



## Liquid Crystal Display (32")

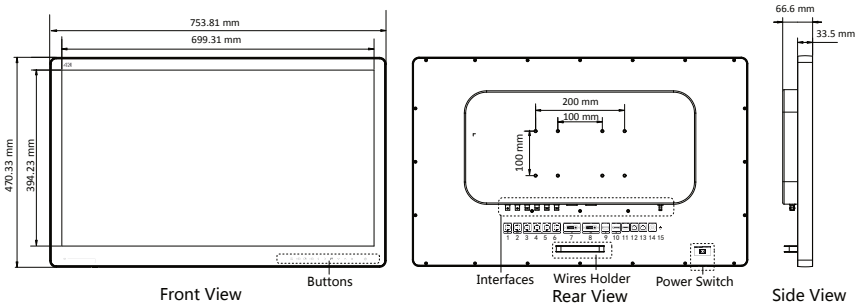
Quick Start Guide

UD36913N

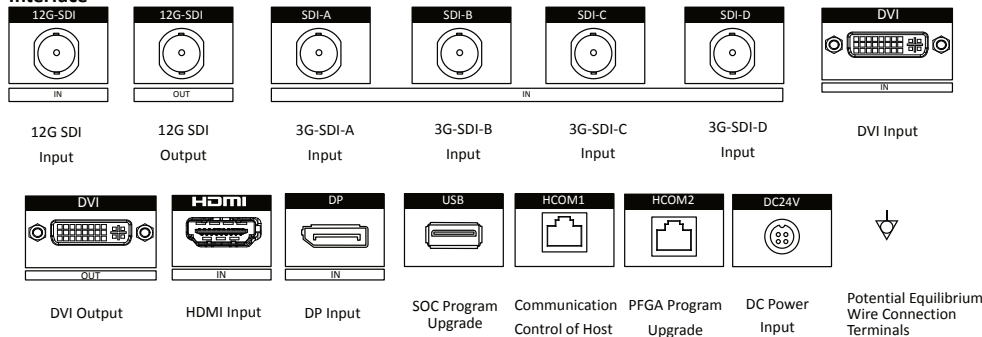
# 1 Introduction

High-quality image and video display device customized for operating room, ICU, and other medical scenes. Net weight: 12.56 kg (27.7 lb.)

## Appearance & Dimensions



## Interface



## Front Buttons

	Dormancy	Indicating working status of LCD 1. Orange, dormancy status. 2. Green, working status.
	Return	1. Return to previous menu. 2. Exit menu.
	Up/Down	Choose last/next term.
	Menu	1. Open user menu. 2. Confirm.
	Right/Left	Increase/Decrease value.
	Main Signal	Choose input signal on main screen.
	Multi-screen	Multi-screen mode switch.
	Sub Signal	Choose input signal on sub screen.
	Main-Sub Screen Switch	Main-Sub/Left-Right switch on dual-screen.

### Note

- USB, HCOM1, and HCOM2 interfaces are only for technical support staff.
- It is recommended to use 3G SDI, 4\*3G SDI, 12G SDI, HDMI, and DP input interfaces.

# 2 Installation

## Installation Environment

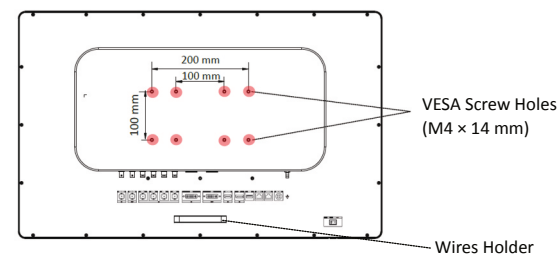
- It is recommended to install the device on a medical cart or on a suspension arm.
- Install the device near the convenient socket.
- The device should be placed on a flat, solid and stable platform, and the platform can support at least 3 devices. If it is placed on the AGV or rack, the device may fall, damaging the device, or even causing injury.
- Do not use in the presence of flammable narcotics, air, oxygen, or nitrogen oxide mixture. Otherwise, explosion may occur.
- Do not expose the device to rain or damp; do not use the display near water.
- Do not cover or plug any ventilation holes in the device enclosure.
- Keep small objects or liquids away from the device. If there is small object or liquid falling in/flowing into the device, please unplug the device power plug and contact our service personnel.

### Note

- Make sure the host and display are off.
- After opening the box, please check according to packing List. After confirming that the display and accessories are complete and free of damage, install the display according to the following requirements and methods.
- Please connect to the display according to the table on next page. If the power cable does not match with the product, please contact the manufacturer. To avoid accident, please use the approved power cable that matches with the voltage of the power socket and meets the requirements of national security standards.
- To avoid the risk of electric shock, the power cable should be connected to ground power supply.
- Power cable: When the voltage exceeds 120 Volts, the display should be powered by center tap circuit.

