

# Coronis Uniti



## User Guide

MDMC-12133

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**1**

**Welcome!**

## 1.1 What's in the box

### Overview

- Coronis Uniti display
- Barco Touchpad
- Film clip
- Printed user guide
- Documentation disc, containing different languages of this user guide and the Barco "Display Controller and Intuitive Workflow Tools" user guide
- Quick install sheet
- System sheet
- External power supply
- Cables for Mains, Video and USB

If you ordered a Barco MXRT display controller, it is also in the box together with its accessories. A dedicated user guide is available on the documentation disc.



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



The user guides are also available on [www.barco.com/support](http://www.barco.com/support)



If your product arrived with shipping damage or missing parts, please refer to the instructions in our knowledge base article '3727' at [www.barco.com/support/knowledge-base/3727](http://www.barco.com/support/knowledge-base/3727) for further assistance.

## 1.2 At a glance

### Front view

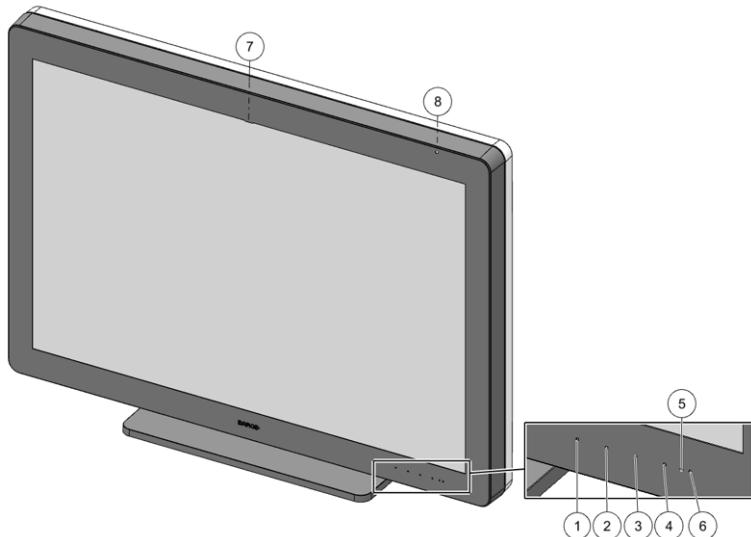


Image 1–1

1. Front key 1
2. Front key 2
3. Front key 3
4. Front key 4

5. Orange power LED (for an overview of the different power LED states, see “[Power LED](#)”, page 28)
6. White power LED (for an overview of the different power LED states, see “[Power LED](#)”, page 28)
7. I-Guard sensor
8. Ambient light sensor

## Rear view

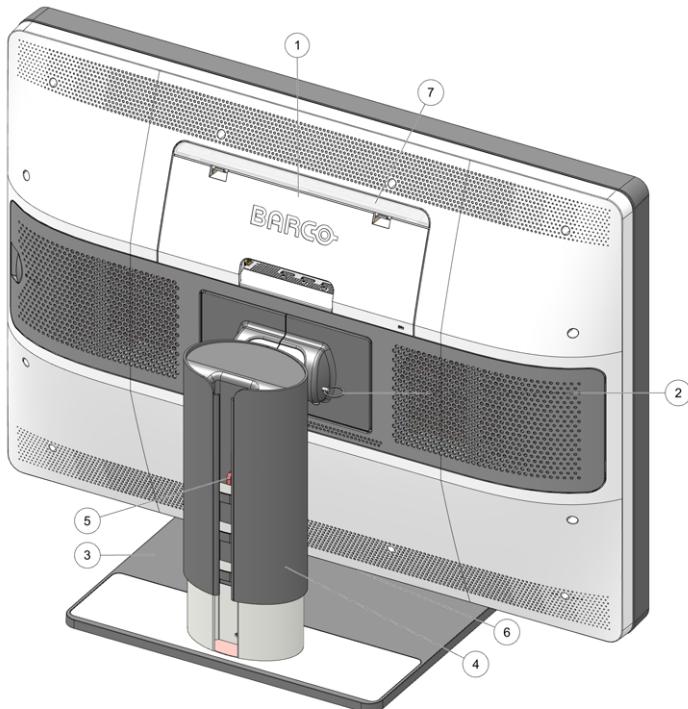


Image 1–2

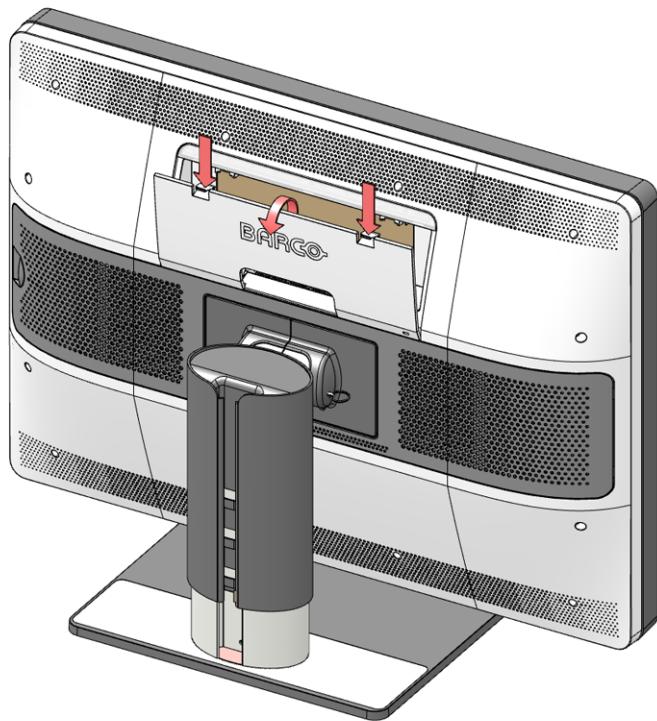
1. Connector cover
2. Tilt lock pin (only for transportation)
3. Tilt & swivel foot
4. Cable duct
5. Foot lock pin (only for transportation)
6. SoftGlow Task light
7. SoftGlow Wall light



Store the foot lock pin and tilt lock pin for possible future transportation of the display.

## Connectors

To access the rear connectors, gently push the two lips on the top of the cover then pull the top of the cover away from the display and remove it.



Following connectors are available:

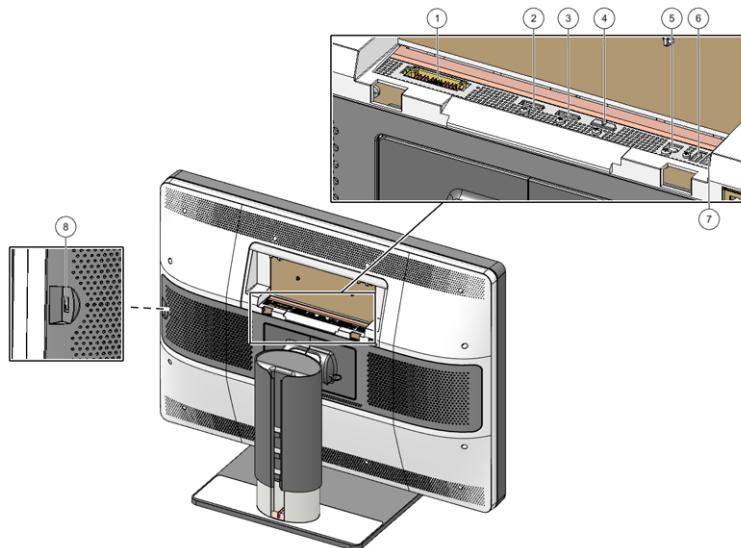


Image 1–3

1. Power input
2. DisplayPort input
3. DisplayPort input
4. Not used
5. USB-A upstream connector
6. USB-B downstream connector
7. USB-B downstream connector
8. USB-B downstream connector

## Film clip

The film clip can be used to hold a radiological film when using the I-Luminate function as a light box. See “I-Luminate”, page 24 and “I-Luminate default mode”, page 32.

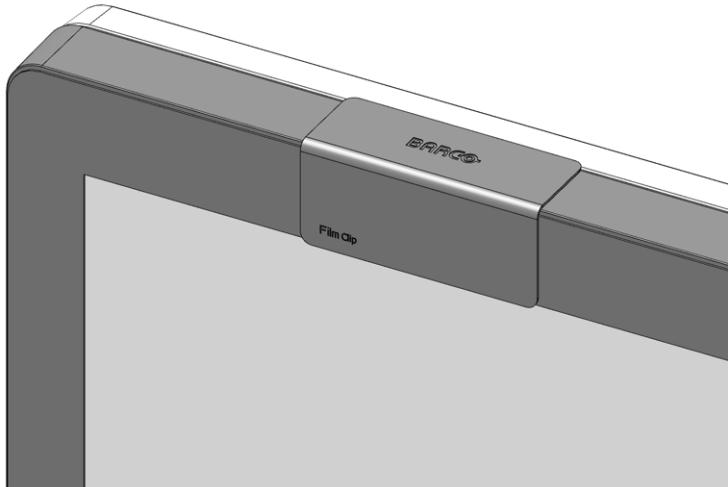


Image 1-4

## Barco Touchpad

The Barco Touchpad can control Barco's **Intuitive Workflow Tools** and allows you to control diagnostic imaging and other viewing applications with configurable multi-touch gestures and touchpad function activation buttons. Using and configuring the Barco Touchpad requires Barco's MXRT display controller and driver to be installed on your workstation.

For more information and installation instructions, please check the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

Welcome!

# Installation and setup

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## 2.1 Display controller installation

### About

Before you install your display and connect it with the workstation, make sure to have a suitable<sup>1</sup> display controller installed in the workstation.



The Coronis Uniti display operates at its full specifications when driven by a Barco **MXRT display controller** and **MXRT driver** (which also includes the Barco **Intuitive Workflow Tools**). If you ordered a MXRT display controller, it is included in the box of your display.

For more information and installation instructions, please check the Barco "Display Controller and Intuitive Workflow Tools" user guide at [www.barco.com/support](http://www.barco.com/support).

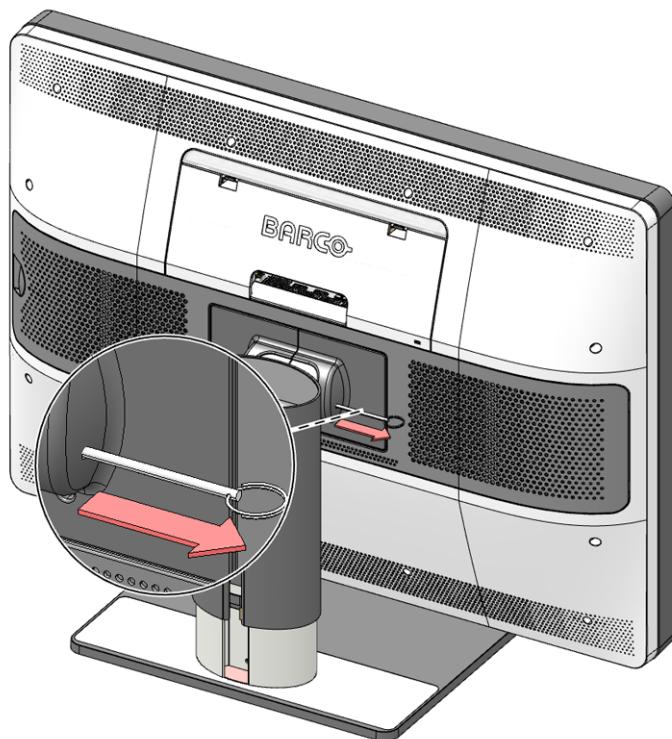
## 2.2 Display position adjustment

### About

In the factory, the tilt- and height mechanism in the display stand are locked to prevent damage during transportation. Both mechanisms must be unlocked before you can adjust the position of the display.

