

## User Manual Housing FF- MIL

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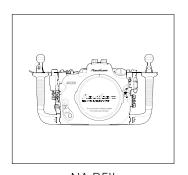
## **INTRODUCTION**

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.

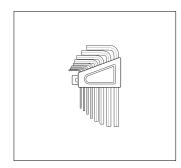


NA-R5II

(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

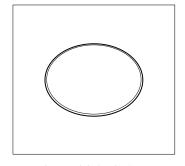


Lubricant



Panasonic CR2032 Battery

(pre-installed for Moisture Alarm)



Spare Main O-ring #90121

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



O-ring Remover

## **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.

3

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

5

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

7

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

9

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

11

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

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.

4

Use only Nauticam lubricant on silicone rubber O-ring.

6

Discontinue use immediately when there is a sign of leakage.

8

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

10

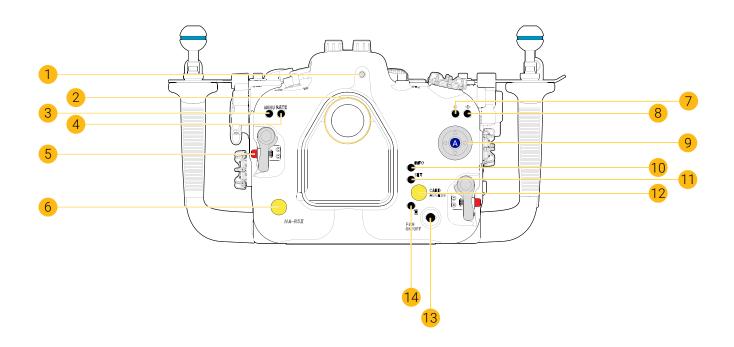
Do not open the housing in wet or sandy environment. Protect the housing from moisture and debris in order to prevent malfunction or leakage.

**1**2

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

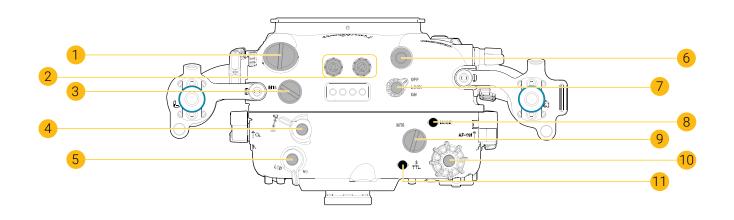


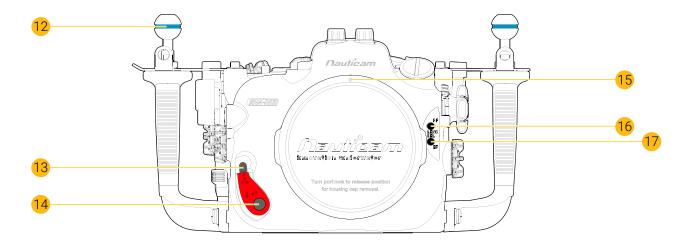
- 1 TTL Indicator window
- 3 Menu button
- 5 Housing unlock button
- 7 AE lock button
- 9 Multi selector
- 11 Set button
- 13 Fan ON/OFF button
- A Menu/Set button

- 2 Viewfinder
- 4 Rating/Voice memo button
- 6 Moisture alarm window
- 8 AF point selection button
- 10 Info button
- 12 Access lamp
- 14 Delete button