## Installation

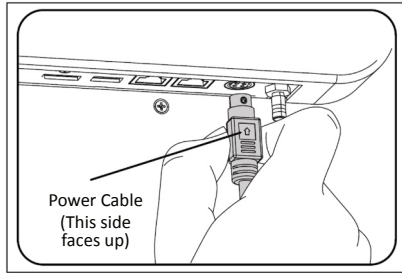
1. Connect the Display with the bracket using four M4 × 14 mm screws.



### Note

- The bracket (model: HA400L) is recommended. Please contact the manufacturer for more information about the bracket.
  - The wires holder can be only used to route the wires or cables. DO NOT lift the device by the wires holder.
2. Plug one end of the signal line into the interface on the back of the display and the other end into the interface of the endoscope host. For those signals lines with fixing member, make sure that they are fixed in place.

3. Plug one end of the power cable into the interface on the back of the display and the other end into the socket. Power light will turn orange.



### Power and Grounding

- Please use the power cable that comes with the device. Please plug the device's power plug into the socket to keep the device in contact.
- Do not touch the power cable, plug in or unplug the power plug when it thunders. Otherwise, an electric shock may occur.
- If you need to disconnect the power cable, please grab the plug and unplug. If you pull the power cable, it may be damaged and cause electric shock.
- Pay attention to power load capability during use. Overload of circuit may cause fire or electric shock.
- Please use the correct voltage specified in this manual. If the voltage does not meet the requirements of this device, it may cause fire, electric shock, or device damage.
- If the device is not used for a long time, please disconnect the device from the power socket.
- If you need to completely cut off the power supply of the device, remove the power plug from the power socket.
- Please make sure the device is connected to a computer or other device that meets requirements.
- The device must be grounded.

Area/Country	USA, Canada	EU(Except for the UK)	UK
Plug Type			
Standard	ANSI/UL 817 CSA-C22.2 No.21	DIN VDE 0620-1:2010	BS1363/BS546
Voltage	120V	230V	230V
Area/Country	Brazil	Japan	Korea
Plug Type			
Standard	NBR14136	JIS 8303	KSC8305:2002R
Voltage	220V	110V	220V
Area/Country	Danmark	Singapore	China
Plug Type			
Standard	SB 107-2-D1	SS145	GB15934-2008
Voltage	230V	230V	220V

## 3 Operation

### Turn on Display

Connect the power cable and turn the power switch to "I" status and the dormancy button indicator on the front view turns orange. Press the dormancy button to enable the display. The dormancy indicator will turn green. At the same time, the power-on interface will appear on the screen, indicating that the display is running.

- The product has a memory function, which can automatically record the shutdown mode after the user's last use. If you turn off the dormancy button and use the power switch to turn off the product, you must turn on the dormancy button to turn on the power supply of the product; If the product is directly turned off by pressing the power switch, the power can be directly supplied to the product after the power switch is turned on.
- Only the original power cable and adapter can be used. Make sure the plug is fully inserted into the socket.
- Make sure the power supply voltage of the display is lower than the rated voltage of the power cable.

### Dormancy

When the display is running, press the dormancy button. The dormancy indicator turns orange, no picture on the display, and the backlight is off, indicating the display is in dormancy state. Press the dormancy button on the display at this point. The dormancy indicator turns green, and pictures show up on screen, indicating the display resumes running.

### Turn off Display

Turn the power switch to "O" and unplug the power adapter.

## 4 Menu

By using the button or menu function on the product, the user can set the product in different ways to meet the user's working environment. You can view the basic information and current settings of the product in the menu. The menu is shown below and can be divided into three sections:

1. The top column shows the signal source and the displayed physical resolution.
2. The icon on the left indicates the main menu information.
3. The right side refers to submenu and submenu options.