### To unlock the tilt mechanism

1. Position the display with its rear side facing you.
2. While pulling the bottom of the display towards the stand, pull out the red pin in the display stand.

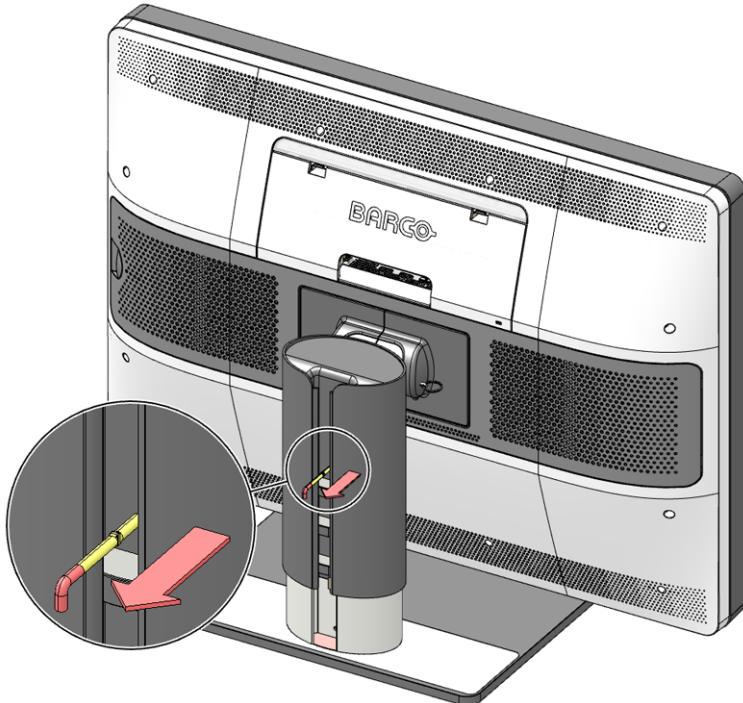


**WARNING:** Before transportation of the display, insert the pin in the lock mechanism so that the grey color of the pin isn't visible anymore.

1. For a list of compatible display controllers, please refer to the compatibility matrix available at [www.barco.com/mybarco/mysupport/healthcare/compatibility-matrices](http://www.barco.com/mybarco/mysupport/healthcare/compatibility-matrices)

## To unlock the height mechanism

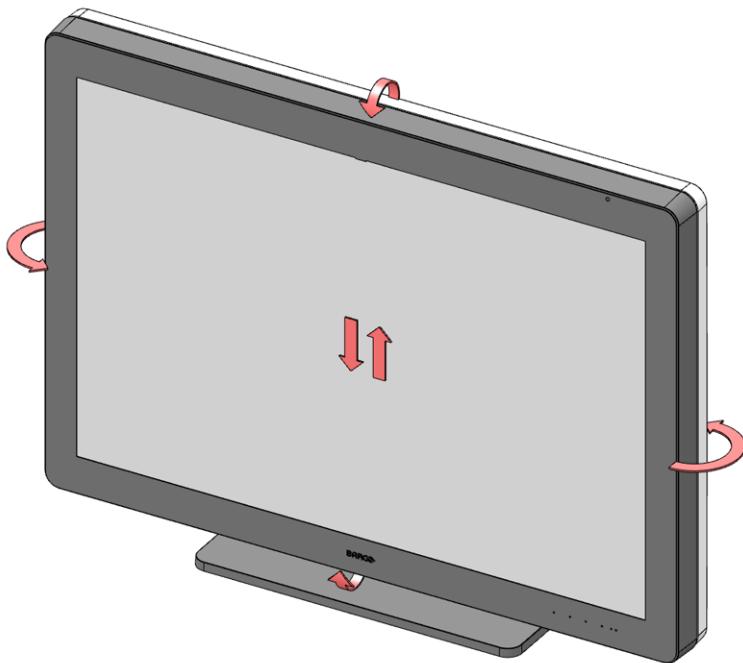
1. Position the display with its rear side facing you.
2. While holding the display panel pushed down, pull out the red pin in the display stand.



*Tip:* To retain the pin for possible future transportation, insert the short, red end of the pin back into the stand of your display.

## To adjust the display position

1. Unlock the tilt- and height mechanism as described above.
2. Tilt, swivel, raise and lower the display as desired.



**CAUTION:** 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.

## 2.3 Cable connections

### To connect the cables

1. Remove the connector cover.
2. Connect the DisplayPort inputs with the DisplayPort outputs on the workstation.  
**Note:** To obtain full resolution and full refresh rate, two DisplayPort video input cables must be connected to the display. If only one DisplayPort video input cable is connected the display will run at half of the specified refresh rate.
3. Connect the USB upstream connector with the USB host of your workstation to make optimal use of QAWeb and the Barco Intuitive Workflow Tools, and to use the Barco Touchpad.
4. Connect the Barco Touchpad with one of the USB downstream connectors. Other peripherals like a keyboard, mouse, etc. can also be connected.

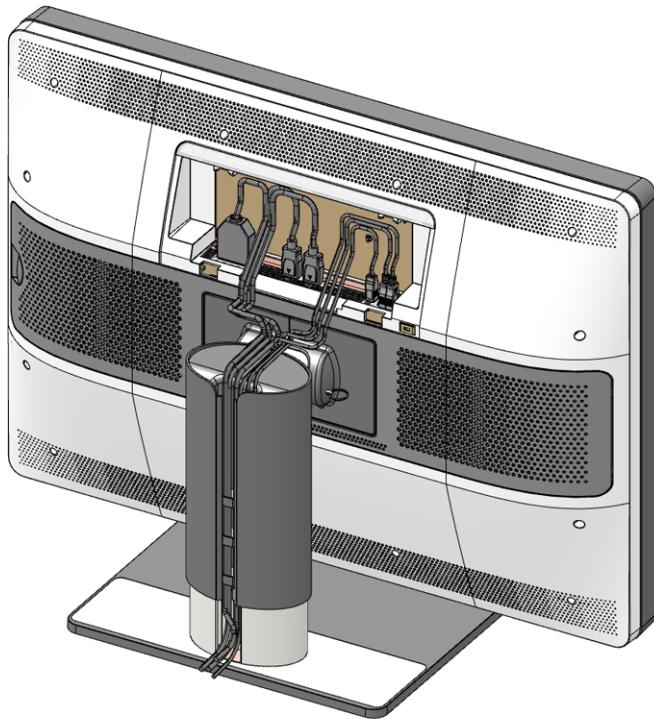


**Note:** When hibernate is enabled (default setting), connect all peripherals directly to your workstation rather than to the display's USB ports. To disable hibernate, see "[Hibernate](#)", page 31.

5. Connect the supplied external DC power supply to the power input of the display.  
**Warning:** Fasten the power connector to your display with the screws provided at the sides of the connector.
6. Route all cables through the cable routing channel in the stand of your display.

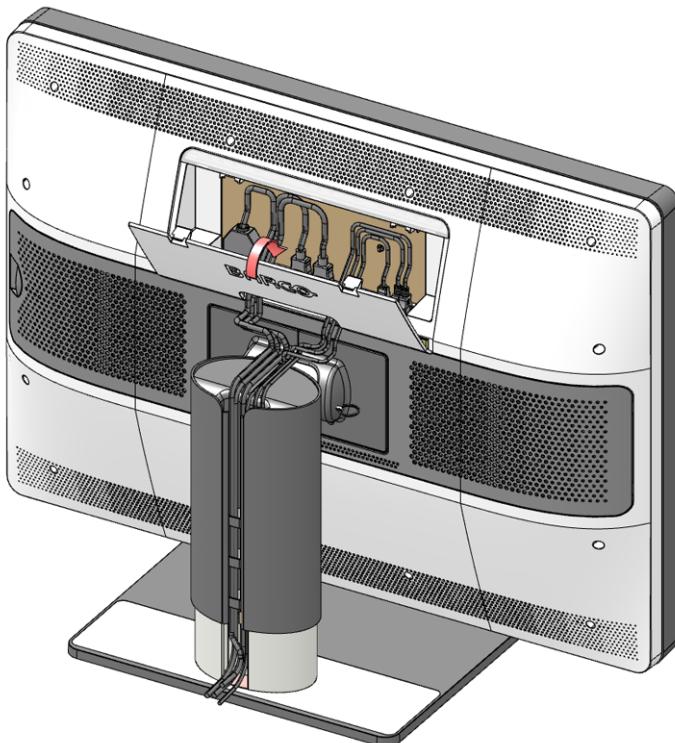


**Warning:** Only use the external power supply delivered with your display. Not using the correct power supply could cause serious damage to your display.



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

7. Re-install the connector cover.



8. Plug the external DC power supply into a **grounded** power outlet by means of the proper power cord delivered in the packaging.

## 2.4 MXRT driver and Intuitive Workflow Tools installation

### About

When you are using a Barco MXRT display controller, you can start up your Coronis Uniti display system and install the **MXRT driver** and **Intuitive Workflow Tools**. Barco's Intuitive Workflow Tools are designed to increase visibility of subtle details, improve focus during reading sessions, and accelerate workflow.

### To install the MXRT driver and Intuitive Workflow Tools

1. Switch on your Coronis Uniti as described in "[Standby switching](#)", page 23.
2. Turn on the workstation connected to your display.  
Your display will be running in a basic video mode at a default refresh rate when first time starting up.
3. Download the latest MXRT driver and Intuitive Workflow Tools from [www.barco.com/mxrt](http://www.barco.com/mxrt).
4. Install the **MXRT driver** and Barco's **Intuitive Workflow Tools** as described in the Barco "Display Controller and Intuitive Workflow Tools" user guide at [www.barco.com/support](http://www.barco.com/support).
5. When the drivers are completely installed, your display will automatically detect the connected video input signal(s) and apply the correct video mode and refresh rate.

## 2.5 QAWeb registration

### About

**QAWeb Enterprise** helps you manage quality and assure compliance of your expanding healthcare enterprise with less effort, lower cost, and complete confidence. This fully automated and secure system supports a consistent image quality and uptime for all registered imaging display systems within your facility and across your enterprise. Learn more at [www.barco.com/qaweb](http://www.barco.com/qaweb).