# **PART NAMES AND FUNCTIONS**

Top + Front Views



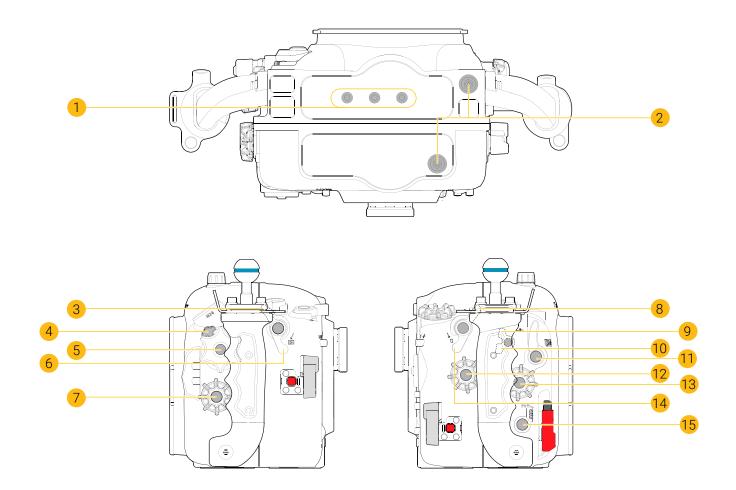


- 1 M24 Accessory port
- 3 M16 Accessory port
- 5 LCD/Viewfinder lever
- 7 Main switch
- 9 M16 Accessory port
- 11 TTL flash on/off
- 13 Port lock safety button
- 15 Port index mark
- 17 EF mount lens release button

- 2 Optical fiber cable connection
- 4 Still photo / movie recording switch
- 6 M10 Accessory port
- 8 Mode dial
- 10 Quick control dial 2
- 12 Accessory mounting ball
- 14 Port locking lever
- 16 RF mount lens release button

# **PART NAMES AND FUNCTIONS**

Back + Side Views

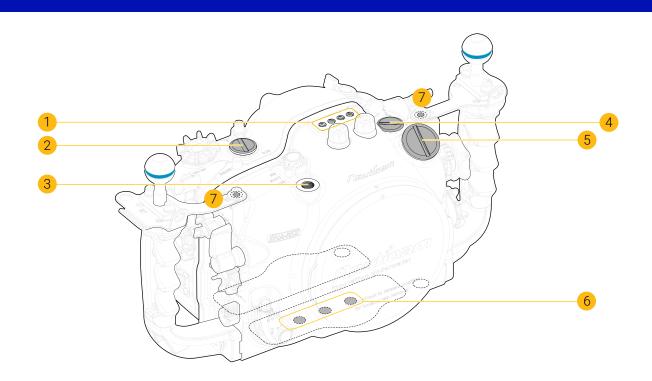


- 1/4" Threaded tripod holes
- 3 Playback lever
- 5 Zoom/Focus knob
- 7 Control ring mount adaptor Fn
- 9 M-Fn lever
- 11 Shutter release lever
- 13 Main dial
- 15 Preview lever

- 2 Sacrificial zinc anodes
- 4 Zoom/Focus knob release
- 6 Display lever
- 8 AF-ON lever
- 10 REC lever
- 12 Quick control dial 1
- 14 Quick control lever

# **HOUSING MOUNT**

**Housing mount** 



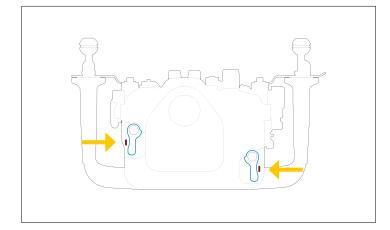
**Compatible accessories** 

1	1/4" -20 mounting threads	17959	Housing Mounting ball with 1/4" screws
2	M16 Accessory port	25625	M16 Vacuum Valve II (Optional)
3	M10 Accessory port	25221 25224	M10 Strobe mounting ball M10 Strobe mounting ball with hole
4	M16 Accessory port	25017 25020	M14 6 pin bulkhead for Canon system (incl.M16-M14 adaptor) Canon hotshoe plug to a M14 Nikonos bulkhead (incl.M16-M14 adaptor)  Electrical Triggering
5	M24 Accessory port	25086 25099 25033 26326 25100 * HDMI1.	M24 adaptor for HDMI 2.0 cable  HDMI 2.0 cable  Standard HDMI bulkhead with M16 thread  M24-M16 Adaptor for use with 26325  HDMI (D-A) 1.4 Cable in 200mm length  4 cable can be installed using M24 or M16 accessory port
6	1/4" -20 mounting threads	17954 17960	Universal tripod plate Universal quadra-pod plate
7	M5 Threaded holes	25228	M5 Strobe mounting ball

