

NA - 503-H / NA - 503-S

For SmallHD 503 UltraBright On-Camera Monitor with HDMI 1.4 Input / SDI Input

PN 17925 / 17925S

User Manual

Housing
Monitor

| | |
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INTRODUCTION

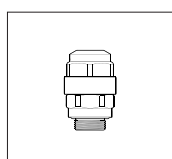
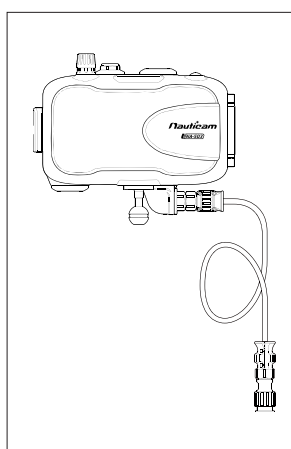
Thank you for purchasing this Nauticam product.

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.

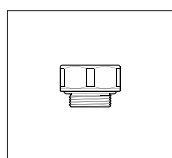
PACKAGE CONTENTS

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.

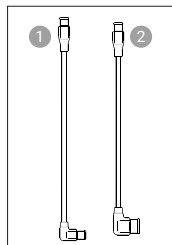
NA - 503-H (HDMI)



25033 Standard HDMI bulkhead with M16 thread



M16 Extension Ring



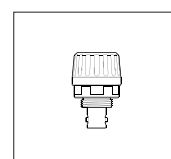
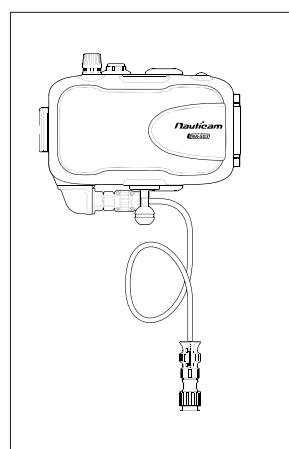
HDMI Cable from Camera to HDMI Bulkhead :

- 1 25046 HDMI (D-D) Cable 200mm length
- 2 25036 HDMI (D-C) Cable 190mm length

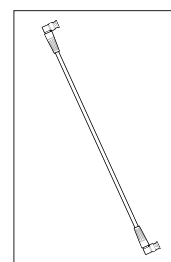
Pre-installed items :

- 25071 HDMI Cable (A-D) 0.75m length
- 25080 M28-M16 Step Down Adaptor
- 25625 M16 Vacuum Valve II
- Mounting Ball with screws

NA - 503-S (SDI)



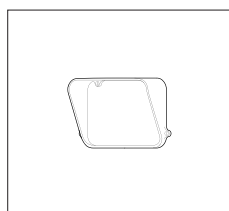
25058 M16 SDI Bulkhead



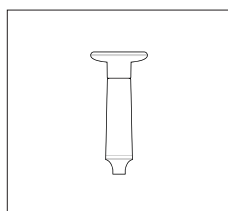
25060 SDI Cable from Camera to SDI Bulkhead 0.40m length

Pre-installed items :

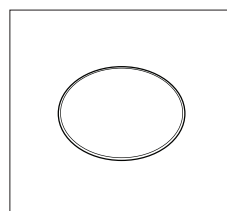
- 25096 SDI Cable 0.75m length
- 25080 M28-M16 Step Down Adaptor
- 25625 M16 Vacuum Valve II
- Mounting Ball with screws



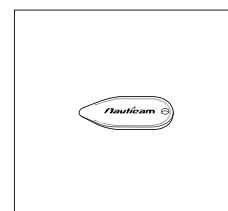
Monitor Hood



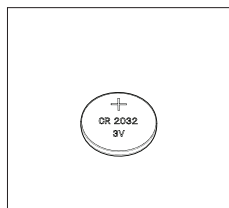
Hand Pump



Spare O-ring

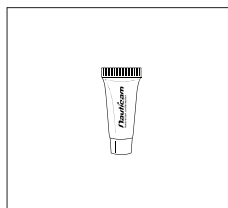


O-ring Remover

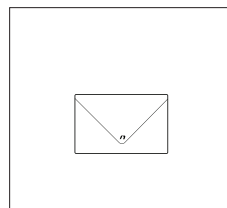


Panasonic CR2032 Battery

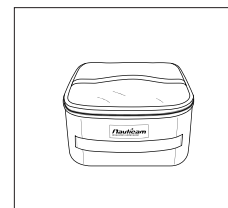
(pre-installed for Moisture Alarm)



Lubricant



Manual Instruction Card



Padded Travel Case

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

IMPORTANT INSTRUCTIONS

1

Water-tight test of the housing (without monitor 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 inserting or removing the monitor.

