EXPANDING THE BOUNDARIES OF HEALTHCARE

CLINiC-C-12X-A01

CLINiC™ 12x
Clinical Care Device
User Guide

Document Version 1.0

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Introduction

The CLINiC from Iron Bow Healthcare Solutions is a purpose-built telehealth video and consultation device that enables the delivery of clinical healthcare at a distance.

The CLINiC includes a video codec, a high definition video camera, built-in microphone, 27" display, audio speakers and an intuitive touch-control panel. The CLINiC enables high quality video and audio calls between two parties or more. Medical devices such as electronic stethoscopes and digital videoscope systems can be connected directly to the CLINiC.

The CLINiC can be interchangeably mounted on a table top, wall, extensible arm, or on a medical cart.

This user guide covers the functionality of the CLINiC 12x model.

Figure 1. CLINiC 12x pictured with optional desk stand, hand-held digital videoscope and videoscope cradle

You can find additional CLINiC resources and information about support and other related telehealth services at www.ironbowhealthcare.com.

System Description

The primary components of the CLINiC 12x are shown in the following figure.

Description

1   12x optical zoom camera

2   Integrated 27" LED 16:9 display

3   Integrated Cisco TelePresence SX20 codec (in custom enclosure)

4   Touch control panel with integrated downward-facing speakers

5   Integrated microphone
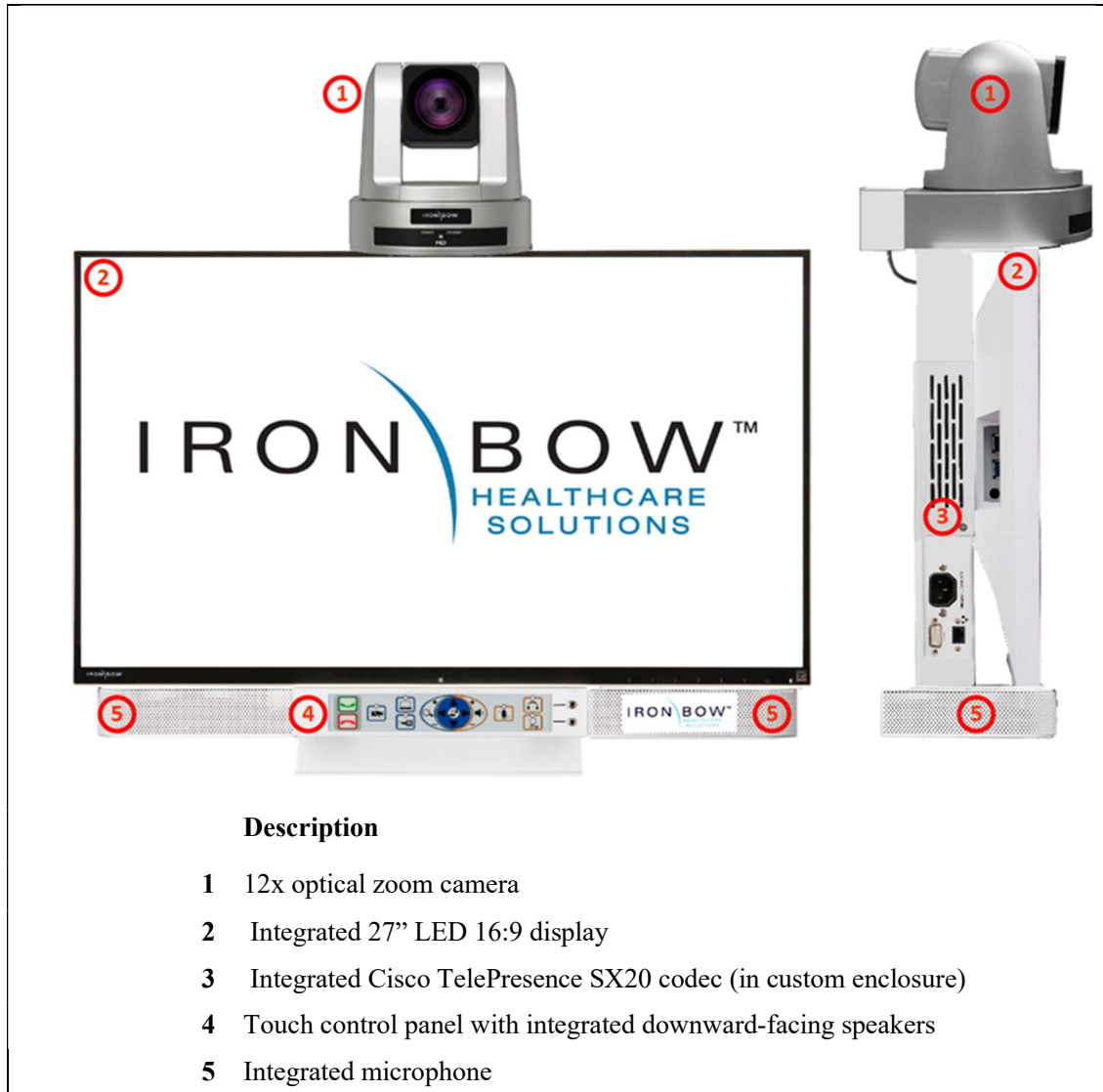
Figure 2. CLINiC 12x system components

System Installation

The CLINiC should be mounted on a stable supporting structure (table top, wall, extensible arm, or medical cart) before you begin using it. Refer to *Appendix: Mounting Information* for mounting holes locations and dimensions.

