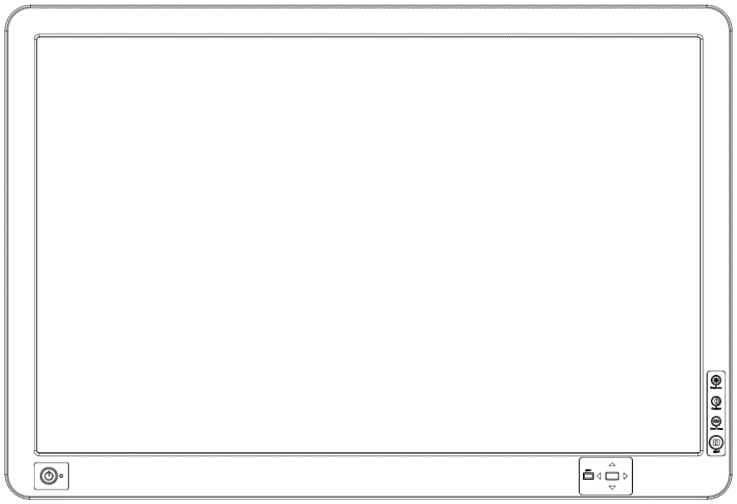
AMM240ED



User Guide

ENABLING BRIGHT OUTCOMES

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Table of contents

1 Welcome!

Introduction

Thank you for choosing this AMM240ED!

For future reference, record the serial number of your display below. The serial number is located on the back of the display.

Serial number

1.1 Conventions

Warnings, Cautions and Notes

Read this manual and carefully follow the instructions. The words warning, caution, and note carry special meanings and should be carefully reviewed:

- **Warning!**
  To avoid potential serious injury to the user or the patient and/or serious damage to this device.
- **Caution!**
  To avoid potential injury to the user or the patient and/or damage to this device.
- **Note**
  To inform the user of important installation, operating, or maintenance instructions.

1.2 What's in the box

Overview

Make sure the following items are present when you unpack the box:

- AMM240ED LCD display (the equipment that displays information, graphic data, image and video on the LED screen)
- English user guide
- Multilingual documentation disc
- BNCx4 to HD15 cable [1]
- DVI-I cable
- BNC cable
- Y/C cable
- AC power cord [2]
- AC-Adaptor (part number: BM060S24F (Bridgepower))
- Cable cover
- 4 VESA screws

Your system provider may offer alternative cords or cables depending on the installation requirement and local geography issues.

Keep your original packaging. It is designed for this display and is the ideal protection during transport and storage.

1. May be removed on pending models
2. Might vary pending on region standard

1.3 Product overview

Front and Back

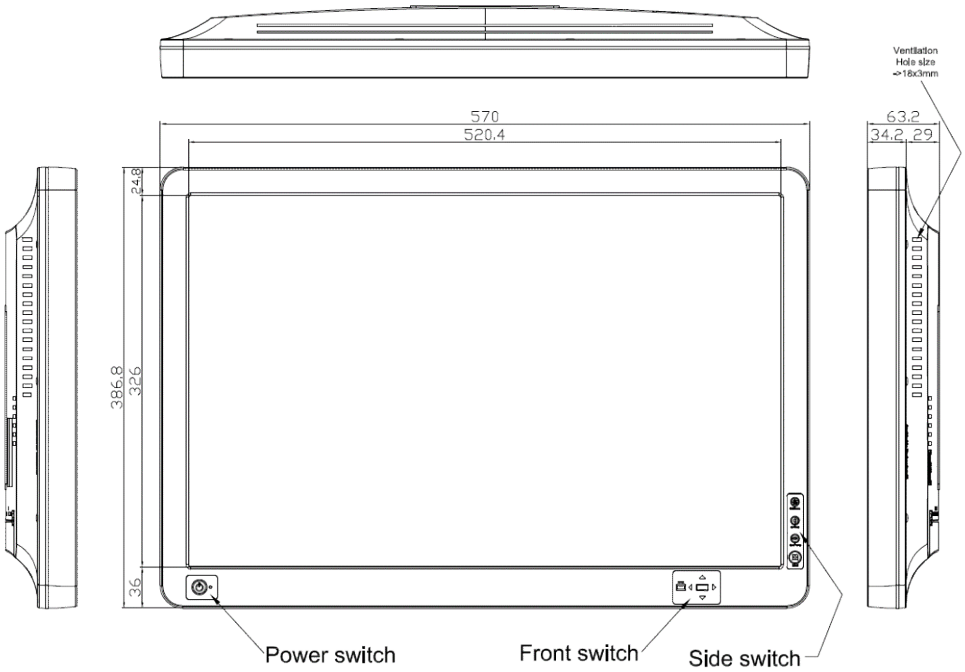

Image 1–1

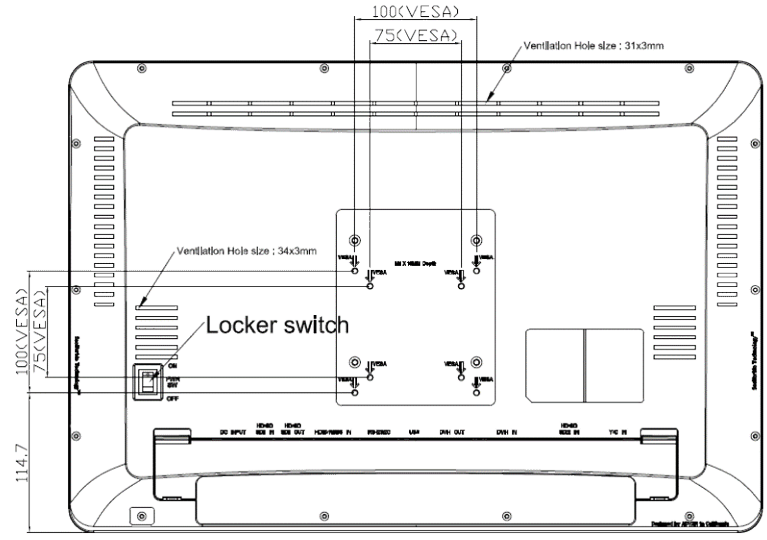

Image 1–2

- **Power switch:** Turns the system ON or OFF.
- **Menu:** Enter or exit the OSD menu.
- **Left:** Decrease a setting or value.
- **Right:** Increase a setting or value, or enter a submenu.
- **Up:** Move to the previous item.
- **Down:** Move to the next item.
- **Select:** Select an item.
- **Brightness:** Quick key for brightness adjustment.
- **Contrast:** Quick key for contrast adjustment.
- **Scale mode:** Quick key for scale mode adjustment.

- **Input:** Activate the video source selection menu.

