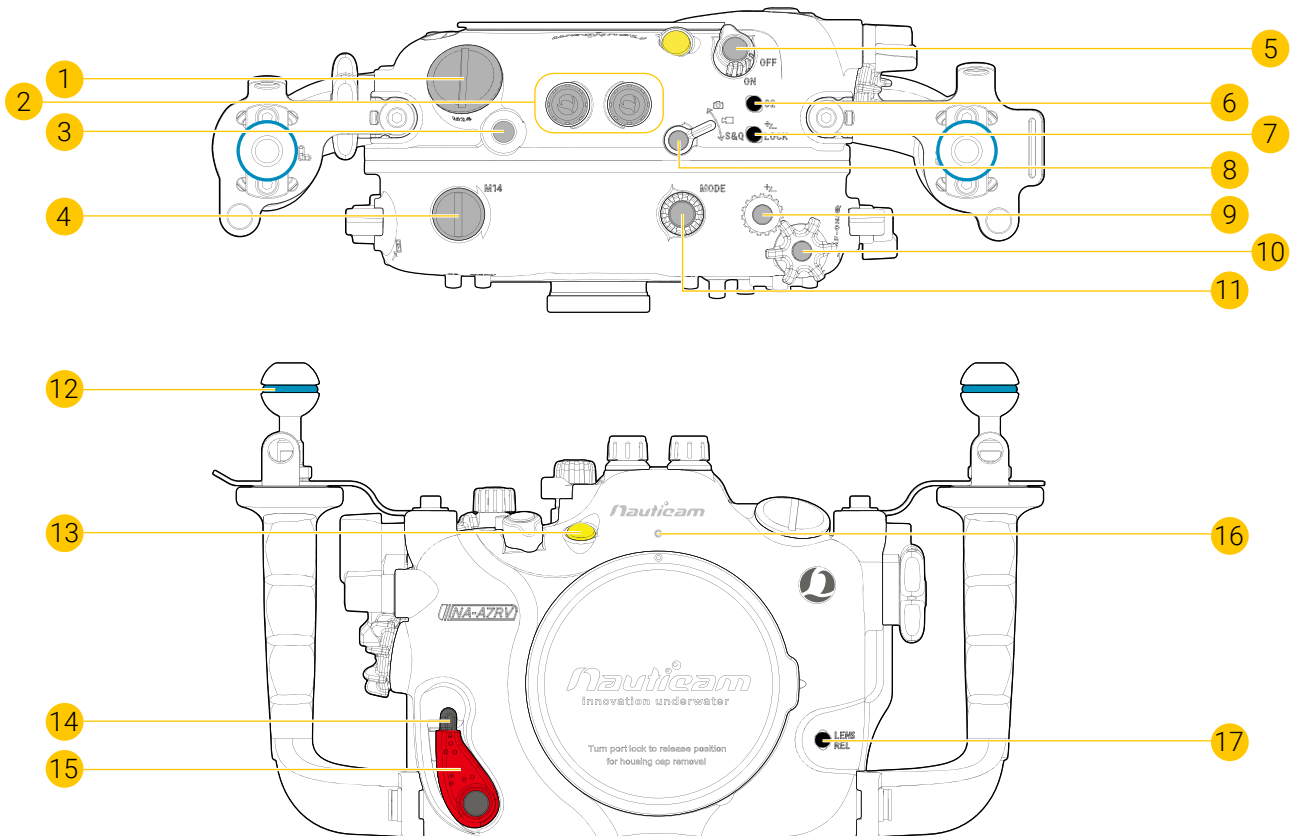
Rear View



- |    |                        |    |                         |
|----|------------------------|----|-------------------------|
| 1  | C3 button              | 2  | Menu button             |
| 3  | Housing unlock button  | 4  | C1 button               |
| 5  | Fn button              | 6  | AEL/Image index button  |
| 7  | Multi selector         | 8  | Display button          |
| 9  | ISO button             | 10 | Control wheel - bottom  |
| 11 | Drive mode button      | 12 | C4/Delete button        |
| 13 | Moisture alarm window  | A  | Multi selector - center |
| B  | Control wheel - center |    |                         |

