

# Coronis Fusion 6MP

## User Guide



Supported displays:

MDC-6230

**BARCO**

Visibly yours

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# Welcome!

Thank you for choosing this CORONIS FUSION 6MP display!







Coronis Fusion is an ingenious PACS display system designed to further enhance flexibility and productivity in diagnostic imaging.

Featuring the industry's first 30-inch color LCD that can be used as two seamless heads or one wide-screen display, Coronis Fusion offers you the freedom to organize your workspace just the way you want it. It allows you to read CT, MR, cath and echo cardiogram images, or any other combination, side by side on a single diagnostic screen.

Coronis Fusion features the latest, breakthrough In-Plane Switching (IPS-Pro) LCD technology. This technology brings the most advanced LCD viewing characteristics on the market, setting new standards for brightness and contrast, even from a wide viewing angle.

Use the instructions in this guide to install your CORONIS FUSION 6MP display and discover all these interesting features yourself!

Following symbols may be used throughout this guide:

	Warning: Risk of injury to human beings		Caution: Risk of damage to the product
	Important notice or remark		Note
	Hint, tip		Additional information



Read all the safety information starting on page 56 before operating your CORONIS FUSION 6MP display.

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# What's in the box

Your CORONIS FUSION 6MP display comes with:

- this CORONIS FUSION 6MP display guide
- a system CD
- two DVI cables
- two DisplayPort cables
- a USB cable
- a set of AC power cords
- an external power supply

If you ordered a Barco display controller, it's also in the box together with its accessories. A dedicated user guide is available on the system CD.

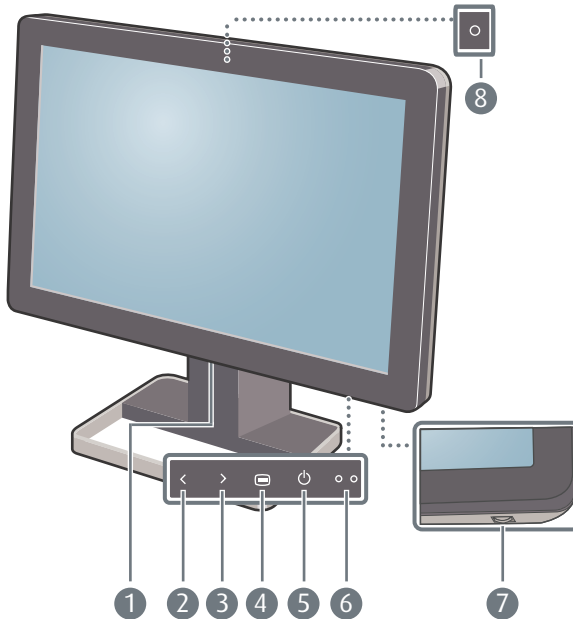


Keep your original packaging. It is designed for this display and is the ideal protection during transport.



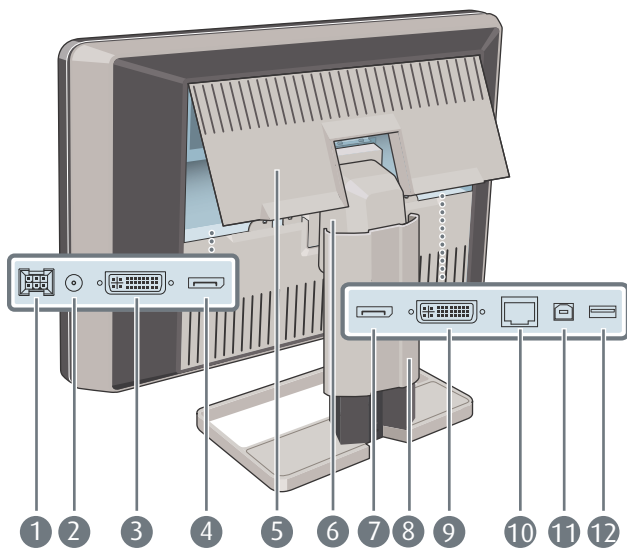
# Parts, controls and connectors

## Front view



- 
- |   |                           |   |                              |
|---|---------------------------|---|------------------------------|
| 1 | USB downstream connectors | 2 | Left/Up key                  |
| 3 | Right/Down key            | 4 | Menu/Enter key               |
| 5 | Stand-by/Cancel key       | 6 | Power status indicator light |
| 7 | Control wheel             | 8 | Ambient light sensor         |
-

## Rear view



- |                               |  |
|-------------------------------|--|
| 1 +24 VDC power input         | 2 +5 VDC, 0.5 A power output           |
| 3 DVI 2 video input           | 4 DisplayPort 2 video input            |
| 5 Connector compartment cover | 6 Neck cover                           |
| 7 DisplayPort 1 video input   | 8 Display stand cover                  |
| 9 DVI 1 video input           | 10 Ethernet connector (see note below) |
| 11 USB upstream connector     | 12 USB downstream connector            |



The Ethernet connection is used for maintenance purposes and is not supported for user application.

# Display installation



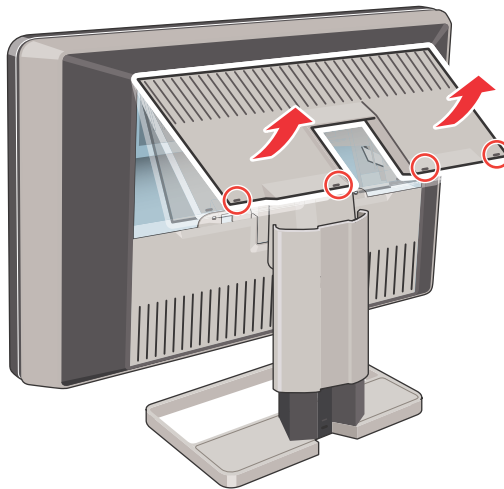
Prior to installing your CORONIS FUSION 6MP display and connecting all necessary cables, make sure to have a suitable display controller physically installed in your computer. If you are using a Barco display controller, please consult the dedicated user guide available on the system CD.

## Removing the covers

### CONNECTOR COMPARTMENT COVER

The connector compartment cover should be removed to get access to the connectors. To remove the cover, proceed as follows:

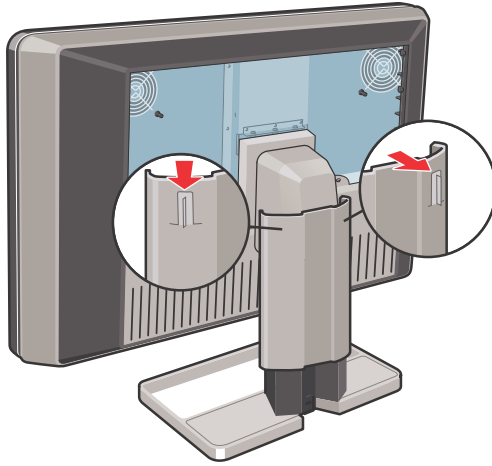
- 1** Gently lift the clips at one of the handles of the connector compartment cover to release that side of the cover.
- 2** Do the same at the other side of the cover.
- 3** Remove the cover.



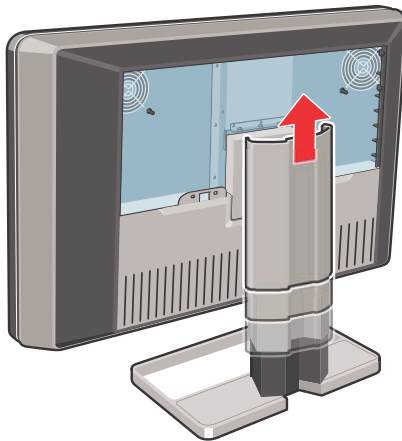
## DISPLAY STAND COVER

To get access to the cable routing channel, the display stand cover should be removed. This can be done as follows:

- 1 Gently press and hold the clips at the inside top of the cover.