Connections

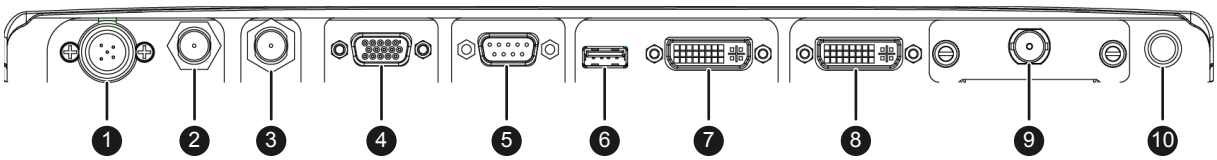

Image 1–3

1. DC power
2. HD/SD SDI1 IN
3. HD/SD SDI1 OUT
4. HD15/RGBS IN
5. RS232C
6. USB
7. DVI-I OUT
8. DVI-I IN
9. HD/SD SDI2 IN (OPTIONAL) [3]
10. Y/C IN

AC-Adaptor dimensions

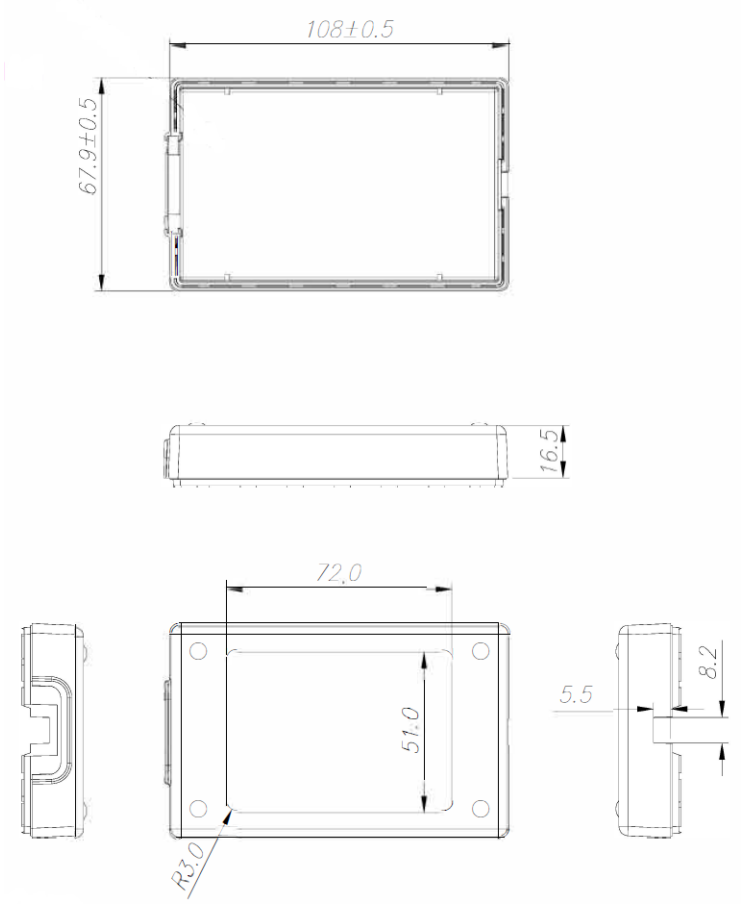

Image 1–4

3. A metal cover is attached to the HD/SD SDI2 connector depending on the model.

2 Installation

To make your installation easier, the monitor is able to Plug and Play with your system if your system also supports the DDC (Display Data Channel) protocol. The DDC protocol is a communication protocol through which the monitor automatically informs the host system about its capabilities, for example, supported resolutions and corresponding timing. The monitor supports the DDC1 and DDC2B standard.

2.1 Workspace

To prepare a suitable workspace

Before you carefully unpack your monitor, prepare a suitable workspace.

You need:

- a stable and level surface
- a grounded power outlet
- an area which is relatively free of glare from sunlight or other sources of bright light

The monitor is cooled by natural convection (it has no fan). For optimum performance, do not block the cooling vents.

2.2 Unpacking

To unpack the monitor

- Inspect the monitor and other package contents for shipping damage that could cause a fire or shock hazard.
- Immediately report any shipping damage to the carrier or transportation company and contact customer service in case of return.

2.3 Cable connections

To connect the cables

1. Connect a supplied video cable (DVI-I, Y/C, BNC, BNCx4 to HD15) to the host system accordingly.
2. Connect the DC power to the DC power connector on the monitor.
3. Make sure that the AC power cord is the correct type required for the area. [4]
4. Connect one end of the AC power cord to the AC-Adaptor.
5. Connect the other end of the AC power cord to a **grounded** power outlet.
6. Turn the host system on.
7. Turn the monitor on. [5]

You can use a Bridgepower extension power cord (optional). The part numbers are: C-47D2001P50MF (5 ft), C-47D2004P57MF (15 ft) and Z3404272 (75 ft).

To avoid damage to the unit or equipment, only connect the equipment to the HD/SD SDI optional module.

4. For 120 V applications, use only the UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 V applications use only the UL Listed detachable power cord with NEMA configuration 6-15P type (tandem blades) plug cap.
5. If the monitor does not function properly, refer to the troubleshooting section to diagnose the problem.

3 Daily operation

3.1 Recommendations for daily operation

To avoid image retention

Permanent burn-in may occur from the following:

- Displaying color bar or static images repeatedly or for a long period of time.
- Using the unit repeatedly in a high temperature/ high humidity environment.
- Continuously displaying an image smaller than the monitor.

To reduce the risk of burn-in, it is recommended to turn off the power of the unit, and reduce the brightness when the unit is not in use.

3.2 Bringing up the OSD menus

How to bring up the OSD menus

Bringing up the OSD menus can be done by:

1. If not already done so, switch on the display.
2. Press the menu button.

As a result, the OSD main menu comes up.