# PART NAMES AND FUNCTIONS

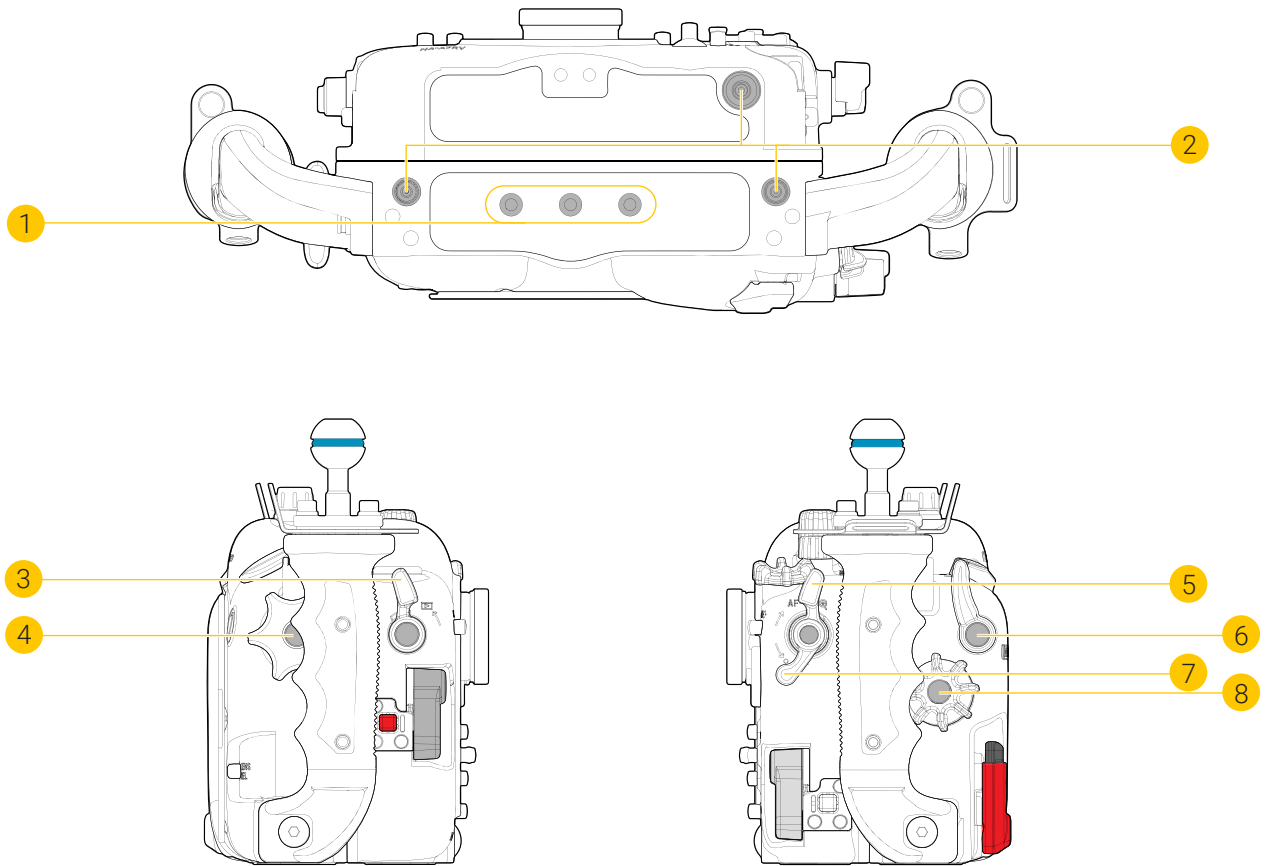
Top + Front Views



- |    |                                     |    |                                |
|----|-------------------------------------|----|--------------------------------|
| 1  | M24 Accessory port                  | 2  | Optical fiber cable connection |
| 3  | M10 Accessory port                  | 4  | M14 Accessory port             |
| 5  | Main switch                         | 6  | C2 button                      |
| 7  | Exposure compensation lock          | 8  | Still/movie/S&Q lever          |
| 9  | Exposure compensation dial          | 10 | Rear dial                      |
| 11 | Mode dial                           | 12 | Accessory mounting ball        |
| 13 | AF illuminator/Visible light sensor | 14 | Port lock safety button        |
| 15 | Port locking lever                  | 16 | Port index mark                |
| 17 | Lens release button                 |    |                                |

# PART NAMES AND FUNCTIONS

Back + Side Views



1 1/4" Threaded tripod holes

3 Playback lever

5 AF-ON/Enlarge lever

7 REC button

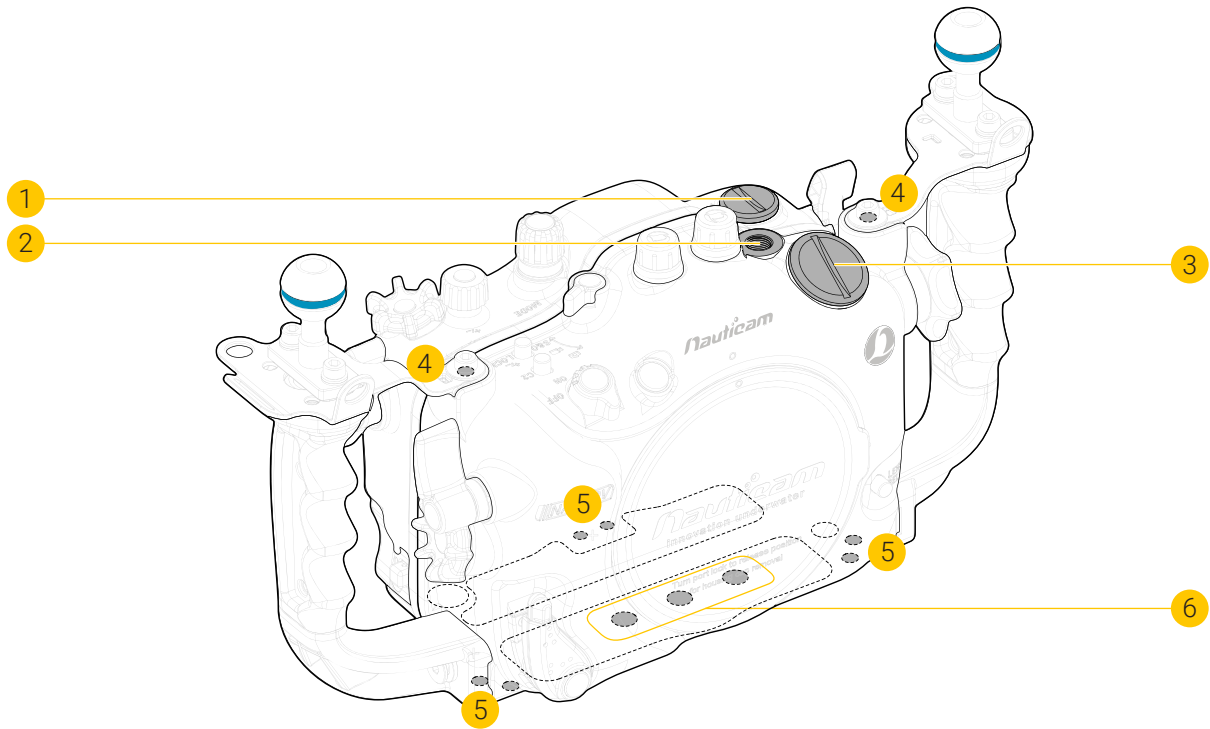
2 Sacrificial zinc anodes

4 Zoom/Focus dial

6 Shutter release lever

8 Front dial

# HOUSING MOUNT



## Housing mount

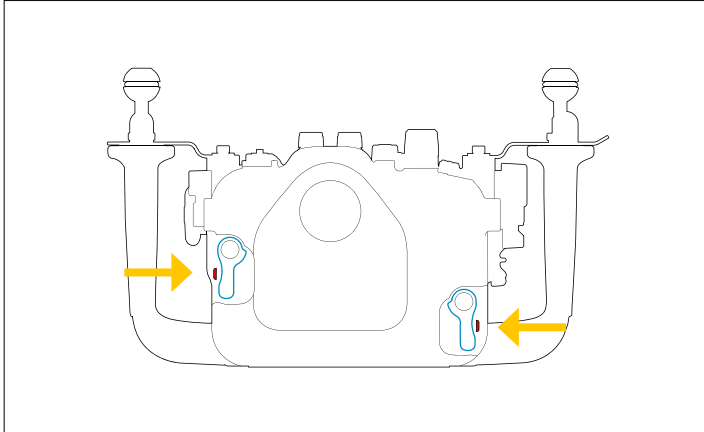
## Compatible accessories

1	M14 Accessory port	25624	M14 Vacuum valve II (pushbutton release)
2	M10 Accessory port	25221	M10 Strobe mounting ball
		25224	M10 Strobe mounting ball with hole
3	M24 Accessory port	25086	M24 Adaptor for HDMI 2.0 cable
		25094	M24A3R140-M28A1R170 HDMI 2.0 cable
4	M5 Accessory ports	25228	M5 Strobe mounting ball
5	M5 Threaded holes	25218	Mounting ball set for tripod legs
6	1/4" -20 mounting threads	17954	Universal tripod plate
		17960	Universal Quadra-Pod Plate for Nauticam Housings