# **OPENING THE HOUSING**

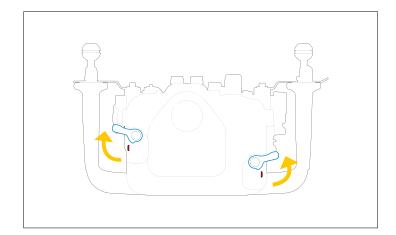
\* drawings as illustrations only

1



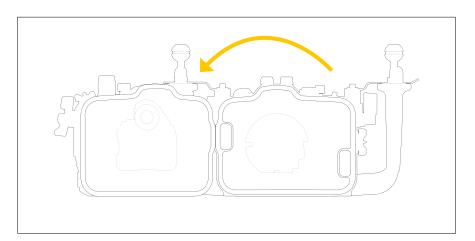
depress housing unlock button

2



turn housing lock outward

3

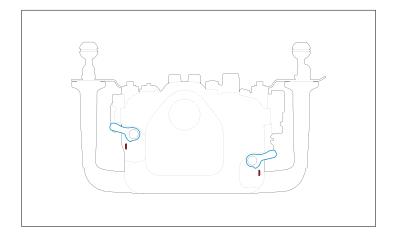


lift up the back housing

# **CLOSING THE HOUSING**

\* drawings as illustrations only

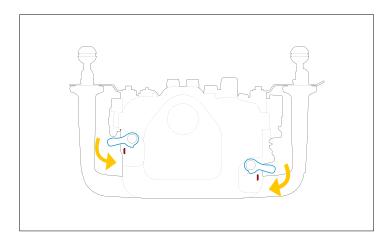
1



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

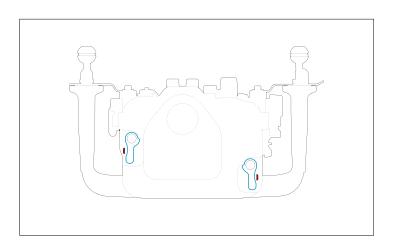
make sure nothing is caught between front and back housing and that they are fully aligned before locking

2



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

3

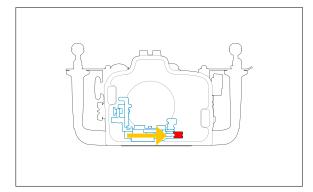


housing locked in place securely

\* drawings as illustrations only

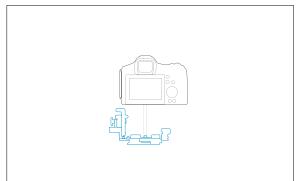
Installing the Camera - housing tray attachment

1



unlock camera tray lever and remove the tray from the housing

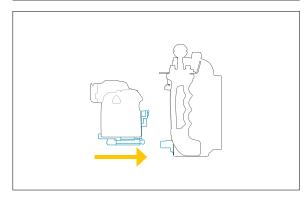
2



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

place the actuator on the camera tray in place and make sure it is engaged with the camera

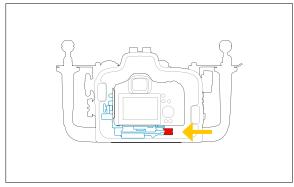
3



- \* pull out the zoom/focus knob if installing the camera with lens and gear attached
- \* please refer to page 11 for lens installment before sliding in the camera

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

4



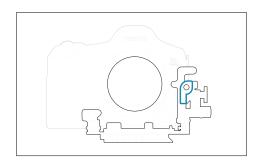
lock camera tray

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

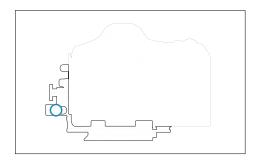
\* drawings as illustrations only

Installing the Camera - RF mount/ EF mount lens installment

## RF mount lens



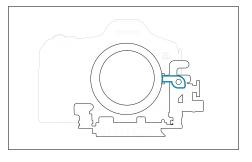
make sure the small lever is in vertical position before RF mount lens installment