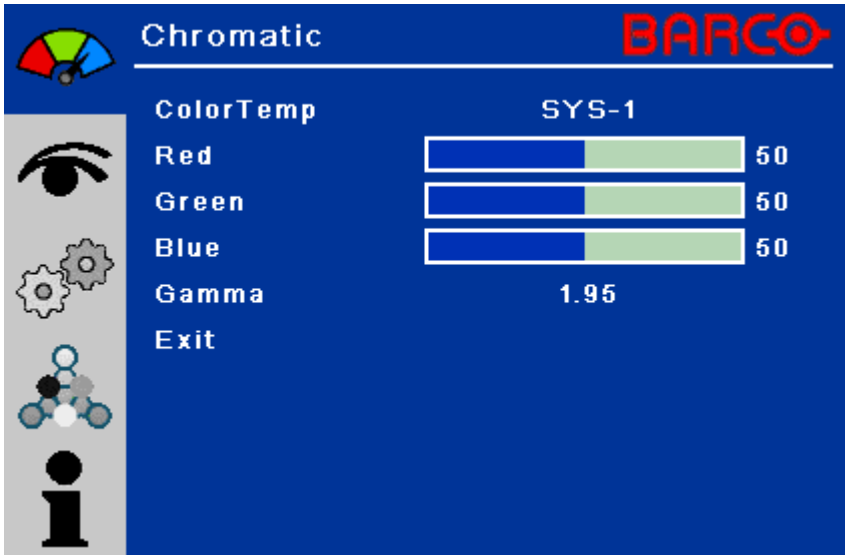

Image 3–1

3.3 Navigating through the OSD menus

How to navigate through the OSD menus

Navigating through the OSD menus can be done by:

- Press the Up or Down button to select icons. The icon will be highlighted when selected.
- Press the right arrow button to go into another menu.
- Press the enter button to select a submenu and the right arrow or left arrow button to select the function.
- In order to exit the OSD menu (regardless of where you are), choose the “Exit” icon and press the menu button.
- Press the input button to enter the input menu. Push the Up or Down arrow to highlight the correct input and press enter to select the input.

Overview main menu icons

Chromatic:

Adjust Color Temp, Gamma

Visual:

Adjust Brightness, Contrast, Phase, Chroma, Sharpness-V, Sharpness-H

Setting:

Adjust Scale Mode, Color Space, Freeze Frame, Zoom / Pan, PIP, POP, PBP

Advanced:

Adjust OSD Position Control, Screen Control, DPMS, Auto Source Select, Smart Select, Restore Factory, Key Lock, Overscan

Information:

User Customer Entry, Serial Number, Runtime, Input Format, Exit

4 Advanced operation

4.1 Chromatic

About chromatic

The available functions are:

- **Color Temp:** Change the Color Temperature - D65, D93, SYS-1, SYS-2
- **Red:** Range 0 — 100
- **Green:** Range 0 — 100
- **Blue:** Range 0 — 100
- **Gamma:** Change the Gamma Value - 1.8, 1.9, 1.95, 2.1, 2.1S, 2.2, 2.3, 2.4, 2.4S, S0, Radiograph

4.2 Visual

About visual

The available functions are:

- **Brightness:** Adjust the Brightness of Panel (Range 0 - 100)
- **Contrast:** Adjust the Contrast of Video (Range 0 - 100)
- **Phase:** Adjust the Phase of Video (Range 0 - 100)
- **Chroma:** Adjust the Chroma of Video (Range 0 - 100)
- **Sharpness-V:** Set the Sharpness of Vertical Image (Range 0 - 20) [6]
- **Sharpness-H:** Set the Sharpness of Horizontal Image (Range 0 - 20)[6]

4.3 Setting

About setting

The available functions are:

- **Scale Mode:** Change the Scale Mode - Fill all, One to One, Vertical - Fill, Horizontal - Fill, Fill aspect ratio
- **Color Space:** Change Color Space between RGB and YUV
- **Freeze Frame:** Off / On
- **Zoom / Pan:** Activate zoom/pan OSD
- **PIP:** Activate PIP Menu
- **POP:** Activate POP Menu
- **PBP:** Activate PBP Menu

PIP / POP / PBP function

The following combinations are available:

Main / PIP	DVI-I	SDI1	SDI2 (Optional)[7]	Component / RGBs	HD-15	Y/C
DVI-I	x	o	x	o	o	o
SDI1	o	x	o	o	o	x
SDI2 (Optional)*	x	o	x	o	o	o
Component / RGBs	o	o	o	x	x	o
HD-15	o	o	o	x	x	o
Y/C	o	x	x	o	o	x

6. Available for Y/C and HD/SD SDI1 only
7. When a HD/SD SDI module (optional) is connected, the HD/SD SDI2 is applicated to the PIP/POP/PBP function.

The picture may be disturbed when the frame frequency of the main screen is different from that of the subscreen, or when the main screen and the subscreen input interlace signals.

PIP Menu

The available settings are:

- **Mode:** PIP Mode On / Off
- **Source:** PIP Sub Screen Source - DVI-I, HD/SD SDI1, HD/SD SDI2[8] Component/RGBs, HD15, Y/C
- **Position:** PIP Sub Screen Position - Top L, Top R, Bottom L, Bottom R
- **Size:** PIP Sub Screen Size - Small, Medium, Large
- **Blending:** PIP Sub Screen Blending (Range 0 - 20)
- **Swap:** PIP Sub Screen Swap

POP Menu

The available settings are:

- **Mode:** POP Mode On / Off
- **Source:** POP Sub Screen Source - DVI-I, HD/SD SDI1, HD/SD SDI2[9] Component/RGBs, HD15, Y/C
- **Position:** POP Sub Screen Position - Top L, Top R, Bottom L, Bottom R
- **Size:** POP Sub Screen Size - Small, Medium, Large
- **Blending:** POP Sub Screen Blending (Range 0 - 20)
- **Swap:** POP Sub Screen Swap

PBP Menu

The available settings are:

- **Mode:** PBP Mode On / Off
- **Source:** PBP Sub Screen Source - DVI-I, HD/SD SDI1, HD/SD SDI2[10] Component/RGBs, HD15, Y/C
- **Swap:** PBP Sub Screen Swap

4.4 Advanced

About advanced

The available functions are:

- **OSD Position Control:** Change the OSD Menu - H and V Position, Background, OSD Time Out, Language
- **Screen Control:** Control and Adjust H and V position, Freqency, Phase, Noise Reduction, Motion Offset
- **DPMS:** Change the DPMS - Off, 60 min, 90 min, 120 min, Normal
- **Auto Source Select:** Adjust Auto Source Select Between On and Off
- **Smart Select:** Enable / Disable Smart Select Sub Menu - Model A, Model B Model C, Model D
- **Restore Factory:** Changes All OSD Value to Factory Outgoing Status
- **Key Lock:** Set to Key Lock Mode
- **Overscan:** Adjust Overscan Ratio - Off, Step 1, Step 2, Step 3, Step 4, Step 5, Step 6, Step 7

OSD Position Control Menu

The available settings are:

- **H Position:** Adjust OSD H Position (Range 0 - 100)
- **V Position:** Adjust OSD V Position (Range 0 - 100)
- **Background:** Adjust Transparency of OSD Background (Range 0 - 20)
- **OSD Time Out:** Adjust OSD Time Out - 5 sec, 10 sec, 15 sec, 20 sec, 1 min, 2 min
- **Language:** OSD Language - English, Japanese, Chinese, Korean, French, German

8. When a HD/SD SDI optional module is connected, HD/SD SDI2 is applicable to the source for PIP mode.
9. When a HD/SD SDI optional module is connected, HD/SD SDI2 is applicable to the source for POP mode.
10. When a HD/SD SDI optional module is connected, HD/SD SDI2 is applicable to the source for PBP mode.