OSD	Function and Default		Options
Image	User Mode	Mode 1	Mode 1, Mode 2, Mode 3, Mode 4, User-defined, Linkage
	Curve	GAMMA 2.2	GAMMA 1.8, GAMMA 2.0, GAMMA 2.2, GAMMA 2.4, GAMMA 2.6, DICOM, BYPASS
	Backlight	50	0 to 100 adjustable, adjustment step length is 1.
	Contrast	50	0 to 100 adjustable, adjustment step length is 1.
	Brightness	45	0 to 100 adjustable, adjustment step length is 1.
	Saturation	44	0 to 100 adjustable, adjustment step length is 1.
	Hue	48	0 to 100 adjustable, adjustment step length is 1.
Color	Sharpness	15	0 to 30 adjustable, adjustment step length is 1.
	Color Space	BT.709	BT.709, BT.2020
	Color Temp.	6500K	6500K, 7500K, 9300K, User-defined
	R Gain	Correction Value	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	G Gain	Correction Value	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	B Gain	Correction Value	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	R Offset	128	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	G Offset	128	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	B Offset	128	Only adjustable when color temp is user-defined. 0-255 adjustable, adjustment step length is 1.
	Settings	RGB Range	Full Gamut
Aspect		16:9	Auto, 4:3, 16:9, 1:1
SR		Off	Off, Low, Medium, High
Pivot		Off	Off, 180°
Key Lock		Off	On/Off
Buzzer		Off	On/Off
OSD Language		Chinese	Chinese, English
OSD Timeout		15S	5S, 15S, 30S, 60S, Off
Signal	Multi-Screen	Off	Off, PIP 1, PIP 2, POP 1, POP 2, 4-Screen
	Main Scrn Signal	12G SDI	12G SDI, 4*3G SDI, HDMI, DP, DVI, 3G SDI
	PIP Sub-Scrn Pos.	Bottom-right	Bottom-right, Bottom-left, Top-left, Top-right
	POP Sub-Scrn Pos.	Left	Left, Right
	4-Scrn Sub-Scrn Pos.	Top-right	Bottom-right, Bottom-left, Top-right
	Sub-Scrn Signal	HDMI	12G SDI, 4*3G SDI, HDMI, DP, DVI, 3G SDI
System	Main Scrn Info.	Res Info.	
	Sub-Scrn Info.	Res Info.	
	User Reset	No	Yes, No
	Upgrade	Off	On, Off
	Host Linkage	On	On, Off
	Working Hours	Time Display	Unit: H
Version	Version Num.		
MCU Version	Version Num.		

# 5 Maintenance

## Repair and Maintenance

- The use of faulty device may result in fire, electric shock, or device damage. If the device starts to smoke and with chime or abnormal noise, please cut off the power supply immediately and contact our company for help.
- Repair work should be done by qualified person. Do not repair or change the device at will. Otherwise, the device may be damaged or cause personal injury.
- The liquid crystal will cause toxic and side effects. Do not touch the damaged LCD. If you are exposed to liquid crystal, please clean yourself immediately and ask professionals for help.

## Suggestion

- On extremely important occasions, it is highly recommended to prepare backup display for replacement.
- Do not draw or press the display with sharp objects, such as pencils or pens, which may cause damage to the device. Please use a clean and soft cloth to clean.
- Do not directly contact the signal port of the display. Otherwise, the display may cause electrostatic damage.
- The backlight of the LCD has a limited service life. It is highly recommended to use the recommended brightness and disable the display when not in use to maximize its service life.
- Abandoned device handling should comply with local regulations.
- If the display is not used correctly, the display may interfere with other devices. The following operations are recommended to clear the interference:
  - Move or adjust the device.
  - Set partition device between devices.
  - Plug the two device plugs into different sockets.

## About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the company website.

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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## Regulatory Information

### EU Compliance Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Directive 2014/30/EU (EMCD) and Directive 2011/65/EU (RoHS).

Note: The products with the input voltage of within 50 to 1000 VAC or 75 to 1500 VDC comply with Directive 2014/35/EU (LVD), and the rest products comply with Directive 2001/95/EC (GPSD). Please check the specific power supply information for reference.



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Directive 2006/66/EC and its amendment 2013/56/EU (Battery Directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info)

## Safety Instructions

Please read all the safety information carefully before using.

- Make sure the running environment meets the requirement of the device. The operating temperature shall be 0 °C (32 °F) to 40 °C (104 °F), and humidity shall be 30% to 85%.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- CAUTION: If the fuse of the device can be replaced, replace it only with the same model to reduce the risk of fire or electric shock.
- The socket-outlet shall be installed near the device and shall be easily accessible.
- Do not touch the bare components (such as the metal contacts of the inlets) and wait for at least 5 minutes, since electricity may still exist after the device is powered off.
- This device is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- Dispose of used batteries according to the instructions.
- No naked flame sources, such as lighted candles, should be placed on the device.
- For the device with ventilation openings, the ventilation openings should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, and curtains. The openings shall never be blocked by placing the device on a bed, sofa, rug, or other similar surface.
- This equipment is not suitable for use in locations where children are likely to be present.
- Install the device according to the instructions in Quick Start Guide.
- To prevent injury, this device must be securely attached to the installation surface in accordance with the installation instructions.
- If the device supports wall mounting or ceiling mounting, the mounting surface shall be able to withstand the additional force of three times the weight of the device but not less than 50 N. The device and its associated mounting means shall remain secure during the installation. After the installation, the device, including any associated mounting plate, shall not be damaged.
- CAUTION: If the device needs to be installed with a specific bracket of our company, use the corresponding bracket only. Use others (such as carts, stands, and carriers) may result in instability and cause injury. Refer to the device datasheet for bracket model details.
- The interface varies with the models. Please refer to the product datasheet for details.
- If the device needs to be wired by yourself, select the corresponding wire to supply power according to the electric parameters labeled on the device. Strip off wire with a standard wire stripper at corresponding position. To avoid serious consequences, the length of stripped wire shall be appropriate, and conductors shall not be exposed.
- Make sure that the power has been disconnected before you wire, install, or disassemble the device.
- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.