# OPENING THE HOUSING

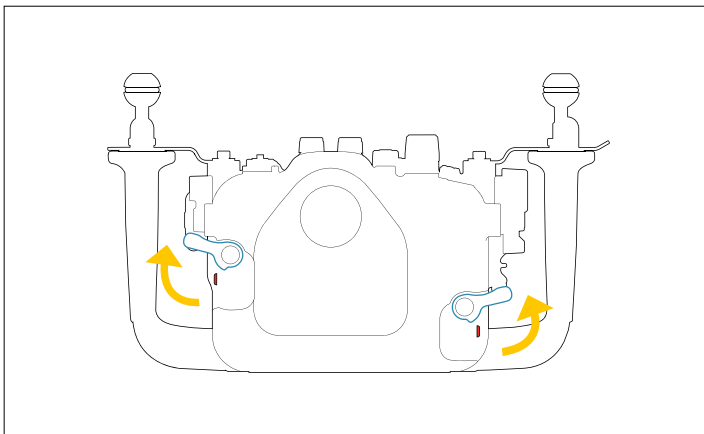
\* drawings as illustrations only

1



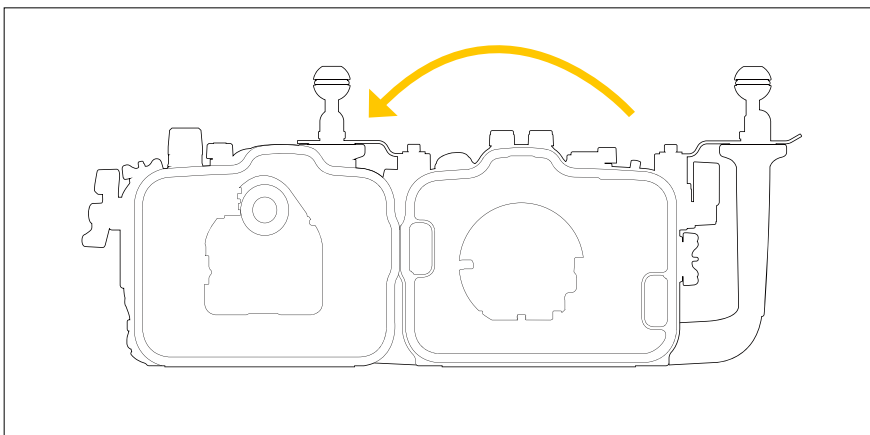
depress housing unlock button

2



turn housing lock outward

3



lift up the back housing

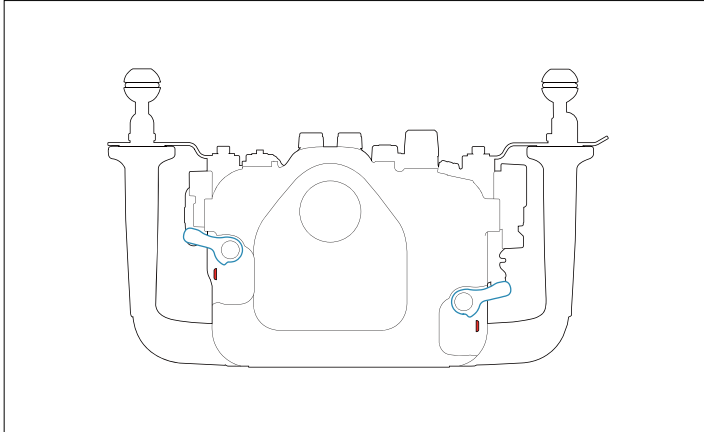


# CLOSING THE HOUSING

\* drawings as illustrations only

Housing Lock - Lock

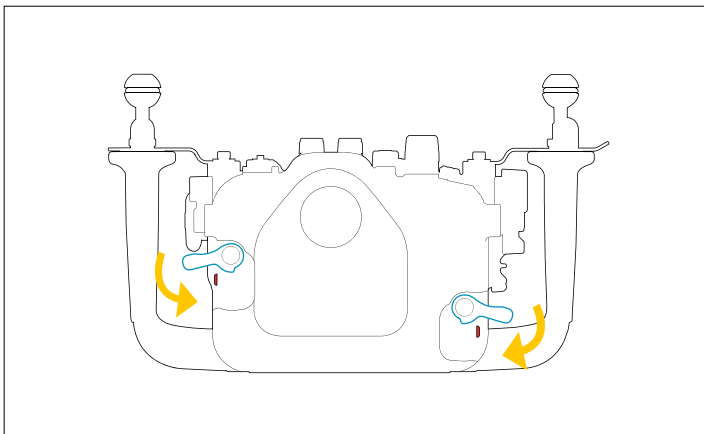
1



before closing the housing, clean and lubricate the main O-ring

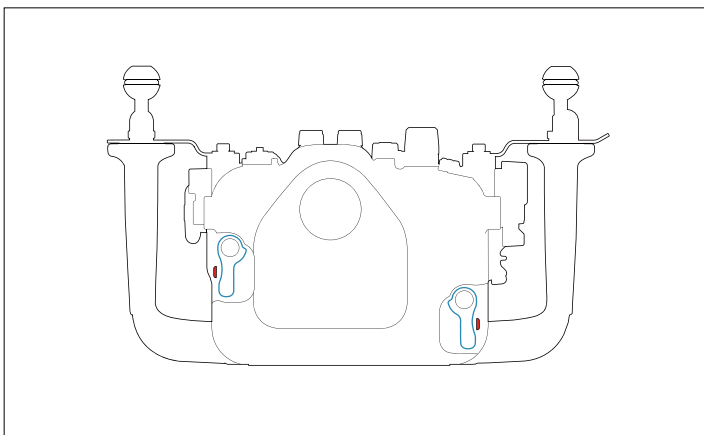
make sure nothing is caught between front and back housing and that they are fully aligned before locking

2



turn housing lock inward until you hear and feel it click into place

3



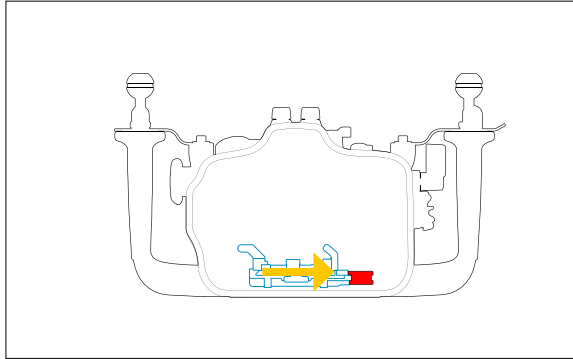
housing locked in place securely

# PREPARATION FOR USE

\* drawings as illustrations only

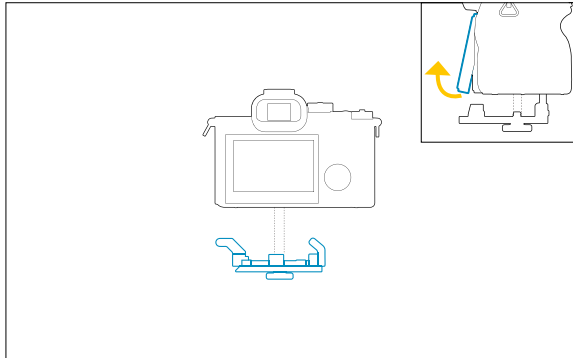
Installing the Camera - housing tray attachment

