

User Manual Housing N120 Video Housing

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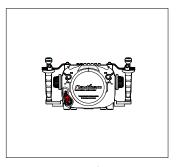
## **INTRODUCTION**

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-E2F
(2 x Handles with Mounting Balls, 1 x Housing Cap, 2 x Stainless Steel Handle Brackets)



Padded Travel Case



Allen key set

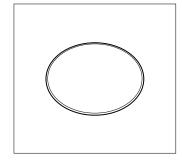


Lubricant



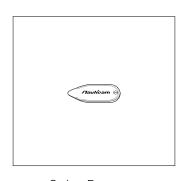
Panasonic CR2032 Battery

(pre-installed for Moisture Alarm)

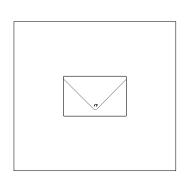


Spare Main O-ring

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.

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.

1

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

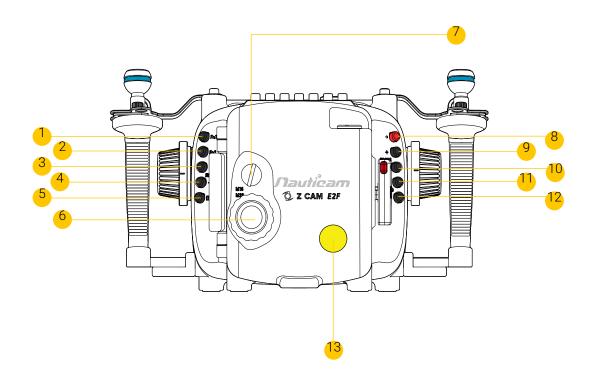
Do not open the housing in wet or sandy environment. Protect the housing from moisture and debris in order to prevent malfunction or leakage.

12

This product is not intened 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

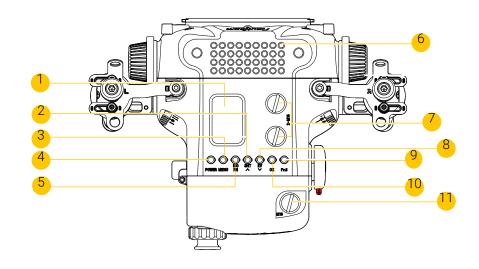


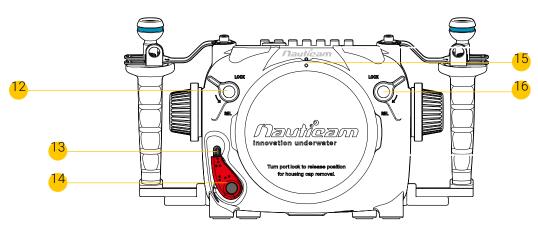
- 1 Fn1 button
- 3 IRIS + button
- 5 Playback button
- M16 Accessory port
- 9 Focus + button
- eND + button
- 13 Moisture alarm window

- 2 Fn2 button
- 4 IRIS button
- 6 M28 Accessory port
- 8 REC button
- 10 Focus button
- 12 eND button

## **PART NAMES AND FUNCTIONS**

Top + Front Views



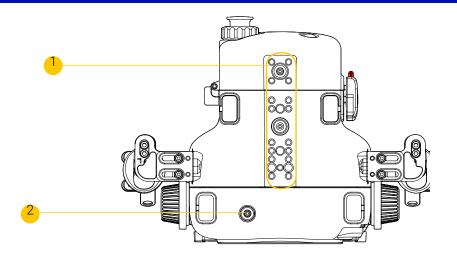


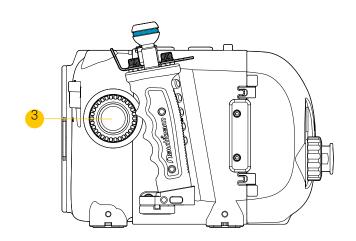
- 1 LCD Window
- 3 Menu button
- 5 ISO/FN button
- 7 2x M16 Accessory ports
- 9 Fn3 button
- 11 M16 Accessory port
- 13 Port lock safety button
- 15 Port index mark