Installing the Camera

Before using the system for the first time, you need to mount and connect the camera to the mounting panel located on top of the CLINiC 12x display.

To install the camera on the CLINiC 12x:

1. Remove camera assembly from packaging and place carefully on a table top.

2. Select one of the two camera mounting plates shown below to attach to the base of the camera.
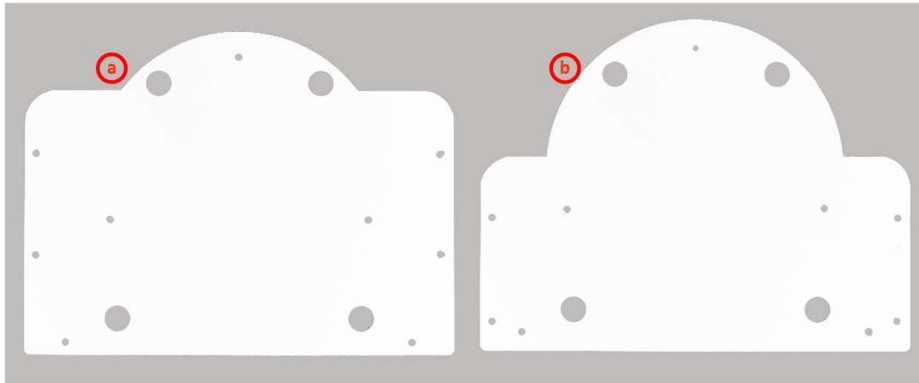
Figure 3 - Camera Mounting Panels

The system is supplied with two camera mounting plates allowing the camera to be set further forward or back in relationship to the screen to suit the specific system mounting arrangement required.

Select the plate labeled **a** in the previous figure to mount the camera further back in relationship to the screen.

Select the plate labeled **b** in the previous figure to mount the camera further forward in relationship to the screen.

3. Carefully attach the camera mounting plate to the base of the camera with the provided screws.

Figure 4 - Camera plate assembly

4. Gently place the camera assembly on top of the support bracket, ensuring the locating holes on the base plate line up with the holes on the camera mounting plate.

Figure 5- Camera Mount

5. Attach the camera assembly to the camera mounting plate of the support bracket. You can use either the thumb screws or the regular Philips head screws. Both sets of screws are provided (four in each set).

IMPORTANT: You need to install the two rear attachment screws first to ensure the camera assembly is in alignment with the mounting bracket. Continue to install the two front attachment screws, completing the attachment of the camera assembly to the mounting plate.