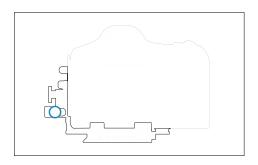
make sure the small gear engagement knob on housing tray is on the left

## EF mount lens

(w/ mount adaptor EF-R)



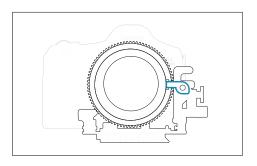
make sure the small lever is in horizontal position before EF mount lens installment



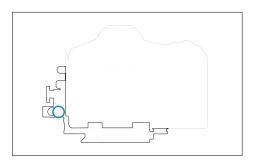
make sure the small gear engagement knob on housing tray is on the left

## EF mount lens

(w/ control ring mount adaptor EF-R) \* 19561 gear is required for this setup



make sure the small lever is in horizontal position before EF mount lens installment



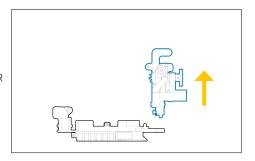
make sure the small gear engagement knob on housing tray is on the right

\* drawings as illustrations only

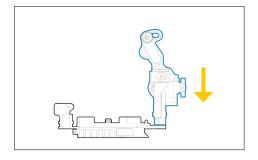
Installing the Camera - RF mount/ EF mount lens installment

## EF mount lens

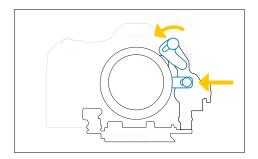
with Canon Drop-in filter mount adpator EF-EOS R with variable ND filters



remove the original control kit from the camera tray



replace it with 26320 control kit for Canon drop-in filter mount adaptor

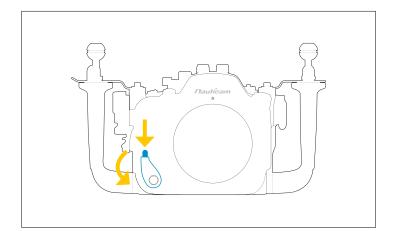


rotate the small lever and push the small gear engagement knob to the left to make sure the control kit is engaged with the adaptor for full function

\* drawings as illustrations only

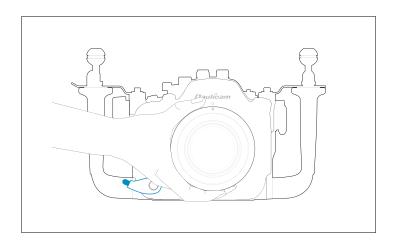
Port Mounting

1



depress safety button and rotate anti-clockwise

2

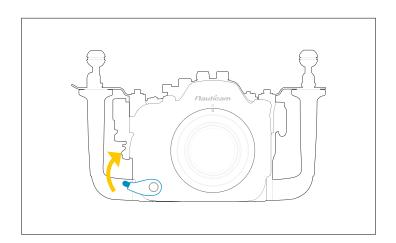


lubricant the port O-ring before mounting

align index mark

push port assembly straight in

3



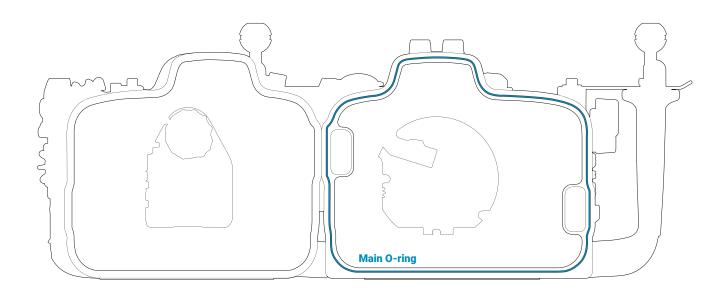
rotate locking lever clockwise to lock



⚠ Do not operate the red lever with force, make sure the port is aligned correctly and pushed in fully and securely