To register your display system to your QAWeb Enterprise organization, the QAWeb Enterprise Agent must be installed and running on your workstation and it must be able to communicate with the QAWeb Enterprise cloud service.

For more information and instructions, check the QAWeb Enterprise user guide on [www.barco.com/support/qaweb-enterprise](http://www.barco.com/support/qaweb-enterprise).



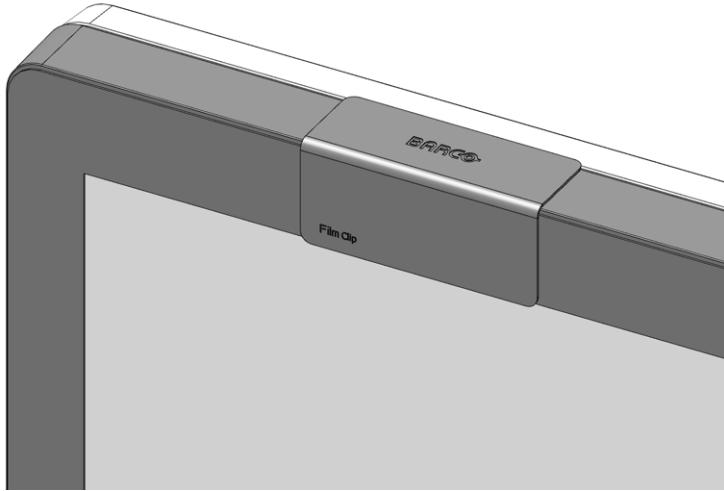
When still using the older MediCal QAWeb, visit [www.barco.com/support/medical-qaweb](http://www.barco.com/support/medical-qaweb) to obtain the installation package and user documentation.

## 2.6 Mounting the film clip

### To mount the film clip

The film clip can be mounted on the top side of the display.

1. Position the film clip on the top side of the bezel at the desired location (in the middle, left or right).



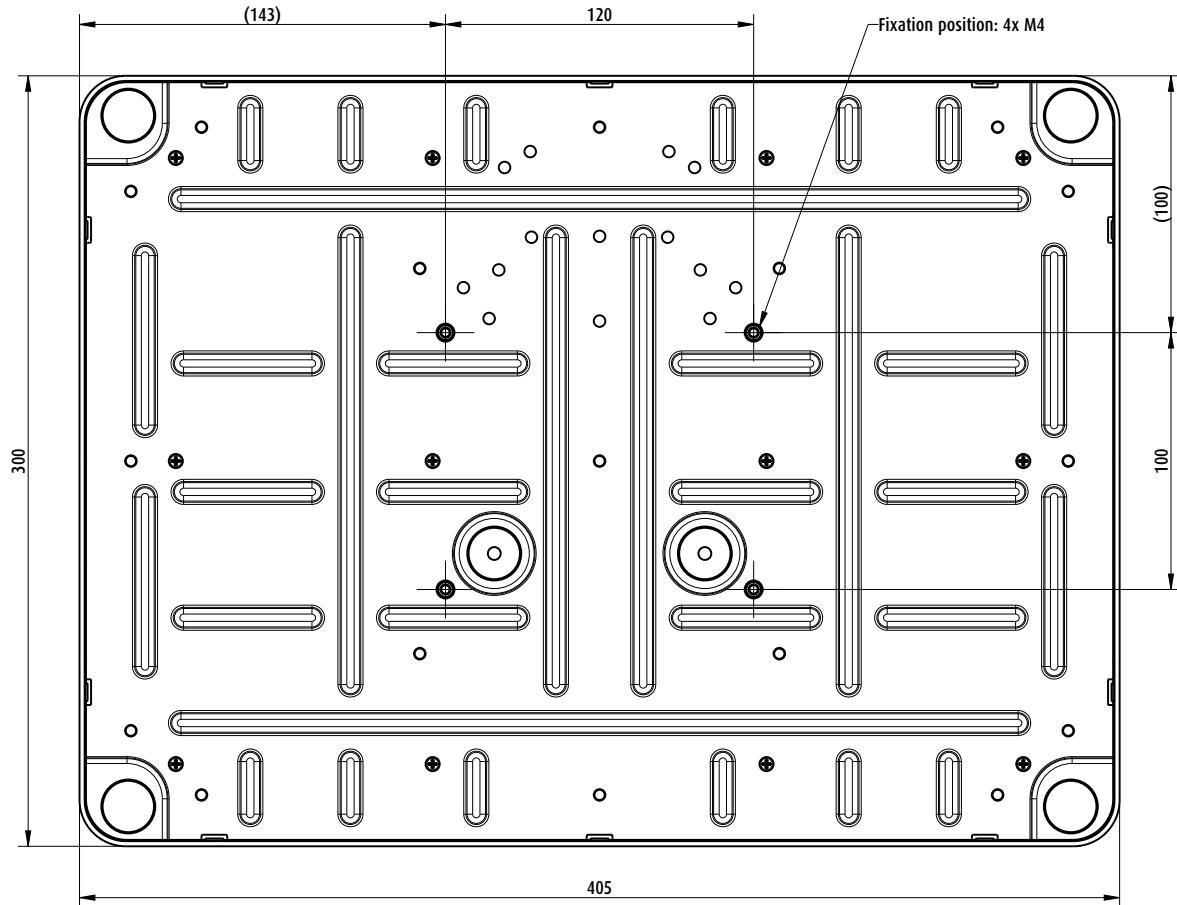
2. To remove the film clip, lift the front end or rear end of the clip.

## 2.7 Fixation of the foot on the desk

### Overview

If you would like to attach the Coronis Uniti to a desk, the tilt & swivel foot has 4 screw holes (4x M4) to mount the foot on a desk.

1. Drill four holes in the desk.



2. Fasten the foot on the desk with 4x M4 screws (length of the screws depending on the depth of the desk).

## 2.8 VESA-mount installation



**CAUTION:** Use suitable mounting apparatus to avoid risk of injury.



**WARNING:** 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 compliant handle and use this to move the display.

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



**WARNING:** Use an arm that is approved by VESA (according to the VESA 200 x 100 mm or VESA 100 x 100 mm standard).

Use an arm that can support the weight of the display. Refer to the technical specifications of this display for the applicable weight.



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



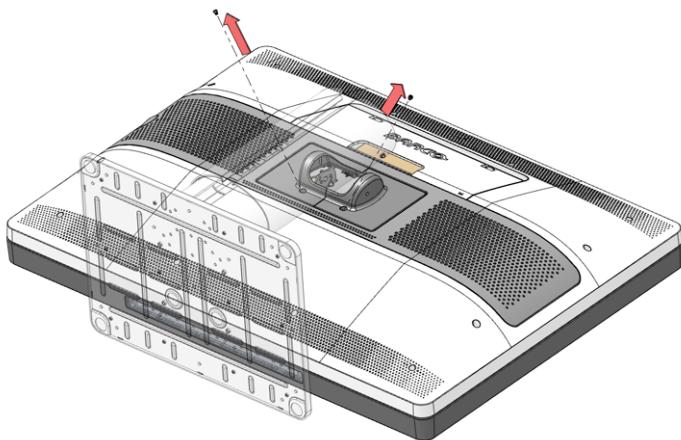
**WARNING:** To avoid muscle strain or back injury, use lifting aids and proper lifting techniques when removing or replacing.

### Overview

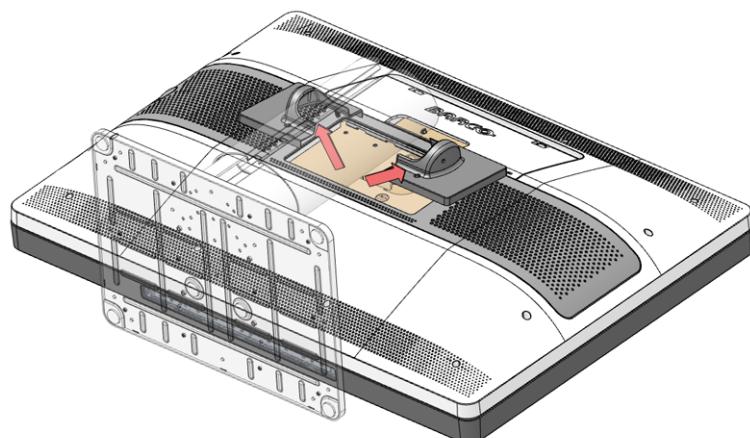
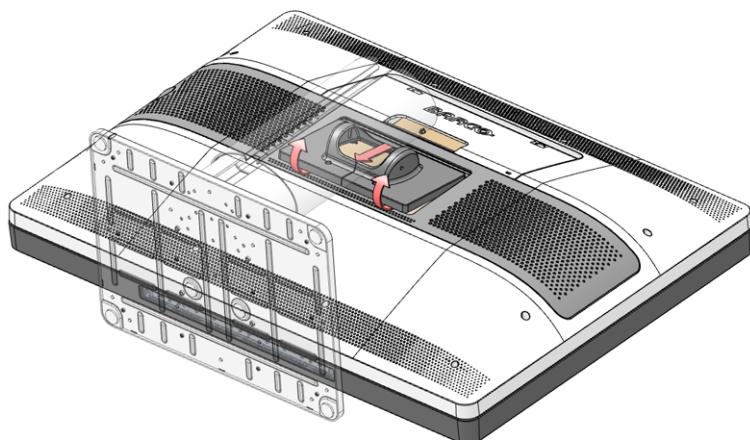
The panel, standard attached to the tilt & swivel foot, is compatible with the VESA 200 x 100 mm and VESA 100 x 100 mm standard. So it can be used with an arm stand according to the VESA 200 x 100 mm or VESA 100 x 100 mm standard.

Therefore, the tilt & swivel foot must be removed from the panel.

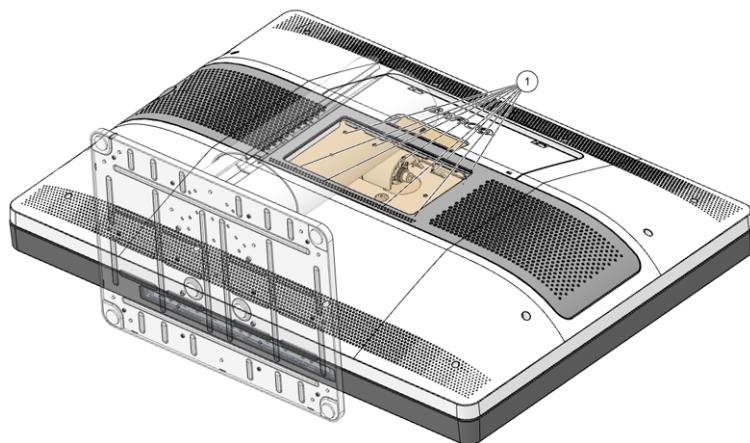
1. Fasten the height mechanism of the foot by putting the red pin in the hole.
2. Put the display face down on a clean and soft surface. Be careful not to damage the panel screen.
3. Loosen the plastic covers with a cross head screwdriver.