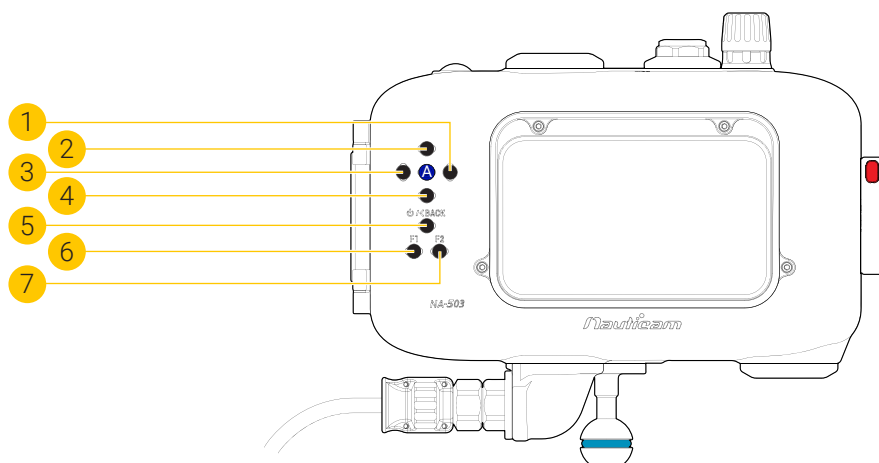


12

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

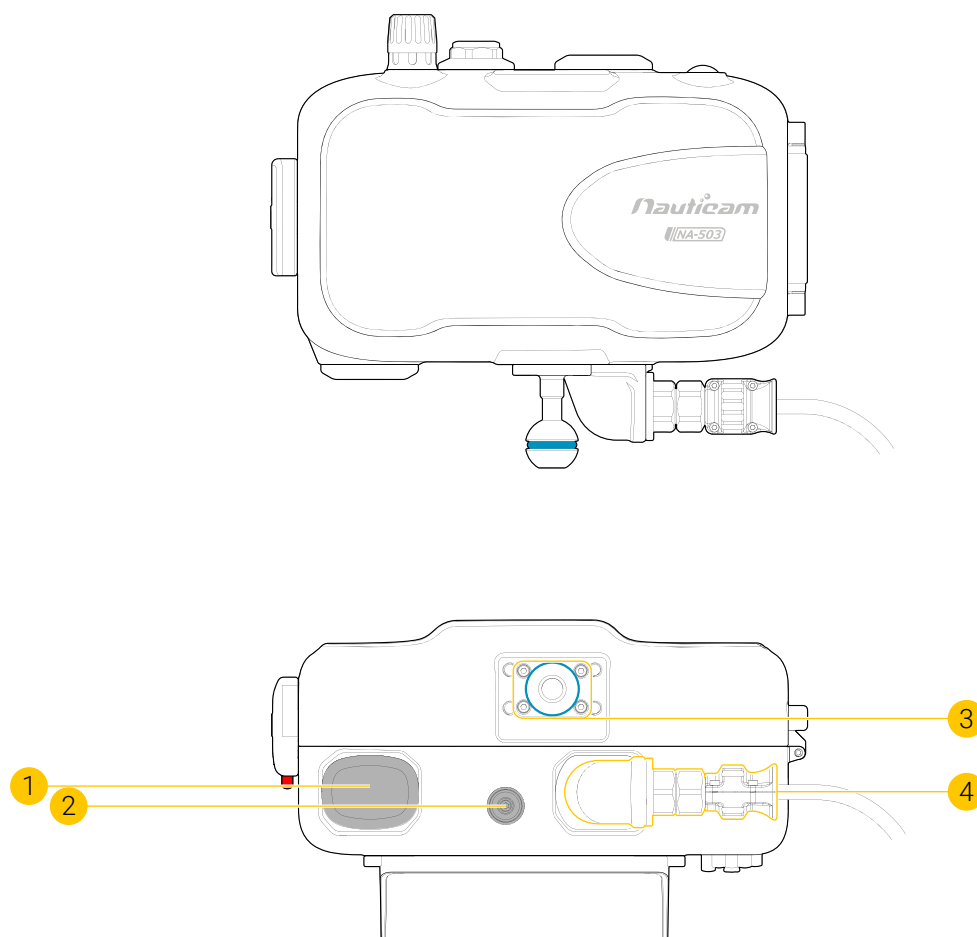
Rear View



- | | | | |
|---|---------------------|---|-----------------|
| 1 | Right button | 2 | Up button |
| 3 | Left button | 4 | Down button |
| 5 | Power / BACK button | 6 | F1 button |
| 7 | F2 button | A | Center selector |

PART NAMES AND FUNCTIONS

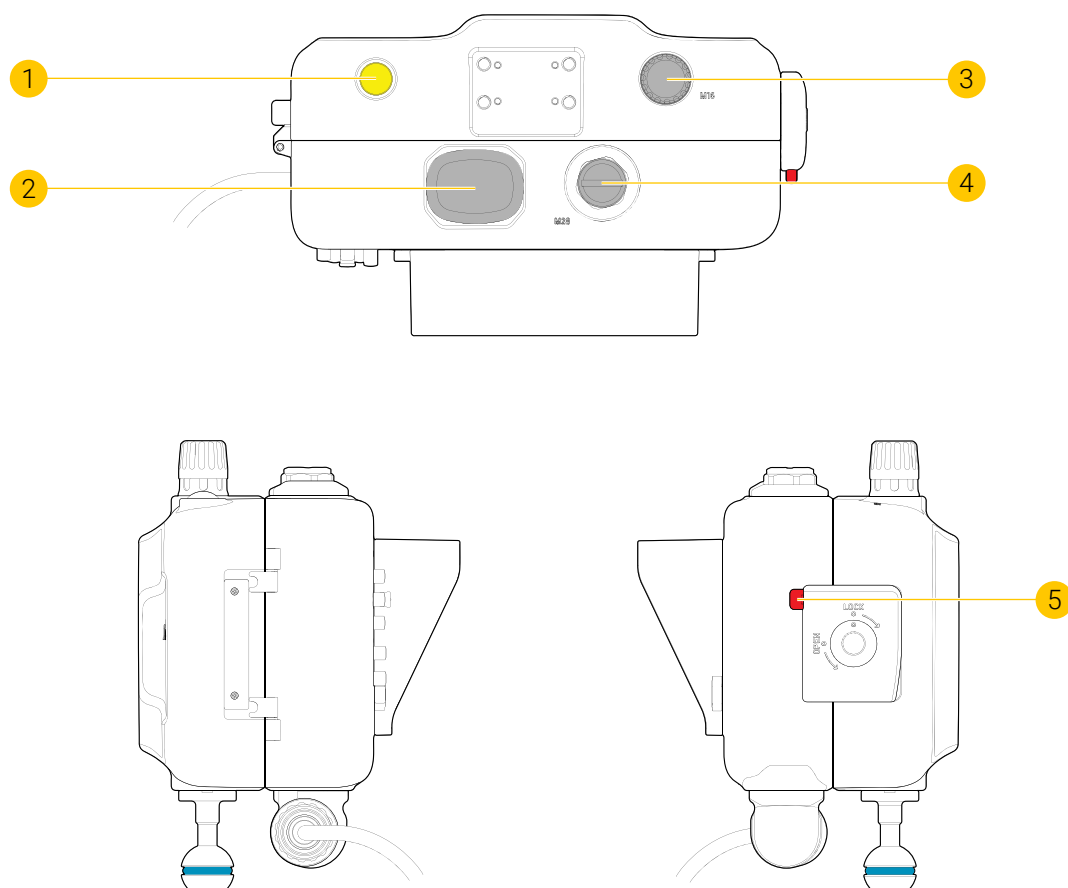
Front + Bottom Views



- | | | | |
|---|---------------------------|---|------------------|
| 1 | M25 Accessory Port | 2 | Zinc Anodes |
| 3 | Mounting ball with screws | 4 | HDMI / SDI cable |

PART NAMES AND FUNCTIONS

Top + Side Views



1 Moisture alarm window

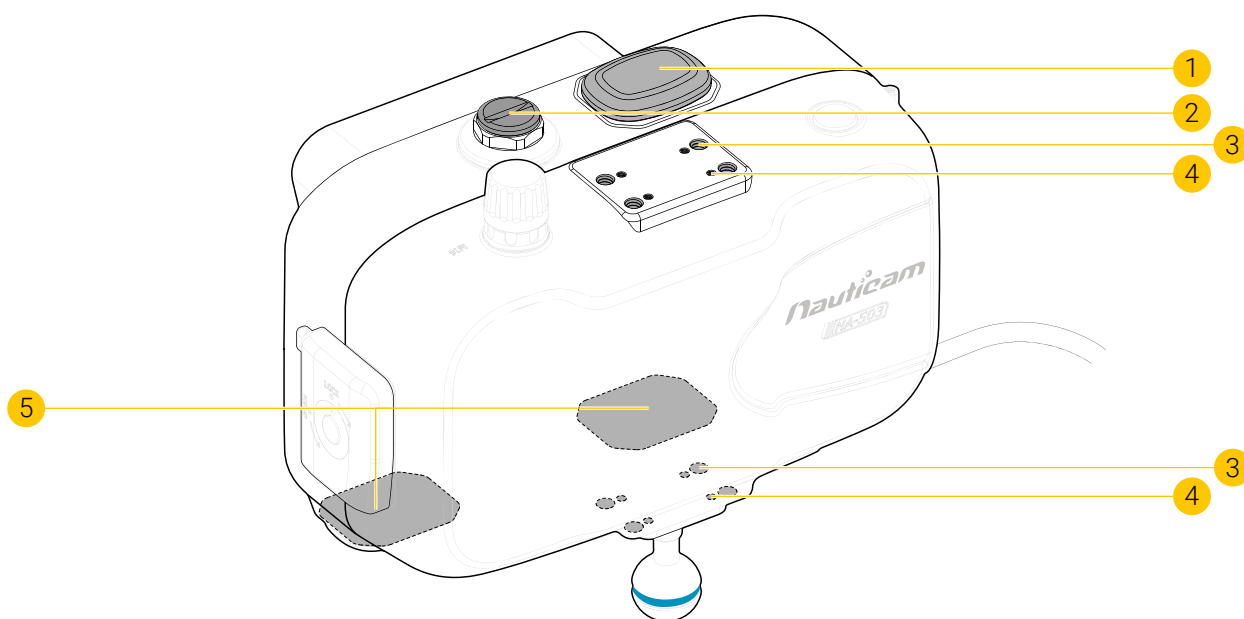
3 M16 Vacuum valve II

5 Housing unlock button

2 M25 Accessory Port

4 M28-M16 Step Down Adaptor

HOUSING MOUNT



Housing mount

- 1 M25 Accessory port
- 2 M16 Accessory port
- 3 1/4"-20 UNC holes
- 4 M3 Screw holes
- 5 M25 Accessory port