Screen Control Menu

The available settings are:

- **H Position:** Adjust Screen H Position (Range 0 - 100) [11]
- **V Position:** Adjust Screen V Position (Range 0 - 100)[11]
- **Frequency:** Adjust Frequency (Range 0 - 100) [12]
- **Phase:** Adjust Phase (Range 0 - 100)[12]
- **Noise Reduction:** Adjust Noise Reduction (Range 0 - 31)
- **Motion Offset:** Adjust Motion Offset (Range 0 - 100)

Power Management Function

The monitor is equipped with a power management function, which automatically reduces the power consumption when not in use in three power level modes.

- **Standby Mode:** The monitor goes into standby mode when the horizontal sync signal is off for about 10 seconds. In this mode, the screen goes off and the power LED blinks for 1 second On and 1 second Off. The screen is displayed after the horizontal sync signal is restored.
- **Suspend Mode:** The monitor goes into suspend mode when the vertical sync signal is off for about 10 seconds. The power consumption during this is 10 W. In this mode, the screen goes off and the power LED blinks for 1 second On and 1 second Off. The screen is displayed after the vertical sync signal is restored.
- **Off Mode:** The monitor goes into power-off mode when the vertical and horizontal sync signals are off for about 10 seconds. In this mode, the screen goes off and the power LED blinks for 1 second On and 1 second Off. The screen is displayed after the vertical and horizontal sync signals are restored.

The AMM240ED power management system provides 4 phases of power saving modes by detecting the horizontal sync signal as shown in the table below.

State	Normal Operation	DPMS Standby	DPMS Suspend	DPMS Off
Horizontal Sync	Active	Inactive	Active	Inactive
Vertical Sync	Active	Active	Inactive	Inactive
Video	Active	Blanked	Blanked	Blanked
Power Indicator	Green	Green flashing (1 sec. interval)	Green flashing (1 sec. interval)	Green flashing (1 sec. interval)
Power Consumption	40 W	15 W	15 W	15 W

When the monitor is in power saving mode or detects an incorrect timing, the screen will be blank and the power LED indicator will blink.

Preset Modes

Input Signal Timing

Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)	Pixel clock (MHz)
640 x 350 @70Hz	31.469	70.087	25.175
640 x 480 @60Hz	31.469	59.940	25.175
640 x 480 @75Hz	37.500	75.000	31.500
800 x 600 @56Hz	35.156	56.250	36.000
800 x 600 @60Hz	37.879	60.317	40.000
800 x 600 @75Hz	46.875	75.000	49.500

11. Available for HD15, HD/SD SDI1 Component/RGBs
12. Available for HD15

Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)	Pixel clock (MHz)
1024 x 768 @60Hz	48.363	60.004	65.000
1024 x 768 @70Hz	56.476	70.069	75.000
1024 x 768 @75Hz	60.023	75.029	78.750
1152 x 864 @60Hz	54.348	60.053	80.000
1152 x 864 @70Hz	63.955	70.016	94.200
1152 x 864 @75Hz	67.500	75.000	108.000
1280 x 1024 @60Hz	63.981	60.02	108.000
1680 x 1050 @60Hz	64.742	59.946	119.125
1680 x 1050 @60Hz	65.160	59.944	147.000
1600 x 1200 @60Hz	74.077	59.981	130.375
1920 x 1080@60Hz	67.500	60.00	148.500
1920 x 1200@60Hz	74.099	59.999	154.125

Video Signals

Format	DVI-I	HD-15	Y/C	SDI1	SDI2 (optional)[7]	Component/RGBs	
						Y/Pb/Pr/ RGB+SOG	RGB+ CS
NTSC-M NTSC-443			o				
PAL-BDGHI PAL-M PAL-N PAL-60			o				
480/59.94i		o		o	o		o
480/59.94p						o	o
576/50i		o		o	o		o
576/50p	o	o				o	o
720/50p	o	o		o	o	o	o
720/59.94p	o	o		o	o	o	o
720/60p	o	o		o	o	o	o
1080/ 23.98p		o		o	o	o	o
1080/24p		o		o	o	o	o
1080/25p	o	o		o	o	o	o
1080/ 29.97p	o	o		o	o	o	o

Format	DVI-I	HD-15	Y/C	SDI1	SDI2 (optional)[7]	Component/RGBs	
						Y/Pb/Pr/ RGB+SOG	RGB+ CS
1080/30p	o	o		o	o	o	o
1080/50i	o	o		o	o	o	
1080/ 59.94i	o	o		o	o	o	
1080/60i	o	o		o	o	o	
1080/50p	o	o					
1080/60P	o	o					

4.5 Information

About information

The available functions are:

- **Custom Entry:** Change the User or Monitor's Name / Custom Entry Row 1, Custom Entry Row 2
- **SN:** Display the Serial Number
- **Runtime:** Display the Total Runtime
- **Input Format:** Display the Current input Resolution and Vertical Frequency

Cleaning your display

5

5.1 Cleaning instructions

To clean the display

No specific liquid or chemical is necessary when cleaning this LCD monitor. However, we suggest to clean the monitor with non-abrasive cloths and cleaning solutions used in hospitals to clean similar equipment. We recommend using 70% isopropyl alcohol for the screen surface and warm water and a mild detergent for all other surfaces.

Other acceptable cleaning agents are:

- 70% isopropyl alcohol
- Cidex (2.4% glutaraldehyde solution)
- 0.5% Chlorhexidine in 70% isopropyl alcohol

CAUTION: Do not apply excessive pressure on the LCD.

CAUTION: To clean the display, do not spray liquid cleaners directly to the screen. Stand away from the monitor, spray the cleaning solution onto a soft cloth and clean gently.

6 Troubleshooting

6.1 Troubleshooting list

To diagnose a problem

Before sending your LCD display for servicing, check the troubleshooting list below to see if you can self-diagnose the problem.

Problem	Current status	Remedy
No picture	Power LED ON	Using the OSD, adjust brightness and contrast to maximum or reset to the default settings.
	Power LED OFF	Check the Standby Power Button and Power switch.
		Check if the AC power cord is properly connected to the AC-Adaptor.
	Power LED blinking	Check if the video signal cable is properly connected at the back of the display.
		Check if the power to the computer system is ON.
Abnormal picture	Unstable picture	Check if the specification of the graphics adapter and the display is in compliance, which may be causing the input signal frequency mismatch.
	Display is missing, center shift, or too small or too large in display size	Using the Screen Control Menu, adjust the Phase, Frequency, Horizontal, and Vertical settings in order to correct the display image.