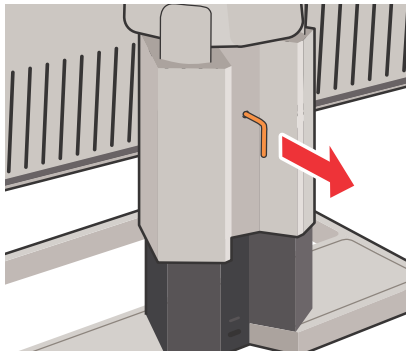
- 2 Slide the cover upwards while holding the clips pressed.



## Unlocking the height mechanism

In the factory, the height-positioning system in the display stand is locked with a red hook to prevent damage during transportation. You'll have to remove this hook before adjusting your display height position.

- 1 While holding the display panel pushed down, pull out the red hook in the display stand.



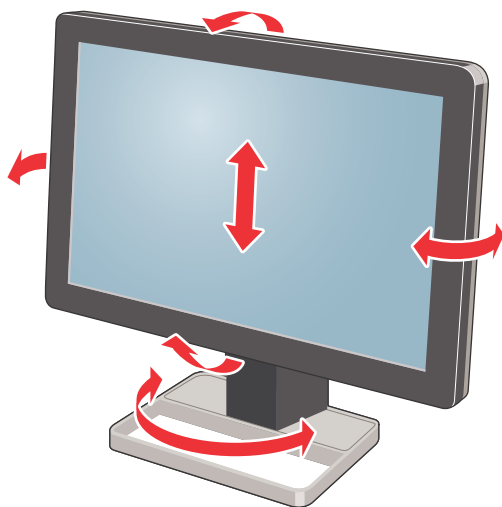
To retain the hook for possible future transportation, insert the short, red end of the hook back into the stand of your display.

## Adjusting the display position

Now that the height-positioning system of your display is unlocked, you can tilt, swivel, raise and lower the display as desired.



Do not try to pivot your display when attached to the stand. Trying to do so could cause serious damage to your display and its stand.

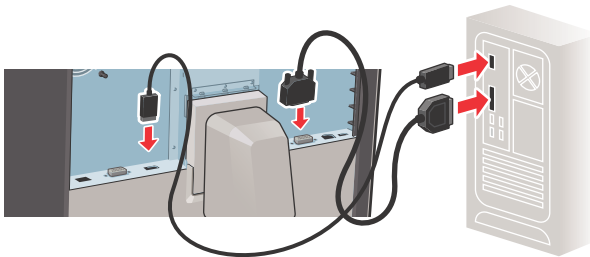


## Connecting the signal cables

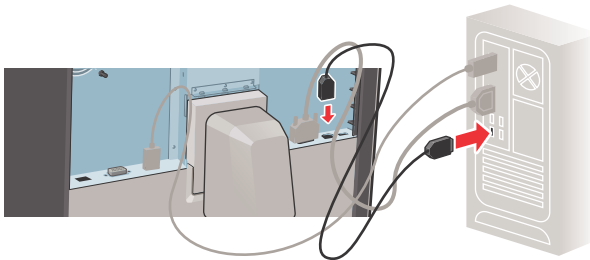
- 1 Connect one head of the display controller to the DVI 1 or DisplayPort 1 connector with one of the supplied DVI or DisplayPort cables.
- 2 Connect another head of the display controller to the DVI 2 or DisplayPort 2 connector with one of the supplied DVI or DisplayPort cables.



Each side of your display can have a different video input connected (one side can have DVI connected while the other side has DisplayPort connected). Both display sides can have the same video input connected as well but only one video input is allowed on each side of your display.

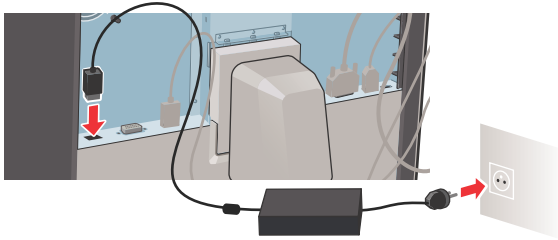


- 3 If you want to make use of your display's USB downstream connectors, connect a PC USB downstream connector to the display's USB upstream connector by means of the supplied USB 2.0 cable.



## Connecting the power cables

- 1 Connect the supplied external DC power supply to the +24 VDC power input of your CORONIS FUSION 6MP display.
- 2 Plug the other end of the external DC power supply into a **grounded** power outlet by means of the proper power cord delivered in the packaging.

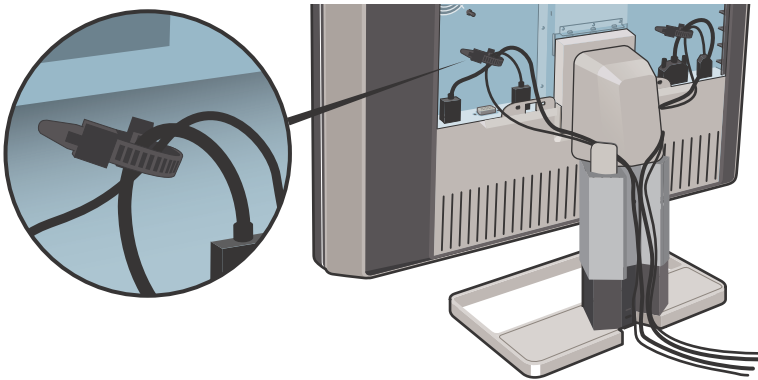


## Routing the cables

Route all connected cables through the cable routing channel in the stand of your display.



The cable straps at the inside of the connector compartment allow you to fix the cables for better shielding of the cables.





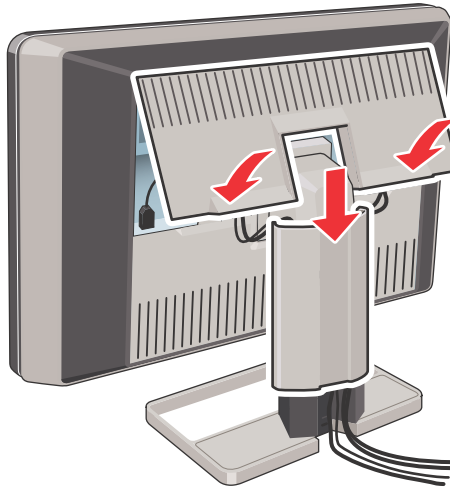
## Re-attaching the covers

- 1 Re-attach the display stand cover by sliding it downward. You'll hear a "click" sound of the cover's clips when the display stand cover is in position.



Pay attention that all cables stay in the cable channel while replacing the cover.

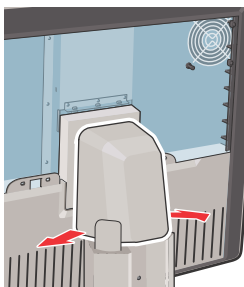
- 2 Re-attach the connector compartment cover by sliding the cover's top in position and then push the cover's bottom. You'll hear a "click" sound of the cover's clips when the connector compartment cover is in position.



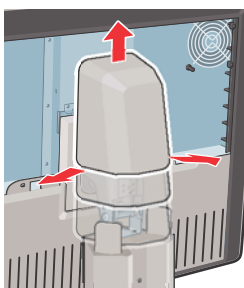
## VESA-mount installation

The panel, standard attached to a stand, is compatible with the VESA 100 mm standard. Thus, it can be used with an arm that is approved by VESA. This chapter shows you how to release the panel from the stand and how to attach it to an arm. If you're not using an arm, you can skip this chapter.