1



unlock camera tray lever and remove the tray from the housing

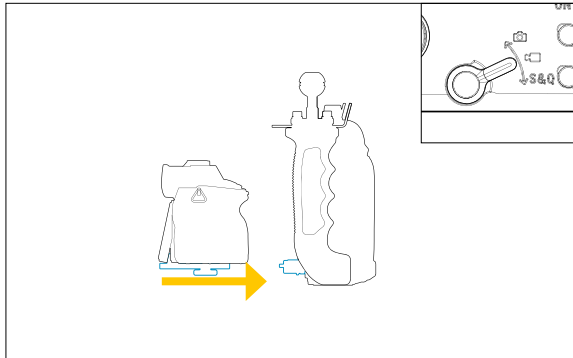
2



attach the camera tray by tightening the tray screw into the tripod socket of the camera

*\* tilt the flip screen as shown before screwing the camera into the camera tray*

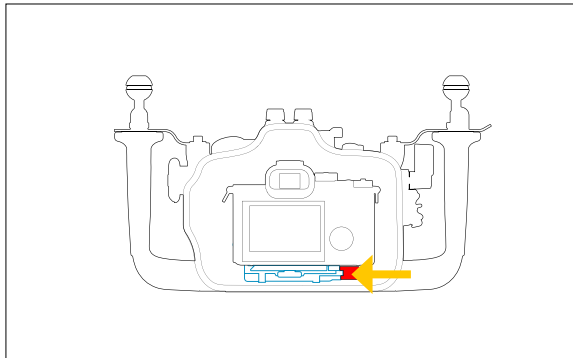
3



*\* pull out the zoom/focus knob if installing the camera with lens and gear attached*  
*\* make sure the still/movie/S&Q lever is aligned with camera control before sliding the camera into the housing*  
*\* please refer to page 11 for port installment*

slide the camera tray back into the housing along the tray rail

4



lock camera tray

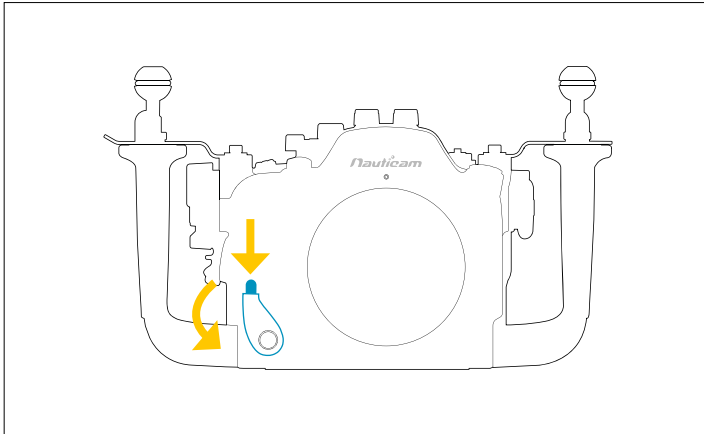
*\* place the zoom/focus knob in place and make sure it is engaged with lens gear*