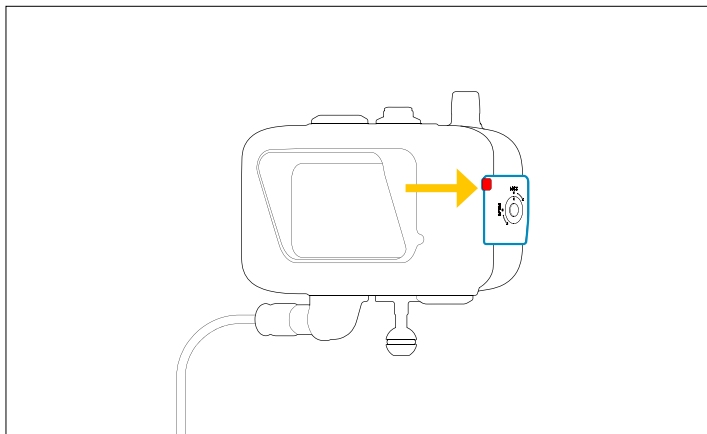
Compatible accessories

- | | |
|-------|--|
| 25071 | HDMI 1.4 cable (A-D) in 0.75m length |
| 25096 | SDI Cable in 0.75m length |
| 25058 | M16 SDI Bulkhead |
| 17951 | Nauticam Monitor Housing Mounting System |
| 17958 | Mounting Ball |
| 25071 | HDMI 1.4 cable (A-D) in 0.75m length |
| 25096 | SDI Cable in 0.75m length |

OPENING THE HOUSING

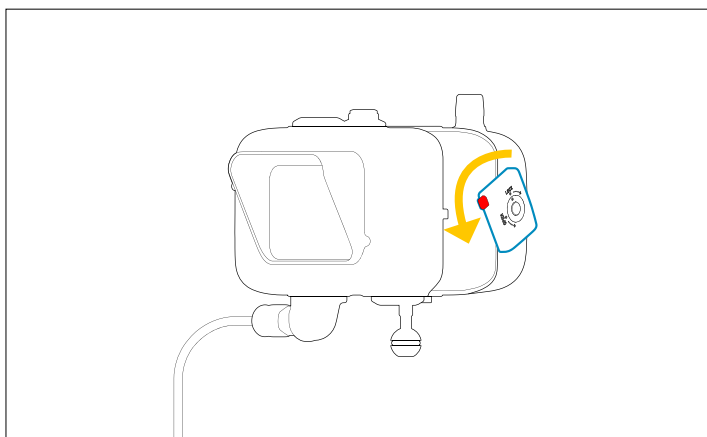
* drawings as illustrations only

1



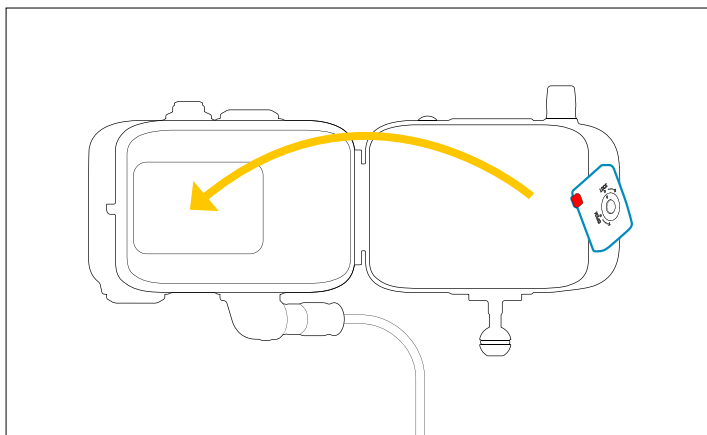
depress housing unlock button

2



turn housing lock latch
anti-clockwise to open the
housing

3

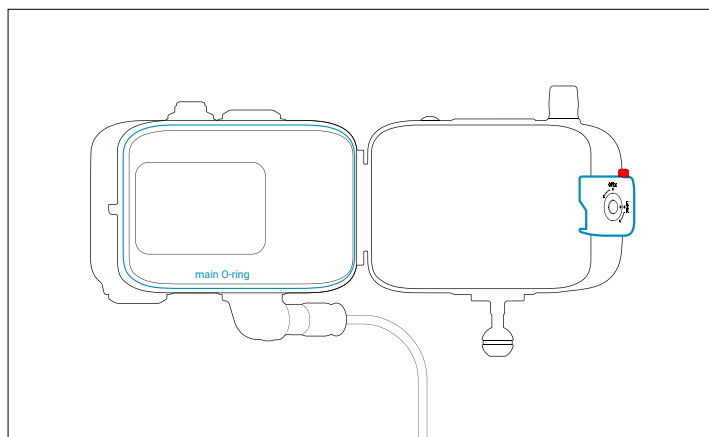


flip open the back housing
when lock latch is aligned to
'open' position

CLOSING THE HOUSING

* drawings as illustrations only

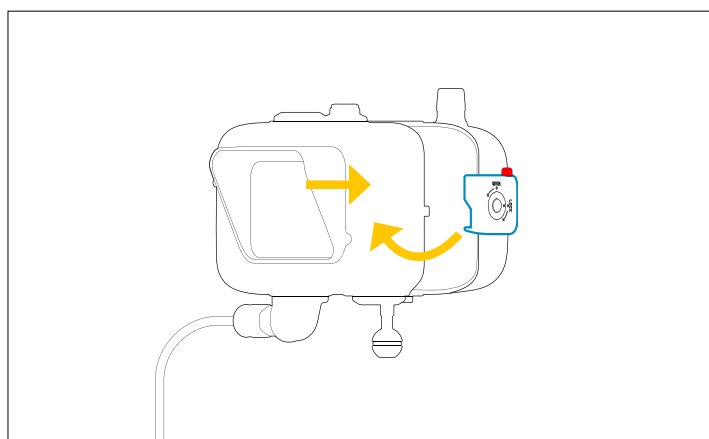
1



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

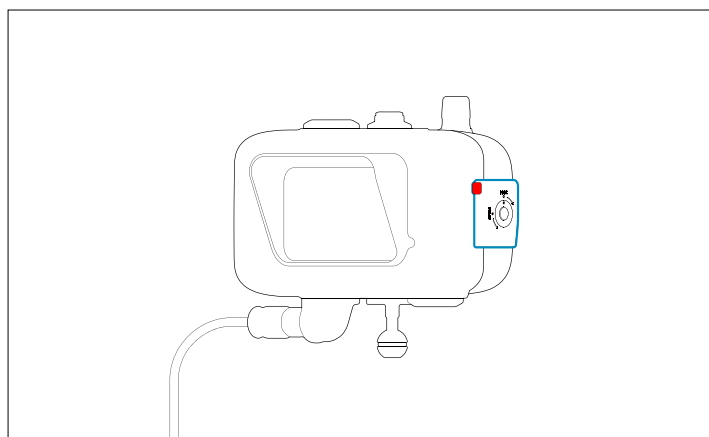
make sure nothing is caught between front and back housing and that they are fully aligned before locking