\* drawings as illustrations only

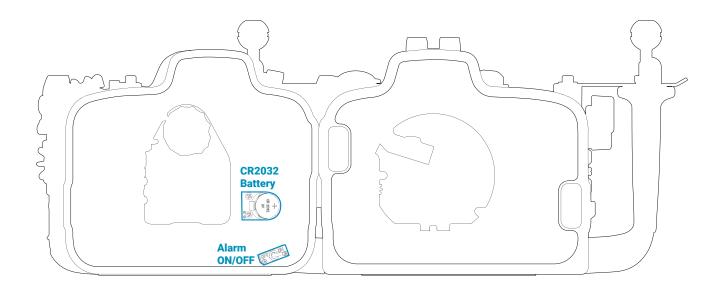
Coating housing O-ring



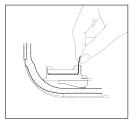
- 1 remove the main O-ring using an O-ring remover
- 2 clean the O-ring groove with a cloth and ensure that it is free from salt or other foreign materials
- 3 lightly coat it with provided lubricant
- 4 return the main O-ring by slowly pressing from one corner to the whole perimeter

\* drawings as illustrations only

Setting up moisture alarm



1



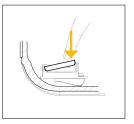
remove battery insulation film

3



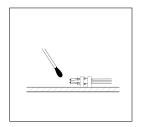
switch on the alarm
- the moisture alarm
window will flash in
BLUE when it is working
correctly

2



press the battery down until it click into place

4



test the alarm

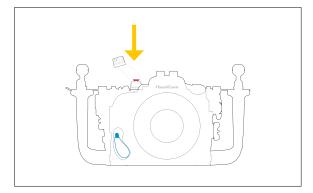
- connect the wires with a dampened cotton bud; the alarm will give a repeating 'beep' and the mositure alarm window will flash RED

<sup>\*</sup> please contact our authorized service centers if testing fails
\*please refer to page 17 for complete vacuum system guidance

\* drawings as illustrations only

Changing lens/port without opening the housing

1

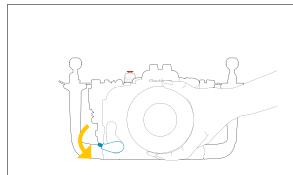


If using with vacuum valve:

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

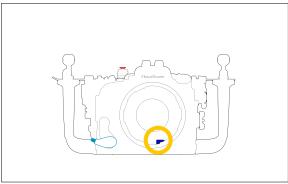
If using without vacuum valve, please follow from step 2

2



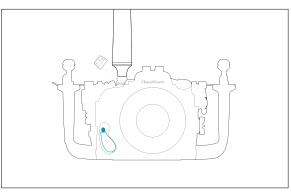
unlock port lock and remove port assembly

3



press the blue button to reset vacuum alarm before replacing port

4



replace port assembly then lock port lock

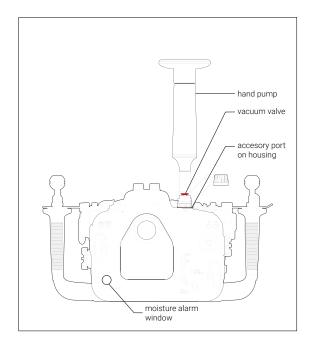
reset vacuum valve system using hand pump and close the cap after

<sup>\*</sup> please refer to page 17 on complete vacuum system guidance

\* drawings as illustrations only

Vacuum valve system

1



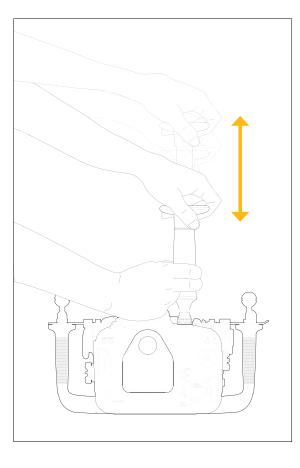
remove the plug of M16 accessory port from the housing

remove the cap from the vacuum valve

slightly lubricate the o-ring and make sure the o-ring is in place

then 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 pumpng
Steady Green	target vacuum level is reached
Flashing Yellow -	vacuum level is dropping
Flashing Red -	vacuum is totally lost, circuit stalled untill device is switched off
Alternating Blue and Red	vacuum is totally lost, circuit stalled untill device is switched off
Steady Red	out of battery

