Nauticam
innovation underwater

NA - RX100VII

Instruction manual



Part Number:17424

FORWARD

Thank you for your purchase of a NAUTICAM housing.

At NAUTICAM, we pride ourselves in the ability to recognize the requirements of professional as well as amateur underwater photographers and fulfill them through the innovative designs of our products. We strive to achieve a high level of user-friendliness by allowing stress-free installation and easy operation of all important functions of the camera.

Each housing is individually inspected and water pressure tested to ensure optimum quality.

Please read this manual carefully before using the housing, this will maximize its performance as well as its lifetime.

The illustrations in this manual may differ from the actual product.

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WARRANTY

All NAUTICAM Products are warranted against any material and manufacturing defects for two years from the date of purchase for consumer use. The warranty period is defined by the invoicing or payment date by the customer. Alternatively, the warranty period would be assumed from the day that the product is shipped from our facility. 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.

PRECAUTIONS

- A water-tight test without the camera inside the housing is highly recommended when using the system for the first time and after the changing of port and O-ring(s).
- Do not use lubricants from other brands with the silicone rubber O-ring on this housing, only use the lubricant provided by NAUTICAM.
- Discontinue use immediately should you notice any leakage.
- Store the housing in a robust, shock-proof container during transportation; avoid transporting with any equipment, such as a camera, inside the housing.
- When travelling by air, do not close the housing as this may lead to a pressure difference between the atmosphere and inside the housing.
- Care must be taken when opening the housing, as pressure may build up inside the housing which increases the opening force.

- Do not open the product in a wet or sandy environment. Protect the interior from moisture and debris in order to prevent malfunction or leakage.
- Do not store the product in an environment of high humidity.
- Do not leave the housing and the monitor in direct sunlight for prolonged periods.
- Keep out of reach of children, failure to do so could result in injury.
- Defective products should be shipped to our distributors for service, unauthorized disassembling and/or modifications could result in malfunction or leakage.
- Use only recommended battery with this product, do not mix different specifications or old and new batteries.
- Do not place excessive stress on your HDMI cable connector.
- Do not bend or twist your HDMI cable.

PACKAGE CONTENTS

- NA-RX100VII Housing
- 90181 N50 NA-LX100/LX100II/RX100VI/RX100VII Standard Port
- Set of Handle Brackets with Shutter Release Extension
- 90135 Spare Silicone Rubber O-ring for Housing
- O-ring Remover
- CR2032 Battery (pre-installed)
- Lubricant
- Set of Allen Keys
- Manual Instruction Card

FOR 17424P,

- Flexitray
- M14 Vacuum Valve
- Shoulder Strap
- Right Handle
- Vacuum Pump
- Two Mounting Balls
- Padded Travel Bag