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

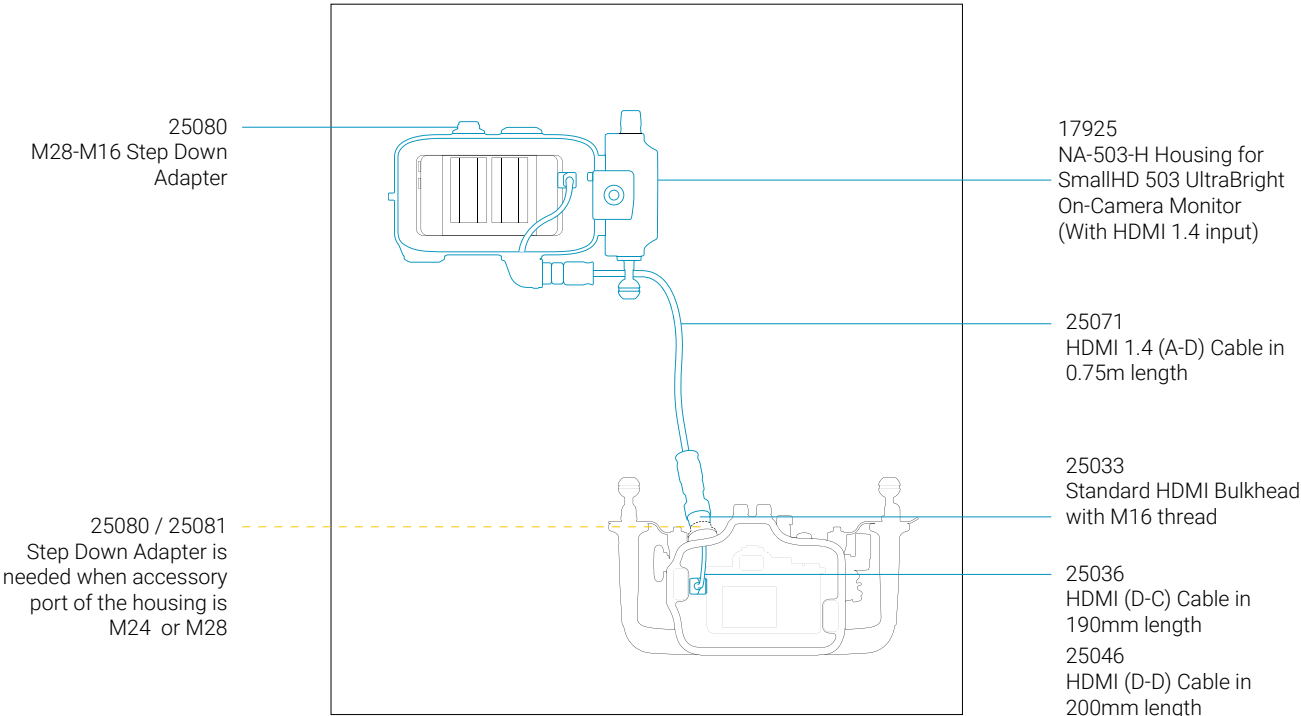


housing locked in place securely

SETUP OPTIONS - HDMI

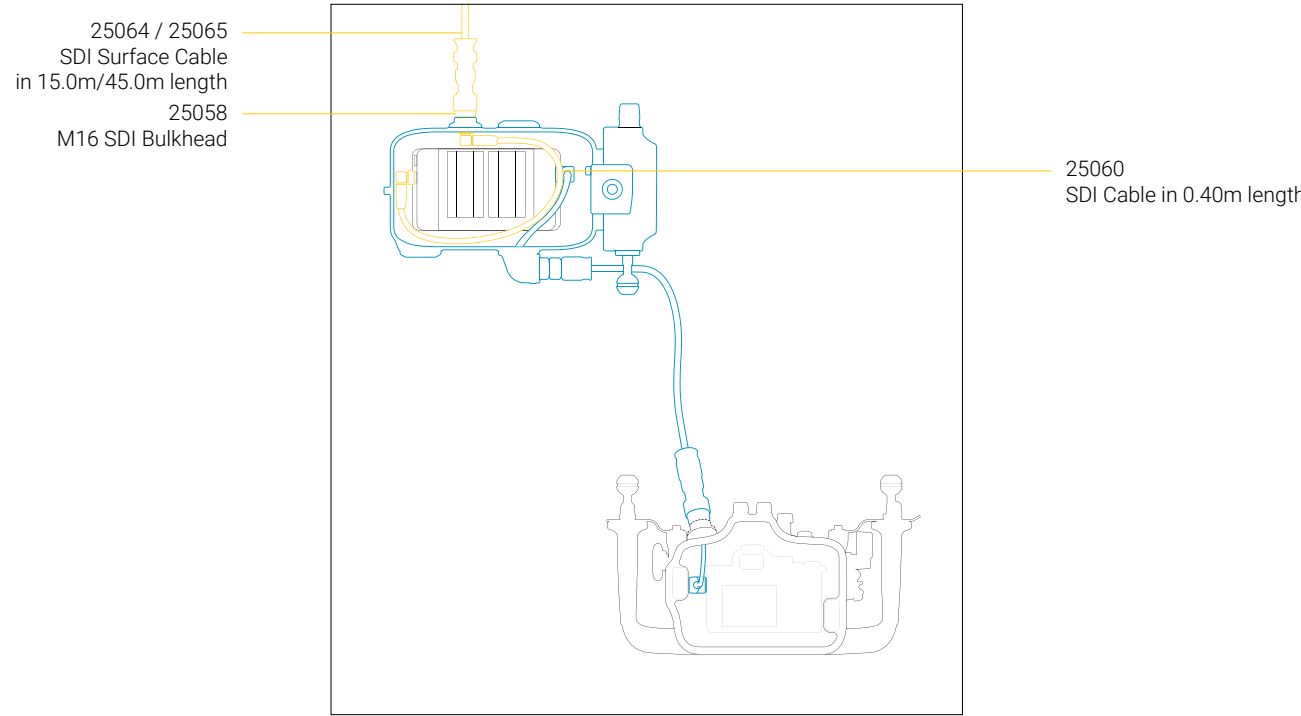
* drawings as illustrations only

HDMI IN



Depending on camera housings,
required HDMI 1.4 cables will vary.