# PREPARATION FOR USE

\* drawings as illustrations only

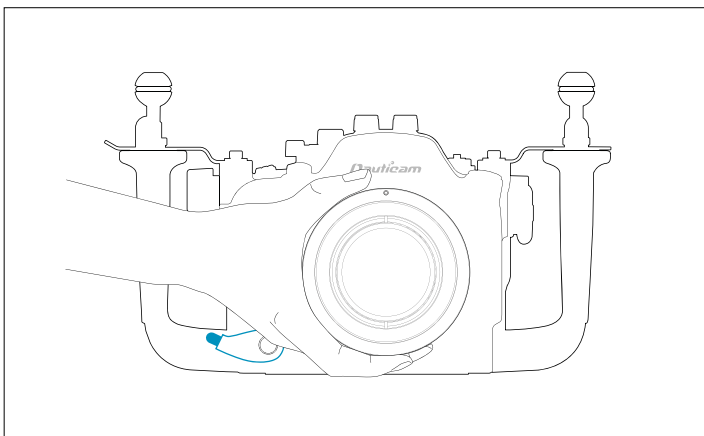
Port Mounting

1



depress safety button and rotate anti-clockwise

2

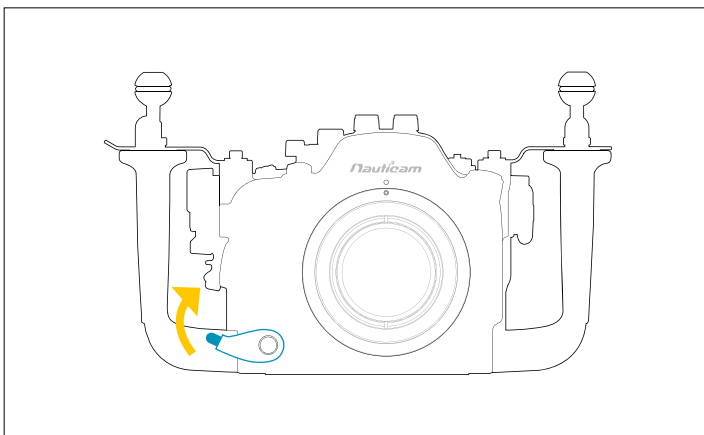


lubricant the port O-ring before mounting

align index mark

push port assembly straight in

3

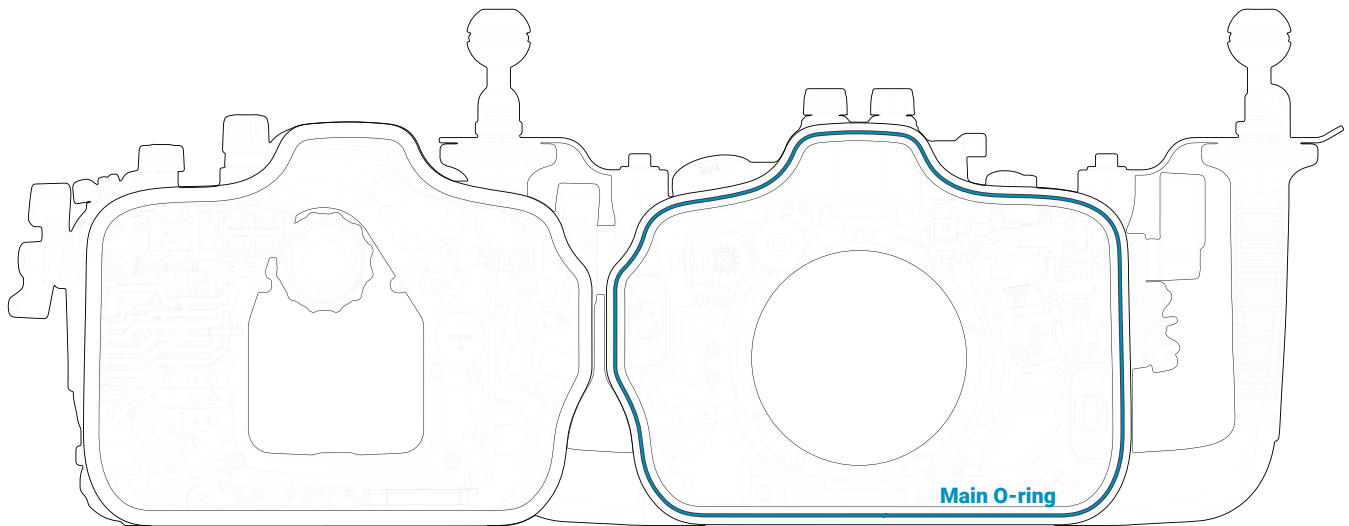


rotate locking lever clockwise to lock

# PREPARATION FOR USE

\* drawings as illustrations only

Coating housing O-ring

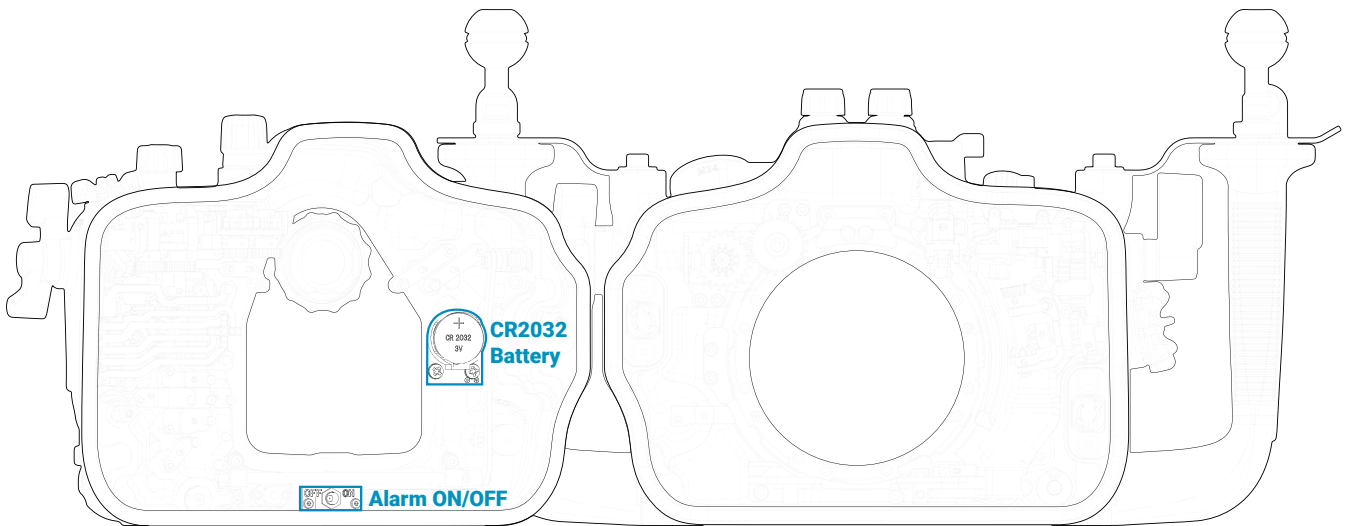


- 1  
remove the main O-ring using an O-ring remover
  
- 2  
clean the O-ring groove with a cloth and ensure that it is free from salt or other foreign materials
  
- 3  
lightly coat it with provided lubricant
  
- 4  
return the main O-ring by slowly pressing from one corner to the whole perimeter

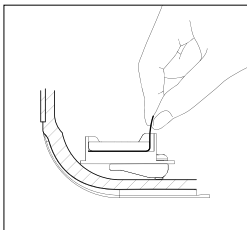
# PREPARATION FOR USE

\* drawings as illustrations only

Setting up moisture alarm

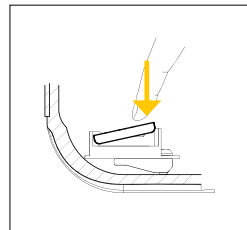


1



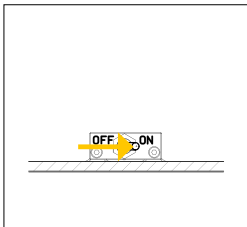
remove battery  
insulation film

2



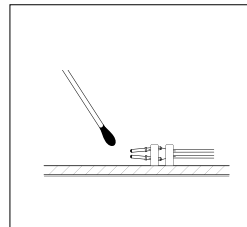
press the battery down until it  
click into place

3



switch on the alarm  
- the moisture alarm  
window will flash in  
**BLUE** when it is working  
correctly

4



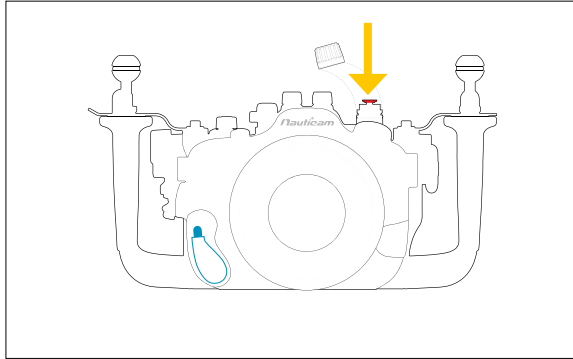
test the alarm  
- connect the wires with a  
dampened cotton bud; the  
alarm will give a repeating  
'beep' and the moisture alarm  
window will flash **RED**

# PREPARATION FOR USE

\* drawings as illustrations only

Changing lens/port without opening the housing

1

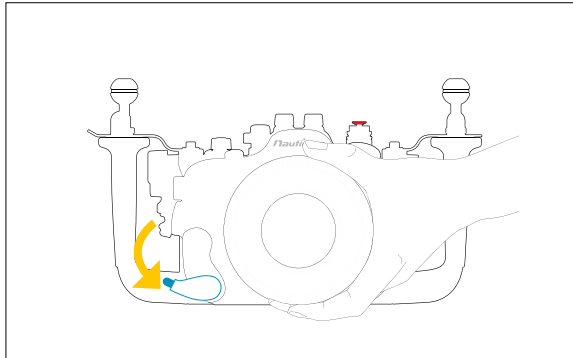


If using with vacuum valve :

remove the cap from the vacuum valve and press the red button to release pressure before unlocking port lock

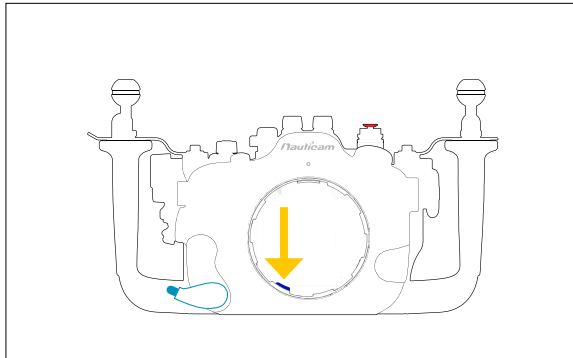
If using without vacuum valve, please follow from step 2