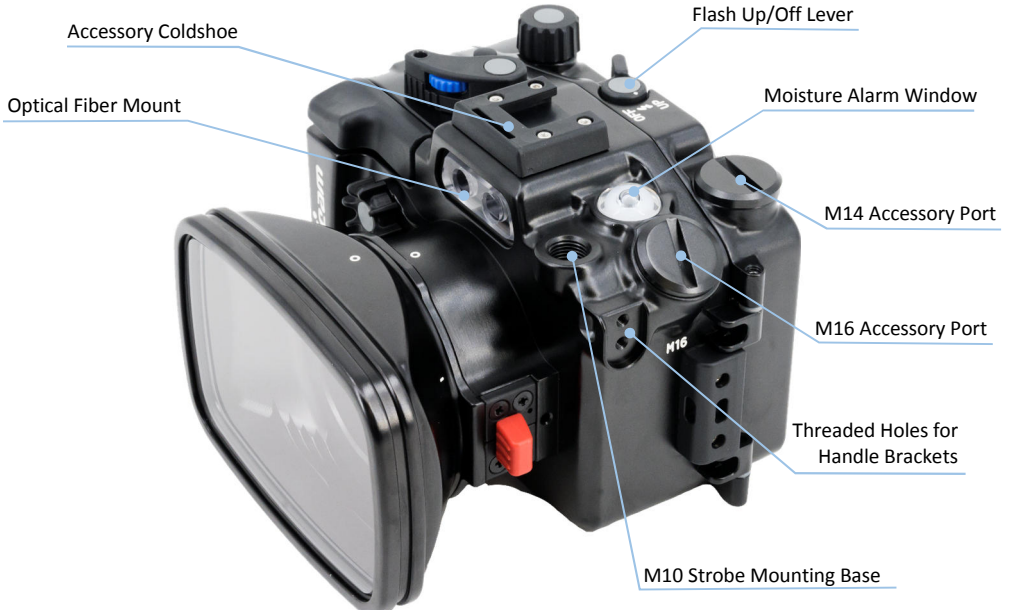
SPECIFICATIONS

Construction	Housing body:	Aluminum alloy
	Surface treatment:	Hard anodized
	Display window:	Abrasion resistant polycarbonate
Dimensions	Width:	151mm
	Height:	101mm
	Depth:	137mm
Weight in air	1.09kg	
Weight in water	0.28kg (Inc. Camera and battery)	
Depth rating	100 m	
Compatible camera	Sony Cyber-shot DSC-RX100 VII Digital Camera	

IDENTIFICATION OF PARTS



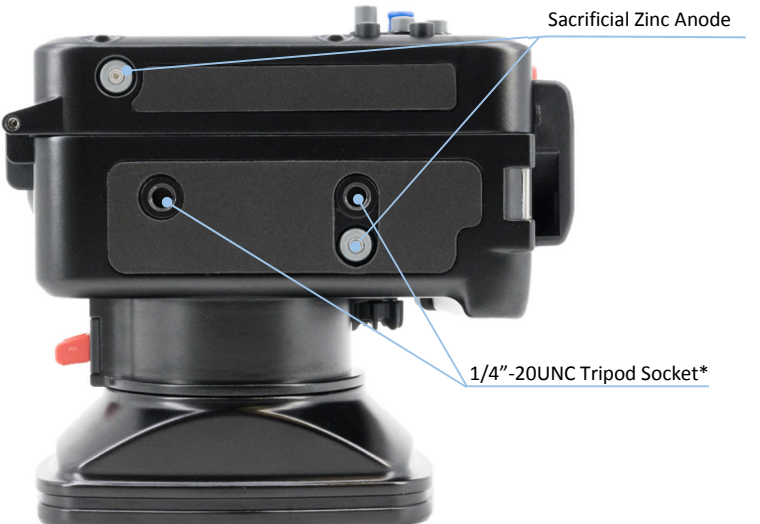
**Handle brackets and Shutter release extension are not displayed.*



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**Handle brackets and Shutter release extension are not displayed.*



**The maximum length of screws that can be used with the tripod socket is 4mm*

OPENING AND CLOSING THE HOUSING

To open the housing:



1. Press the housing lock safety button.



2. Turn the housing lock anti-clockwise for 270°, until the lock reaches the “Open” position as shown.

To close the housing:

When closing, make sure there is nothing caught between the closing surfaces of the two halves of the housing.



3. Close the housing while the housing lock is in the “Open” position.



4. Turn the housing lock clockwise for 270° until the lock reaches the “lock” position as shown. Confirm that the white indicator line on the safety button is visible.

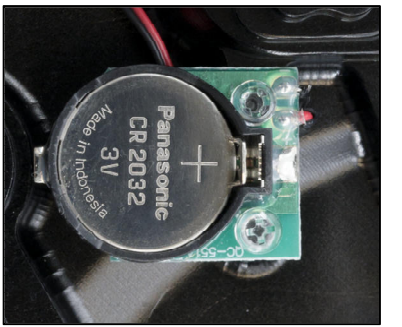
PREPARATION OF THE HOUSING

1. After verifying that the main O-ring is in good condition, lightly coat it with the lubricant provided.

2. Make sure the O-ring groove located in the front part of the housing is free from any foreign material; the groove can be cleaned with the aid of a microfiber cloth.

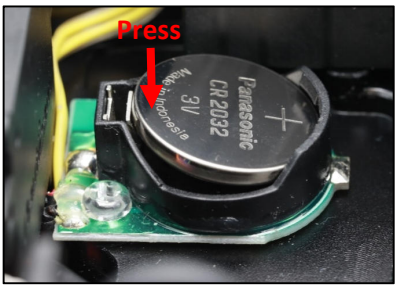
3. Place the main O-ring into the groove, first at the corners, then the whole perimeter.