Figure 6 - Camera Mounting Screw positions

Installing the camera assembly using thumb screws

Figure 7 - Camera Tighten Screws

NOTE: Use a #1 stubby Philips screwdriver, if available. The stubby Philips screwdriver will make it easier to tighten the screws.

6. Connect the three cables that come out at the top of the CLINiC to the corresponding connectors on the rear of the camera, ensuring the VISCA connector is connected to the **VISCA IN** socket.

Figure 8 - Camera Connections

7. Attach the rear camera cable cover using the two screws provided.
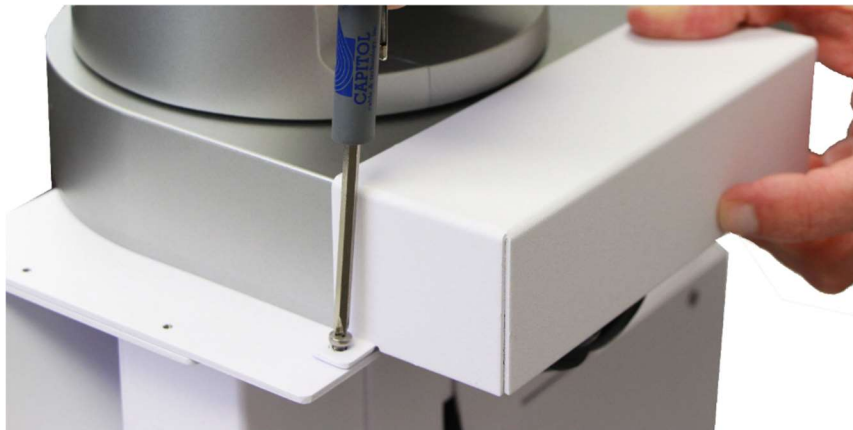
Figure 9 - Camera Rear Cover

8. Gently remove any packaging foam and tape from camera to complete system assembly.

Sound Deflector

The CLINiC includes a removable sound deflector, installed underneath the control panel enclosure, as shown in the following figure.

Figure 10. CLINiC 12x Sound deflector

This sound deflector improves the audio quality for CLINiC installations that are either wall-mounted or mounted on an arm, by deflecting the audio forward.

Connections

The CLINiC includes an AC power inlet, an Ethernet port for connecting to the network, audio/video ports for connecting video and audio sources, a headphone jack output, as well as general purpose ports for future use.