4. Remove the two plastic covers.

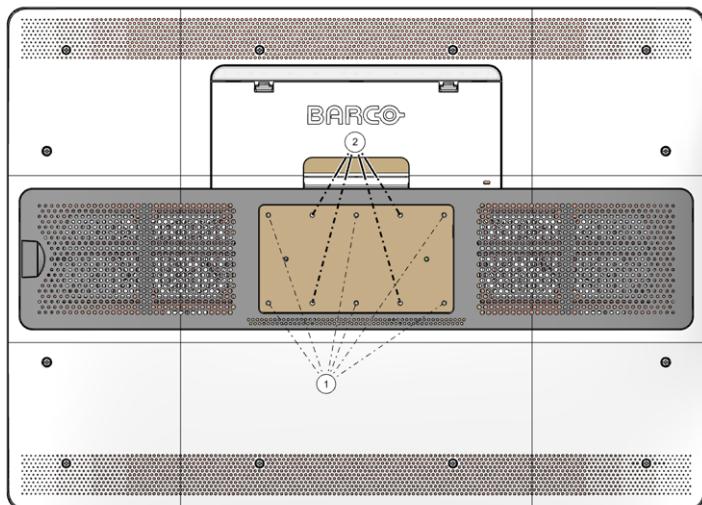


5. Remove the 9 screws fixing the foot while supporting the foot.



6. Attach the arm stand **firmly** to the panel using 6 screws M4 x 6 mm for a 200 x 100 mm VESA solution or 4 screws M4 x 6 mm for a 100 x 100 mm VESA solution.

## Installation and setup



# 3

## Daily operation

## 3.1 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 the “Power Options” of your workstation.



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.

In case you are working with the same image or an application with static image elements (e.g. toolbars, icons) during almost a full working day continuously (so that the screen saver is not activated), allow the screen saver to activate afterwards and keep it running for 2 to 4 hours.



Barco recommends setting screen saver activation after 10 minutes of non-usage. A good screen saver displays moving content.

### Avoid objects on the Barco Touchpad

When cables and other objects are left on the Barco Touchpad, these can be misinterpreted as fingers and may block DPMS and screen saver activation.



Barco recommends keeping the Barco Touchpad clear of other objects.

### 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.

### Maximize quality assurance

QAWeb Enterprise helps you manage quality and assure compliance of your expanding healthcare enterprise with less effort, lower cost, and complete confidence. This fully automated and secure system supports a consistent image quality and uptime for all registered PACS display systems within your facility and across your enterprise.



Barco highly recommends to use QAWeb Enterprise. Learn more at [www.barco.com/qaweb](http://www.barco.com/qaweb).

## 3.2 Shortcut bar

### About the shortcut bar

The shortcut bar gives direct access to a number of OSD menu functions without having to browse the OSD menu:

- “SoftGlow lights”, page 23

- “OSD menu”, page 24
- “Standby switching”, page 23



Image 3-1

### To activate a shortcut bar function

1. During normal operation, press any of the front keys (except for the left-most key, which would activate I-Luminate). The shortcut bar is activated.
2. Press the front key under a shortcut icon to activate the function.

## 3.3 Standby switching

### To switch on your display

While in standby mode, press the right-most front key 2 times.



While starting up, the orange and white power LED are both lit, until the display is fully operational.



Make sure that the rocker switch on the power supply (next to the mains input) is in position “I” to use your display.

### To switch off your display

1. Activate the shortcut bar by pressing any of the front keys (except for the left-most key, which would activate I-Luminate).
2. Press the front key under the standby icon ().
3. Press the front key again to confirm.



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.

## 3.4 SoftGlow lights

### About the SoftGlow lights

The SoftGlow Task light sheds a light on the desktop, while the SoftGlow Wall light provides ambient lighting for the reading room to reduce eye fatigue. The brightness of each is adjustable.

### To use the SoftGlow lights

1. Activate the shortcut bar by pressing any of the front keys (except for the left-most key, which would activate I-Luminate).
2. Press the front key under the SoftGlow lights icon ().
3. Press the front key repeatedly to cycle through the different SoftGlow light modes:  
SoftGlow Task light → SoftGlow Wall light → SoftGlow Task + Wall light → OFF → ...



To adjust the brightness of the SoftGlow lights, please refer to “SoftGlow Task light”, page 29 and “SoftGlow Wall light”, page 30.



The SoftGlow lights can also be enabled and configured in the Intuitive Workflow Tools. See the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 3.5 OSD menu

### About the OSD menu

The OSD menu allows you to configure different settings to make your Coronis Uniti 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.

For detailed explanation and instructions about all OSD menu functions, see “Advanced operation”, page 27.

### To access the OSD menu

1. Activate the shortcut bar by pressing any of the front keys (except for the left-most key, which would activate I-Luminate).
2. Press the front key under the Menu icon (☰). The OSD main menu comes up.

### To navigate through the OSD menus

Navigating through the OSD menus can be done by:

- Use the left/right 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 key.
- Use the standby key to cancel adjustments or exit a (sub)menu.
- Exit all OSD menus at once by touching the standby key for approximately 2 seconds.

The key icons are displayed above the keys and are adapted to the function that it is used for (menu dependent):



Left, Right



Menu



Enter



Cancel



Standby (IEC 60417–5009)

## 3.6 I-Luminate

### About I-Luminate

When I-Luminate is switched on, the LED backlight of the display is boosted to the maximum value, creating the highest possible luminance.

There are 3 I-Luminate modes:

- **Screen:** I-Luminate is applied on the entire screen without any overlay.

- **Small film:** I-Luminate is applied on the entire screen with an additional white rectangular overlay, simulating a light box for use with classic radiological films. The size of the white overlay corresponds to the dimensions of small radiological films.
- **Large film:** I-Luminate is applied on the entire screen with an additional white rectangular overlay, simulating a light box for use with classic radiological films. The size of the white overlay corresponds to the dimensions of large radiological films.

## To use I-Luminate

- Press the left-most front key during normal operation (while the OSD menu is not active) to switch on I-Luminate in the default set mode.
- With I-Luminate switched on, press second left-most key (front key '2' indicated on "At a glance", page 6), to cycle through the different I-Luminate modes (Screen → Small Film → Large Film → ...)
- Press the left-most front key again at any time to switch off I-Luminate and return to normal mode.



To set the default I-Luminate mode (i.e. the initial mode when I-Luminate is switched on), see "I-Luminate default mode", page 32.



To set the position of the white rectangular overlay in Small Film and Large Film mode, see "I-Luminate film position", page 32.



I-Luminate switches off automatically after 1 minute.



I-Luminate can also be enabled and configured in the Intuitive Workflow Tools. See the Barco "Display Controller and Intuitive Workflow Tools" user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 3.7 Viewing mode

### About viewing modes

The Coronis Uniti can be used in two viewing modes:

- **Diagnostic:** This mode provides the full calibrated luminance and is intended for using the display for diagnostic purposes.
- **Text:** 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.  
Please note that text mode is not persistent. Once powered off, the display will restart in diagnostic mode.



The diagnostic mode should always be selected when the Coronis Uniti is intended to be used for screening and diagnosis.

### To quickly change the viewing mode

During normal operation (while the OSD menu is not active), press the 2 left-most front keys simultaneously to change the viewing mode.



# 4

## Advanced operation

### About

This section describes all settings available in the OSD menu and how to change and configure them.



Certain OSD menu settings affecting calibration can be managed by QAWeb. Manually changing these settings in the OSD menu is still possible but the changes will be overwritten at each sync with QAWeb. The OSD menu can also be locked/unlocked by QAWeb.

## 4.1 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 Uniti.

#### 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.

## 4.2 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.

## 4.3 Power LED

### About the power LED

To prevent distractions, the power LED is off by default when the display is switched on and used in normal operation. This behavior can be changed so that the power LED will light up during normal operation. Below is an overview of the different power LED states, in ascending order of power consumption:

- Off: Display not powered, or display operational but power LED function disabled in OSD (see “[Power LED](#)”, page 28)
- Steady white: Display operational
- Slow blinking amber: Display in suspend mode (requires DPMS mode to be enabled in the OSD menu, see “[DPMS mode](#)”, page 30)
- Fast blinking amber: Display in standby mode (requires DPMS mode to be enabled in the OSD menu, see “[DPMS mode](#)”, page 30)
- Steady amber: Display switched off via the standby key, or display in hibernate mode (requires DPMS mode and Hibernate to be enabled in the OSD menu, see “[DPMS mode](#)”, page 30 and “[Hibernate](#)”, page 31)

#### To enable/disable the power LED

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.

## 4.4 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.

## 4.5 Power lock function

### About the power lock function

By enabling the power lock function, the Coronis Uniti is forced to remain switched on. This means that it can't be switched to stand-by mode manually 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.

## 4.6 SoftGlow Task light

### About the SoftGlow Task light

The SoftGlow Task light sheds a light on the desktop. The brightness of the light is configurable.

### To enable/disable the SoftGlow Task light

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Lights* menu.
3. Enter the *SoftGlow Task Light* submenu.
4. Select *Enabled/Disabled* as desired and confirm.



The SoftGlow lights can also be enabled more quickly via the shortcut bar. See “[SoftGlow lights](#)”, [page 23](#).



The SoftGlow lights can also be enabled and configured in the Intuitive Workflow Tools. See the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

### To adjust the SoftGlow Task light brightness

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Lights* menu.
3. Enter the *SoftGlow Task Light brightness* submenu.

- Set a *SoftGlow Task Light brightness* value as desired and confirm.



The SoftGlow lights can also be enabled and configured in the Intuitive Workflow Tools. See the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 4.7 SoftGlow Wall light

### About the SoftGlow Wall light

The SoftGlow Wall light provides ambient lighting for the reading room to reduce eye fatigue. The brightness of the light is configurable.

### To enable/disable the SoftGlow Wall light

- Bring up the OSD main menu.
- Navigate to the *Configuration > Lights* menu.
- Enter the *SoftGlow Wall Light* submenu.
- Select *Enabled/Disabled* as desired and confirm.



The SoftGlow lights can also be enabled more quickly via the shortcut bar. See “[SoftGlow lights](#)”, page 23.



The SoftGlow lights can also be enabled and configured in the Intuitive Workflow Tools. See the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

### To adjust the SoftGlow Wall light brightness

- Bring up the OSD main menu.
- Navigate to the *Configuration > Lights* menu.
- Enter the *SoftGlow Wall Light brightness* submenu.
- Set a *SoftGlow Wall Light brightness* value as desired and confirm.



The SoftGlow lights can also be enabled and configured in the Intuitive Workflow Tools. See the Barco “Display Controller and Intuitive Workflow Tools” user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 4.8 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” of your workstation.