4. Setting up the moisture alarm:

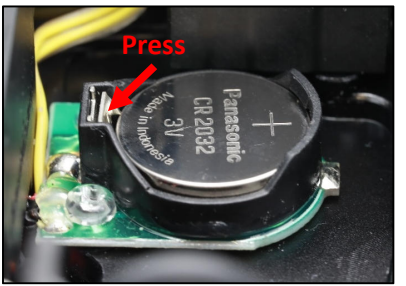


1. Ensure that remove an insulation film before install a battery.
   Then install the battery provided into the battery compartment on the circuit board inside the housing.

Battery Installation:

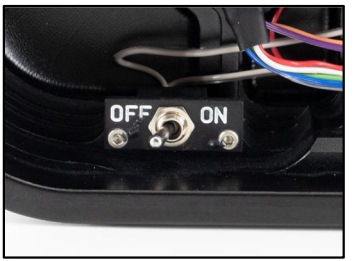


Insert the battery as shown above and then press down the battery.

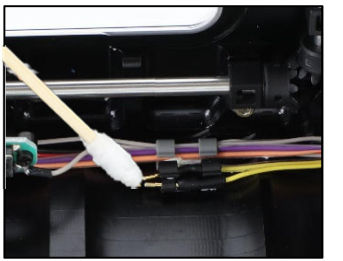


To remove the battery, press the metal plate as indicated and the battery will pop out.

**Use only recommended battery with this product*



2. Switch the alarm on. The LED light will flash blue once and turn blue for five seconds indicating the battery is normal. Then it goes into flashing blue light standby mode.



3. Test the alarm by connecting the two wires near the bottom of the housing with a damp cotton bud; the alarm should start giving out a repeating “beep” sound along with a flashing red light. The “beep” sound and the light should keep on going for 5 seconds after the removal of the damp cotton bud.

Optional vacuum valve:

Vacuum valve can be attached to the housing via one of the accessory port for conducting a vacuum seal test. Please refer to the manual of the vacuum valve for details of the operation.

LED status identification:

On start up

LED indicator	***Status***
Flash “Blue” light once	Indicates a 2nd generation PCB
Steady "Blue" light	Battery is normal, goes into flashing "Blue" light standby mode after 5 seconds.
"Blue" and "Red" lights alternating	Battery low. Replace battery as soon as possible. Goes into standby mode after 5 seconds.
Steady "Red" light	Battery empty, replace battery.

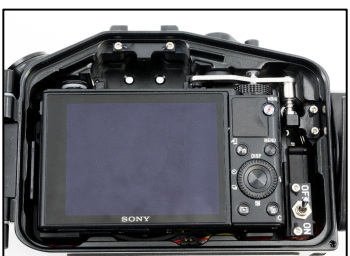
After start up

LED indicator	*Status*
Flashing "Blue" light	Standby mode. The moisture alarm is active, and the system is ready for vacuum indication whenever a vacuum is detected.
Flashing "Red" light with beeping sound	Moisture is detected.
Flashing "Yellow" light	Some vacuum is detected, target vacuum level is not reached.
Steady "Green" light	Target vacuum level is reached.
Rapidly flash "Yellow" light	Vacuum is dropping. (Will occur only after target vacuum level is reached)
Rapidly flashing "Red" light	Vacuum is totally lost. Circuit stalled until switched off. (Will occur only after target vacuum level is reached)

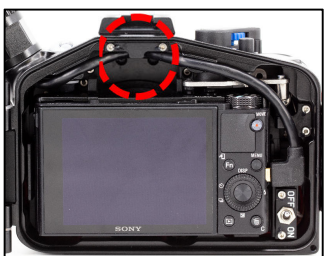
INSTALLING THE CAMERA

To install the camera into to the housing:

1. Place the camera inside the housing as shown.
   Make sure to put HDMI cable under the cable holder of the internal housing when HDMI cable is required as shown.