Important information

7

7.1 Safety information

General recommendations

- Read the operating manual thoroughly and be familiar with the content, prior to using this equipment.
- Do not place the monitor, or any other heavy object, on the power cord to prevent fire or electrical shock from damage to the power cord.
- Do not expose the monitor to dust to avoid fire or shock hazard.
- Avoid placing the monitor against a bright background or where sunlight or other light sources may reflect on the area of the monitor. Place the monitor just below eye level.
- Handle the monitor with care.
- Refrain from giving a shock to the monitor.
- Do not scratch the screen, as the screen is fragile.

Electrical Shock or Fire Hazard

To prevent electric shock or fire hazard, do not remove cover.

No serviceable parts inside. Refer servicing to qualified personnel.

Do not expose this apparatus to rain or moisture.

Modifications to the unit

Do not modify this equipment without authorization of the manufacturer.

Preventive maintenance

Periodic maintenance inspections are essential to keep the monitor in optimum condition and ensure safe operation.

With the monitor disconnected from the mains, perform the following periodic check:

- Check the integrity of the power cord and inspect its routing, so that it is not under the risk of being punched or cut.
- Check the integrity of the protective earth connection.
- Clean the area around the power plug. Dust and liquids may result in fire.
- Clean the ventilation slot of the monitor. Dust can obstruct the air flow and cause temperature increase of the electronics.

General recommendations:

- Keep the monitor clean to prolong its operational lifetime.
- LCD panel performance may deteriorate in the long term. Periodically check that it is correctly operating.
- Periodically check the tightness of the VESA mount screws. If not sufficiently tight, the monitor may detach from the arm, which may result in injury or equipment damage.

Type of protection (Electrical)

Equipment with external power supply: Class I equipment

Degree of safety (flammable anesthetic mixture):

- Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
- The equipment shall not be operable when the air oxygen content is above 25%.

Equipment

- Monitor with power supply is suitable for use in patient environment.
- This equipment has been tested and found to comply with the limits for medical devices in IEC 60601-1-2:2014.
- Equipment with SIP/SOP connectors should either comply with IEC 60601-1 harmonized national standard or the combination should be evaluated. Do not touch the patient with signal input or output connectors.

Power connection

- Only use the proprietary power supply. Make a proper connection by ensuring that the shrink tubing completely secures the connection between the DC power cord and the extension cord.
- Electrical input rating: 24 VDC, 2.7 A
- Only use a hospital grade power supply cord.
- Grounding reliability can only be achieved when the equipment is connected to an equipment receptacle labeled “Hospital Only” or “Hospital Grade”.
- To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
- The equipment is intended for continuous operation.

Mission critical applications

We strongly recommend there is a replacement monitor immediately available in mission critical applications.

Water and moisture

- Never expose the display to rain or moisture.
- Degree of protection against the ingress of water: IP22 compliance.

Ventilation

- Do not cover the slots or openings of the monitor for proper heat dissipation. Always put the monitor in a place where there is adequate ventilation to prevent internal heat buildup.
- Do not block the monitor cooling vents. The monitor is cooled by natural convection and has no fan
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.

Warnings

1. Federal law (United States of America) restricts this device to use by, or on order of a physician.
2. Should any solid object or liquid fall into the panel, unplug the unit and have it checked by qualified personnel before operating it any further.
3. Unplug the unit if it is not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
4. Test this equipment prior to a medical procedure. This monitor was fully tested at the factory before shipment.
5. Do not attempt internal repairs or adjustments not specifically detailed in this operating manual.
6. Pay close attention to the care, cleaning instructions in this manual. A deviation may cause damage.
7. Do not sterilize the monitor.
8. Read the entire operating manual before assembling or connecting the camera.
9. Do not stack more than 3 boxes high.
10. The device has no means to be incorporated in an IT-network in the clinical environment.
11. The enclosure has to be checked upon collision damage, refer to qualified service personnel.
12. The protective screen is made of tested high-resistance PMMA (polymethyl methacrylate). Nonetheless there is the possibility that it may crack if subject to strong impacts. Evaluate and prevent the risk of possible breakages of the protective screen by correctly handling and positioning the monitor in the operating room.

Cautions

1. Turn the power off when the unit is not in use.
2. Never operate the unit right after having transported from a cold location directly to a warm location.
3. Do not force the monitor past 28 degrees of vertical when adjusting the screen position (for monitors equipped with stands only).
4. Remove the power module and connection when transporting the unit.
5. Do not install the unit near mechanical vibration.
6. The unit is designed for operation in a horizontal position. Never operate the unit in a vertical position.
7. Keep the unit away from equipment with strong magnets (i.e. a large loudspeaker).
8. The products have lower breaking capacity type. Do not install at the building power system prospective short-circuit current exceeding 35 A.

9. Disconnecting the power cord from the AC-Adaptor is the proper means of isolation from the supply mains.
10. To connect to an international power supply, use a an attachment plug appropriate for the power outlet.
11. The AMM240ED must be installed and operated according to the EMC information provided in this manual.

7.2 Cybersecurity

Hospital IT security

To prevent unauthorized access to the device, the organization incorporating the AMM240ED in their IT network, shall have the necessary state of the art policies, processes, standards and other security measures in place to incorporate, support and protect a medical device into the IT network. This shall include the application of risk management (e.g. by following IEC 80001-1:2010 or equivalent standards).

7.3 Environmental information

Disposal Information

Waste Electrical and Electronic Equipment

This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

For details, please visit the Barco website at: *http://www.barco.com/AboutBarco/weee*

Turkey RoHS compliance

Türkiye Cumhuriyeti: AEEE Yönetmeliğine Uygundur.

[Republic of Turkey: In conformity with the WEEE Regulation]

中国大陆 RoHS

Chinese Mainland RoHS

根据中国大陆《电器电子产品有害物质限制使用管理办法》（也称为中国大陆RoHS），以下部分列出了Barco产品中可能包含的有毒和/或有害物质的名称和含量。中国大陆RoHS指令包含在中国信息产业部MCV标准：“电子信息产品中有毒物质的限量要求”中。

According to the “Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products ” (Also called RoHS of Chinese Mainland), the table below lists the names and contents of toxic and/or hazardous substances that Barco’s product may contain. The RoHS of Chinese Mainland is included in the MCV standard of the Ministry of Information Industry of China, in the section “Limit Requirements of toxic substances in Electronic Information Products”.