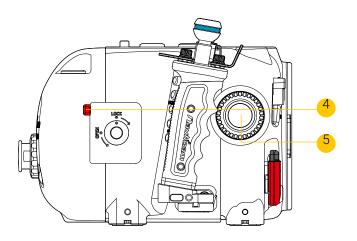
- 2 Shutter / Up button
- 4 Power button
- 6 1/4"-20 size mounting threads
- 8 EV / Down button
- 10 OK button
- 12 Zoom knob LOCK lever
- 14 Port locking lever
- 16 Focus knob LOCK lever

# **PART NAMES AND FUNCTIONS**

Back + Side Views







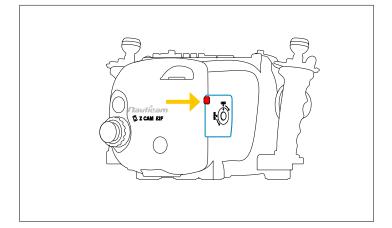
- 1/4" Threaded tripod holes
- Focus knob
- 5 Zoom knob

- Zinc Anodes
- 4 Housing unlock button

# **OPENING THE HOUSING**

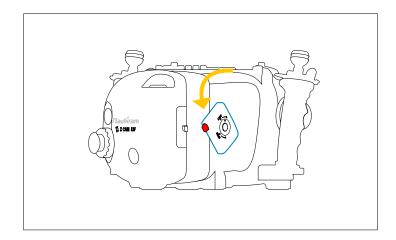
\* drawings as illustrations only

1



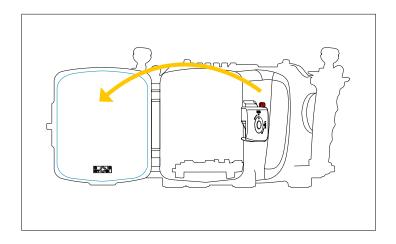
depress housing unlock button

2



turn housing lock latch anti-clockwise to open the housing

3

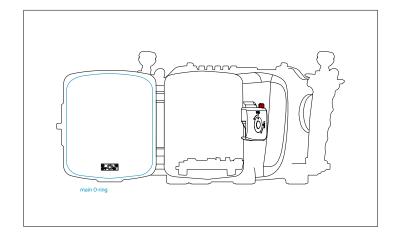


flip open the back housing when lock latch is aligned to 'open' position

## **CLOSING THE HOUSING**

\* drawings as illustrations only

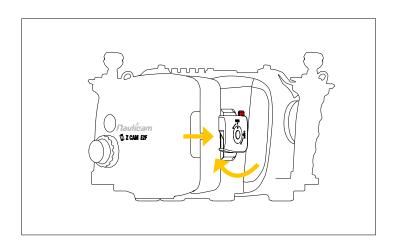
1



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

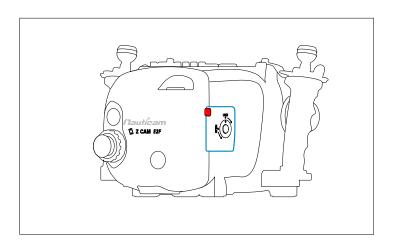
make sure nothing is caught between front and back housing and that they are fully aligned before locking

2



insert the housing shaft into the shaft hole and then rotate the lock latch clockwise until you hear and feel it click into place

3

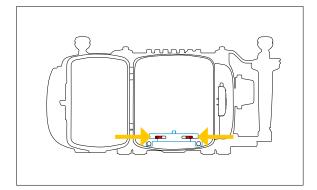


housing locked in place securely

\* drawings as illustrations only

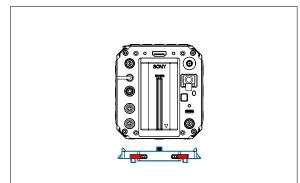
Installing the Camera

1



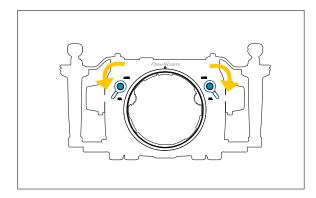
unlock camera tray lever and remove the tray from the housing

2



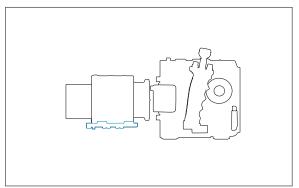
attach the camera tray by tightening the tray screw into the tripod socket of the camera

3



turn zoom and focus knob lock levers to REL positions.