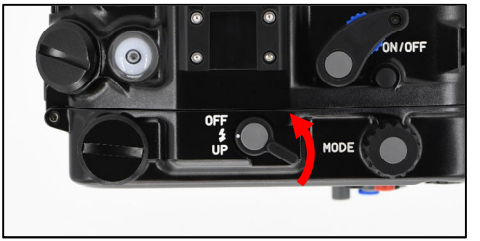
***Without HDMI cable**



***With HDMI cable**

2. Close the housing and confirm that all the controls of the housing are correctly engaged.

USING THE FLASH UP/OFF LEVER



1. Install the camera when the flash is recessed into the camera body. Press the housing lever upwards as shown to pop the flash up.



2. Please make sure the flash lever positioned properly as shown for optimal light transmission.

3. When not using the flash, press the lever downwards to OFF position until it can't go any further.

CHANGING THE PORT



1. Press and hold the red port lock safety button to un-lock.



2. While holding the red port lock safety button, turn the port anti-clockwise until the "I" mark on the port aligns with the "o" mark on the housing. Then gently pull the port out.



3. Align the “I” mark on the port with the “O” marl on the housing.
4. Gently push the port towards the housing until it cannot go any further.



5. Turn the port clockwise until the "o" mark on the port aligns with the "o" mark on the housing.

N50 SHORT PORT WITH BAYONET MOUNT – CAMERA

To avoid the camera locks-up and power down, please set the recommended zoom range (24mm-65mm) to use with 38703 N50 Short Port with Bayonet Mount. It is the optimal setting to use with Nauticam Optics Lenses: CMC-1, CMC-2 and WWL-1 for macro and wide-angle photography respectively. (For detail usage recommendations, please refer to NA50 Port Chart).

Please follow below steps to set the preferred zoom range.

1. Power on the camera and change the mode dial to MR for Memory Recall.

2. Set the focal length (zoom) to 24mm. This will be the setting for WIDE ANGLE with the WWL-1.

3. Press the MENU button



4. Scroll to CAMERA 1 menu

5. Scroll to sub-menu 4/14 titled Shoot Mode/Drive2 and select MR 1/2 Memory.



6. Select “1” from the top icons. You will receive a notification on the LCD at completion.



NOTE: you can also assign other camera settings at the same time such as focus/exposure/white balance, etc.

7. Ensure MODE DIAL is still set to MR and set the lens to 65mm. This will be the setting for MACRO using the CMC.

8. Press the MENU button

9. Scroll to sub-menu Shoot Mode/Drive2 and select MR 1/2 Memory



10. Select “2” from the top icons. You’ll receive a notification on the LCD upon completion.



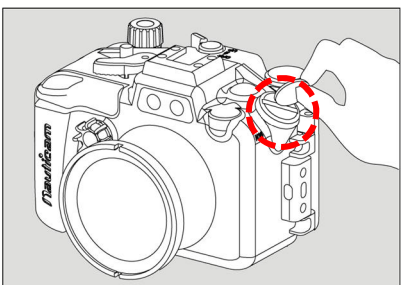
11. To change between WIDE (MR1) and MACRO (MR2) press the FN button, scroll to MR 1/2 RECALL and choose either “1” for 24mm or “2” for 65mm.



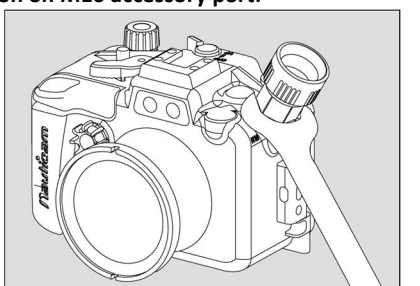
INSTALLING HDMI BULKHEAD (OPTIONAL)

This housing is compatible with HDMI output to external monitor with optional monitor housing. A specific HDMI bulkhead (#25032) and socket extension (#25028) are required

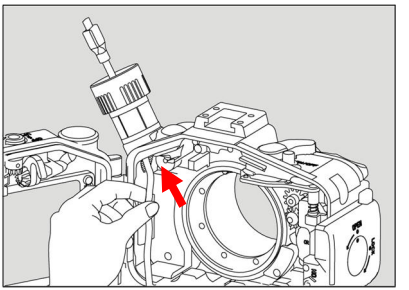
To install the HDMI bulkhead and socket extension on M16 accessory port:



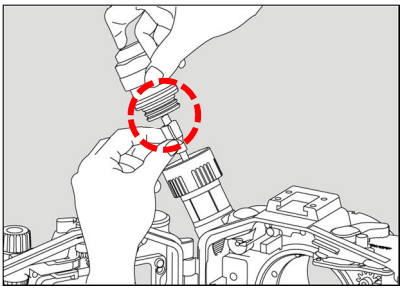
1. Unscrew the M16 plug from the threaded hole with a coin.



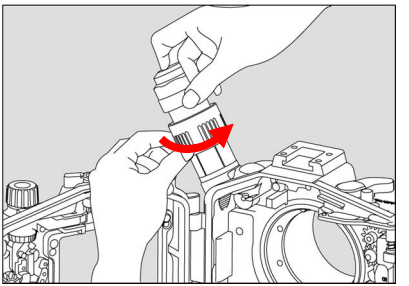
2. Tighten the socket extension to the camera housing with a spanner.



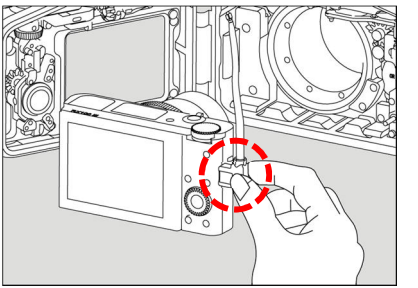
3. Open the housing and insert the HDMI cable through the threaded hole from inside of the housing.



4. Connect the HDMI cable to the HDMI bulkhead.



5. Tighten the HDMI bulkhead by turning the threaded ring on the socket extension.



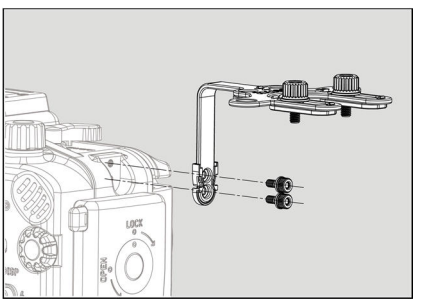
6. Connect the HDMI cable to the camera's HDMI connector before placing the camera inside the housing.

Please refer to the monitor housing manual for connection between camera housing and monitor housing.

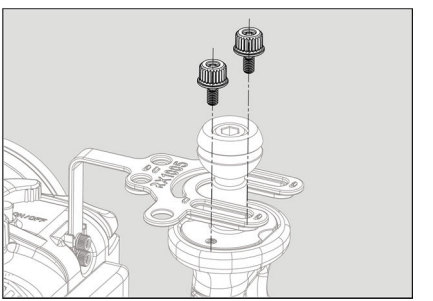
INSTALLING HANDLE BRACKETS AND SHUTTER RELEASE EXTENSION

A pair of handle brackets is supplied with the housing for use with optional Easitray (#71206) or Flexitray (#71207) with right handle (#71208), providing additional stability. Strobe mounting balls (#71311) are required.

To install the handle brackets:



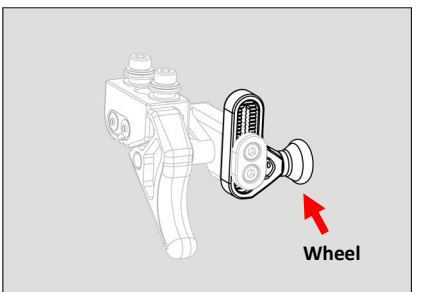
1. Locate the mounting holes on the side of the housing and install the handle bracket to the housing as shown. Remove the retaining nuts before mounting the bracket.



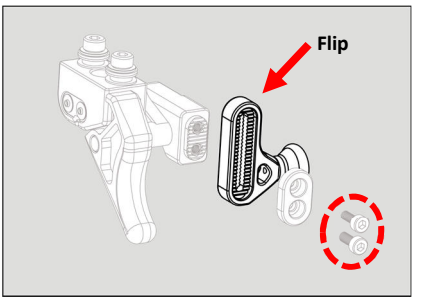
2. Attach the tray to the housing and align the bracket to the threaded holes of 71311. Adjust the position of the handle if needed.