Left Side View		**Right Side View**	
Description		**Description**	
1	IEC Power Inlet	**5**	Audio input
2	DB9 expansion control port (future use)	**6**	DVI-D input
3	10/100/1G Ethernet	**7**	VGA (HD15) input
4	USB ports (power only)		
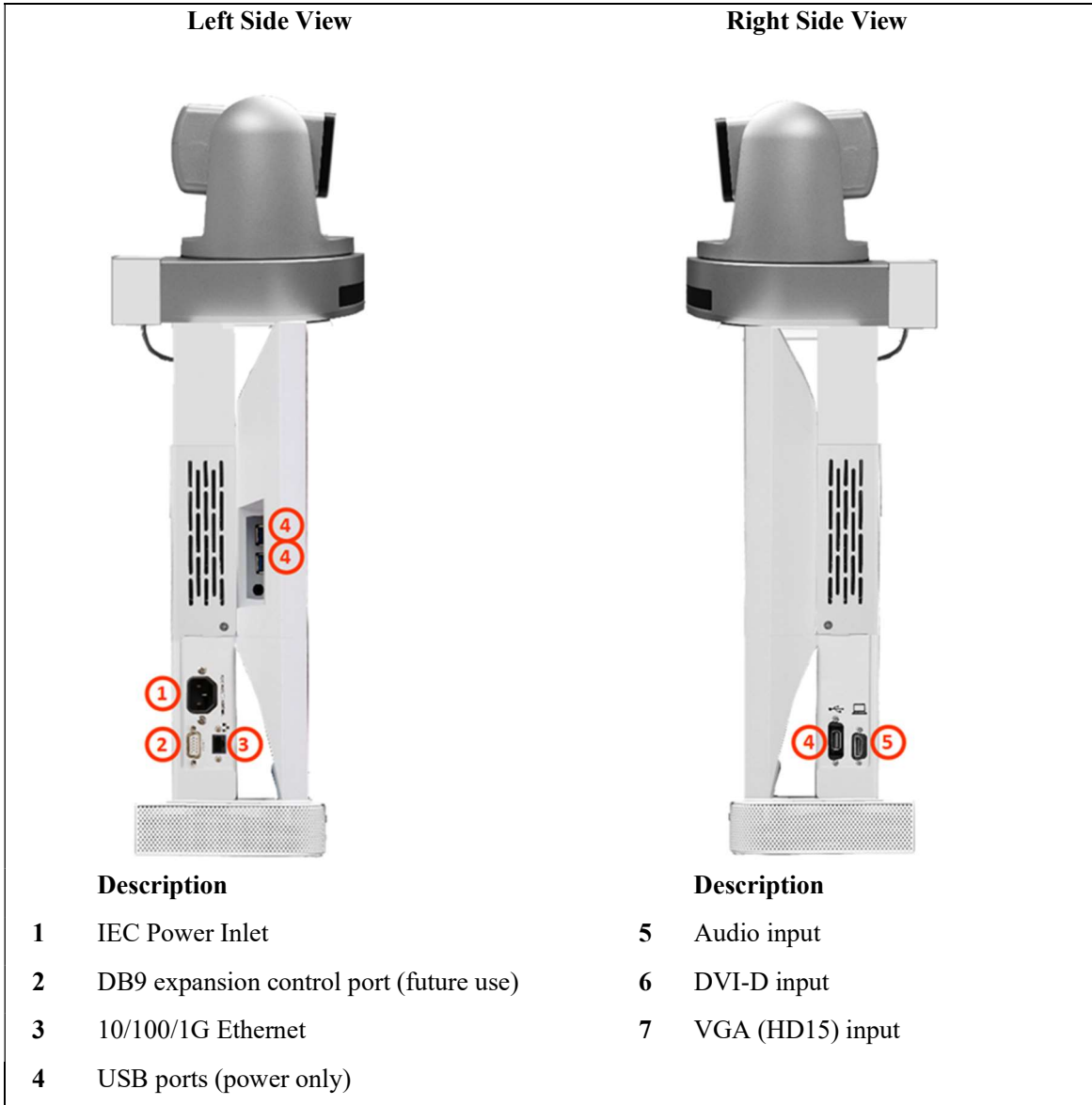
Figure 11. CLINiC 12x power, network, data and audio/video ports.