HDMI IN + SDI OUT



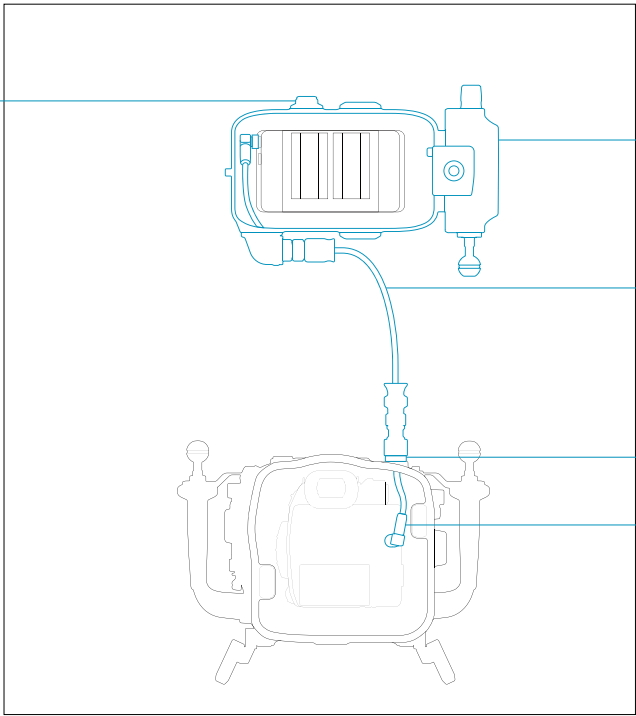
— included in package
— not included in package

SETUP OPTIONS - SDI

* drawings as illustrations only

SDI IN

25080
M28-M16 Step Down
Adapter



17925S
NA-503-S Housing for
SmallHD 503 UltraBright
On-Camera Monitor (with
3G-SDI input support)

25096
SDI Cable in 0.75m length

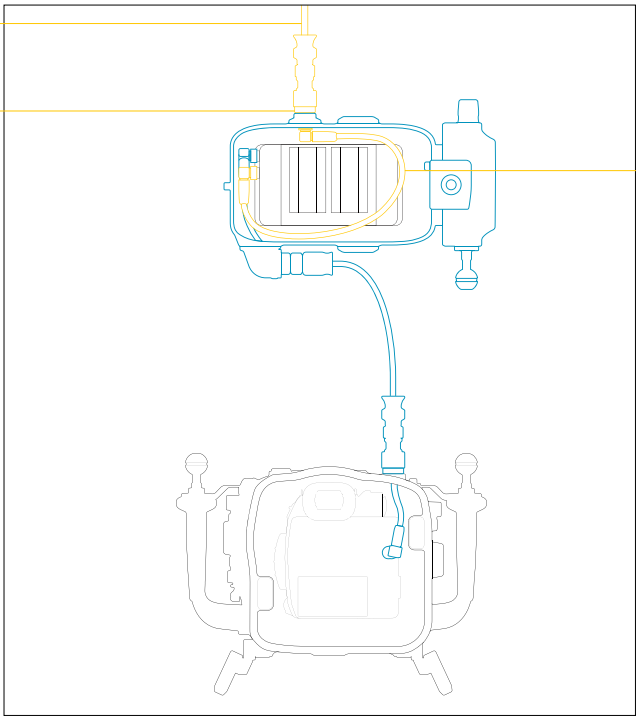
M16 SDI Bulkhead

25060
SDI Cable in 0.40m length

SDI IN + SDI OUT

25064 / 25065
SDI Surface Cable
in 15.0m/45.0m length

25058
M16 SDI Bulkhead



25060
SDI Cable in 0.40m length

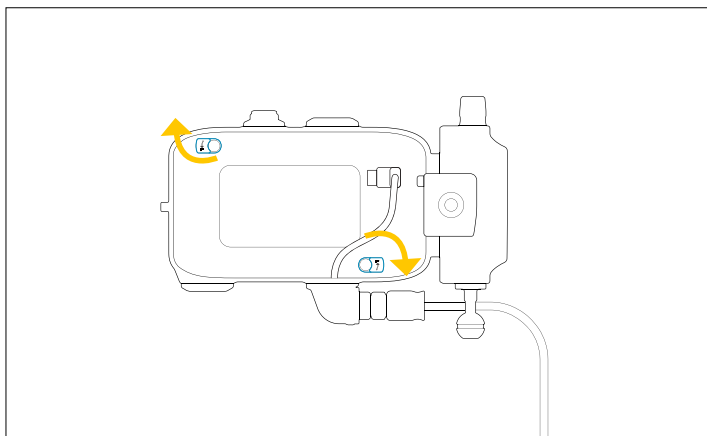
— included in package
— not included in package

CABLE CONNECTION - HDMI IN

* drawings as illustrations only

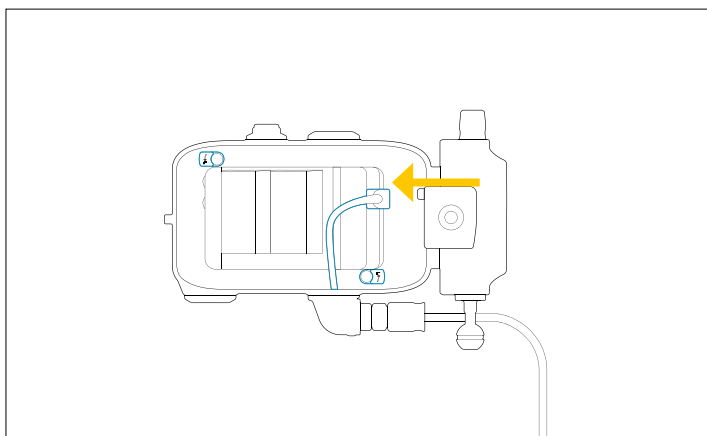
HDMI Cable to Monitor Connector

1



turn the two locking levers in the direction as shown

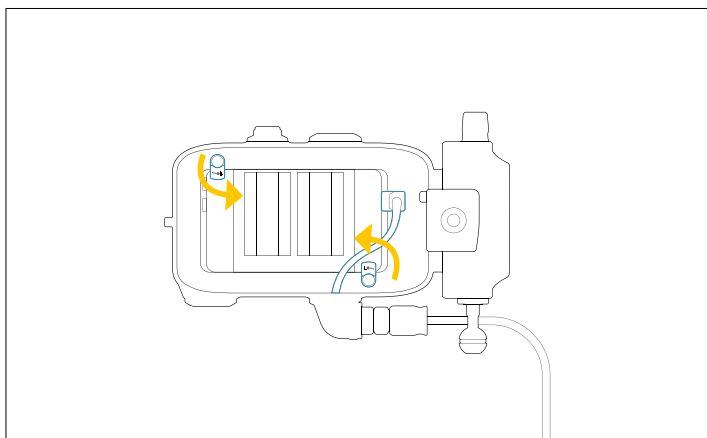
2



connect the HDMI cable to the monitor HDMI connector

then place the monitor inside the housing

3



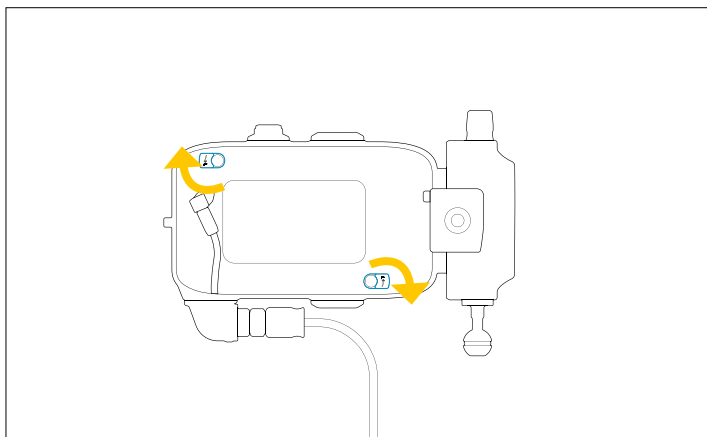
secure the monitor by turning the two locking levers towards the monitor