The Shutter release extension provides easy shutter release access from the handle grip for users with big hand, or thick dry suit gloves who prefer shooting from a handle.

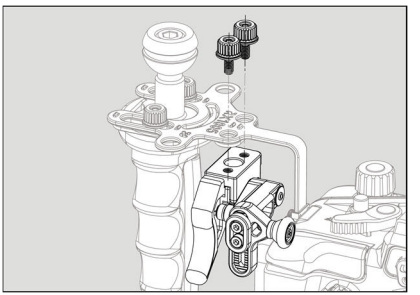
To install the shutter release extension:



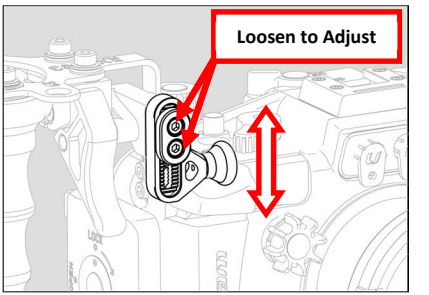
1. Confirm that the wheel is located at the bottom as shown above.



2. The position of the wheel can be switched by removing the two screws as indicated and flip the wheel assembly to the preferred position.



3. Mount the shutter release extension onto the right handle bracket as shown.



4. Loosen the two screws as shown until the wheel assembly can freely move vertically. Adjust the position of the wheel so that it touches on the housing shutter release lever and tighten.

CARE AND MAINTENANCE

- Soak the housing system in fresh water after each salt water use, during which all control buttons/knobs should be operated a few times to avoid the accumulation of salt residue; wipe the housing with a towel before opening.

- Carefully press the housing lock safety button for a few times to avoid the accumulation of salt residue.

- After each day of diving, it is advisable to have the main O-ring in the front part of the housing removed from its groove with the O-ring remover and inspected for damage. Also check that the O-ring retains its original circular shape; never stretch the O-ring excessively or remove it with a sharp object. The O-ring groove should be cleaned to ensure it is free from any salt deposit or foreign material; lightly coat the O-ring with the provided lubricant before reinstalling it in the groove. A damaged O-ring should be discarded immediately and replaced only with one that is provided by NAUTICAM.

- Replace the main O-ring annually. It is recommended that you ship the housing to our distributor for a complete overhaul every year or after every 200 dives.

OPTIONAL ACCESSORIES



P.N. 25624
M14 Vacuum Valve II
(Pushbutton Release)



P.N. 25131
LCD Magnifier attachment rails
for NA-RX100IV/RX100V/RX100VI



P.N. 25106
LCD Magnifier with Dioptric
Adjustment



P.N. 71206
Easitray II with left handle
(with 2pcs ¼'' screws)



P.N. 71207
Flexitray II with left handle
(with 2pcs ¼'' screws)



P.N. 71208
Adjustable right handle II
(for Easitray II & Flexitray II)



P.N. 81201
Super Macro Convertor 1
(2.3x Magnification)



P.N. 25107
M67 flip diopter holder
for standard port



P.N. 38702
N50 3.5'' Acrylic Wide-Angle
Dome Port

For wide angle and macro conversion lens interchangeable underwater,



P.N. 81301
Compact Macro Convertor 1
(CMC-1, 4.5X Magnification)



P.N. 81302
Compact Macro Convertor 2
(CMC-2, 2.8X Magnification)



P.N. 83201
Wet Wide Lens 1 (WWL-1) 130 deg.
FOV with compatible 28mm Lenses



P.N. 83214
Bayonet Mount Adaptor for SMC/CMC



P.N. 38703
N50 Short Port with Bayonet Mount (To use with WWL-1)

For external monitors

All the needed cables and bulkhead are include in the monitor housing.



P.N. 17906/17907
NA-502H housing
for Small HD 502 5-inch HD monitor with HDMI 1.4 input support



P.N. 17920/17921
NA-502B-H Housing
for SmallHD 502 Bright Monitor (with HDMI 1.4 input support)

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