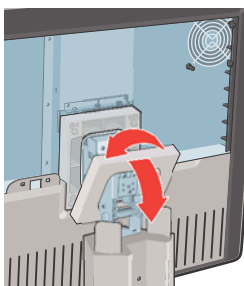
- 1 Gently pull open both lower sides of the cover.



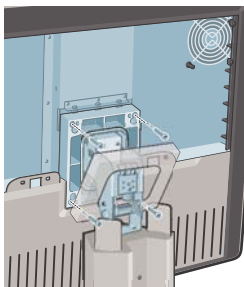
- 2 Slide the cover upwards while holding the lower sides pulled open.



- 3 Lift the plastic frame that covers the fixation of the panel to the stand. Turn it for 45 degrees to uncover the fixation screws.



- 4 Unscrew the four fixation screws fixing the panel to the stand.



- 5 Attach the panel **firmly** to the arm using 4 screws M4 x 10 mm.



You should mount the panel in landscape position. Portrait position is possible but not supported.



Use an arm that can support a weight of at least 20 kg (44.09 lbs). Failure to do so could make the panel fall, causing serious injury to a child or adult, and serious damage to the equipment.



Never move a display attached to an arm by pulling or pushing the display itself. Instead, make sure that the arm is equipped with a VESA approved handle and use this to move the display.

Please refer to the instruction manual of the arm for more information and instructions.

# First time starting up

You are now ready to start up your BARCO CORONIS Display System for the first time.

- 1** Switch on your CORONIS FUSION 6MP display as described in **“Stand-by switching”** on page 24.
- 2** Turn on the computer connected to your display.

If you have properly installed your display and display controller, the Windows start-up messages will appear once the boot procedure is finished.



Your CORONIS FUSION 6MP display will be running in a basic video mode at a default refresh rate when first time starting up. If you are using a Barco display controller, please consult the dedicated user guide available on the system CD to install the drivers, software and documentation. When this is done, your display will automatically detect the connected video input signal(s) and apply the correct video mode and refresh rate.

# Daily operation

## Recommendations for daily operation

### OPTIMIZE THE LIFETIME OF YOUR DISPLAY

Enabling the Display Power Management System (DPMS) of your display will optimize its diagnostic lifetime by automatically switching off the backlight when the display is not used for a specified period of time. By default, DPMS is enabled on your display, but it also needs to be activated on your workstation. To do this, go to “Power Options Properties” in the “Control Panel”.



Barco recommends setting DPMS activation after 20 minutes of non-usage.

### USE A SCREEN SAVER TO AVOID IMAGE RETENTION

Prolonged operation of an LCD with the same content on the same screen area may result in a form of image retention.

You can avoid or significantly reduce the occurrence of this phenomenon by using a screen saver. You can activate a screen saver in the “Display properties” window of your workstation.



Barco recommends setting screen saver activation after 5 minutes of non-usage. A good screen saver displays moving content.

In case you are working with the same image or an application with static image elements for several hours continuously (so that the screen saver is not activated), change the image content regularly to avoid image retention of the static elements.

### UNDERSTAND PIXEL TECHNOLOGY

LCD displays use technology based on pixels. As a normal tolerance in the manufacturing of the LCD, a limited number of these pixels may remain either dark or permanently lit, without affecting the diagnostic

performance of the product. To ensure optimal product quality, Barco applies strict selection criteria for its LCD panels.



To learn more about LCD technology and missing pixels, consult the dedicated white papers available at [www.barco.com/medical](http://www.barco.com/medical).

## ENHANCE USER COMFORT

Every Barco multi-head display system is color matched with the highest specification in the market.



Barco recommends keeping color-matched displays together. Furthermore, it is important to use all displays of a multi-head configuration at the same rate to preserve color matching throughout the economic lifetime of the system.

## MAXIMIZE QUALITY ASSURANCE

The 'MediCal QAWeb' system offers online service for high-grade Quality Assurance, providing maximum diagnostic confidence and uptime.



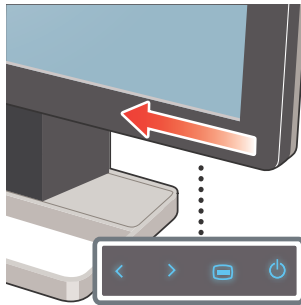
Barco recommends to install MediCal QAWeb Agent and apply the default QAWeb policy at least. This policy includes calibration on regular intervals. Upgrading to MediCal QAWeb Server offers even more possibilities. Learn more and sign up for the free MediCal QAWeb Essential level at [www.barco.com/medical/qa](http://www.barco.com/medical/qa)

# Key indicator lights

By default, the key indicator lights will be dimmed which makes them unavailable at that moment.

## TO MAKE THE KEYS LIGHT UP:

- 1 Gently sweep your finger over the bottom right hand side of your display.



As a result, the keys will light up and are now available for further actions. However, if no further actions are taken within the following 5 seconds, the key indicator lights will dim again.

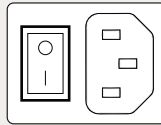


The key indicator lights auto-dim function can be disabled in the OSD menu. Please refer to **“Key indicator lights”** on page 30 for detailed instructions on how to do this.

# Stand-by switching




The connected power supply also provides a switch that can be used to turn the power completely off. To use the display, please make sure to switch on this power supply. This can be done by pushing the on/off switch on the power supply into the "I" position.




Switching on the display while it is in stand-by mode or vice versa can both be done by using the keys or by using the control wheel.

## TO SWITCH YOUR DISPLAY ON USING THE KEYS:

- 1 Light up the keys indicator lights as previously described.
- 2 While the keys are light up, touch the Stand-by/Cancel  key for approximately 2 seconds.

## TO SWITCH YOUR DISPLAY TO STAND-BY USING THE KEYS:

- 1 Light up the keys indicator lights as previously described.
- 2 While the keys are light up, touch the Stand-by/Cancel  key, a window pops-up. Press the button again to confirm.



## TO SWITCH YOUR DISPLAY ON USING THE CONTROL WHEEL:

- 1 Press the control wheel for approximately 2 seconds.

## TO SWITCH YOUR DISPLAY TO STAND-BY USING THE CONTROL WHEEL:

- 1 Press the control wheel once, a small window pops-up. Press the control wheel again to confirm.

As a result, the display will switch on or will switch to stand-by mode. When the display is **switched on**, the power status indicator light is **dimmed**. When the display is in **stand-by mode**, the power status indicator light is **orange**.



The power status indicator light can be enabled in the OSD menu so that it will turn **blue** when the display is **switched on**. Please refer to **“To enable/disable the power status indicator light:”** on page 29 for detailed instructions on how to do this.




In case of a power outage recovery, your display will always start-up in the power mode it was in before the power interruption (i.e. stand-by or on). This protects your display against inadvertent image retention problems.

## Bringing up the OSD menu

The OSD menu allows you to configure different settings to make your CORONIS FUSION 6MP display fit your needs within your working environment. Also, you can retrieve general information about your display and its current configuration settings through the OSD menu.

### TO BRING UP THE OSD MENU USING THE KEYS:

- 1 If not already done so, switch on the display as previously described.
- 2 Light up the keys indicator lights as previously described.
- 3 While the keys light up, touch the Menu/Enter  key.

## TO BRING UP THE OSD MENU USING CONTROL WHEEL:

- 1 If not already done so, switch on the display as previously described.
- 2 Shortly turn the control wheel.