2



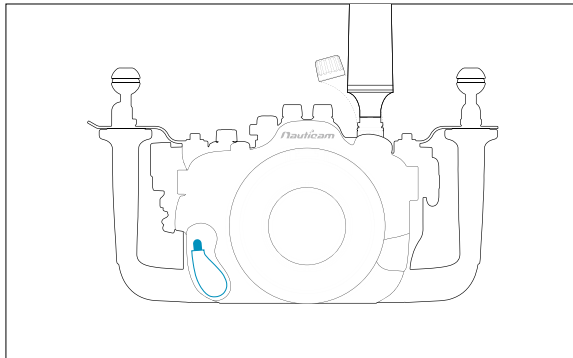
unlock port lock and remove port assembly

3



press the blue button to reset vacuum alarm before replacing port

4



reset vacuum valve system using hand pump then close the cap

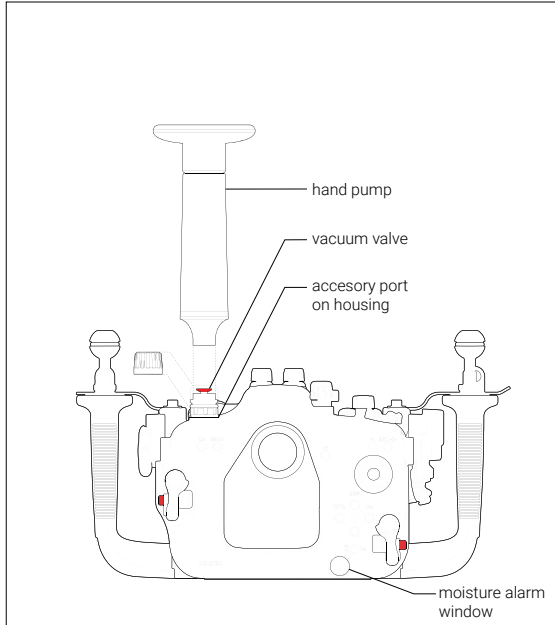
\* please refer to page 15 for complete vacuum system guidance

# OPTIONAL ACCESSORIES

\* drawings as illustrations only

Vacuum valve system

1

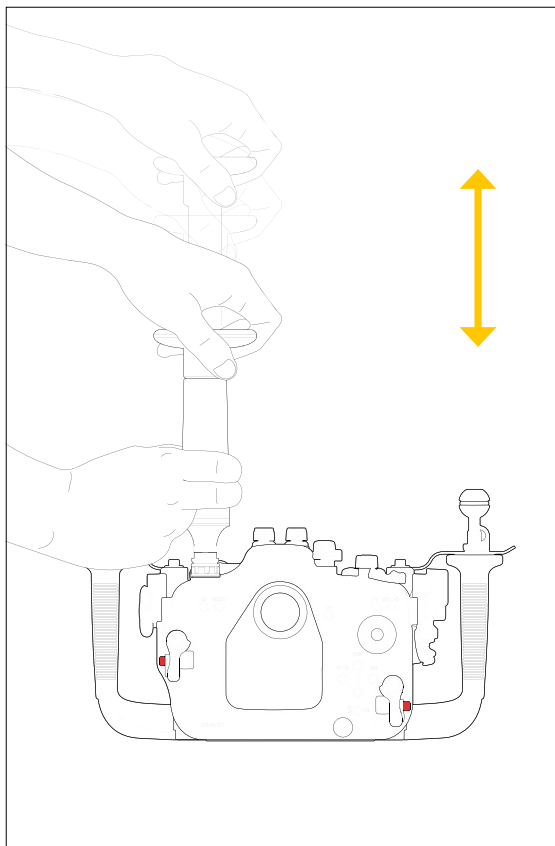


remove the plug of M14 accessory port from the housing

remove the cap from the vacuum valve

slightly lubricate the o-ring and tighten the vacuum valve to the housing with the tool provided

2



connect hand pump to the valve and pump several times until it reaches the target vacuum level

close vacuum valve cap

Moisture alarm window colour indication :

Steady Blue		device is turned on
Flashing Blue		standby mode, ready for pumping
Steady Green		target vacuum level is reached
Flashing Yellow		vacuum level is dropping
Flashing Red		vacuum is totally lost, circuit stalled until device is switched off
Alternating Blue and Red		vacuum is totally lost, circuit stalled until device is switched off
Steady Red		out of battery

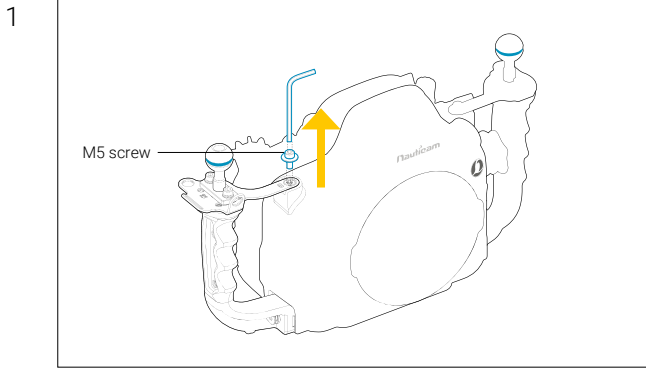
*\* It is recommended to leave the housing for at least 20mins to ensure it is sealed. If the LED light changes from steady green light to rapidly flashing yellow light, that means there is a leakage. Please check every O-ring and then conduct the vacuum test again.*

# OPTIONAL ACCESSORIES

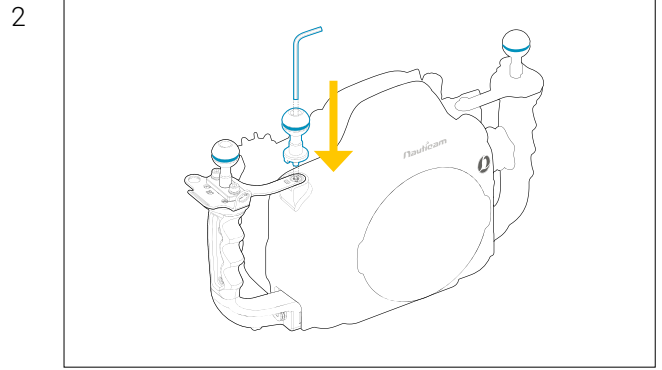
\* drawings as illustrations only

Strobe Mounting Ball

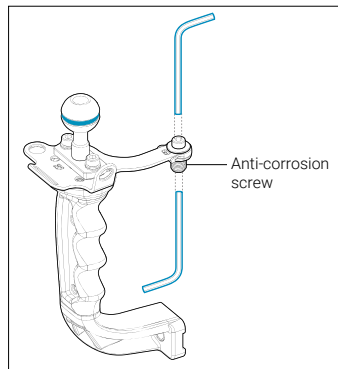
## Installing M5 Strobe Mounting Ball - **RECOMMENDED**



remove M5 screw with the allen key provided in the housing package

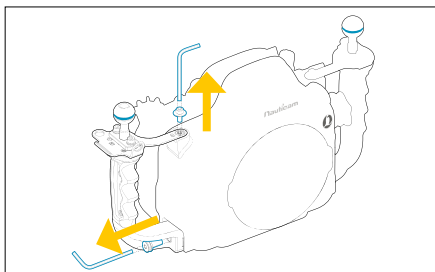


screw #25228 M5 Strobe mounting ball directing onto the M5 thread

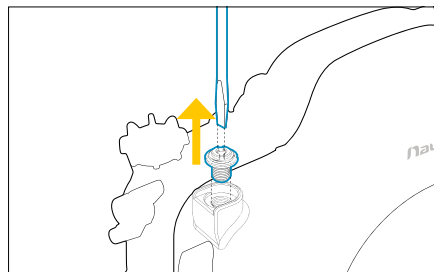


*\* the anti-corrosion screw may also be unscrewed while removing M5 screw, if this is happening, you can separate the parts as shown in the diagram on the left*