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



When DPMS mode is enabled, an additional power saving function becomes available: hibernate. See “[Hibernate](#)”, page 31 for more information.

## 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.

## 4.9 Hibernate

### About hibernate

When hibernate is enabled, not only the backlight, but also other functions will be disabled to reduce power consumption to a minimum. This happens after an adjustable period of time.



DPMS mode must be enabled before hibernate can be enabled. See "["DPMS mode", page 30.](#)



Connect your keyboard, mouse, touchpad, etc. directly with your workstation (and not with the display) to be able to awake your workstation and display from hibernate.

### To enable/disable hibernate

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 adjust the hibernate time-out

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

## 4.10 Delayed power down

### About delayed power down

Working with the same image or an application with static image elements (e.g. toolbars, icons) during almost a full working day continuously may result in a form of image retention. You can avoid or significantly reduce the occurrence of this phenomenon by enabling the delayed power down option.

This option will keep the display's backlight running for 4 hours after DPMS mode is activated (instead of immediately switching off the backlight upon DPMS activation).



Enabling delayed power down is only effective when the DPMS mode is also enabled. Please refer to "["DPMS mode", page 30](#) to do this.

### To enable/disable delayed power down on your display:

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

## 4.11 I-Luminate default mode

### About I-Luminate default mode

The default I-Luminate mode defines the initial mode when I-Luminate is switched on.

There are 3 I-Luminate modes:

- **Screen:** I-Luminate is applied on the entire screen without any overlay.
- **Small film:** I-Luminate is applied on the entire screen with an additional white rectangular overlay, simulating a light box for use with classic radiological films. The size of the white overlay corresponds to the dimensions of small radiological films.
- **Large film:** I-Luminate is applied on the entire screen with an additional white rectangular overlay, simulating a light box for use with classic radiological films. The size of the white overlay corresponds to the dimensions of large radiological films.

### To set the default I-Luminate mode

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > I-Luminate* menu.
3. Enter the *Default mode* submenu.
4. Select *Screen / Small Film / Large Film* as desired and confirm.



I-Luminate can also be enabled and configured in the Intuitive Workflow Tools. See the Barco "Display Controller and Intuitive Workflow Tools" user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 4.12 I-Luminate film position

### About I-Luminate film position

In I-Luminate Small Film and Large Film mode, a white rectangular overlay is displayed, simulating a light box for use with classic radiological films. The position of this white rectangle can be set to one of the following options:

- **Left Side Top Left**
- **Left Side Top Center**
- **Left Side Top Right**
- **Right Side Top Left**
- **Right Side Top Center**
- **Right Side Top Right**
- **Hidden:** The I-Luminate Small Film and Large Film modes are disabled and will not be available when cycling through the different I-Luminate modes. Only Screen mode is available in this case.

### To set the I-Luminate film position

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > I-Luminate* menu.
3. Enter the *Film Position* submenu.
4. Select one of the available options and confirm.



I-Luminate can also be enabled and configured in the Intuitive Workflow Tools. See the Barco "Display Controller and Intuitive Workflow Tools" user guide on the included documentation CD, or at [www.barco.com/support](http://www.barco.com/support).

## 4.13 Luminance target

### About the luminance target

The luminance target of your Coronis Uniti 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.



The default, factory calibrated luminance value is available in the technical specifications table. The guaranteed backlight lifetime is valid for this setting.

## 4.14 Color presets

### About color presets

The available color preset settings for your display are:

- **Clearbase:** Simulation of the clearbase film color temperature.
- **Bluebase:** Simulation of the bluebase film color temperature.
- **User:** When selecting the User color temperature setting, you will be able to manually define the X and Y coordinates or the display color temperature in separate submenus.
- **Native White:** 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 Settings* menu.
3. Enter the *Color Presets* submenu.
4. Select one of the available Color Presets and confirm.

## 4.15 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*. Please refer to “[Color presets](#)”, 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.

## 4.16 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*. Please refer to “[Color presets](#)”, 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.

## 4.17 Viewing modes

### About viewing modes

The Coronis Uniti can be used in two viewing modes:

- **Diagnostic:** This mode provides the full calibrated luminance and is intended for using the display for diagnostic purposes.
- **Text:** 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.

Please note that text mode is not persistent. Once powered off, the display will restart in diagnostic mode.



The diagnostic mode should always be selected when the Coronis Uniti is intended to be used for screening and diagnosis.

### 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.



To quickly switch the viewing mode without having to enter the OSD menu, touch the left and right key at the same time during normal operation.

## 4.18 Display functions

### About display functions

Native, uncorrected panels will display all grayscale/color levels with luminance increments that are not optimal for crucial diagnostic information. 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.

The available display functions for your Coronis Uniti are:

- **Native:** If you select Native, the native panel behavior will not be corrected.
- **Dynamic Gamma 1.8 or 2.2:** 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.
- **DICOM:** 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.
- **User:** This display function will be automatically selected when display functions are defined by QAWeb.
- **Gamma 1.8 or 2.2:** 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.



The settings of the display must be adapted to suit the requirements of the visualization software. In case of doubt, please contact the vendor of the visualization software.

### 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.

## 4.19 Ambient Light Compensation (ALC)

### About ALC



Ambient Light Compensation (ALC) can only be enabled on your display when the display function is set to DICOM. Please refer to “[Display functions](#)”, page 34.

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](#)”, page 35.

### 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.

## 4.20 Reading rooms

### About reading rooms



Reading rooms can only be selected on your display when the display function is set to DICOM. Please refer to “[Display functions](#)”, page 34

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 \(ALC\)](#)”, page 35 to enable ALC.

The available reading rooms for your Coronis Uniti are:

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

## 4.21 Continuous Ambient Light Compensation (ALC)

### About Continuous ALC

Enabling continuous ALC will continuously recalculate the DICOM display function taking the averaged ambient light, as measured by the integrated ambient light sensor, into account.



Continuous ALC can only be enabled on your display when the display function is set to DICOM. Please refer to “[Display functions](#)”, page 34.

#### 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 *Enabled/Disabled* as desired and confirm.

## 4.22 Embedded QA

### 4.22.1 About Embedded QA

#### About

Embedded QA allows you to run a display calibration or compliance test directly from the display using the OSD menus described in the next sections. Embedded QA will use the front sensor / I-Guard to measure the necessary luminance levels for either a calibration or compliance test. Various settings for both actions can be selected from the display's OSD menu. The last results of both actions can be consulted from the OSD.

#### Embedded QA or QAWeb?

Embedded QA is not a replacement for the Barco QAWeb solution.

Although Embedded QA is a reliable option to perform a simple calibration or compliance test, Barco still highly recommends QAWeb as the solution of choice for calibration and QA. QAWeb brings many benefits such as centralized asset management, the ability to schedule tasks, remote management, automated reporting, alerting and specific support of regional QA standards such as DIN 6868-57, JESRA and AAPM TG18. That's why QAWeb Agent acts as the master for all supported displays from the moment it is installed and running. QAWeb Agent will take over from Embedded QA and overwrite any settings which were applied by Embedded QA.

## 4.22.2 DICOM status report

### About DICOM status report

Following information is available:

#### DICOM Compliance Status (status since last compliance check)

- **Compliance status:** Shows if the current DICOM curve is compliant or not.
- **Maximum error:** Shows the maximum error of the current DICOM curve. This is the deviation compared to a perfect DICOM.
- **Error threshold:** Shows the error threshold. This is the maximum error allowed before a DICOM calibration is required.
- **Time elapsed since latest compliance check:** Shows the backlight runtime since last compliance check.
- **Display Function:** Shows the current display function.
- **Ambient light compensation:** Shows the ambient light compensation status.
- **Reading Room:** Shows the selected reading room.
- **Luminance:** Shows the measured luminance.
- **Black luminance:** Shows the measured black luminance.

#### DICOM Calibration Status

- **No calibration executed yet:** No other information is visible
- **Calibration executed:** When the calibration is executed, the following extra information is shown: Time elapsed since latest calibration, Display Function, Ambient Light Compensation and Reading Room.

#### Current DICOM Settings

- **Display Function:** Shows the current display function.
- **Ambient Light Compensation:** Shows the ambient light compensation status.
- **Reading room:** Shows the selected reading room.

### To retrieve the DICOM status report:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Calibration > Embedded QA* menu.
3. Select *DICOM Status Report* to make the information visible on the screen.

## 4.22.3 DICOM compliance check

### About DICOM compliance check

The DICOM compliance check will measure the DICOM curve of your display in different steps. After measurement, the DICOM status report is shown.

### To start DICOM compliance check:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Calibration > Embedded QA* menu.
3. Select *DICOM Compliance Check* to start the compliance check.



**Warning:** Pressing a key during the compliance check will abort the check.

## 4.22.4 DICOM calibration

### About DICOM calibration

The DICOM calibration will add a correction to the current DICOM curve to approach the perfect DICOM curve as well as possible.

#### To start DICOM calibration:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Calibration > Embedded QA* menu.
3. Select *DICOM calibration* to start the calibration.



**Warning:** Pressing a key during calibration will abort the calibration, previous values will be restored.



**Note:** After calibration, the compliance check will start automatically.

## 4.22.5 Reset DICOM calibration

### About reset DICOM calibration

It is possible to restore the original (factory default) DICOM curve.

#### To reset the DICOM calibration:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Calibration > Embedded QA* menu.
3. Enter the *DICOM Preferences* submenu.
4. Select *Reset DICOM Calibration* to restore the original (not corrected) DICOM curve.

## 4.22.6 DICOM error threshold

### About DICOM error threshold

The threshold to define the DICOM compliance can be modified in steps of 5% starting from 5 to 30%. When the maximum deviation is not bigger than the selected threshold, the compliance check will be OK.

#### To set the DICOM error threshold:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Calibration > Embedded QA* menu.
3. Enter the *DICOM Preferences* submenu.
4. Set *Error Threshold* as desired and confirm.

## 4.23 Image scaling

### About image scaling

Enabling image scaling will copy 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 Source* menu.
3. Enter the *Scaling* submenu.
4. Select *Enabled/Disabled* as desired and confirm.

## 4.24 Image source selection modes

### About image source selection modes

Your Coronis Uniti 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:

- **Automatic:** 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.
- **One Image Source:** 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.
- **Two Image Sources:** 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.
- **Expert mode:** This mode is intended for displaying and manually configuring one or two connected video input signals. When selecting this mode, the video settings become available for both video input signals on both sides 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.

## 4.25 Grayscale conversion modes

### About grayscale conversion modes

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

The available grayscale conversion modes are:

- **No Conversion**
- **Use Red Channel:** This mode is intended for grayscale displays where gray is sent over the red channel.
- **Use Green Channel:** This mode is intended for grayscale displays where gray is sent over the green channel.
- **Use Blue Channel:** This mode is intended for grayscale displays where gray is sent over the blue channel.

### To manually select a grayscale conversion mode:

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Image Sources > Input Settings > DisplayPort1/2* menu.
3. Enter the *Grayscale Conversion* submenu.