零件项目(名称) Component name	有毒有害物质或元素 Hazardous substances and elements					
	铅 Pb	汞 Hg	镉 Cd	六价铬 Cr6+	多溴联苯 PBB	多溴二苯醚 PBDE
印制电路配件 Printed Circuit Assemblies	x	o	o	o	o	o
液晶面板 LCD panel	x	o	o	o	o	o
外接电(线)缆 External Cables	x	o	o	o	o	o
内部线路 Internal wiring	o	o	o	o	o	o
金属外壳 Metal enclosure	o	o	o	o	o	o
塑胶外壳 Plastic enclosure	o	o	o	o	o	o
电源供应器 Power Supply Unit	x	o	o	o	o	o
文件说明书 Paper Manuals	o	o	o	o	o	o
光盘说明书 CD manual	o	o	o	o	o	o

本表格依据SJ/T 11364的规定编制

This table is prepared in accordance with the provisions of SJ/T 11364.

o: 表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下.

o: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.

x: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 标准规定的限量要求.

x: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.

在中国大陆销售的相应电子信息产品（EIP）都必须遵照中国大陆《电子电气产品有害物质限制使用标识要求》标准贴上环保使用期限（EFUP）标签。Barco产品所采用的EFUP标签（请参阅实例，徽标内部的编号使用于指定产品）基于中国大陆的《电子信息产品环保使用期限通则》标准。

All Electronic Information Products (EIP) that are sold within Chinese Mainland must comply with the “Marking for the restriction of the use of hazardous substances in electrical and electronic product” of Chinese Mainland, marked with the Environmental Friendly Use Period (EFUP) logo. The number inside the EFUP logo that Barco uses (please refer to the photo) is based on the “General guidelines of environment-friendly use period of electronic information products” of Chinese Mainland.

中国RoHS自我声明符合性标志 / China RoHS – SDoC mark

本产品符合《电器电子产品有害物质限制使用管理办法》和《电器电子产品有害物质限制使用达标管理目录》的要求。

This product meets the requirements of the “Management Rule on the Use Restriction of Hazardous Substances in Electrical and Electronic Products” and the “Management Catalogue for the Use Restriction of Hazardous Substances in Electrical and Electronic Products”.

绿色自我声明符合性标志可参见电子档文件
The green SDoC mark is visible in the digital version of this document.

7.4 EU Declaration of Conformity for Medical Applications

Declaration of Conformity

A Declaration of Conformity has been filed for this product. A sample of this document may be found in the addendum which accompanies this manual. For a copy of the Declaration of Conformity document, contact Barco, Inc. and request the AMM240ED DoC.

7.5 Regulatory compliance information

Indications for use

This device is intended to be used in operation rooms, to display images from endoscopic cameras, room and boom cameras, ultrasound, cardiology, PACS, anesthesiology and patient information. It is not intended for diagnosis.

Intended usage environment

- Equipment primarily for use in a health care facility that is intended for use where contact with a patient is unlikely (no applied part).
- The equipment shall not be used with life support equipment.
- The user should not touch the equipment, nor its signal input ports (SIP)/signal output ports (SOP) and the patient at the same time.

Contra-indications

This display is not intended to be used for direct diagnosis and therapeutic interventional radiology.

Intended users

Surgical displays are intended to be used by trained medical practitioners.

Notice to the user and/or patient

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Manufacturing country

The manufacturing country of the product is indicated on the product label ("**Made in** …").

Importers contact information

To find your local importer, contact one of Barco's regional offices via the contact information provided on our website (*www.barco.com*).

FCC class B

This equipment has been tested and found to comply with the limit for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause

harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation distance between the equipment.
- Connect the equipment to an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Because many medical offices are located in residential areas, this monitor, in addition to the medical requirements, has also been tested and found to comply with the limits for FCC Class B computing devices in a typically configured system. It is the system integrator or configurer's responsibility to test and ensure that the entire system complies with applicable EMC laws.

FCC responsible: Barco Inc., 3059 Premiere Parkway Suite 400, 30097 Duluth GA, United States, Tel: +1 678 475 8000

Canadian notice

CAN ICES-3 (B)/NMB-3(B)

7.6 EMC notice

General information

This device is for use in professional healthcare facility environments only.

With the installation of the device, use only the delivered external cables and power supply or a spare part provided by the legal manufacturer. Using another can result in a decrease of the immunity level of the device.

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the AMM240ED, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Electromagnetic emissions

The AMM240ED is intended for use in the electromagnetic environment specified below. The customer or the user of the AMM240ED should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment – Guidance
RF emissions CISPR 11	Group 1	The AMM240ED uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The AMM240ED is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that
Harmonic emissions IEC 61000-3-2	Class D	

Emissions test	Compliance	Electromagnetic environment – Guidance
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	supplies buildings used for domestic purposes.

This AMM240ED complies with appropriate medical EMC standards on emissions to, and interference from surrounding equipment. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Interference can be determined by turning the equipment off and on.

If this equipment does cause harmful interference to, or suffer from harmful interference of, surrounding equipment, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna or equipment.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

Electromagnetic immunity

The AMM240ED is intended for use in the electromagnetic environment specified below. The customer or the user of the AMM240ED should assure that it is used in such an environment.

Immunity test	IEC 60601 test levels	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/ burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/ output lines 100 kHz repetition frequency	± 2 kV for power supply lines ± 1 kV for input/ output lines 100 kHz repetition frequency	Mains power quality should be that of a typical commercial or hospital environment
Surge IEC61000-4-5	Line to line: ± 0.5 kV, ± 1 kV Line to ground: ± 0.5 kV, ± 1 kV, ± 2 kV	Line to line: ± 0.5 kV, ± 1 kV Line to ground: ± 0.5 kV, ± 1 kV, ± 2 kV	Mains power quality should be that of a typical commercial or hospital environment
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% residual voltage for 1 period at 0° 70% residual voltage for 25/30 cycles periods at 0º Voltage interruptions: 0% residual voltage for 250/ 300 cycles periods at 0º	0% residual voltage for 1 period at 0° 70% residual voltage for 25/30 cycles periods at 0º Voltage interruptions: 0% residual voltage for 250/ 300 cycles periods at 0º	Mains power quality should be that of a typical commercial or hospital environment. If the user of the AMM240ED requires continued operation during power mains interruptions, it is recommended that the AMM240ED be powered from an uninterruptible power supply or a battery
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	Not applicable [13]	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical

13. AMM240ED doesn't contain susceptible components to magnetic fields

Immunity test	IEC 60601 test levels	Compliance level	Electromagnetic environment – guidance
			commercial or hospital environment
Conducted RF IEC 61000-4-6	3 Vrms (6 Vrms in ISM bands) 150 kHz to 80 MHz	3 Vrms (6 Vrms in ISM bands)	-
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz	3 V/m	