4

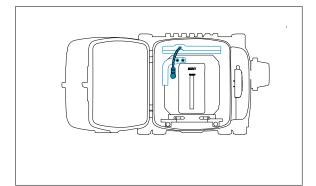


slide the camera tray back into the housing along the tray rail

\* drawings as illustrations only

Installing the Camera

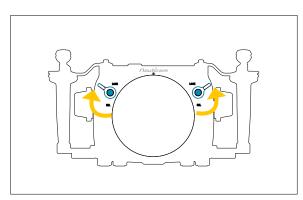
5



lock camera tray

Then, connect LANC control cable

6

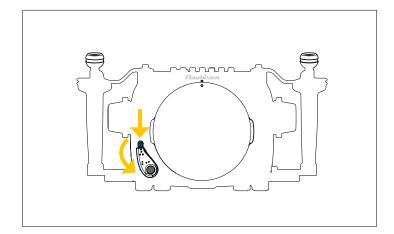


Place the zoom and focus knobs in place by turning the knob lock levers and make sure it is engaged with lens gears

\* drawings as illustrations only

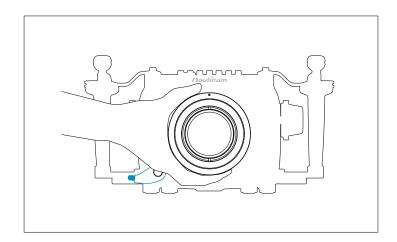
Port Mounting

1



depress port lock safety button and rotate anti-clockwise

2

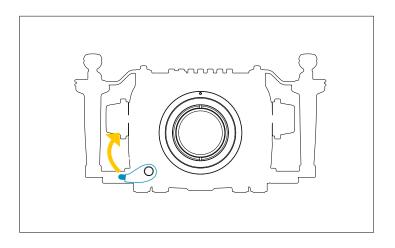


lubricant the port O-ring before mounting

align index mark

push port assembly straight in

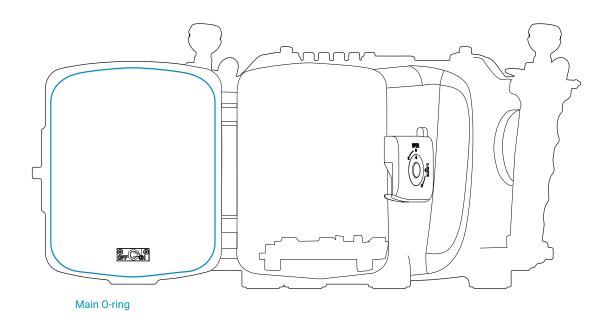
3



rotate locking lever clockwise to lock

\* 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

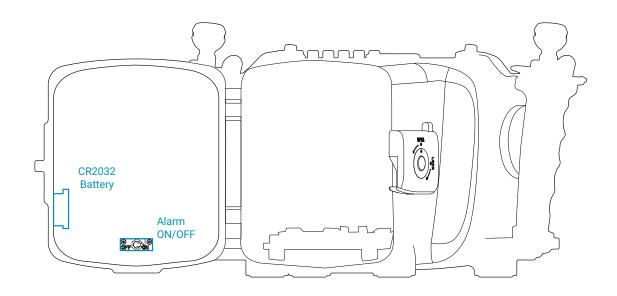
3 lightly coat it with provided lubricant

4

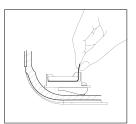
return the main O-ring by slowly pressing from one corner to the whole perimeter

\* drawings as illustrations only

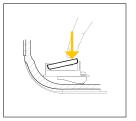
Setting up moisture alarm



1



remove battery insulation film



press the battery down until it click into place

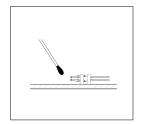
3



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

4

2



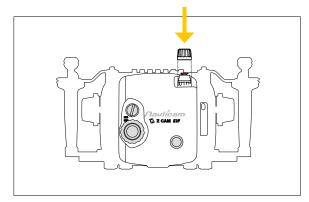
test the alarm

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

drawings as illustrations only

Changing lens/port after vacuum

1

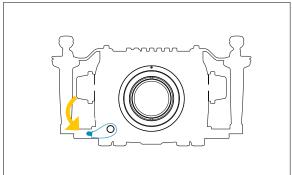


If using with vacuum valve:

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

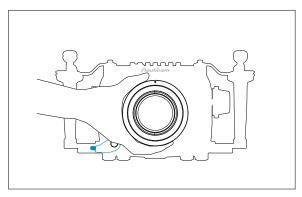
If using without vacuum valve, please follow from step 2

2



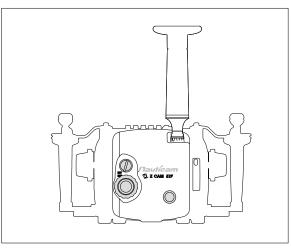
unlock port lock

3



After remove port assembly, change lens/port

4



reset vacuum valve system using hand pump then close the cap

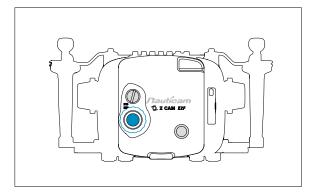
<sup>\*</sup> please refer to page 17 on complete vacuum system guidance

## **RECOMMENDED ACCESSORY**

drawings as illustrations only

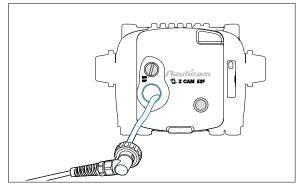
Connecting with external monitor (HDMI2.0 cable)

1



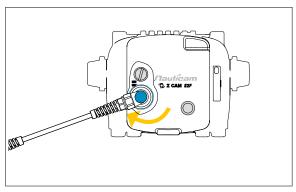
Unscrew M28 accessory port cap

2



Insert the HDMI 2.0 cable #25079 M28A2R210-M28A1R170 HDMI 2.0 Cable

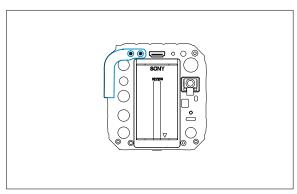
3



Gently push the cable into the M28 port opening of the housing, until it cannot go in any further.

Then, tighten the HDMI 2.0 cable by turning the threaded working ring to clockwise direction.

4



The HDMI cable clamp\* (optional) is to position the cable properly to avoid excessive stress on the cable.

Before installing the camera on the housing, screw it on the camera as shown.

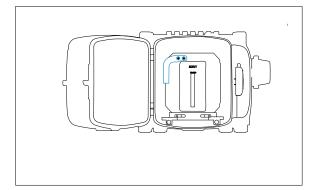
\* 25088 Cable Clamp for NA-E2 Housing with Screws

## **RECOMMENDED ACCESSORY**

drawings as illustrations only

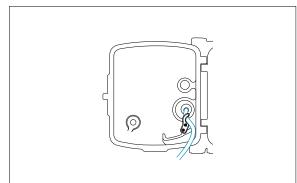
Connecting with external monitor (HDMI2.0 cable)

5



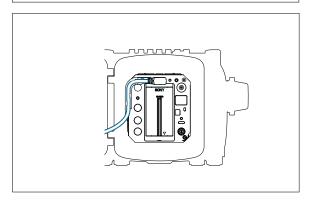
Install the camera with battery by sliding the attached saddle along the rail in the housing until it cannot go in any further

6



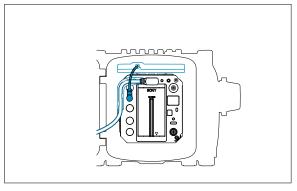
Use the positioning guide on the rear housing to hold the cable in position.

7



Connect the HDMI 2.0 cable through the camera's HDMI port.