4. Select one of the available color conversion modes and confirm.

## 4.26 DisplayPort standard version

### About DisplayPort standard version

The Coronis Uniti supports 2 DisplayPort standard versions: DP V1.1 and DP V1.2, the latter providing a higher video bandwidth.

### To select the DisplayPort standard version

1. Bring up the OSD main menu.
2. Navigate to the *Configuration > Image Sources > Input Settings > DisplayPort 1/2* menu.
3. Enter the *Input Interface Standard Version* submenu.
4. Select one of the available versions and confirm.



To obtain full resolution and full refresh rate, DP V1.2 should be selected and two DisplayPort video input cables must be connected to the display.

## 4.27 EDID timings

### About EDID timings

Following EDID timings are available:

- **Refresh Rate:** 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.
- **Color Depth:** 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 > Input Settings > DisplayPort 1/2* menu.
3. Enter the *EDID* submenu.
4. Select *Resolution, Refresh Rate, Preferred Orientation or Color Depth*.
5. Select one of the available settings and confirm.

## 4.28 Display info

### About display info

Your display serial number, 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 to make the information visible on the screen.

## 4.29 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 Sources* or *Calibration* submenu as desired.



# 5

## Cleaning the display

## 5.1 Cleaning instructions

### To clean the display

Apply a cleaning/disinfecting product to a soft lint-free cloth, such as a microfiber or gauze and rub the display surface thoroughly. In order to be effective, all surfaces must be cleaned for a certain amount of time (ranging from 30 seconds to 2 minutes).

Use a cleaning/disinfecting product that is alcohol-, alkali-, water- or chlorine-based. Common examples are:

- Isopropanol 100%
- Ethanol 70%
- 0.5% Chlorehexidine in 70% ethanol/isopropanol
- Ortho-Phthalaldehyde (OPA) 0.55%
- Haemo-sol, 1% in water
- 250 ppm Chlorine solution
- 1.0% Iodine in 70% ethanol
- 1.6% aqueous ammonia
- "Green soap" (USP)
- 0.5% Chlorehexidine in 70% isopropyl alcohol
- Products similar to optical cleaning liquid
- Bacillol AF
- Flux
- Sodium hypochlorite 10%

When selecting an alternative cleaning/disinfecting product, it is recommended to always identify the active ingredients. In case of doubt about a certain cleaning product, use plain water.

Do not use any of the following products:

- Alcohol in concentrations > 70%
- Strong alkalis lye, strong solvents
- Acetone
- Toluene
- Acids
- Detergents containing fluoride
- Detergents containing ammonia
- Detergents containing abrasives
- Steel wool
- Sponge with abrasives
- Steel blades
- Cloths with steel thread
- Paper-based cloths (e.g. paper towels, facial tissues, toilet paper)



**CAUTION:** Read and follow all instructions on the label of the cleaning product.



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



**CAUTION:** When a small object or dust is tucked between the front bezel and the LCD surface (for displays without front glass), carefully remove with a soft object such as a plastic card or finger nail. Do not use sharp objects such as paperclips or tweezers to avoid damage to the LCD.



**CAUTION:** Do not apply or spray liquid directly to the display as excess liquid may cause damage to internal electronics. Instead, apply the liquid to a cleaning cloth.