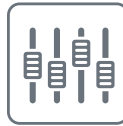
As a result, the OSD main menu comes up in the bottom right corner of the screen. If no further actions are taken within the following 90 seconds however, the OSD menu will disappear again.



The OSD menu automatic close function can be disabled in the OSD menu. Please refer to **“OSD menu automatic close function”** on page 29 for detailed instructions on how to do this.



The OSD menu position can be modified in the OSD menu. Please refer to **“OSD menu position”** on page 28 for detailed instructions on how to do this.




## Navigating through the OSD menus

### ABOUT OSD MENU NAVIGATION

Navigating through the OSD menu can be done by using the keys or by using the control wheel.

### TO NAVIGATE THE OSD MENU USING THE KEYS:

- Use the Right/Down > and Left/Up < keys to move through the (sub)menus, change values or make selections.
- To go into a submenu or confirm adjustments and selections, use the Menu/Enter  key.

- Use the Stand-by/Cancel ⏻ key to cancel adjustments or exit a (sub)menu.
- Exit the OSD menu by touching the Stand-by/Cancel ⏻ key for approximately 2 seconds.

#### **TO NAVIGATE THE OSD MENU USING THE CONTROL WHEEL:**

- Rotate the control wheel to move through the menus, change values or make selections.
- To go into a submenu or confirm adjustments and selections, shortly click the control wheel.
- Click the control wheel for approximately 2 seconds to cancel adjustments or exit a (sub)menu.

# Advanced operation



## OSD menu position

### ABOUT THE OSD MENU POSITION

By default, the OSD menu comes up in the bottom right corner of the screen. This position can be modified however. There's choice from a number of predefined positions.

### TO CHANGE THE POSITION OF THE OSD MENU:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Menu** menu.
- 3 Enter the **Position** submenu.
- 4 Select one of the available OSD menu positions and confirm.



## OSD menu language

### ABOUT THE OSD MENU LANGUAGE

By default, the OSD menu comes up in English. However, there's a wide range of other languages available for the OSD menu of your CORONIS Fusion 6MP display.

### TO CHANGE THE LANGUAGE OF THE OSD MENU:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Menu** menu.
- 3 Enter the **Language** submenu.
- 4 Select one of the available languages and confirm.



# OSD menu automatic close function

## ABOUT THE OSD MENU AUTOMATIC CLOSE FUNCTION

By default, the OSD menu will disappear automatically after approximately 90 seconds of inactivity. However, this function can be disabled so that the OSD menu remains on the screen until manually closed.

### TO ENABLE/DISABLE THE OSD MENU AUTOMATIC CLOSE FUNCTION:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Menu** menu.
- 3 Enter the **Automatic Close** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



# Power status indicator light

## ABOUT THE POWER STATUS INDICATOR LIGHT

By default, when the display is switched on, the power status indicator light is dimmed. This behavior can be changed so that the power status indicator light will be **blue** when the display is switched on.



When the display is in stand-by mode, the power status indicator light will always turn orange, even when the power status indicator light is disabled.

### TO ENABLE/DISABLE THE POWER STATUS INDICATOR LIGHT:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Indicator Lights** menu.
- 3 Enter the **Power Status** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



## Key indicator lights

### ABOUT THE KEY INDICATOR LIGHTS

By default, after lighting up, the key indicator lights will dim again if no further actions are taken within the following 5 seconds. However, this behavior can be changed so that the key indicator lights are always on or always off.

### TO CONFIGURE THE KEY INDICATOR LIGHTS:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Indicator Lights** menu.
- 3 Enter the **Keys** submenu.
- 4 Select **Automatic/Always On/Always Off** as desired and confirm.



## Power lock function

### ABOUT THE POWER LOCK FUNCTION

By enabling the power lock function, the CORONIS FUSION 6MP display is forced to remain switched on. This means that it can't be switched to stand-by mode until the power lock function is disabled again.

### TO ENABLE/DISABLE THE POWER LOCK FUNCTION:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Controls** menu.
- 3 Enter the **Power Lock** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



## Keys sound

### ABOUT THE KEYS SOUND

By default, the keys will make a “beep” sound on every touch. However, this sound can be disabled so that no sound will be heard when using the keys.

### TO ENABLE/DISABLE THE KEYS SOUND:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **User Interface** > **Controls** menu.
- 3 Enter the **Sound** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



## Ethernet over USB

### ABOUT ETH. OVER USB

By default, the Ethernet over USB will be disabled. This does not disable the USB hub and still allows to make use of the display’s USB downstream connectors and any external devices connected to it (keyboard, mouse, ...).

Please note that a connection from a PC USB downstream connector to the display’s USB upstream connector is required to be able to use this functionality.

By enabling the Ethernet over USB, you allow the internal CORONIS FUSION 6MP display processor to communicate directly over USB with the connected PC.



Enabling the USB endpoint is only recommended when you are using a non-Barco display controller. If you are using a Barco display controller, this communication will automatically be done over the connected video cable(s).

## TO ENABLE/DISABLE THE ETH. OVER USB:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Connectivity** menu.
- 3 Enter the **Eth. over USB** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



## DDC HID Device

### ABOUT DDC HID DEVICE

By default, the DDC HID Device will be enabled. This will allow the internal CORONIS FUSION 6MP display processor to communicate directly over USB with the connected PC.

By disabling the DDC HID Device, communication between the internal CORONIS FUSION 6MP display processor and the connected PC will not be possible. This does not disable the USB hub and still allows to make use of the display's USB downstream connectors and any external devices connected to it (keyboard, mouse, ...).

Please note that a connection from a PC USB downstream connector to the display's USB upstream connector is required to be able to use this functionality.



Enabling the USB endpoint is only recommended when you are using a non-Barco display controller. If you are using a Barco display controller, this communication will automatically be done over the connected video cable(s).

## TO ENABLE/DISABLE THE DDC HID DEVICE:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Connectivity** menu.
- 3 Enter the **DDC HID Device** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.





# DPMS mode

## ABOUT DPMS MODE

Enabling the Display Power Management System (DPMS) mode on your display will optimize its diagnostic lifetime by automatically switching off the backlight when the display is not used for a specified period of time. By default, DPMS mode is enabled on your display, but it also needs to be activated on your workstation. To do this, go to the “Power options properties” window of your workstation.



Barco recommends setting DPMS activation after 20 minutes of non-usage.



When DPMS mode is enabled on your display, an additional OSD power saving function becomes available: hibernate. Please refer to “**Display functions**” on page 39 for more information on hibernation and how to enable this function.

## TO ENABLE/DISABLE DPMS MODE ON YOUR DISPLAY:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **Power Management** menu.
- 3 Enter the **DPMS Mode** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



# Hibernate

## ABOUT HIBERNATE

Enabling hibernation will not only switch off the backlight but will also force the display to disable other functionalities so that power consumption is further reduced to a minimum. This happens after a specific period of time which can be manually adjusted.



Hibernate can only be enabled on your display when the DPMS mode is enabled first. Therefore, please refer to “**DPMS mode**” on page 33 to do this.

## TO ENABLE/DISABLE HIBERNATION ON YOUR DISPLAY:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Power Management** menu.
- 3 Enter the **Hibernate** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.

## TO SPECIFY THE HIBERNATE TIMEOUT:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Power Management** menu.
- 3 Enter the **Hibernate Timeout** submenu.
- 4 Set the timeout value as desired and confirm.



## Luminance target

### ABOUT THE LUMINANCE TARGET

The luminance target of your CORONIS FUSION 6MP display is adjustable over a predefined range. When you change the luminance target, the display will adjust its backlight to reach the target.