8



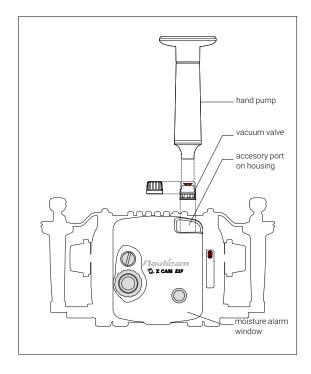
Connect the LANC control cable

## **RECOMMENDED ACCESSORY**

\* drawings as illustrations only

Vacuum valve system

1

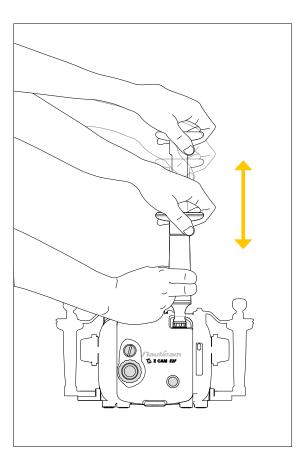


remove the plug of M16 accessory port from the housing

remove the cap from the vacuum valve

slightly lubricate the o-ring and 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 and please check every 0-ring and conduct the vacuum test again.

## **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 recommand cleaning and inspecting the main 0-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 recommand to ship the housing to our servic centers for a complete overhual after 200 dives/every 2 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	336 mm
Height	185 mm
Depth	242 mm

### Weight

In air	3.58 kg
In water	-0.27 kg (w/ camera & battery)

### Depth

Rating	100 m	

### Port specifications

Port mount	N120 Cinema System
Port accessories	1x M28, 3x M16

### HDMI connectivity accessories ( 2.0 )

25079 M28A2R210-M28A1R170 HDMI 2.0 Cable

25088 Cable Clamp for NA-E2 Housing with Screws

### Monitor options

17922 Nauticam Atomos Ninja V Housing for Atomos Ninja V 5" (excl. HDMI 2.0 cable)

### HDMI connectivity accessories (1.4)

25033 Standard HDMI bulkhead with M16 thread

16243 HDMI A-D Cable in 0.5m Length for RED DSMC2/C200/EVA1 (for internal connection) \*25033, 25046 are included in monitor housing

### **Monitor options**

17906 NA-502H housing for Small HD 502 5-inch HD monitor

17920 NA-502B-H Housing for SmallHD 502 Bright Monitor

17923 NA-Shinobi-H Housing for Atomos Shinobi 5.2" 4K HDMI Monitor with HDMI 1.4 input

### **Wet Lens Compatibility**

Macro	81201	Super macro convertor 1 (SMC-1, 2.3x magnification)
	81202	Super Macro Convertor 2 (SMC-2, 4x Magnification)
Macro to Wideangle	86201	Macro to Wideangle Lens 1 (MWL-1, 150 deg. FOV with full frame 60mm macro lens)
	87302	EMWL Set#2 (incl. focusing unit #2, 150mm relay lens & 3 objective lenses
Wideangle	85201	0.36x Wide Angle Conversion Port with Aluminium Float Collar (incl. N120 to N100 port adaptor)
	85204	0.57x Wide Angle Conversion Port - 2 (WACP-2) 140 Deg. FOV with Compatible 14mm Lenes (incl. float collar)

### Optional accessories to use with wet lens

83214 Bayonet Mount Adaptor for SMC/CMC
83250 M67 to Bayonet Converter II
83251 M77 to Bayonet Converter II
86222 Double Flip Holder for MWL-1
87501 Flip Holder for EMWL
87515 M67 Mount to EMWL Focusing Unit
87518 Strobe Mounting Brackets for EMWL Relay Lens

### **Recommended accessories**

25625 M16 Vacuum Valve II (Pushbutton Release)
25221 M10 strobe mounting ball for housing
16232 0.25kg Trim Weights for 16227 (4pcs)
16233 0.5kg Trim Weights for 16227 (4pcs)
$16261\ Ethernet\ Surface\ Cable\ Set\ in\ 45\ meter\ length\ (Incl.\ housing\ lemo\ bulkhead\ with\ integrated\ internal\ cable\ and\ external\ Duracell\ cables\ )$
16262 Replacement of housing Lemo bulkhead with integrated ethernet Cable

16263 Ethernet Surface Cable Set in 5meter length (Incl. housing Jemo bulkhead with integrated internal cable and external Duracell cables)

16264 Housing Skids for NA-E2F

17959 Housing Mounting ball with 1/4" screws

### Nauticam InternationI Ltd.

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