CABLE CONNECTION - SDI IN

* drawings as illustrations only

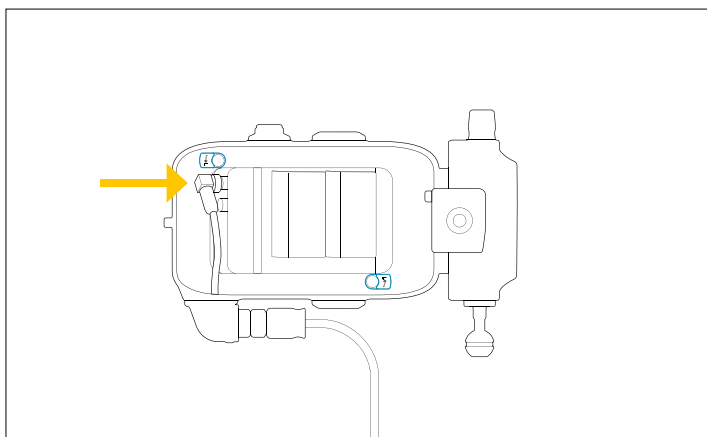
SDI Cable to Monitor Connector

1



turn the two locking levers in the direction as shown

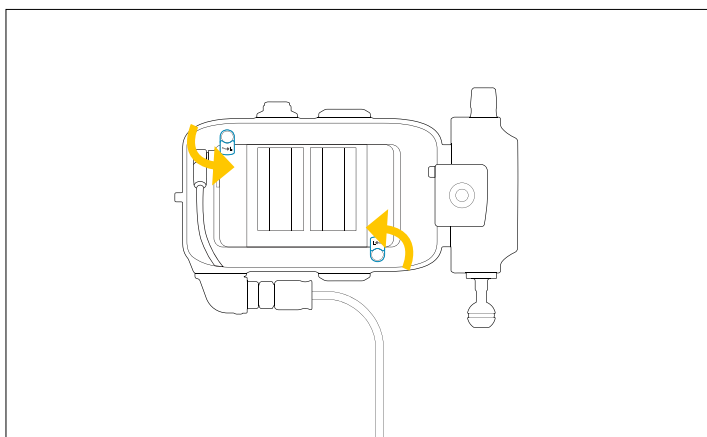
2



connect the SDI cable to the monitor SDI connector

then place the monitor inside the housing

3



place the monitor inside the housing

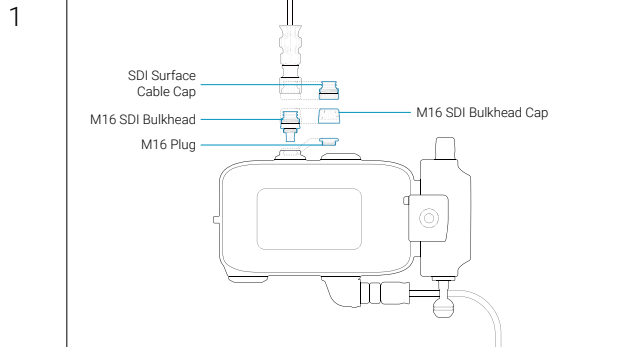
then secure the monitor by turning the two locking levers towards the monitor

CABLE CONNECTION - SDI OUT

* drawings as illustrations only

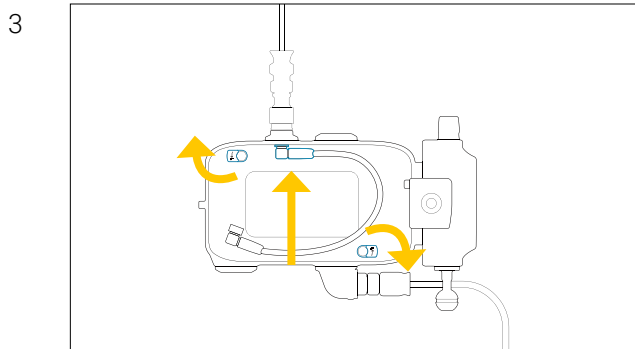
SDI Surface Cable to Monitor Housing

**Please note that M16 SDI Bulkhead, 25060 SDI cable and SDI surface cable is not included in the package*



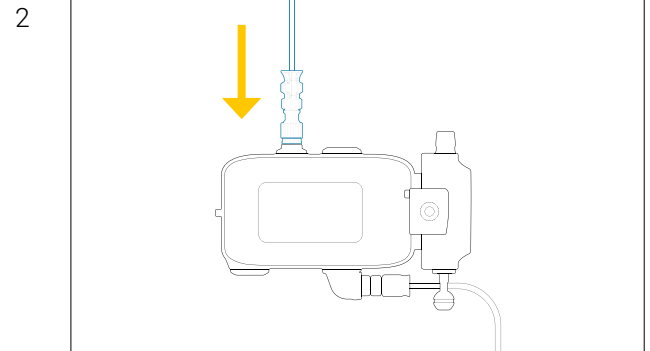
unscrew the M16 plug from 25080 M28-M16 Step Down Adapter on the monitor housing with a coin and remove the caps of M16 SDI Bulkhead and SDI surface cable

tighten the M16 SDI Bulkhead into the pre-installed M28-M16 step down adapter

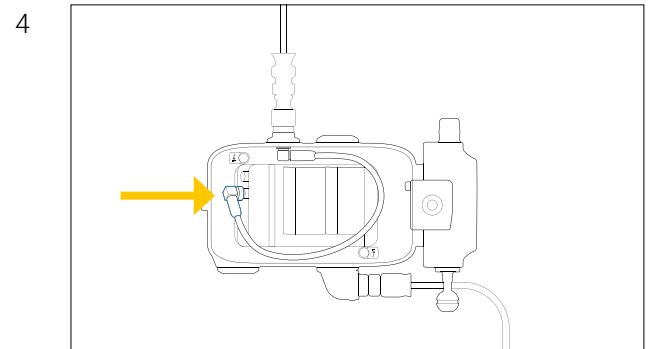


turn the two locking levers in the direction as shown

then connect the 25060 SDI cable to the M16 SDI bulkhead as shown

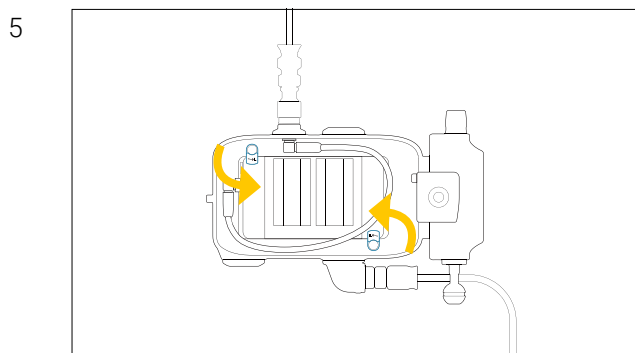


plug the cable into the SDI bulkhead



place the monitor inside the housing

then wrap the internal SDI cable around the battery and connect the cable to the monitor SDI-out socket