### TO SET THE LUMINANCE TARGET:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **Calibration** menu.
- 3 Enter the **Luminance Target** submenu.
- 4 Set a luminance target value as desired and confirm.



## Color presets

### ABOUT COLOR PRESETS:

The available color preset settings for your display are:

<b>Clearbase</b>	Simulation of the clearbase film color temperature.
<b>Bluebase</b>	Simulation of the bluebase film color temperature.
<b>User</b>	When selecting the User color temperature setting, you will be able to manually define the X and Y co-ordinates of the display color temperature in separate submenus.
<b>Native White</b>	The native, unmodified color temperature of the LCD panel.

## TO SELECT A COLOR PRESET:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration > Color Definition** menu.
- 3 Enter the **Color Presets** submenu.
- 4 Select one of the available Color Presets and confirm.



## Color temperature

### ABOUT COLOR TEMPERATURE:

It is possible to change the color temperature of your display.



Color temperature can only be changed on your display when color presets is set to user. Therefore, please refer to “**DPMS mode**” on page 33 to do this.

### TO CHANGE THE COLOR TEMPERATURE:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration > Color Settings** menu.
- 3 Enter the **Color Definition** submenu.
- 4 Select Color Temperature and confirm.
- 5 Enter the **Color Temperature** submenu.
- 6 Set the Temperature value as desired and confirm.



# Color coordinates

## ABOUT COLOR COORDINATES:

It is possible to change the color coordinates of your display.



Color coordinates can only be changed on your display when color presets is set to user. Therefore, please refer to “**DPMS mode**” on page 33 to do this.

## TO CHANGE THE COLOR COORDINATES:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration > Color Settings** menu.
- 3 Enter the **Color Definition** submenu.
- 4 Select Color Coordinates and confirm.
- 5 Enter the **X and/or Y** submenu.
- 6 Set the coordinate value for X and/or Y as desired and confirm.



# Viewing modes

## ABOUT VIEWING MODES

The CORONIS FUSION 6MP display can be used in two viewing modes:

<b>Diagnostic</b>	This mode provides the full calibrated luminance and is intended for using the display for diagnostic purposes.
<b>Text</b>	In this mode, the luminance is reduced to approximately half of the luminance. This is intended for using the display with office applications such as word processing.



As the CORONIS FUSION 6MP display is intended to be used in a diagnostic environment, the diagnostic mode should always be selected.

## TO SELECT A VIEWING MODE:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration** menu.
- 3 Enter the **Viewing Mode** submenu.
- 4 Select **Diagnostic/Text** as desired and confirm.



# Display functions

## ABOUT DISPLAY FUNCTIONS

Native, uncorrected panels will display all grayscale/color levels at an equal luminance. Studies have shown however, that in medical images certain grayscale/color parts contain more diagnostic information than others. To respond to these conclusions, display functions have been defined. These functions emphasize on these parts containing crucial diagnostic information by correcting the native panel behavior.

<b>Native</b>	If you select Native, the native panel behavior will not be corrected.
<b>Dynamic Gamma 1.8</b> <b>Dynamic Gamma 2.2</b>	These are gamma functions that are shifted to take into account the non-zero luminance of an LCD panel when driven with a “black” signal. They are especially useful in CT applications to improve the perception of low Hounsfield values.
<b>DICOM</b>	DICOM (Digital Imaging and Communications in Medicine) is an international standard that was developed to improve the quality and communication of digital images in radiology. In short, the DICOM display function results in more visible grayscales in the images. Barco recommends selecting the DICOM display function for most medical viewing applications.
<b>User</b>	This display function will be automatically selected when display functions are defined by MediCal QAWeb.
<b>Gamma 1.8</b> <b>Gamma 2.2</b>	Select one of these display functions in case the display is to replace a CRT display with a gamma of 1.8 or 2.2 respectively.

## TO SELECT A DISPLAY FUNCTION:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **Calibration** menu.
- 3 Enter the **Display Function** submenu.
- 4 Select one of the available display functions and confirm.



# Ambient Light Compensation (ALC)

## ABOUT ALC



Ambient Light Compensation (ALC) can only be enabled on your display when the DICOM display function is selected. Therefore, please refer to “**Display functions**” on page 39 to correctly set the display function.

When ALC is enabled, the DICOM display function will be recalculated taking a preset ambient light correction value into account. This value is determined by the selected reading room. Therefore, it is also important to select a realistic reading room when enabling ALC. This can be done by following the instructions in “**Reading rooms**” on page 41.

## TO ENABLE/DISABLE ALC:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **Calibration** > **Ambient Light** menu.
- 3 Enter the **Ambient Light Compensation** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.





# Reading rooms

## ABOUT READING ROOMS



Reading rooms can only be selected when the DICOM display function is selected. Therefore, please refer to **“Display functions”** on page 39 to correctly set the display function.

The American Association of Physicists in Medicine (AAPM) composed a list of pre-defined reading rooms. Each of these reading rooms are defined by following parameters:

- the maximum light allowed in this type of room
- the preset ambient light correction value for this reading room

These parameters are stored in your display and determine the preset ambient light correction value to take into account to recalculate the DICOM display function when Ambient Light Compensation (ALC) is enabled. Please refer to **“Ambient Light Compensation (ALC)”** on page 40 to enable ALC.

The available reading rooms for your CORONIS FUSION 6MP display are:

<b>CR/DR/MAMMO</b>	Corresponds to light conditions in diagnostic reading rooms for computed radiology, digital radiology or mammography. This setting has the lowest maximum ambient light.
<b>CT/MR/NM</b>	Corresponds to light conditions in diagnostic reading rooms for computed tomography, magnetic resonance or nuclear medicine scans.
<b>Staff Office</b>	Corresponds to light conditions in office rooms.
<b>Clinical Viewing Room</b>	Corresponds to light conditions in diagnostic reading rooms for clinical viewing.

<b>Emergency Room</b>	Corresponds to light conditions in emergency rooms.
<b>Operating Room</b>	Corresponds to light conditions in operating rooms. This setting has the highest maximum ambient light.

### TO SELECT A READING ROOM:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration > Ambient Light** menu.
- 3 Enter the **Reading Room** submenu.
- 4 Select one of the available reading rooms and confirm.



## Continuous ALC

### ABOUT CONTINUOUS ALC



Continuous ALC can only be selected when the DICOM display function is selected. Therefore, please refer to “**Display functions**” on page 39 to correctly set the display function.

Enabling continuous ALC will continuously recalculate the DICOM display function taking the averaged ambient light into account.

### TO SELECT CONTINUOUS ALC:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Calibration > Ambient Light** menu.
- 3 Enter the **Continuous ALC** submenu.
- 4 Select one of the available reading rooms and confirm.



## Image scaling

### ABOUT IMAGE SCALING

Enabling image scaling will multiply each individual pixel to one or more adjacent pixels so that the size of the displayed image will be a multiple of the original image source video input signal.



Image scaling is only possible when the resolution of your display's video input signal is less than or equal to half the maximum resolution of the display.

### TO ENABLE/DISABLE IMAGE SCALING:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration** > **Image Sources** menu.
- 3 Enter the **Scaling** submenu.
- 4 Select **Enabled/Disabled** as desired and confirm.