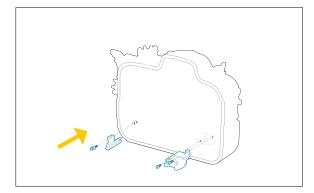
\* It is recommended to leave the housing for at least 20mins to ensure it is sealed. If the LED light changes from steady green light to rapidly flashing yellow light, that means there is a leakage. Please check every 0-ring and then conduct the vacuum test again.

<sup>\*</sup> please contact our authorized service centers if testing fails

\* drawings as illustrations only

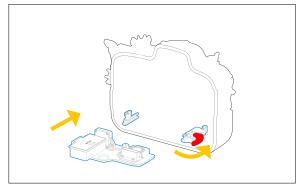
Installing cooling fan set

1



install the cooling fan railing assembly onto the housing as shown

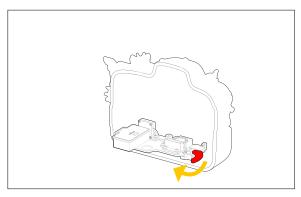
2



unlock the locking lever

then slide the cooling fan system into the tray rail

3

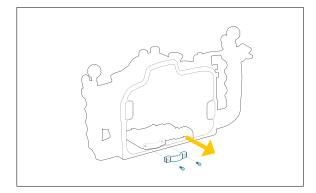


lock the cooling fan assembly

\* drawings as illustrations only

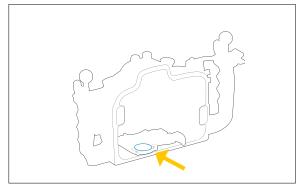
Installing Apple AirTag

1



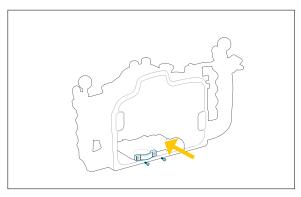
remove the two screws and take out the Airtag holder cover

2



place the AirTag into the holder

3

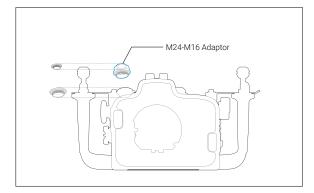


close the holder cover

\* drawings as illustrations only

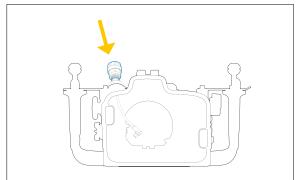
Installing Surface USB-PD Power Bank

1



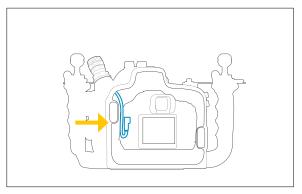
unscrew the M24 accessory port cap from the camera housing and screw the M24-M16 adaptor into the housing port

2



plug the USB-C Bulkhead into the accessory port, gently push the connection head into the accessory port until it cannot go further then tighten it by turning the locking nut

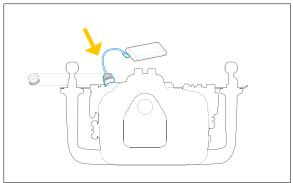
3



plug the cable into the USB Type-C jack on the camera with camera tray attached before sliding into the camera housing

slide the camera tray into the housing along the tray rail then lock camera tray

4



close the housing gently

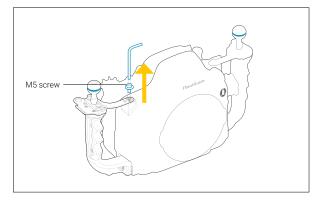
plug the power bank with USB Type-C connector into the USB-C bulkhead