# **Rewrapping instructions**

**6**

## 6.1 Repacking your Coronis Uniti system

### How to repack your Coronis Uniti system

1. Insert the connector cover in the small buffer.

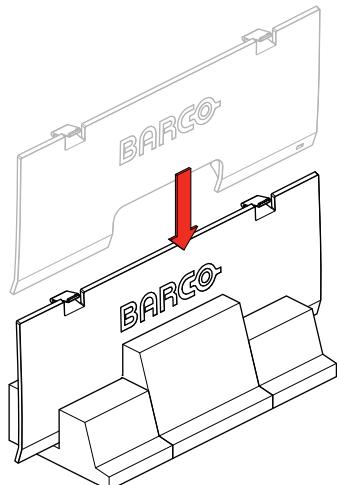


Image 6–1

2. Lock the height mechanism at the lowest display position by inserting the hook pin in the back of the stand.

 **Caution:** Make sure that the hook pin is inserted deep enough until only the red part of the pin is visible.

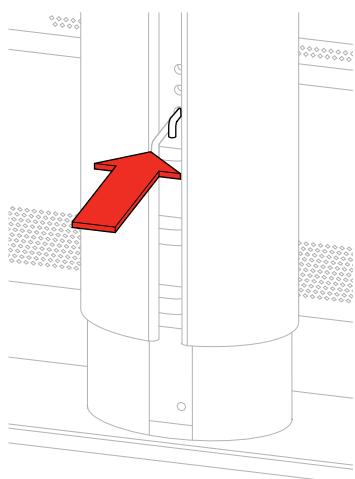


Image 6–2

3. Remove the tilt lock pin from the back of the display, if this was not yet done during installation.

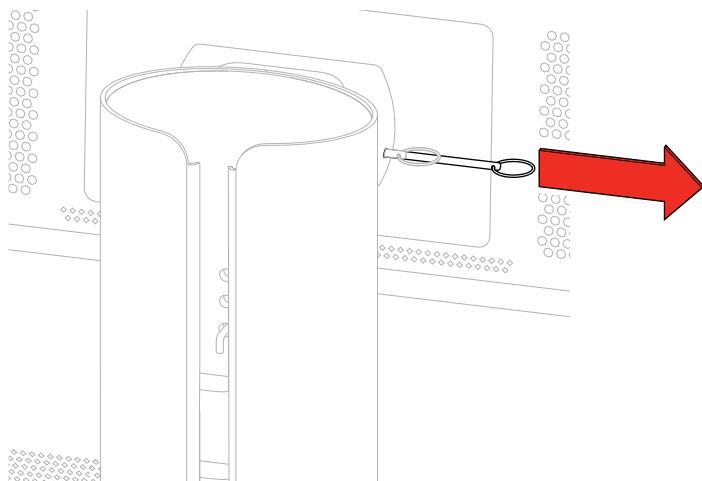


Image 6-3

4. Tilt the display in the most upwards position.

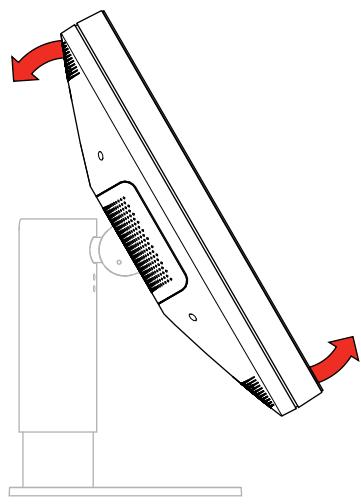


Image 6-4

5. Slide the small buffer between the display and the stand.

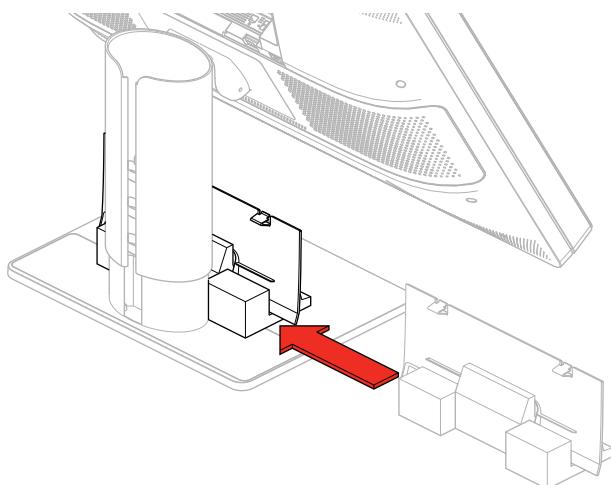


Image 6-5

6. Tilt the display back, to the most downward position.

## Repackaging instructions

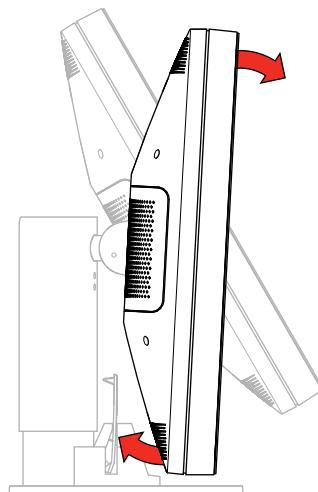


Image 6–6

7. Lock the tilt mechanism by inserting the tilt lock pin in the lock hole at the back of the display.

**!** *Caution:* Make sure that the tilt lock pin is inserted deep enough until only the red part of the pin is visible.

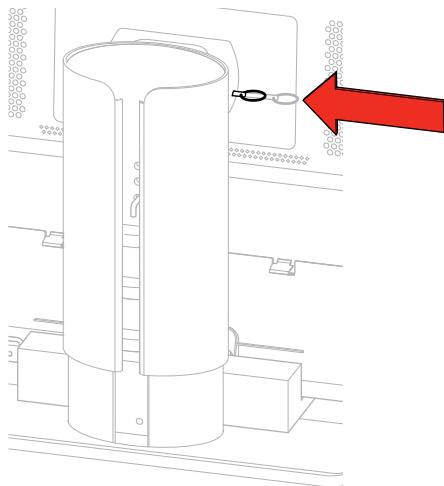


Image 6–7

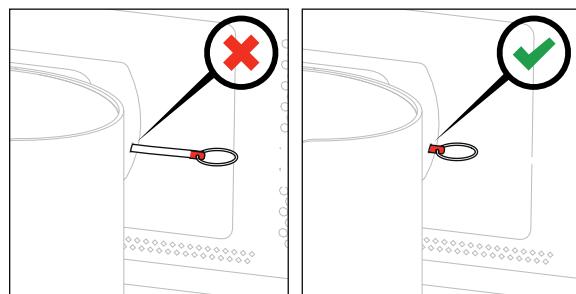


Image 6–8

8. Place the display in the bottom box so that it fits in the buffers.

**!** *Caution:* It takes 2 persons to safely execute this action.

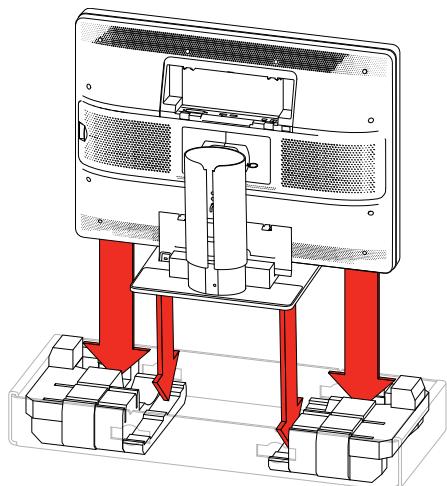


Image 6–9

9. Insert the 2 cardboard compartments in the bottom buffers.

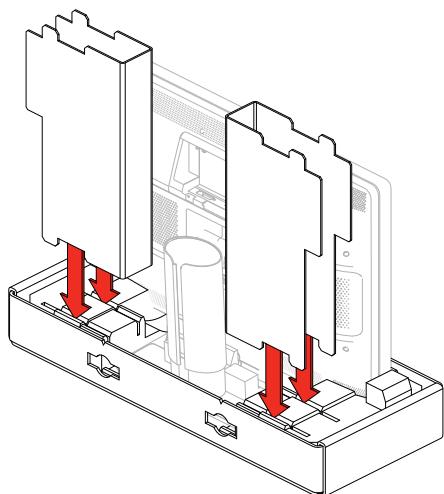


Image 6–10

10. Position the 2 top buffers on the display and cardboard compartments.

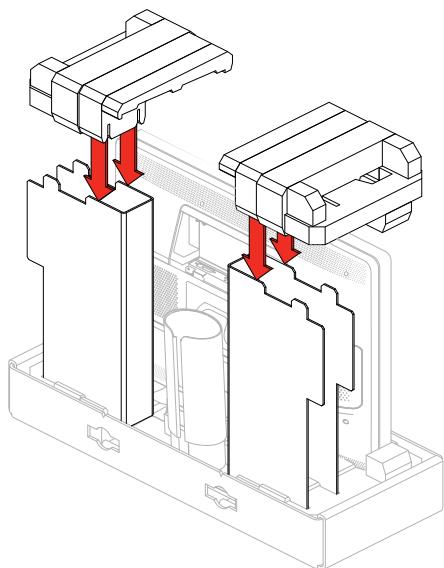


Image 6–11

11. Slide the accessory box and the display controller box in the cardboard compartments.

## Repackaging instructions

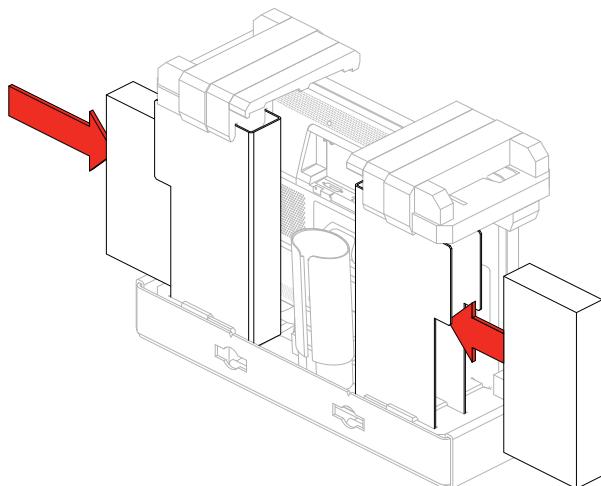


Image 6–12

12. Put the touchpad box in the dedicated cutout.

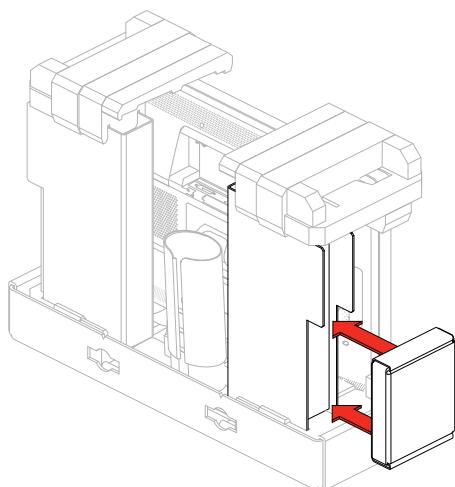


Image 6–13

13. Slide the top box over the display, in the bottom box.



***Caution:*** Make sure that the position of the lock cutouts in the bottom box and top box fit together.

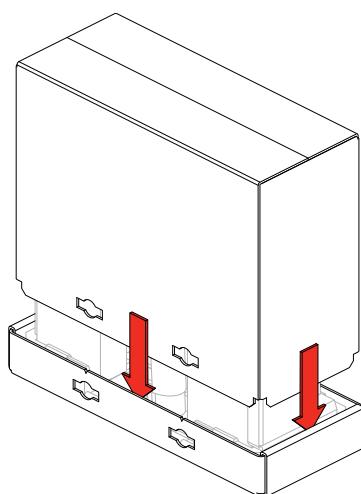


Image 6–14

14. Insert the 4 locks in the provided cutouts of the box.

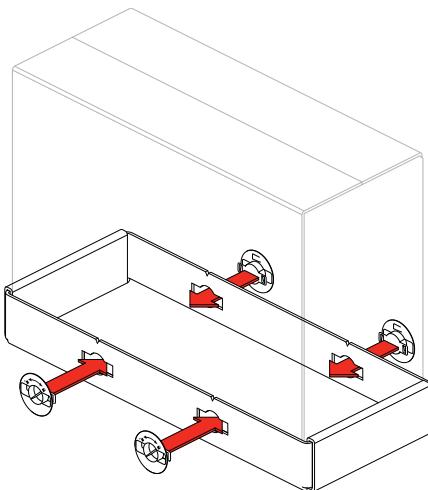


Image 6–15

**15.** Turn each lock a quarter turn to the right.

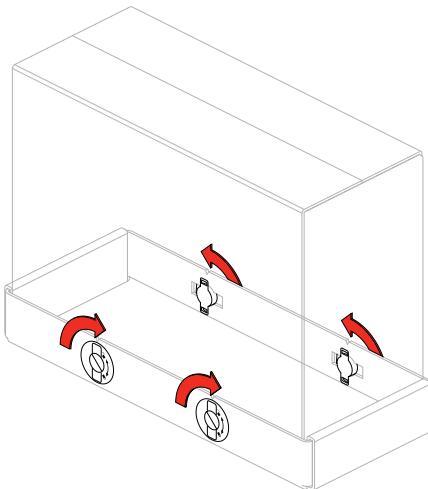


Image 6–16

**16.** The Coronis Uniti system is ready to be shipped.

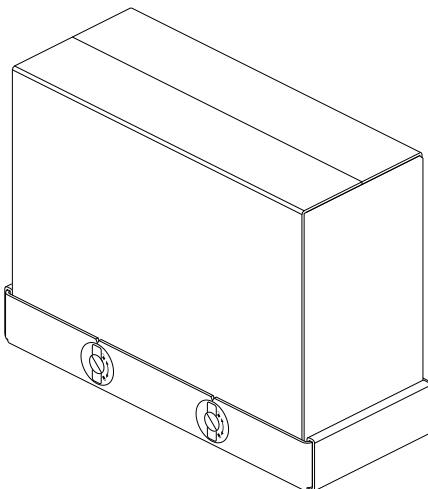


Image 6–17

Repackaging instructions

# Important information

7

## 7.1 Safety information

### General recommendations

Read the safety and operating instructions before operating the device.

Retain safety and operating instructions for future reference.

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

Follow all instructions for operation and use.

### 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.

### Type of protection (electrical):

Display 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 (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.

### Child safety

Equipment not suitable for use in locations where children are likely to be present.

### 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.
- The power supply is specified as a part of the ME equipment or combination is specified as a ME system.
- To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
- The equipment should be installed near an easily accessible outlet.
- The equipment is intended for continuous operation.

### Transient over-voltage

If the device is not used for a long time, disconnect it from the AC inlet to avoid damage by transient over-voltage.

To fully disengage the power to the device, please disconnect the power cord from the AC inlet.

### High magnetic environment

- The device shall not be used in the high magnetic environment of an MRI scanner.

- The installer shall assess the magnetic environment before installation or use of the device.

## Power cords

- 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.
- Use a power cord that matches the voltage of the power outlet, which has been approved and complies with the safety standard of your particular country.
- Korea: Use KC certified products; Plug: 250 V~, 16 A; Power cord: 60227 IEC 53, 3G0.75 mm<sup>2</sup> / 60227 IEC 53, 3G1.0 mm<sup>2</sup>; Connector: 250 V~, 10 A

## Water and moisture

Never expose the device to rain or moisture.

Never use the device 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 any ventilation openings in the cover of the set. When installing the device in a cupboard or another enclosed location, heed the necessary space between the set and the sides of the cupboard.

## Installation

Place the device on a flat, solid and stable surface that can support the weight of at least 3 devices. If you use an unstable cart or stand, the device may fall, causing serious injury to a child or adult, and serious damage to the device.

## Malfunctions

Disconnect the equipment's power cord from the AC inlet and refer servicing to qualified service technicians under the following conditions:

- If the power cord or plug is damaged or frayed.
- If liquid has been spilled into the equipment.
- If the equipment has been exposed to rain or water.
- If the equipment does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- If the equipment has been dropped or the cabinet has been damaged.
- If the product exhibits a distinct change in performance, indicating a need for service.

## National Scandinavian Deviations for CL. 1.7.2

Finland: "Laite on liitettävä suojaamadoituskoskettimilla varustettuun pistorasiaan"

Norway: "Apparatet må tilkoples jordet stikkontakt"

Sweden: "Apparaten skall anslutas till jordat uttag"

## 7.2 Cybersecurity

### Security objectives

The Coronis Uniti will be used for displaying and viewing digital images. Therefore, ensuring the availability of the digital images has been identified as the primary security objective of this product.

Nevertheless, the availability, integrity, and confidentiality of information processed by the product relies on the non-mandatory security recommendations described below.

## Important information

The lack of storage or processing of patient or personal information, combined with the limited (network) connectivity, results in the Coronis Uniti entailing a low cybersecurity risk profile.

## Security recommendations

The security measures listed below should be considered as a non-exhaustive list of possible security controls for the operating environment. The operating environment must not hinder the application of security measures on the product or force the device to operate in a lower security setting.

The operator shall maintain the necessary state-of-the-art policies, processes, standards and other security controls to incorporate, support and protect the product. This shall include the application of risk management (e.g. by implementing relevant standards).

The operating environment should provide physical security via security measures such as:

- Regulated and authenticated physical access enforced via suitable technical measures (e.g. badges)
- Physical security policy defining roles and access rights, including for physical access to the product
- Use of segregated, secure areas with appropriate access controls

The operating environment should include appropriate security controls such as:

- User access management (credentials for accessing software applications or devices, user access policy, etc.)
- Antivirus / anti-malware software
- Firewall
- Application whitelisting / system hardening
- Exclusive use of genuine software and ban of all illegitimate software and applications
- Session management measures (e.g. session timeouts)

The operating environment should provide control and security of network traffic via appropriate measures, such as:

- Network segmentation & network access control
- Traffic filtering
- Encrypted communication

Specifically for workstations connected to the product, appropriate security measures include:

- Operating system hardening and application whitelisting
- Use of strong passwords
- Install only software necessary for the intended use of the operating environment.