## Image source selection modes

### ABOUT IMAGE SOURCE SELECTION MODES

Your CORONIS FUSION 6MP display automatically detects the number of video input signals connected, attaches them to the correct display side and applies the correct video settings to it (resolution, video encoding mode, refresh rate,...). However, it may be needed to manually select the video input signal(s) to be displayed on a certain display side or to

adjust certain video settings yourself. The start to this is selecting one of the following image source selection modes available for your display:

<b>Automatic</b>	In this mode, your display automatically detects the connected video input signals, attaches them to the correct display side and applies the correct video settings to it (resolution, video encoding mode, refresh rate,...). No video settings are available when this mode is selected.
<b>One Image Source</b>	This mode is intended for displaying and manually configuring only one connected video input signal. When selecting this mode, the video settings become available for the selected video input signal.
<b>Two Image Sources</b>	This mode is intended for displaying and manually configuring two connected video input signals (one on each display side). When selecting this mode, the video settings become available for the selected video input signal on each side of the display.

#### **TO SELECT AN IMAGE SOURCE SELECTION MODE:**

- 1** Bring up the OSD main menu.
- 2** Navigate to the **Configuration > Image Sources** menu.
- 3** Enter the **Image Source Selection** submenu.
- 4** Select one of the available image source selection modes and confirm.



# Video input signals

## ABOUT VIDEO INPUT SIGNALS



Your CORONIS FUSION 6MP display automatically detects the connected video input signals. Manually selecting image source video input signals is possible, but then your display's image source selection mode should be set to allow this. Please refer to "**Image source selection modes**" on page 43 to do this.

The available input signals for your display are:

<b>DisplayPort 1</b>	This input corresponds to the DisplayPort 1 connector as shown in the " <b>Parts, controls and connectors</b> " section.
<b>DVI 1</b>	This input corresponds to the DVI 1 connector as shown in the " <b>Parts, controls and connectors</b> " section.
<b>DisplayPort 2</b>	This input corresponds to the DisplayPort 2 connector as shown in the " <b>Parts, controls and connectors</b> " section.
<b>DVI 2</b>	This input corresponds to the DVI 2 connector as shown in the " <b>Parts, controls and connectors</b> " section.

### TO MANUALLY SELECT A VIDEO INPUT SIGNAL:

- 1** Bring up the OSD main menu.
- 2** Navigate to the **Configuration > Image Sources > (Left/Right) Image Source** menu.
- 3** Enter the **Input Signal** submenu.
- 4** Select one of the available input signals and confirm.



# Video encoding modes

## ABOUT VIDEO ENCODING MODES



Your CORONIS FUSION 6MP display automatically detects the connected video input signals and applies the correct video encoding settings. Manually selecting a video encoding mode is possible, but then your display's image source selection mode should be set to allow this. Please refer to **"Image source selection modes"** on page 43 to do this.

Video encoding modes specify how the color and luminance information is encoded in the video signal. In consumer displays, this is usually done by a limited 8-bit encoding mechanism. Your CORONIS FUSION 6MP display however, features 10-bit encoding enabling it to better match the DICOM defined grayscale range. Such an extensive range is necessary to comply with the guidelines set forward by the latest medical guidelines.

The available video encoding modes for your display are listed below.



Please note that the display controller connected to your display might not always support all these video encoding modes.

<b>Standard</b>	This mode uses the standard 8 bit encoding mechanism.
<b>HDR1</b>	This mode features 10-bit video encoding following the High Dynamic Range (HDR) standard, usually used on color displays.
<b>HDR2</b>	HDR2 is a Barco specific mode featuring 10-bit video encoding following the High Dynamic Range (HDR) standard but allowing full refresh rate (which is not always possible with HDR1). This mode is usually used on color displays.

<b>Dual 10</b>	Dual 10 is a Barco specific 10-bit video encoding mode which is usually used on grayscale displays and which allows full refresh rate.
<b>Automatic</b>	When selecting this option, your CORONIS FUSION 6MP display will automatically assign the correct video encoding settings to the connected video input signals.

### TO MANUALLY SELECT A VIDEO ENCODING MODE:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Image Sources > (Left/Right) Image Source** menu.
- 3 Enter the **Video Encoding** submenu.
- 4 Select one of the available video encoding modes and confirm.



## Grayscale conversion modes

### ABOUT GRAYSCALE CONVERSION MODES



Your CORONIS FUSION 6MP display automatically detects the connected video input signals and applies the correct grayscale conversion settings. Manually selecting a grayscale conversion mode is possible, but then your display's image source selection mode should be set to allow this. Please refer to **"Image source selection modes"** on page 43 to do this.

Grayscale conversion modes specify how color generated on the display controller is converted to grayscale in your display.

The available grayscale conversion modes are:

<b>Use Red Channel</b>	This mode is intended for grayscale displays where gray is sent over the red channel.
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<b>Use Green Channel</b>	This mode is intended for grayscale displays where gray is sent over the green channel.
<b>Use Blue Channel</b>	This mode is intended for grayscale displays where gray is sent over the blue channel.
<b>Use All Channels</b>	This mode is intended for grayscale displays where gray is sent over the red, green and blue channel. This done by means of a standard conversion mechanism where 30% red, 59% green and 11% blue are used to generate gray.

#### **TO MANUALLY SELECT A GRAYSCALE CONVERSION MODE:**

- 1** Bring up the OSD main menu.
- 2** Navigate to the **Configuration > Image Sources > (Left/Right) Image Source** menu.
- 3** Enter the **Grayscale Conversion** submenu.
- 4** Select one of the available color conversion modes and confirm.





## EDID timings

### ABOUT EDID TIMINGS



Your CORONIS FUSION 6MP display will automatically adjust the connected video input signals and apply the correct timings based on the preferred EDID timings. To manually configure these EDID timings your display's image source selection mode should be set to allow this. Please refer to **"Image source selection modes"** on page 43 to do this.

Following EDID timings are available for your CORONIS FUSION 6MP display:

<b>Resolution</b>	Allows to manually modify the resolution of the image source video input signal.
<b>Refresh Rate</b>	Allows to manually select the refresh rate of the image source video input signal depending on the maximum refresh rate of the display controller connected to your display.
<b>Preferred Orientation</b>	Allows to change the orientation of the image source video input signal to landscape, portrait or to let the display automatically assign the correct orientation.
<b>Color Depth</b>	Allows to change the color depth to 8 or to 10 bit.

## TO MANUALLY SET EDID TIMINGS:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Configuration > Image Sources > (Left/Right) Image Source** menu.
- 3 Enter the **EDID Timings** submenu.
- 4 Select **Resolution, Refresh Rate, Preferred Orientation** or **Color Depth**.
- 5 Select one of the available settings and confirm.



## Display info

### ABOUT DISPLAY INFO

Your display serial number, color type, native resolution, firmware versions, etc. are available in a dedicated submenu of the OSD menu.

### TO RETRIEVE INFO ABOUT YOUR DISPLAY:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **About this Display** menu.
- 3 Enter the **Display** or **Firmware** submenu as desired.



## Display status

### ABOUT DISPLAY STATUS

The Status submenu of the OSD menu provides info on the current status of your display (runtimes, temperatures, etc.), the status of the connected image sources (video encoding mode, timings, etc.) and the current calibration status of your display (display function, luminance, ALC, etc.).

## TO RETRIEVE THE STATUS OF YOUR DISPLAY:

- 1 Bring up the OSD main menu.
- 2 Navigate to the **Status** menu.
- 3 Enter the **Display, Image Source, Calibration** or **Connectivity** submenu as desired.

# Cleaning your display

## Front glass

Clean the front glass using a sponge, cleaning cloth or soft tissue, **lightly** moistened with one of the following tested products:

- Flux
- Windex Glass Plus
- Bohle glass cleaner
- Mr. Proper
- Pril
- Ajax glass cleaner
- Sidolin glass cleaner
- 25% ethanol solution (EtOH)

In case none of the above cleaning products is available, use plain water.