\* drawings as illustrations only

Strobe Mounting Ball

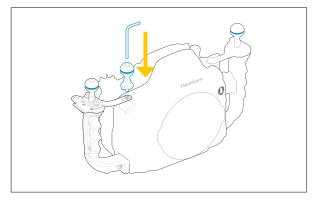
## Installing M5 Strobe Mounting Ball - RECOMMENDED

1

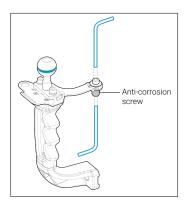


remove M5 screw with the allen key provided in the housing package

2

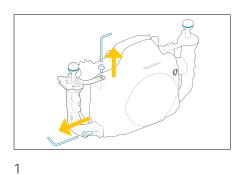


screw #25228 M5 Strobe mounting ball directing onto the M5 thread

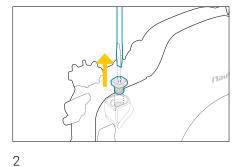


\* the anti-corrosion screw may also be unscrewed while removing M5 screw, if this is happening, you can seperate the parts as shown in the diagram on the left

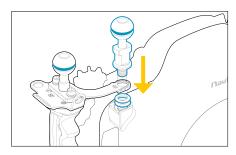
## Installing M10 Strobe Mounting Ball - Optional



remove M5 screw and housing handle screw on the side



take out the handle and remove the anti-corrosion screw

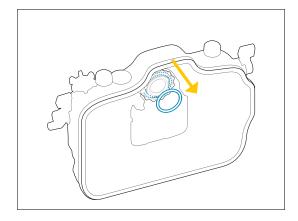


replace the handle and screw the M10 strobe mounting ball onto the housing as shown

3

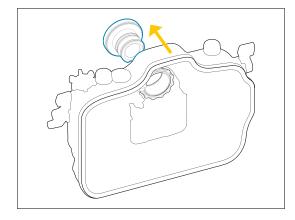
Installing Viewfinder

1



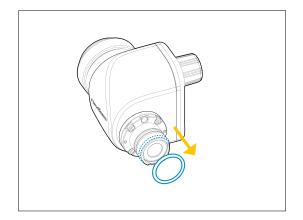
firstly remove the pre-installed 0.66x viewfinder from the housing by removing the retainer o-ring inside rear housing

2



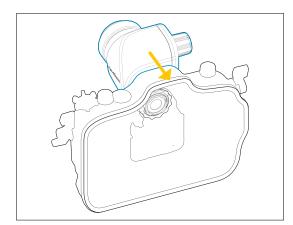
gently push the 0.66x viewfinder from the inside of the housing  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ 

3



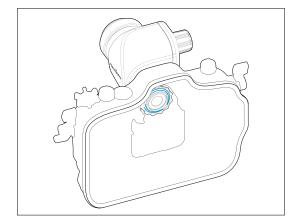
remove the retainer o-ring from the viewfinder

4



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

5



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

3

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

5

We recommand to ship the housing to our servic centers for a complete overhual after 500 dives/every 3 years.

2

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

4

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

## 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	357 mm	
Height	200 mm	
Depth	167 mm	

### Weight

In air	3.64kg
Buoyancy in water	0.1kg (incl. camera and battery)

## Depth

Rating	100 m	

## **Port Specifications**

Port mount	N 120 Port System for Canon RF-mount Camera	
Port accessories	1 x M24, 2 x M16	

## **Surface USB-PD Power bank**

26325 USB-C Bulkhead with USB-C Connector
26326 M24-M16 Adaptor

### Lanyard

25413 27cm Lanyard with 2 Snap Hooks

### Viewfinder

32212 Nauticam Full Frame Straight Viewfinder 40°/ 0.8:1
32214 Nauticam Full Frame Angle Viewinder 40°/ 0.8:1
87213 Reverse Angled Viewfinder for EMWL 40°/ 0.8:1
87214 Reverse Straight Viewfinder for EMWL 40°/ 0.8:1