Immunity to RF wireless communications equipment

Test frequency (MHz)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
450	430 – 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
710	704 – 787	LTE Band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9
745						
780						
810	800 – 960	GSM 800/ 900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
870						
930						
1720	1700 – 1990	GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Band 1/3/4/ 25, UMTS	Pulse modulation 217 Hz	2	0.3	28
1845						
1970						
2450	2400 – 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
5240	5100 – 5800	W LAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9
5500						
5785						

7.7 Explanation of symbols

Overview

You may find the following symbols (nonrestrictive list):

CE	Indicates the device meets the requirements of the applicable EC directives/ regulations.
FC	Indicates compliance with Part 15 of the FCC rules (Class A or Class B).
c UL us Medical Equipment	Medical equipment is in accordance with UL 60601-1 and CAN/CSA C22.2 No. 601.1 in regards to electric shock, fire and mechanical hazards
CCC	Indicates the device is approved according to the CCC regulations.
VCCI	Indicates the device is approved according to the VCCI regulations.
EAC	Indicates the device is approved according to the EAC regulations.
℞ ONLY	Caution: Federal law (United Stated of America) restricts this device to sale by or on the order of a licensed healthcare practitioner.
	Indicates the legal manufacturer.
	Indicates the manufacturing date.
	Indicates the entity importing the medical device into the locale.
MD	Indicates this is a Medical Device.
SN	Indicates the device serial number.
REF	Indicates the device part number or catalogue number.
UDI	Indicates the Unique Device Identifier.
	**Warning**: dangerous voltage
	**Caution**

	Consult the Instructions For Use.
 eIFU indicator	Consult the Instruction For Use on website address that is provided as eIFU indicator.
	Indicates this device must not be thrown in the trash but must be recycled, according to the European WEEE (Waste Electrical and Electronic Equipment) directive.
	Indicates Direct Current (DC).
	Indicates Alternating Current (AC).
	Stand-by
	Protective earth (ground)
	Fragile, handle with care
	Keep dry
	This way up
	Indicates the maximum number of boxes to be stacked on each other.
	Recyclable
	Authorized representative in Europe
	For indoor use only
	China RoHS symbol. The number indicates EFUP (Environmental Friendly Use Period) from the date of manufacturing
IP22	Tested to comply with IP (Ingression Protection) Rating

7.8 Warranty

Responsibility

Barco, Inc. accepts full responsibility for the effects on safety, reliability, and performance of the equipment only if:

- Re-adjustments, modifications, and/or repairs are carried out exclusively by Barco, Inc.
- The electrical installation of the relevant operating room complies with the applicable IEC and CE requirements.

Warranty is void if any of these warnings are disregarded.

Description of Warranty

BARCO warrants to the first Buyer (Buyer) that the product purchased when shipped in its original container will conform to BARCO specifications, and to any BARCO approved specifications furnished to BARCO by the Buyer, and will be free of defects in materials and workmanship. BARCO warrants that the product purchased is manufactured from new components which meet BARCO standards, quality and specifications.

Subject to the conditions and limitations set forth below, BARCO will, at its option, either repair any component of its products that prove defective by reason of improper workmanship or materials or BARCO has the exclusive right to replace with refurbished units or with an equivalent product. BARCO warrants that the components used for repair, refurbished units or equivalent product will meet BARCO standards, quality and specifications.

Commencement and Duration of Warranty

The product purchased will be warranted for a period of eighteen (18) months (excluding the LCD panel, touchscreen, and the protection filter) from the date of shipment.

LCD panels and touchscreens are warranted for a period of twelve (12) months from the date of shipment.

Protection filters are not warranted as damage to the protection filter is considered to be normal wear and tear and can be replaced at Buyer's cost.

Components used for repair, refurbished units or equivalent product will be warranted for a period of twelve (12) months from the date of repair.

Limitation of Warranty

This limited warranty does not cover any damage to this product or other non- BARCO products that results from any of the following: improper installation or operation; accident; abuse; misuse; natural disaster; war; insufficient or excessive electrical supply; abnormal mechanical or environmental conditions; any unauthorized disassembly, repair or modification; normal wear and tear; tampering by anyone other than an BARCO engineer or an BARCO Authorized Service Center (ASC); the use of supplies, consumable items and conditions beyond the control of BARCO, such as common carrier provided equipment and/or facilities; operation of BARCO product in excess of the specifications. This limited warranty also does not apply to any product that has not been handled or packaged correctly, that has been sold as second-hand or has been resold contrary to the US export regulations, on which the original identification information (i.e. serial number, rating and/or warranty label) has been altered, obliterated or removed.

In Warranty

BARCO or its ASC will repair or replace if defective in material or workmanship without cost, for a period of eighteen (18) months, (LCD panels and touchscreens for a period of twelve (12) months) after the date of shipment.

Buyer must notify BARCO or its ASC of the defect before expiration of the warranty period, and request an RMA number. If the configuration has been modified in any manner, the product must be returned to its original configuration before any warranty service will be performed by BARCO or its ASC. No goods are to be returned to BARCO or its ASC without prior authorization. Buyer will be responsible for packaging (preferably original container) and shipping the defective goods to BARCO or its ASC, shipping charges prepaid.

BARCO or its ASC will return the in warranty product, at no cost to the buyer.

Out-of-Warranty

BARCO or its ASC will repair or replace if defective in material or workmanship with fee, any product which the warranty period has expired (out-of-warranty).

Buyer must notify BARCO or its ASC of the defect and request an RMA number. If the configuration has been modified in any manner, the product must be returned to its original configuration before any service will be performed by BARCO or its ASC. No goods are to be returned to BARCO or its ASC without prior authorization. Buyer will be responsible for packaging (preferably original container) and shipping the defective goods to BARCO or its ASC, shipping charges prepaid.

BARCO or its ASC will return the out-of-warranty product, at cost to the buyer.

Product End of Life (EOL)

In the event of an RMA of an EOL product(s), BARCO will hold or store major components of its products for a period of five (5) years, after the EOL of its products. BARCO shall continue to perform the service of its products as long as BARCO holds or stores said components of the products, with reasonable charge.

The forgoing Warranty and Out-of-Warranty terms apply.

Disclaimer

THE FORGOING IS THE COMPLETE WARRANTY FOR BARCO PRODUCTS AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN. EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE WITH RESPECT TO BARCO PRODUCTS AND BARCO EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED HEREIN, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTY THAT MAY EXIST UNDER NATIONAL, STATE, PROVINCIAL OR LOCAL LAW INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY ON NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, ARE LIMITED TO THE PERIODS OF TIME SET FORTH ABOVE. SOME STATES OR OTHER JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY.