Take care not to damage or scratch the front glass. Be careful with rings or other jewelry and do not apply excessive pressure on the front glass.



Do not apply or spray liquid directly to the front glass as excess liquid may cause damage to internal electronics. Instead, apply the liquid to the cleaning cloth.



Do not use following products:

- Alcohol/solvents at higher concentration > 5%
- Strong alkalis lye, strong solvents
- Acid
- Detergents with fluoride
- Detergents with ammonia
- Detergents with abrasives
- Steel wool
- Sponge with abrasives
- Steel blades
- Cloth with steel thread

## Cabinet

- 1 Clean the cabinet using a soft cotton cloth, **lightly** moistened with a recognized cleaning product for medical equipment.

The cabinet has been tested for resistance to the following products:

- Cidex, Betadine
- Alcohol (Isopropyl and Ethyl)
- Ammonia-based cleaners (Windex)
- Aquasonic Gel

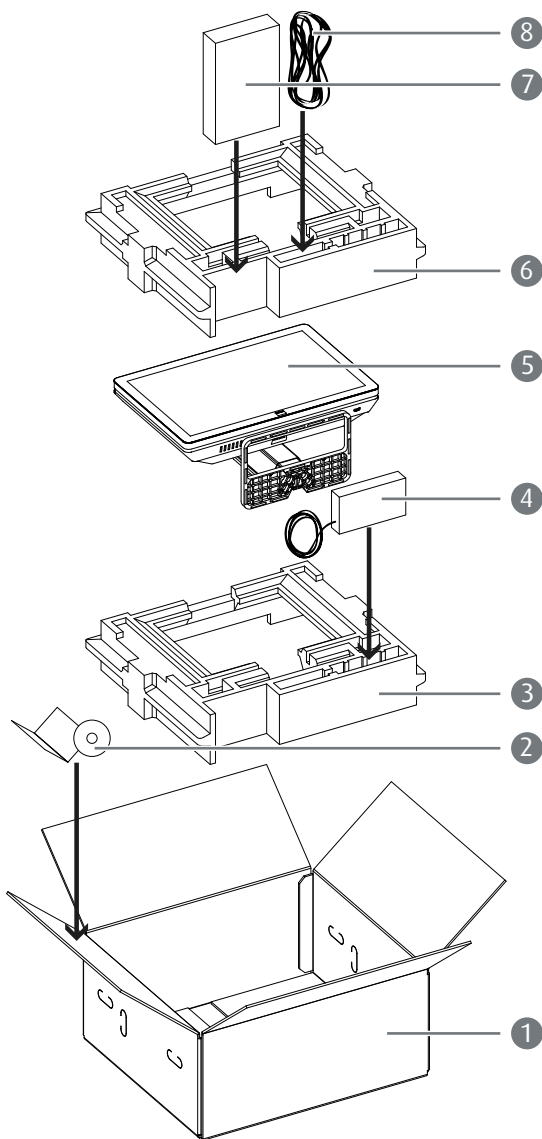
In case none of the above cleaning products is available, use plain water.



Do not apply or spray liquid directly to the cabinet as excess liquid may cause damage to internal electronics. Instead, apply the liquid to the cleaning cloth.

- 2 Repeat with water only.
- 3 Wipe dry with a dry cloth.

# Repackaging instructions



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1	Box	2	System CD + User guide
3	Bottom buffer	4	Power supply
5	CORONIS FUSION 6MP display	6	Top buffer
7	Display controller box	8	Cables (video, USB, power)

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- 1 Place the empty box on a stable surface.
- 2 Slide the system CD and user guide in the dedicated bag attached at the inside of the box.
- 3 Place the bottom buffer in the box.
- 4 Put the power supply in the dedicated cavity of the bottom buffer.
- 5 Put the CORONIS FUSION 6MP display in its original bag and place it in the box with its panel facing upwards.
- 6 Put the top buffer on top of the display.
- 7 When applicable, slide the display controller box in the dedicated cavity of the buffers.
- 8 Put all cables (video, USB, power) in their original bag and slide them in the dedicated cavity of the buffers.
- 9 Close and seal the box.

# Important information

## Safety information

### GENERAL RECOMMENDATIONS

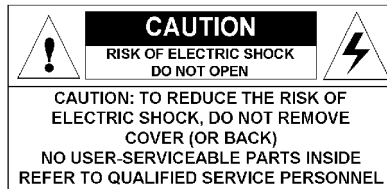
Read the safety and operating instructions before operating the equipment.

Retain safety and operating instructions for future reference.

Adhere to all warnings on the equipment and in the operating instructions manual.

Follow all instructions for operation and use.

### ELECTRICAL SHOCK



### 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.

### NON-PATIENT CARE EQUIPMENT

Equipment primarily for use in a health care facility that is intended for use where contact with a patient is unlikely.



## **POWER CONNECTION - EQUIPMENT WITH EXTERNAL 24 VDC POWER SUPPLY**

- Power requirements: The equipment must be powered using the delivered medical approved 24 VDC SELV power supply.
- The medical approved DC power supply must be powered by the AC mains voltage (protective earth terminal).

### **POWER CORDS:**

- Utilize a UL-listed detachable power cord, 3-wire, type SJ or equivalent, 18 AWG min., rated 300 V min., provided with a hospital-grade type plug 5-15P configuration for 120V application, or 6-15P for 240V application.
- Do not overload wall outlets and extension cords as this may result in fire or electric shock.
- Mains lead protection (U.S.: Power cord): Power cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying particular attention to cords at plugs and receptacles.

### **WATER AND MOISTURE**

Never expose the equipment to rain or moisture.

Never use the equipment near water - e.g. near a bathtub, washbasin, swimming pool, kitchen sink, laundry tub or in a wet basement.

### **VENTILATION**

Do not cover or block the ventilation openings in the cover of the set. When installing the equipment in a cupboard or another closed location, heed the necessary space between the set and the sides of the cupboard.

### **INSTALLATION**

Place the equipment on a flat, solid and stable surface that can support the weight of at least 3 equipments. If you use an unstable cart or stand,

the equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment.

**THIS APPARATUS CONFORMS TO:**

CE0120 (MDD 93/42/EEC class IIb product), Directive 2004/108/EC, IEC 60950-1:2005 2ND EDITION, DEMKO - EN 60601-1:2006, VCCI, FCC class B, FDA 510(K), RoHS, KCC, IEC 60601-1:2005 3RD EDITION, ANSI/AAMI ES 60601-1:2005, CAN/CSA-C22.2 No. 60601-1 (2008), CCC - GB9254-2008 + GB4943.1-2011 + GB17625.1-2003, ICES-001 Level B.

**NATIONAL SCANDINAVIAN DEVIATIONS FOR CL. 1.7.2:**

Finland: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"

Norway: "Apparatet må tilkoples jordet stikkontakt"

Sweden: "Apparaten skall anslutas till jordat uttag"

# Environmental information

## DISPOSAL INFORMATION (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT)



This symbol on the product indicates that, under European Directive 2002/96/EC 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, your municipal waste disposal service or the shop where you purchased the product.