### **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)
72221 Ø50x200mm Carbon Fibre Aluminium Float Arm (Buoyancy 160g)
72222 Ø50x250mm Carbon Fibre Aluminium Float Arm (Buoyancy 240g)
72223 Ø50x300mm Carbon Fibre Aluminium Float Arm (Buoyancy 320g)
72233 Single Bayonet Holder II for Ø70 Float Arm
72234 Double Bayonet Holder II for Ø70 Float Arm
72243 Single Bayonet Holder II for Ø90 Float Arm
72244 Double Bayonet Holder II for Ø90 Float Arm
83252 Bayonet Holder for Arms
83253 Double Bayonet Holder for Armsrm
83254 Bayonet Lens Holder for Inon Float Arms
87516 EMWL Bayonet Holder for Ø70 Float Arm
87517 EMWL Bayonet Holder for Ø90 Float Arm

## **FLASH TRIGGERING**

## Optical

## **Manual Flash Trigger**

26301 Flash Trigger for Canon

## TTL Flash Trigger

26321 TTL Flash Trigger for Canon
26322 TTL Flash Trigger for Canon II

## Electrical

25017 M14 6 pin Bulkhead for Canon System
25020 Canon Hotshoe Plug to a M14 Nikonos Bulkhead
26326 M24-M16 Adaptor for use with 26325

<sup>\* 26216</sup> Universal Optical Fiber Cables are required for optical flash triggering

## WET LENS COMPATIBILITY

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

### **Nauticam optical lenses**

Macro	81201 Super Macro Convertor 1
	81202 Super Macro Convertor 2
Macro to Wideangle	86201 Macro to Wideangle Lens 1 (MWL-1, 150 deg. FOV with full frame 60mm macro lens)
	87302 EMWL Set #2
	87202 EMWL Focusing Unit #2
	87211 EMWL 150mm Relay Lens
	87212 EMWL Angled Relay Lens
	87221 EMWL 60° Objective Lens
	87222 EMWL 100° Objective Lens
	87223 EMWL 130° Objective Lens
	87226 EMWL 160° Objective Lens
Wideangle	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)
	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)
	85206 N120/N100 0.36x Wide Angle Conversion Port (WACP-1B) (incl. float collar & interchangeable port mounting ring)
	85207 N120/N100 Fisheye Conversion Port (FCP-1) 170 Deg. FOV with Compatible 28mm Lenses (incl. float collar & interchangeable port mounting ring)

#### **Optional accessories**

25101 M67 Flip Diopter Holder for M67 Macro ports
25108 M67 Double Flip Holder for M67 Macro Ports
83214 Bayonet Mount Adaptor for SMC/CMC
83250 M67 to Bayonet Mount Converter II
83251 M77 to Bayonet Mount Converter II
87501 Flip Holder for EMWL
87512 Shade for 130° Objective Lens
87513 Shade for 100° Objective Lens
87518 Strobe Mounting Brackets for EMWL Relay Lens
87519 Shade for 160° Objective Lens

## **HDMI CONNECTION & MONITOR OPTIONS**

## **HDMI Connectivity Required Accessories (2.0)**

25086 M24 Adaptor for HDMI 2.0 Cable (incl. tightening tool)
25099 M24A2R200-M28A1R170 HDMI 2.0 Cable

## Monitor Options (2.0)

17922 NA Ninja V Housing

17922S NA Ninja V-S Housing

## **HDMI Connectivity Required Accessories (1.4)**

25033 Standard HDMI Bulkhead with M16 Thread

26326 M24-M16 Adaptor for use with 26325

25100 HDMI (D-A) 1.4 Cable in 200mm Length

25082 HDMI 1.4 Cable for Ninja V Housing in 0.75m Length

- \* 25082 is required for use with 17922/17926 monitor housing
- \* 25033 is included in 17923 monitor housing packaging

## Monitor Options (1.4)

17922 NA Ninja V Housing

17923 NA-Shinobi-H Housing

### **Optional Monitor Mounting Accessories**

17951 Atomos Housing Mounting System

17957 Nauticam Atomos Shogun Housing Mounting Adaptor

\* 17957 is only compatible with R5II Housing after SN A439736

17954 Tripod Plate

17960 Universal Quadra-Pod Plate

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