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THE LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.

7.9 Legal disclaimer

Disclaimer notice

Although every attempt has been made to achieve technical accuracy in this document, we assume no responsibility for errors that may be found. Our goal is to provide you with the most accurate and usable documentation possible; if you discover errors, please let us know.

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Patent protection

Please refer to *www.barco.com/about-barco/legal/patents*

Product Security Incident Response

As a global technology leader, Barco is committed to deliver secure solutions and services to our customers, while protecting Barco's intellectual property.

When product security concerns are received, the product security incident response process will be triggered immediately. To address specific security concerns or to report security issues with Barco products, please inform us via contact details mentioned on *https://www.barco.com/psirt*.

To protect our customers, Barco does not publicly disclose or confirm security vulnerabilities until Barco has conducted an analysis of the product and issued fixes and/or mitigations.

7.10 Technical specifications

Overview

Diagonal	24.07 inches (611.32) diagonal
Resolution	1920 (H) x 1200 (V) @ 60hz
Pixel pitch	0.270 x 0.270 mm
Display color	16.7 M colors
Viewing angle (H, V)	178°
Brightness (typical)	300 cd/m² (without touchscreen or A/R filter installed)
Contrast ratio (typical)	1000:1
Dimensions (W x H x D)	570 x 386.8 x 63.2 mm
Color gamut	sRGB 100%
Response time (typical)	14 ms
Input	HD/SD SDI 1 • BNC x 1 • 0.27 ~ 2.97 Gb/s Serial input data rate • 500 ~ 1100 mVp-p Serial input swing HD15 • 15p D-Sub (female) • Video: 0.7 ± 0.1 VP-p • H/V Sync: TTL Level (V high ≥2.3 V, V low ≤0.5 V) • Horizontal frequency 30 ~ 80 KHz • Vertical frequency 50 ~ 85 Hz • MAX. 162 MHz Component/RGBs • 15p D-Sub (female) BNC x 4 to HD15 Cable • 15p D-Sub (female) BNC x 4 to HD15 Cable • RGB: 0.7 ± 0.1 Vp-p

	• Composite Sync: 0.3 Vp-p ~ 5 Vpp H/V SYNC: TTL Level Y/C • Mini Din 4-pin • NTSC, PAL Color standard • Luminance: 1.0± 0.1 VP (Video :0.7 Vp-p / Sync : 0.3 Vp-p) • Chrominance: 0.3 ± 0.03 Vp-p HD/SD SDI 2 (optional) • BNC x 1 • 0.27 ~ 2.97 Gb/s Serial input data rate • 720 ~ 880 mVp-p Serial input Voltage swing[14] DVI-I • DVI-I 24+5 pin (female) • TMDS level • MAX. 162 MHz
Output	HD/SD SDI • BNC x 1 (75 ohm ±5%) • 0.27 ~ 2.98 Gb/s Serial output data rate • 350 ~ 600 mVp-p Serial output swing DVI-I • DVI-I 24+5 pin (female) • TMDS level • MAX. 162 MHz
Power rating	24 VDC, 2.7 A
Power requirements	100–240 VAC, 50/60 Hz
Power consumption	40 W
Dimensions packaged	665 x 240 x 640 (H)
Weight	Monitor: 7.35 kg (without cable cover, without stand) AC adaptor: 410 g
VESA mounting	75 x 100 mm
Certifications	UL (ANSI/AAMI ES 60601-1) cUL (CAN/CSA-C22.2 No. 60601-1) EN 60601-1, IEC 60601-1 CE (Medical Device Class I) AS/NZS 3200-1-0 CCC (GB4943.1) CB-ITE (IEC 60950-1) IP22 Compliance FCC (Part 15 Class B) EN 60601-1-2, IEC 60601-1-2 AS/NZS 3200-1-2 VCCI (Class B) CCC (GB9254, GB17625.1)
Optional module	DC extension cable: 5 ft, 15 ft, 75 ft length Base stand: Adjustable height, swivel and tilt

14. A metal cover is attached to the HD/SD SDI2 connector depending on the model. For more details on how to use this optional module, contact the Service Center.

Operating temperature	50 °F ~ 104 °F (10 °C to 40 °C)
Storage temperature	0 °F ~ 140 °F (-18 °C to 60 °C)
Operating humidity	25% ~ 75% (non-condensing)
Storage humidity	15 ~ 85% relative humidity (non-condensing)
Atmospheric pressure	500 ~ 1060 hPa

7.11 Connectors

DC Input

Connector Jack Power Input

Pin	Description	Pin	Description
1	GND	4	NC
2	GND	5	24 V Input
3	24 V Input		

Video Input

24 Pin DVI-I In Connector

DDWG or Equivalent Connector

Pin	Description	Pin	Description	Pin	Description
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2 +	10	T.M.D.S. Data1 +	18	T.M.D.S. Data0 +
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC Clock	14	+5 V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground (for +5 V)	23	T.M.D.S. Clock +
8	NC	16	Hot Plug Detect	24	T.M.D.S. Clock-

Video Input

24 Pin DVI-I Out Connector

DDWG or Equivalent Connector

Pin	Description	Pin	Description	Pin	Description
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2 +	10	T.M.D.S. Data1 +	18	T.M.D.S. Data0 +

Pin	Description	Pin	Description	Pin	Description
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC Clock	14	+5 V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground (for +5 V)	23	T.M.D.S. Clock +
8	NC	16	Hot Plug Detect	24	T.M.D.S. Clock-

Video Input

HD/SD SDI1 In Connector

Pin	Description	Pin	Description
1	SDI In	2	GND

Video Input

HD/SD SDI1 Out Connector

Pin	Description	Pin	Description
1	SDI Out	2	GND

Video Input

HD 15/RGBS In Connector

Pin	Description	Pin	Description	Pin	Description
1	RED	6	GND-RED	11	GND
2	GREEN	7	GND-GREEN	12	DDC SDA
3	BLUE	8	GND-BLUE	13	HSYNC(CS)
4	GND	9	G5V	14	VSYNC
5	GND	10	GND	15	DDC SCL

Signal Input

RS232C Signal Connector

Pin	Description	Pin	Description
1	NC	2	RX
3	TX	4	NC
5	GND	6	NC
7	NC	8	NC
9	NC		

Signal Input

USB Signal Connector

Pin	Description	Pin	Description
1	Vcc (5 V)	2	NC
3	NC	4	GND

Video Input

HD/SD SDI2 In (optional) Video Connector

Pin	Description	Pin	Description
1	SDI Input	2	GND

Video Input

Y/C In Video Connector

Pin	Description	Pin	Description
1	GND	2	GND
3	Chroma_In	4	Luma_In

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EC REP

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