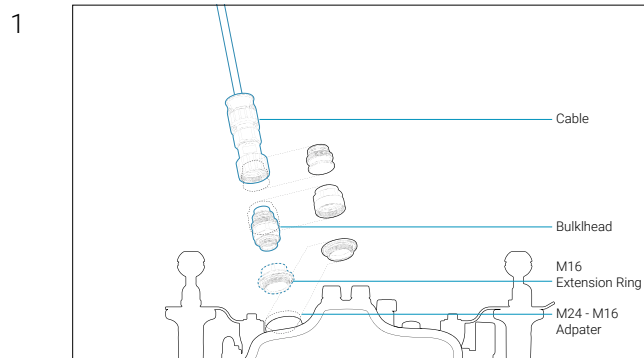


then secure the monitor by turning the two locking levers towards the monitor

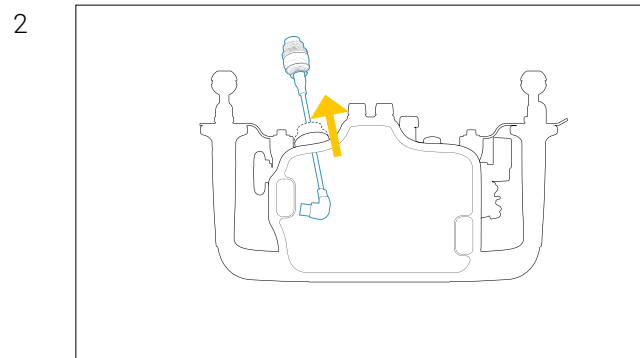
CABLE CONNECTION - TO CAMERA HOUSING

* drawings as illustrations only

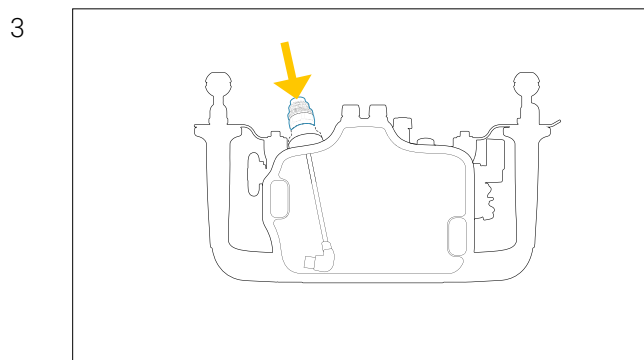
For Both HDMI + SDI



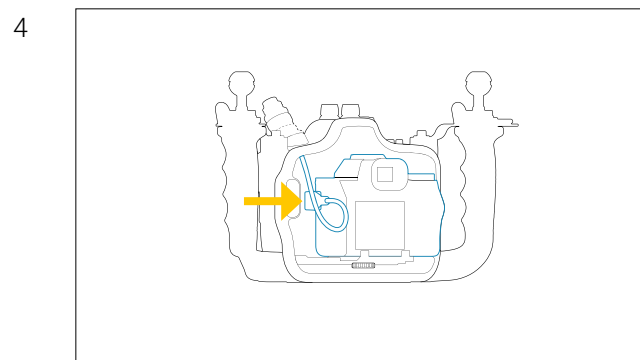
remove the caps of HDMI/SDI cable and bulkhead (M28-M16/M24-M16 adapter and M16 Extension ring if needed)



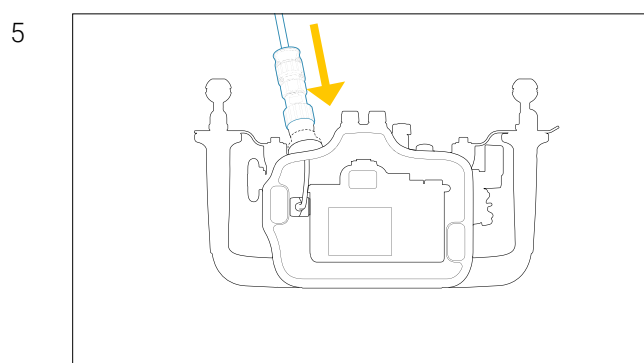
connect the internal cable to the bulkhead as shown



connect the bulkhead onto camera housing



connect the internal cable to the camera connector

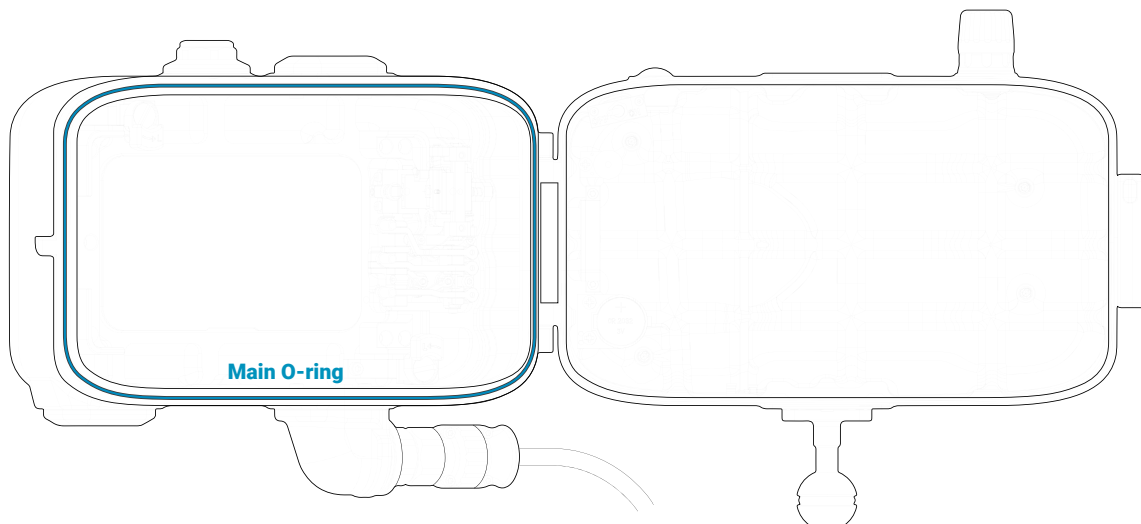


connect the HDMI/SDI cable onto the bulkhead

PREPARATION FOR USE

* drawings as illustrations only

Coating housing O-ring

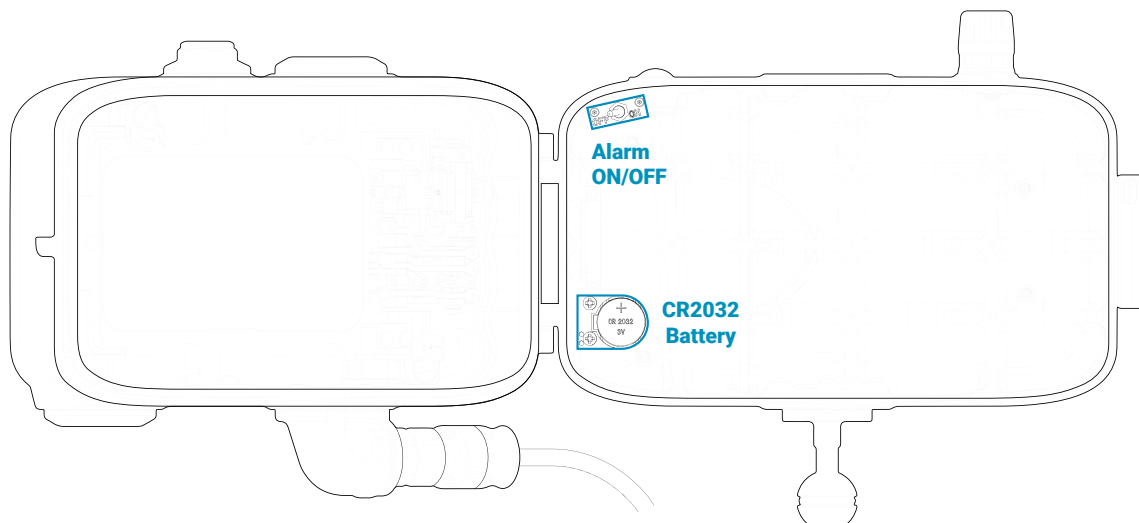


- 1
remove the main O-ring using an O-ring remover
- 2
clean the O-ring groove with a cloth and ensure that it is free from salt or other foreign materials
- 3
lightly coat it with provided lubricant
- 4
return the main O-ring by slowly pressing from one corner to the whole perimeter