## TURKEY ROHS COMPLIANCE



Republic of Turkey: In conformity with the EEE Regulation  
Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

## 中国大陆 RoHS (CHINESE MAINLAND ROHS)

根据中国大陆《电子信息产品污染控制管理办法》（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 "China Administration on Control of Pollution Caused by Electronic Information 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 or 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	0	0	0	0	0
液晶面板 LCD panel	X	0	0	0	0	0
外接电(线)缆 External cables	X	0	0	0	0	0
内部线路 Internal wiring	0	0	0	0	0	0
金属外壳 Metal enclosure	0	0	0	0	0	0
塑胶外壳 Plastic enclosure	0	0	0	0	0	0
散热片(器) Heatsinks	0	0	0	0	0	0
风扇 Fan	0	0	0	0	0	0

电源供应器 Power supply unit	X	0	0	0	0	0
文件说明书 Paper manuals	0	0	0	0	0	0
光盘说明书 CD manual	0	0	0	0	0	0
<p>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 SJ/T 11363-2006 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 SJ/T11363-2006.</p> <p>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 SJ/T 11363-2006 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 SJ/T11363 2006.</p>						

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《电子信息产品污染控制标识要求》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，徽标内部的编号用于制定产品）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 "Electronic Information Products Pollution Control Labeling Standard" 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 "Standard of Electronic Information Products Environmental Friendly Use Period" of Chinese Mainland.



# Regulatory compliance information

## INDICATIONS FOR USE: CORONIS FUSION 6MP

The Coronis Fusion 6MP DL (MDCC-6230) display is a display device capable of displaying two 3MP display images electronically fused together on the one panel. It is intended to be used in displaying and viewing digital images for review and analysis by trained medical practitioners. It provides a screen resolution of 3280 x 2048 pixels at a pixel pitch of 0.1995mm. This provides the equivalent resolution of 2 x 3MP displays.

The Coronis Fusion 6MP DL (MDCC-6230) display is not intended for primary diagnosis of Mammography images.

Caution (USA): Federal law restricts this device to sale by or on the order of a physician or a practitioner trained on its use.

## FCC CLASS B

This device complies with Part 15 of the FCC Rules. 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.

This equipment has been tested and found to comply with the limits 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 residential 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 radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, 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 antenna.
- 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 radio/TV technician for help.

## CANADIAN NOTICE

This ISM device complies with Canadian ICES-001.

Cet appareil ISM est conforme à la norme NMB-001 du Canada.

## EMC NOTICE

This device 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.




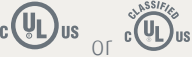







Interference can be determined by turning the equipment off and on.

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.

# Explanation of symbols

On the display or power supply, you may find the following symbols (nonrestrictive list):

	Indicates compliance to the essential requirements of the Directive 93/42/EEC
	Indicates compliance with Part 15 of the FCC rules (Class A or Class B)
	Indicates the display is approved according to the UL regulations
	Indicates the display is approved according to the c-UL regulations
	Indicates the display is approved according to the DEMKO regulations
	Indicates the display is approved according to the CCC regulations
	Indicates the display is approved according to the VCCI regulations
	Indicates the USB connectors on the display
	Indicates the manufacturing date
	Indicates the temperature limitations for the display to operate within specs
	Indicates the display serial no.



	Consult the operating instructions
	Indicates this apparatus must not be thrown in the trash but must be recycled, according to the European WEEE (Waste Electrical and Electronic Equipment) directive

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## **PATENT INFORMATION**

This product is covered under the following intellectual property rights:

US Patent RE43,707

US Patent 7,038,186

US Patent 7,166,829

US Patent 6,950,098

European Patent 1 274 066.

# Technical specifications

## CORONIS FUSION 6MP

Product acronym	MDCC-6230
Screen technology	TFT AM Color LCD Dual Domain IPS-Pro
Active screen size (diagonal)	772 mm (30.4")
Active screen size (H x V)	654 x 409 mm (25.8 x 16.1")
Aspect ratio (H:V)	16:10
Resolution	native 6MP (3280 x 2048) configurable to 2 x 3MP+ (1640 X 2048) configurable to 2 x 3MP (1536 X 2048)
Pixel pitch	0.1995 mm
Color imaging	Yes
Gray imaging	Yes
Color support	30 bit
Viewing angle (H, V)	178°
Uniform Luminance Technology (ULT)	Yes
Per Pixel Uniformity (PPU)	No
Ambient Light Compensation (ALC)	Yes
Backlight Output Stabilization (BLOS)	Yes (2x)
I-Guard	Yes
Maximum luminance*	720 cd/m <sup>2</sup>
DICOM calibrated luminance (ULT off)*	500 cd/m <sup>2</sup>
Contrast ratio (typical)*	1000:1 (panel typical)

<b>Response time (Tr + Tf)</b>	18 ms
<b>Scanning frequency (H; V)</b>	30-150 kHz; 15-80 Hz
<b>Housing color</b>	Black/Silver
<b>Video input signals</b>	DVI-D Dual Link (2x), DisplayPort (2x)
<b>Video inout terminals</b>	NA
<b>USB ports</b>	1 upstream (endpoint), 3 downstream
<b>USB standard</b>	2.0
<b>Power requirements (nominal)</b>	100-240V
<b>Power consumption (nominal)</b>	125W
<b>Power save mode</b>	Yes
<b>Power management</b>	DVI-DMPM, DP-DMPM
<b>Dot clock</b>	280 MHz
<b>OSD languages</b>	English, German, French, Dutch, Spanish, Italian, Portugese, Polish, Russian, Swedish, Chinese (simplified), Japanese, Korean, Arabic
<b>Dimensions with stand (W x H x D)</b>	Portrait: NA Landscape: 731 x 580~676 x 265 mm
<b>Dimensions w/o stand (W x H x D)</b>	Portrait: NA Landscape: 731 x 485 x 141 mm
<b>Dimensions packaged (W x H x D)</b>	869 x 764 x 400 mm
<b>Net weight with stand</b>	26.5 kg
<b>Net weight w/o stand</b>	20 kg
<b>Net weight packaged with stand</b>	36.5 kg
<b>Net weight packaged w/o stand</b>	NA

<b>Height adjustment range</b>	96 mm
<b>Tilt</b>	-5° / +25°
<b>Swivel</b>	-45° / +45°
<b>Pivot</b>	NA
<b>Mounting standard</b>	VESA (100 mm)
<b>Screen protection</b>	Protective, non-reflective glass cover
<b>Recommended modalities</b>	CT, MR, US, DR, CR, NM, Film
<b>Certifications</b>	CE0120 (MDD 93/42/EEC class IIb product), Directive 2004/108/EC, IEC 60950-1:2005 2ND EDITION, DEMKO - EN 60601-1:2006, VCCI, FCC class B, FDA 510(K), RoHS, KCC, IEC 60601-1:2005 3RD EDITION, ANSI/AAMI ES 60601-1:2005, CAN/CSA-C22.2 No. 60601-1 (2008), CCC - GB9254-2008 + GB4943.1-2011 + GB17625.1-2003, ICES-001 Level B
<b>Supplied accessories</b>	Getting Started Guide Quick-Installation Sheet Video cables (2x DVI Dual Link, 2x DisplayPort) Main cables (UK, European (CEBEC/KEMA), USA (UL/CSA; adaptor plug NEMA 5-15P), Chinese (CCC)) USB 2.0 cable External power supply
<b>Optional accessories</b>	NA
<b>QA software</b>	MediCal QAWeb
<b>Unit per pallet</b>	NA
<b>Pallet dimensions</b>	NA
<b>Warranty</b>	5 years
<b>Operating temperature</b>	0°C to 35°C (15°C to 30°C within specs)
<b>Storage temperature</b>	-20°C to 60°C
<b>Operating humidity</b>	8% - 80% (non-condensing)
<b>Storage humidity</b>	5% - 93% (non-condensing)
<b>Operating altitude</b>	2000 m

\* In dark reading room conditions (0 lux)

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**K5902055-00**  
December 2012

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