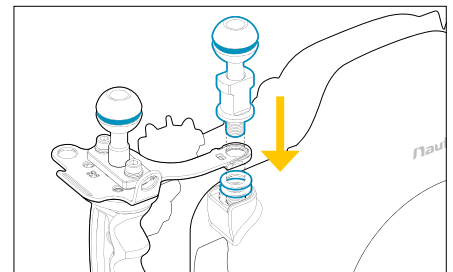
## Installing M10 Strobe Mounting Ball - Optional



remove M5 screw and housing handle screw on the side



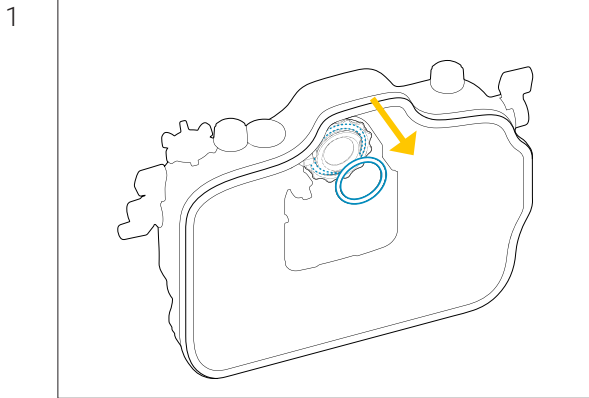
take out the handle and remove the anti-corrosion screw



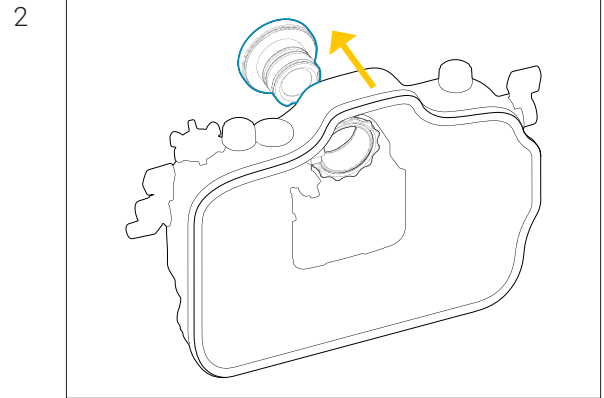
screw the M10 Strobe mounting ball onto the housing as shown



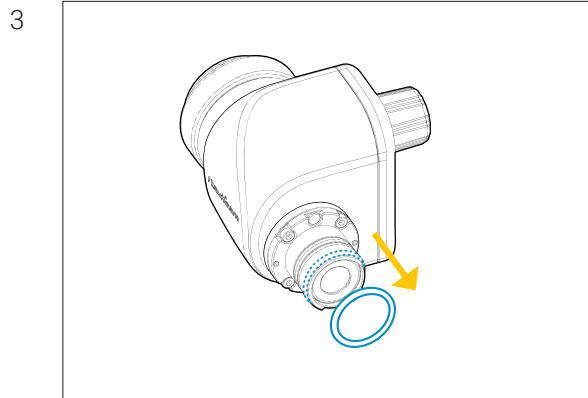
# OPTIONAL ACCESSORIES



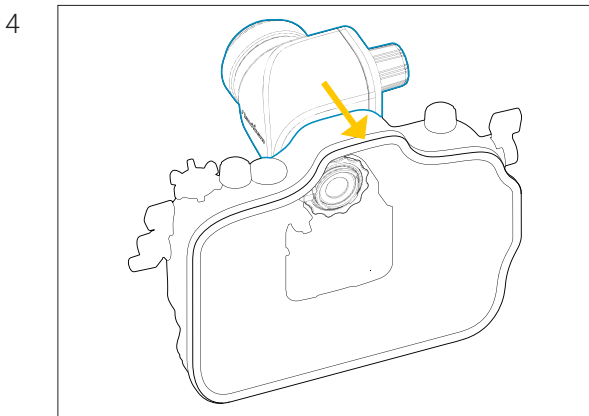
firstly remove the pre-installed 0.66x viewfinder from the housing by removing the retainer o-ring inside rear housing



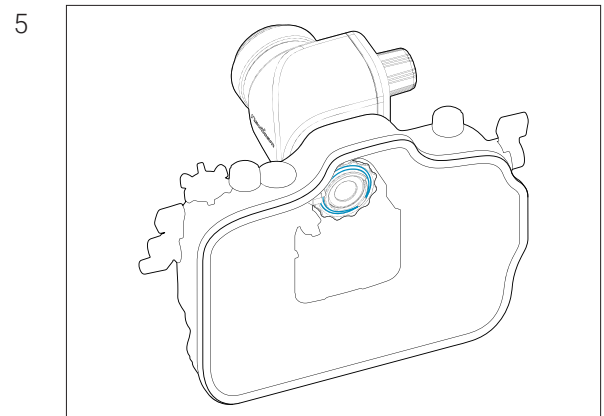
gently push the 0.66x viewfinder from the inside of the housing



remove the retainer o-ring from the viewfinder



align the viewfinder alignment pins with the LCD display window and push the viewfinder into the housing until it cannot go in any further



lightly lubricate the retainer o-ring and place it back from inside the housing

## CARE/STORAGE

1

Soak the housing system in fresh water after salt water usage

2

Operate all controls and buttons at least 3 times while immersed in fresh water

3

We recommend cleaning and inspecting the main O-ring each time after diving for any damage and every time the housing is opened.

4

Protect the housing with robust and shock-proof travel case during transportation. Do not travel with camera inside housing.

5

We recommend to ship the housing to our service centers for a complete overhaul after 500 dives/every 3 years.

# WARRANTY

All NAUTICAM Housing Products and Viewfinders are warranted against any material and manufacturing defects for two years from the date of purchase for consumer use. NAUTICAM Optical Accessories are warranted against material and manufacturing defects for a period of one year, and HDMI cables carry a year warranty.

This warranty only applies to products purchased from authorized NAUTICAM dealers and does not extend beyond the original retail purchaser.