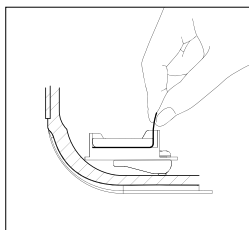
PREPARATION FOR USE

* drawings as illustrations only

Setting up moisture alarm

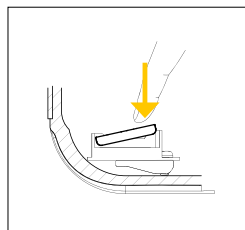


1



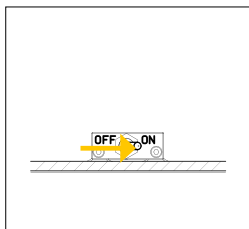
remove battery
insulation film

2



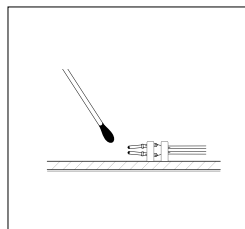
press the battery down until it
click into place

3



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

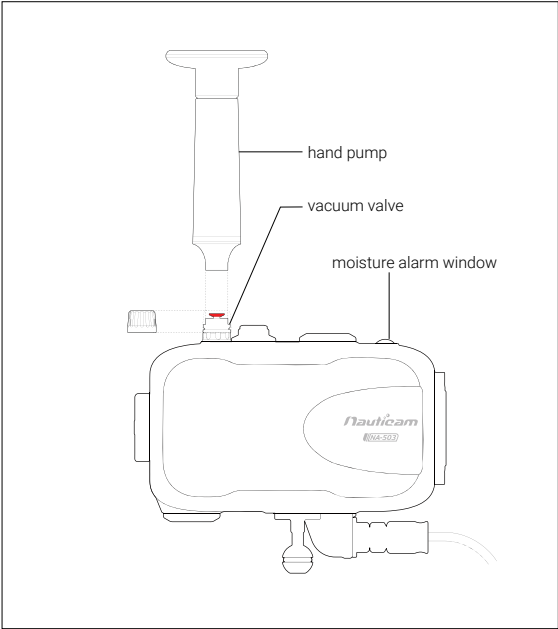
4



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**

PRE-INSTALLED M16 VACUUM VALVE II

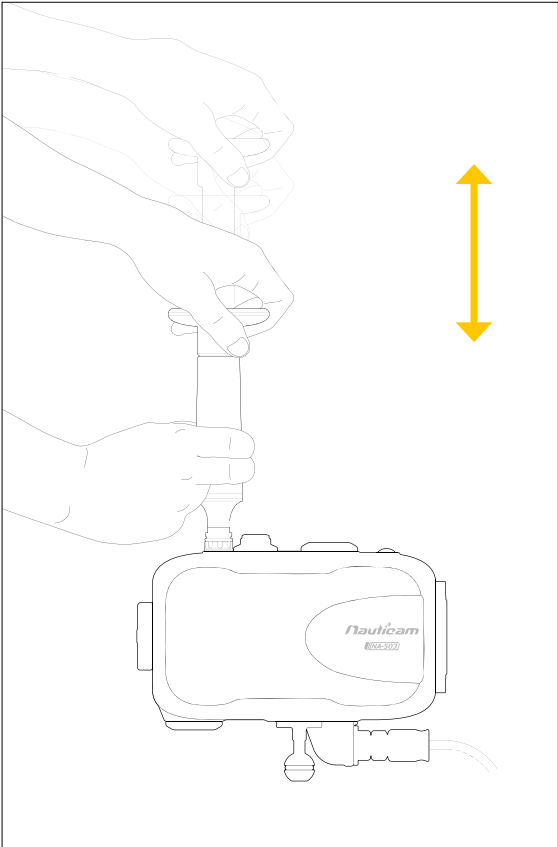
1



remove the cap from the pre-installed vacuum valve

connect hand pump to the valve

2



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 O-ring and then 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 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 monitor 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

NA-503-H

SmallHD 503 UltraBright On-Camera Monitor (With HDMI 1.4 input)

Construction

| | |
|----------------|----------------------------------|
| Housing body | Hard Anodized Aluminium Alloy |
| Display window | Abrasion Resistant Polycarbonate |

Dimensions

| | |
|--------|--------|
| Width | 252 mm |
| Height | 139 mm |
| Depth | 111 mm |

Weight

| | |
|-------------------|---|
| In air | 1.9 kg |
| Buoyancy in water | 0.39 kg (w/ SmallHD 503 monitor & 2pcs x NP-F750 batteries) |

Depth

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

Port specifications

| | |
|-----------------------|---------------------------|
| Port accessories | 1 x M16, 2 x M25, 1 x M28 |
| Pre-installed adaptor | M28-M16 Step Down Adaptor |

Essential items for surface monitor

| |
|---|
| 25058 M16 SDI Bulkhead |
| 25060 SDI Cable in 0.30m length (for connection from monitor to SDI bulkhead) |
| 25065 SDI Surface Monitor Cable in 45m length |

NA-503-S

SmallHD 503 UltraBright On-Camera Monitor (with 3G-SDI input support)

Construction

| | |
|----------------|----------------------------------|
| Housing body | Hard Anodized Aluminium Alloy |
| Display window | Abrasion Resistant Polycarbonate |

Dimensions

| | |
|--------|--------|
| Width | 252 mm |
| Height | 139 mm |
| Depth | 111 mm |

Weight

| | |
|-------------------|---|
| In air | 1.9 kg |
| Buoyancy in water | 0.39 kg (w/ SmallHD 503 monitor & 2pcs x NP-F750 batteries) |

Depth

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

Port specifications

| | |
|-----------------------|---------------------------|
| Port accessories | 1 x M16, 2 x M25, 1 x M28 |
| Pre-installed adaptor | M28-M16 Step Down Adaptor |

Optional accessories for surface monitor

| |
|---|
| 25096 SDI Cable in 0.75m length (for connection from monitor to SDI bulkhead) |
| 25062 SDI Surface Monitor Cable in 5m length |
| 25064 SDI Surface Monitor Cable in 15m length |
| 25063 SDI Surface Monitor Cable in 30m length |



HDMI CABLE COMPATIBILITY

25036 and 25046 are both included in NA-503-H package

25036 HDMI (D-C) Cable in 190mm length

| | | |
|-------------------|-------|-------|
| Compatible Camera | Nikon | D5 |
| | | D500 |
| | | D750 |
| | | D7500 |
| | Canon | R |
| | | 5DIV |
| | | 5DSR |
| | | 6DII |
| | | 7DII |
| | | 80D |

25046 HDMI (D-D) Cable in 200mm length

| | | |
|-------------------|---------|----------|
| Compatible Camera | Sony | A9II |
| | | A7IV |
| | | A6500 |
| | | RX100VII |
| | Nikon | Z50 |
| | Olympus | EM1X |

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