To ensure that the security posture of the operating environment and of the product itself remain at a suitable level, appropriate provisions regarding patch management should be in place, such as:

- The operating environment should support patching without compromising interoperability/compatibility
- The operator should have appropriate patch management processes to ensure that security patches for the product are deployed in a timely manner
- The operator should have appropriate patch management processes to ensure that the operating environment (e.g. operating systems, applications) is up-to-date in terms of security

## 7.3 Environmental information

### Disposal Information



Waste Electrical and Electronic Equipment (WEEE)

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: <https://www.barco.com/about/sustainability/waste-of-electronic-equipment-customers>

### 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
散热片(器) Heatsinks	O	O	O	O	O	O
风扇 Fan	O	O	O	O	O	O
电源供应器	X	O	O	O	O	O

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
Power Supply Unit						
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《电子信息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 Regulatory compliance information

### Indications for use

The Barco MDMC-12133 display is intended to be used in displaying and viewing digital images, including standard and multi-frame digital mammography, for review, analysis, and diagnosis by trained medical practitioners. It is especially designed for breast tomosynthesis (3D mammography) applications, breast MRI and breast US. It is especially designed for CT and ultrasound including vascular and gynaecological US.

## Intended usage environment

- The display is not in contact with patients.
- The display is not in the same environment as the patient.
- The display is intended to be used in a dedicated diagnostic reading room.

Caution (USA): Federal law restricts this device to sale by or on the order of a physician. (Details & exemptions are in the Code of Federal Regulations Title 21, 801 Part D).

## Contra-indications

Not applicable

## Intended users

Barco diagnostic and mammography displays are intended to be used for primary diagnosis by trained medical practitioners. The device is initially set up by trained integrators or medical IT staff.

## 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.

## Factory addresses

- **Barco NV**, President Kennedypark 35, 8500 Kortrijk, Belgium
- **Fimi S.r.l.**, Via Saul Banfi 1, 21047 Saronno, VA, Italy

## 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](http://www.barco.com)).

## 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 device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device 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 device and receiver.
- Connect the device 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.

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

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

## Canadian notice

CAN ICES-001(B) / NMB-001(B)

## Brazilian local representative

**Barco Ltda**, Av. Ibirapuera, 2332 - Andar 8 - Bloco 2 - Conj 82, Bairro:Ibirapuera, Distrito:Moema, 4028-002, São Paulo, Brasil

## 7.5 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 Coronis Uniti, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

### Electromagnetic emissions

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

Emissions test	Compliance	Electromagnetic environment – Guidance
RF emissions CISPR 11	Group 1	The Coronis Uniti 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 Coronis Uniti is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class D	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

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

Immunity test	IEC 60601-1-2 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 0.5 period at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0% residual voltage for 1 period at 0° 70% residual voltage for 25 periods at 0°  Voltage interruptions: 0% residual voltage for 250 periods at 0°	0% residual voltage for 0.5 period at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0% residual voltage for 1 period at 0° 70% residual voltage for 25 periods at 0°  Voltage interruptions: 0% residual voltage for 250 periods at 0°	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Coronis Uniti requires continued operation during power mains interruptions, it is recommended that the Coronis Uniti 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 <sup>2</sup>	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical 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

2. Coronis Uniti doesn't contain components that are susceptible to magnetic fields.

Test frequency (MHz)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
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						

## 7.6 Explanation of symbols

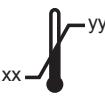
### Symbols on the device

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

0123	Indicates the device meets the requirements of the applicable EC directives/regulations.
	Indicates compliance with Part 15 of the FCC rules (Class A or Class B).
	Indicates the device is approved according to the UL regulations
CLASSIFIED C US	Indicates the device is approved according to the UL regulations for Canada and US

	Indicates the device is approved according to the UL regulations for Canada and US
	Indicates the device is approved according to the UL Demko regulations.
	Indicates the device is approved according to the CCC regulations.
	Indicates the device is approved according to the VCCI regulations.
	Indicates the device is approved according to the KC regulations.
	Indicates the device is approved according to the BSMI regulations.
	Indicates the device is approved according to the PSE regulations.
	Indicates the device is approved according to the RCM regulations.
	Indicates the device is approved according to the EAC regulations.
	Caution: Federal law (United States of America) restricts this device to sale by or on the order of a licensed healthcare practitioner.
 R-XXXXXXX www.bis.gov.in	Indicates the device is approved according to the BIS regulations.
	Indicates the device is approved according to the INMETRO regulations.
	Indicates the USB connectors on the device.

Important information

<b>P</b>	Indicates the DisplayPort connectors on the device.
	Indicates the legal manufacturer.
	Indicates the manufacturing date.
	Indicates the entity importing the medical device into the locale.
	Indicates the temperature limitations <sup>3</sup> for the device to safely operate within specs.
<b>MD</b>	Indicates that the device is a Medical Device.
<b>SN</b>	Indicates the device Serial Number.
<b>REF</b>	Indicates the device part number or catalogue number.
<b>UDI</b>	Indicates the Unique Device Identifier.
<b>EC REP</b>	Indicates the Authorised Representative for the European Union.
<b>CH REP</b>	Indicates the Authorised Representative for Switzerland.
	<b>Warning:</b> dangerous voltage
	<b>Caution</b>
	Consult the Instructions For Use.
 eIFU indicator	Consult the Instruction For Use on the website address that is provided as eIFU indicator.

3. Values for xx and yy can be found in the technical specifications paragraph.

	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
	Equipotentiality
	Protective earth (ground)

## Symbols on the box

On the box of the device, you may find the following symbols (nonrestrictive list):

	Indicates a device that can be broken or damaged if not handled carefully when being stored.
	Indicates a device that needs to be protected from moisture when being stored.
	Indicates the storage direction of the box. The box must be transported, handled and stored in such a way that the arrows always point upwards.
	Indicates the maximum number of identical boxes which may be stacked on each other, where "n" is the limiting number.
	Indicates the weight of the box and that it should be carried with two persons.
	Indicates that the box should not be cut with a knife, a cutter or any other sharp object.
	Indicates the temperature limits <sup>4</sup> to which the device can be safely exposed when being stored.

	Indicates the range <sup>4</sup> of humidity to which the device can be safely exposed when being stored.
	Indicates the range <sup>4</sup> of atmospheric pressure to which the device can be safely exposed when being stored.

## 7.7 Legal disclaimer

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## 7.9 Technical specifications

### Overview

<b>Screen technology</b>	IPS
<b>Active screen size (diagonal)</b>	853.44 mm (33.6")
<b>Active screen size (H x V)</b>	708.1 x 472.1 mm (27.8 x 18.6")
<b>Aspect ratio (H:V)</b>	3:2
<b>Resolution</b>	12MP (4200 x 2800 pixels)
<b>Pixel pitch</b>	0.1686 mm
<b>Color imaging</b>	Yes
<b>Gray imaging</b>	Yes
<b>Bit depth</b>	30 bit
<b>Viewing angle (H, V)</b>	178°
<b>Optical glass</b>	Yes
<b>Uniformity correction</b>	PPU
<b>SteadyColor Calibration</b>	Yes
<b>I-Luminate</b>	Yes

<b>Ambient Light Compensation (ALC)</b>	Yes, reading room selection
<b>Ambient light sensor</b>	Yes
<b>Backlight Output Stabilization (BLOS)</b>	Yes
<b>Front sensor</b>	Yes, I-Guard
<b>Maximum luminance</b>	2100 cd/m <sup>2</sup> (PPU on)
<b>DICOM calibrated luminance</b>	1000 cd/m <sup>2</sup>
<b>Contrast ratio (panel typical)</b>	1200:1 (PPU on)
<b>Response time ((Tr + Tf)/2) (typical)</b>	16.5 ms
<b>Housing color</b>	RAL 9004 / RAL 9003
<b>Video input signals</b>	DisplayPort 1.2
<b>USB ports</b>	1x USB 2.0 upstream (endpoint) 3x USB 2.0 downstream
<b>Power rating</b>	24 VDC, 16.25 A; 5 VDC, 0.1 A
<b>Power requirements</b>	This device shall only be powered by the medical approved power supply of Efore (Roal Electronics), type RHP390. Ratings marked on the medical approved power supply: <ul style="list-style-type: none"><li>• Input rating: 100-240 VAC, 5.5 A, 50/60 Hz</li><li>• Output rating: 24 VDC, 16.25 A; 5 VDC, 0.1 A</li></ul>
<b>Power consumption</b>	190 W (nominal) < 0.5 W (hibernate)
<b>Dimensions with stand (W x H x D)</b>	795 x 610 x 300 mm (lowest position)
<b>Dimensions w/o stand (W x H x D)</b>	795 x 572 x 131 mm
<b>Dimensions packaged (W x H x D)</b>	960 x 715 x 395 mm
<b>Net weight with stand</b>	33 kg
<b>Net weight w/o stand</b>	23 kg
<b>Net weight packaged</b>	42 kg
<b>Tilt</b>	-5° / +30°
<b>Swivel</b>	-23° / +23°
<b>Pivot</b>	N/A
<b>Height adjustment range</b>	95 mm
<b>Mounting standard</b>	VESA (200 x 100 mm & 100 x 100 mm)
<b>Screen protection</b>	Protective, non-reflective glass cover
<b>Recommended modalities</b>	All digital images, including digital mammography and breast tomosynthesis
<b>Certifications</b>	FDA 510(K) K151505 for General Radiology

	<p>CE0123 (Medical Device)</p> <p>CCC (China), KC (Korea), Inmetro (Brazil), BIS (India), NOM (Mexico), EAC (Russia, Kazakhstan, Belarus, Armenia and Kyrgyzstan)</p> <p>Safety specific:</p> <p>IEC 60950-1:2005 + A1:2009</p> <p>EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013</p> <p>IEC 60601-1:2005 + A1:2012</p> <p>EN 60601-1:2006 + A1:2013 + A12:2014</p> <p>ANSI/AAMI ES 60601-1:2005 + R1:2012</p> <p>CAN/CSA C22.2 No. 60601-1:14</p> <p>EMI specific:</p> <p>IEC 60601-1-2:2014 (ed4)</p> <p>EN 60601-1-2:2015 (ed4)</p> <p>FCC part 15 Class B</p> <p>ICES-001 Level B</p> <p>VCCI (Japan)</p> <p>Environmental:</p> <p>China Energy Label, EU RoHS, China RoHS, REACH, Canada Health, WEEE, Packaging Directive</p>
<b>Supplied accessories</b>	User Guide Quick Installation Sheet System Sheet Video cables Main cables USB 2.0 cable External power supply Film clip Barco Touchpad
<b>Optional accessories</b>	None
<b>QA software</b>	QAWeb
<b>Warranty</b>	5 years, including 40000 hours backlight warranty
<b>Operating temperature</b>	0°C to +35°C (+20°C to +30°C within spec)
<b>Storage temperature</b>	-20°C to +60°C
<b>Operating humidity</b>	20% - 85% (non-condensing)
<b>Storage humidity</b>	20% - 85% (non-condensing)
<b>Operating pressure</b>	70 kPa minimum
<b>Storage pressure</b>	50 to 106 kPa

Important information



CE  
0123



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