To return your product for service, please contact your regional authorized service center(s). Please note that this warranty only applies when the product is purchased in the territory where the service center is located.

NAUTICAM accepts no liability for any damage to and defects in the housing caused by improper use and/or poor maintenance; it is the responsibility of the owner to carefully follow the instructions in our manuals.

NAUTICAM does not hold responsibility for damage, of any nature, to any equipment used with and/or placed within our products.

NAUTICAM accepts no liability for any loss of captured images or the inability to capture images even if it is due to the malfunctioning of our products.

Unauthorized modifications and/or repairs of our products will automatically invalidate the warranty.

# SPECIFICATIONS

## Construction

Housing body	Hard Anodized Aluminium Alloy
Display window	Abrasion Resistant Polycarbonate

## Dimensions

Width	340 mm
Height	170 mm
Depth	127 mm

## Weight

In air	2.70 kg
Buoyancy in water	negative 0.30 kg (w/ camera & battery)

## Depth

Rating	100 m
--------	-------

## Port specifications

Port mount	N 100 Port System for Sony E-Mount Camera System
Port accessories	1 x M24, 1 x M14, 1 x M10

## Buoyancy options

72216 Ø70x200mm Carbon Fibre Aluminium Float Arm (Buoyancy 370g)
72217 Ø70x250mm Carbon Fibre Aluminium Float Arm (Buoyancy 520g)
72218 Ø70x300mm Carbon Fibre Aluminium Float Arm (Buoyancy 670g)
72219 Ø90x170mm Carbon Fibre Aluminium Float Arm (Buoyancy 450g)
72220 Ø90x220mm Carbon Fibre Aluminium Float Arm (Buoyancy 720g)
72233 Single Bayonet Holder II for Ø70 Float Arm
72234 Double Bayonet Holder II for Ø70 Float Arm
83252 Single Bayonet Holder for Arms
83253 Double Bayonet Holder for Arms
83254 Bayonet Lens Holder for Inon Float Arms
87516 EMWL Bayonet Holder for Ø70 Float Arm
87517 EMWL Bayonet Holder for Ø90 Float Arm

## Optional accessories

32211 Nauticam Full Frame Straight Viewfinder 32°/ 1:1
32212 Nauticam Full Frame Straight Viewfinder 40°/ 0.8:1(recommended)
32213 Nauticam Full Frame Angle Viewfinder 32°/ 1:1
32214 Nauticam Full Frame Angle Viewfinder 40°/ 0.8:1(recommended)
32201 Nauticam 180° straight viewfinder
32203 Nauticam 45° viewfinder
25624 M14 Vacuum Valve II (Pushbutton Release)
28130 Hand Strap for 28113 (For NA-1DXII/D500/D5/80D/A9)
37202 Nikonos adaptor for NA-A7II/A9/A7RIII/A7RIV/a2020/A7V
25626 M14 Offset Connector with Vacuum Valve II (Pushbutton Release)
17433UK Conversion kit for NA-A7RV to use with A7IV camera
25221 M10 strobe mounting ball for housing
25224 M10 strobe mounting ball for housing (with hole for using with lanyard)
25218 Mounting Ball Set for Tripod (for NA-A7RIII/BMPCC/XT3/RIV/Z50/R7/ A7V)
17960 Universal Quadra-Pod Plate for Nauticam Housings

## HDMI CONNECTION & MONITOR OPTIONS

### HDMI connectivity required accessories ( 2.0 )

25086 M24 adaptor for HDMI 2.0 cable
25094 M24A3R140-M28A1R170 HDMI 2.0 cable

### Monitor options ( 2.0 )

17922 Nauticam Atomos Ninja V Housing for Atomos Ninja V 5"
17922S Nauticam Atomos Ninja V-S Housing for Atomos Ninja V 5" with Atomos AtomX SDI Module

### HDMI connectivity required accessories ( 1.4 )

25033 Standard HDMI Bulkhead with M16 Thread
25081 M24-M16 Step Down Adaptor
25095 HDMI (D-A) 1.4 Cable in 170mm Length
<i>* 25033 &amp; 25036 is included in monitor housing packaging</i>

### Monitor options ( 1.4 )

17923 NA-Shinobi-H Housing for Atomos Shinobi 5.2" 4K HDMI Monitor
17925 NA-503-H Housing for SmallHD 503 UltraBright On-Camera Monitor

## WET LENS COMPATIBILITY

*\*please refer to Nauticam port charts for more setup information.*

Macro	81201 Super Macro Convertor 1 (2.3x Magnification)
	81202 Super Macro Convertor 2 (4x Magnification)
Macro to Wideangle	86201 Macro to Wideangle Lens 1 (MWL-1) 150 deg. FOV with full frame 60mm macro lens
	87303 EMWL Set #3 (incl. focusing unit #3, 150mm relay lens and 3 objective lenses)
	87203 EMWL Focusing Unit #3 (For Sony FF 90mm)
	87211 EMWL 150mm Relay Lens
	87221 EMWL 60° Objective Lens
	87222 EMWL 100° Objective Lens
	87223 EMWL 130° Objective Lens
Wideangle	87226 EMWL 160° Objective Lens
	83202 Wet Wide Lens 1B (WWL-1B) 130 deg. FOV with compatible 28mm lenses (incl. float collar)
	83203 Wet Wide Lens Compact (WWL-C) 130 Deg. FOV with Compatible 24mm Lenses (incl. float collar)
	85201 0.36x Wide Angle Conversion Port with Aluminium Float Collar (incl. N120 to N100 port adaptor)
	85203 N100 0.36x Wide Angle Conversion Port with Aluminium Float Collar (incl. N100 Extension ring 35).
	85204 0.57x Wide Angle Conversion Port - 2 (WACP-2) 140 Deg. FOV with Compatible 14mm Lenses (incl. float collar)
	85205 N100 0.36x Wide Angle Conversion Port Compact (WACP-C)

### Optional wet lens accessories

25101 M67 flip diopter holder for M67 macro ports
25108 M67 Double Flip Holder for M67 Macro Ports
83250 M67 to Bayonet Converter II
83251 M77 to Bayonet Converter II
83214 Bayonet Mount Adaptor for SMC/CMC
86221 M67 Flip holder for MWL-1
86222 Double Flip Holder for MWL-1
87501 Flip Holder for EMWL
87512 Shade for 130° Objective Lens
87513 Shade for 100° Objective Lens
87519 Shade for 160° Objective Lens
87516 EMWL Bayonet Holder for Ø70 Float Arm
87517 EMWL Bayonet Holder for Ø90 Float Arm
87518 Strobe Mounting Brackets for EMWL Relay Lens

## FLASH TRIGGERING

### Manual Flash Trigger

26302 Mini Flash Trigger for Sony
26216 Universal Optical Fiber Cable

### Electronic Strobe Connection

25056 M14 Nikonos 5-pin Bulkhead
<i>* please note that when using this with vacuum valve will require #25026 M14 Offset Connector with Vacuum Valve II</i>

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