Description

1 Headphones audio output
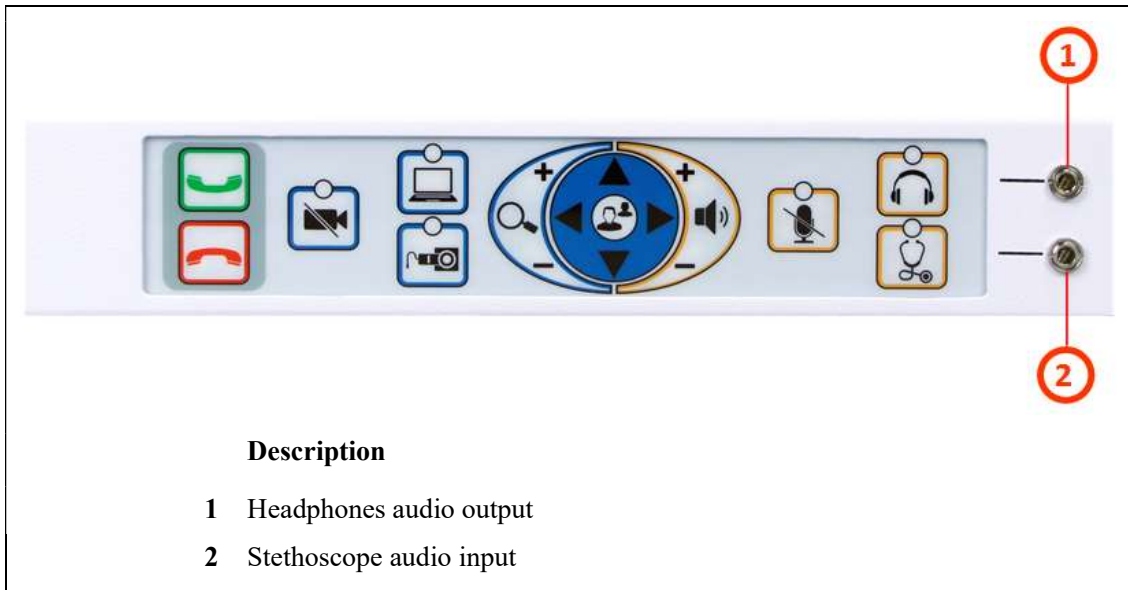
2 Stethoscope audio input

Figure 12. CLINiC 12x audio ports on the integrated control panel

Getting Started

Powering On and Off

The CLINiC control panel, display, camera and codec will automatically power on when connected to AC power.

The CLINiC codec has a power button that can be used to power the codec on and off individually from the rest of CLINiC components, although that is typically not necessary.

The CLINiC codec power button ⏻ is located behind the display on the back of the CLINiC, as shown in the following figure.
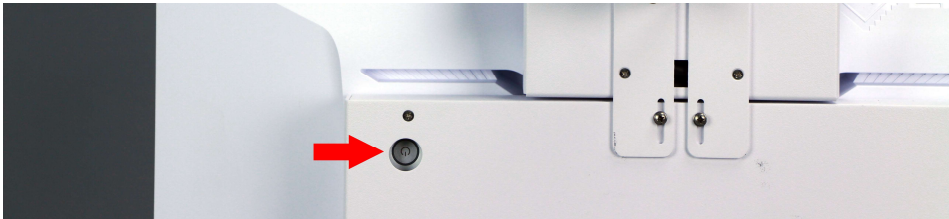

Figure 13. CLINiC 12x codec power button

Powering On the CLINiC

Connect the peripherals to the DVI and/or VGA ports of the CLINiC before connecting the CLINiC to AC power.

To power on the CLINiC:

- Connect the CLINiC to AC power. This will automatically power on the codec, camera, display and control unit of the CLINiC. A splash screen is displayed within several seconds.

Placing the CLINiC in Standby Mode

The system goes into standby mode after two hours with no activity. This value can be changed from the web interface to the codec (see *Change Standby Settings* under *CLINiC Administration*). Alternatively, you can manually place the system in standby mode.

To manually place the CLINiC in standby mode:

- Press the ⏻ power button once (do not hold; pressing and holding may power off the codec).

Waking Up the CLINiC

To wake up the CLINiC:

- Press any button on the integrated control panel, or press the ⏻ power button once. If you are using the optional remote, press any button on the remote or just move the remote.

Powering Off the CLINiC

Powering off the CLINiC is typically unnecessary. Most video endpoints remain connected to the network and in stand-by mode until a call is placed or received. However, you may need to power off the CLINiC if you need to move the CLINiC to a different room.

To power off the CLINiC:

- Disconnect the CLINiC from AC power.

To power off only the CLINiC codec:

- Press and hold the ⏻ power button. Release the power button when the light indicator turns off.

Restarting the CLINiC

You can restart the CLINiC by powering off and powering on the CLINiC codec.

To restart the CLINiC:

- Press and hold the ⏻ power button. Release the power button when the light indicator turns off.
- Press the ⏻ power button again to restart the codec.

Control Panel Functions

The CLINiC control panel buttons and associated functions are described in the following figure.
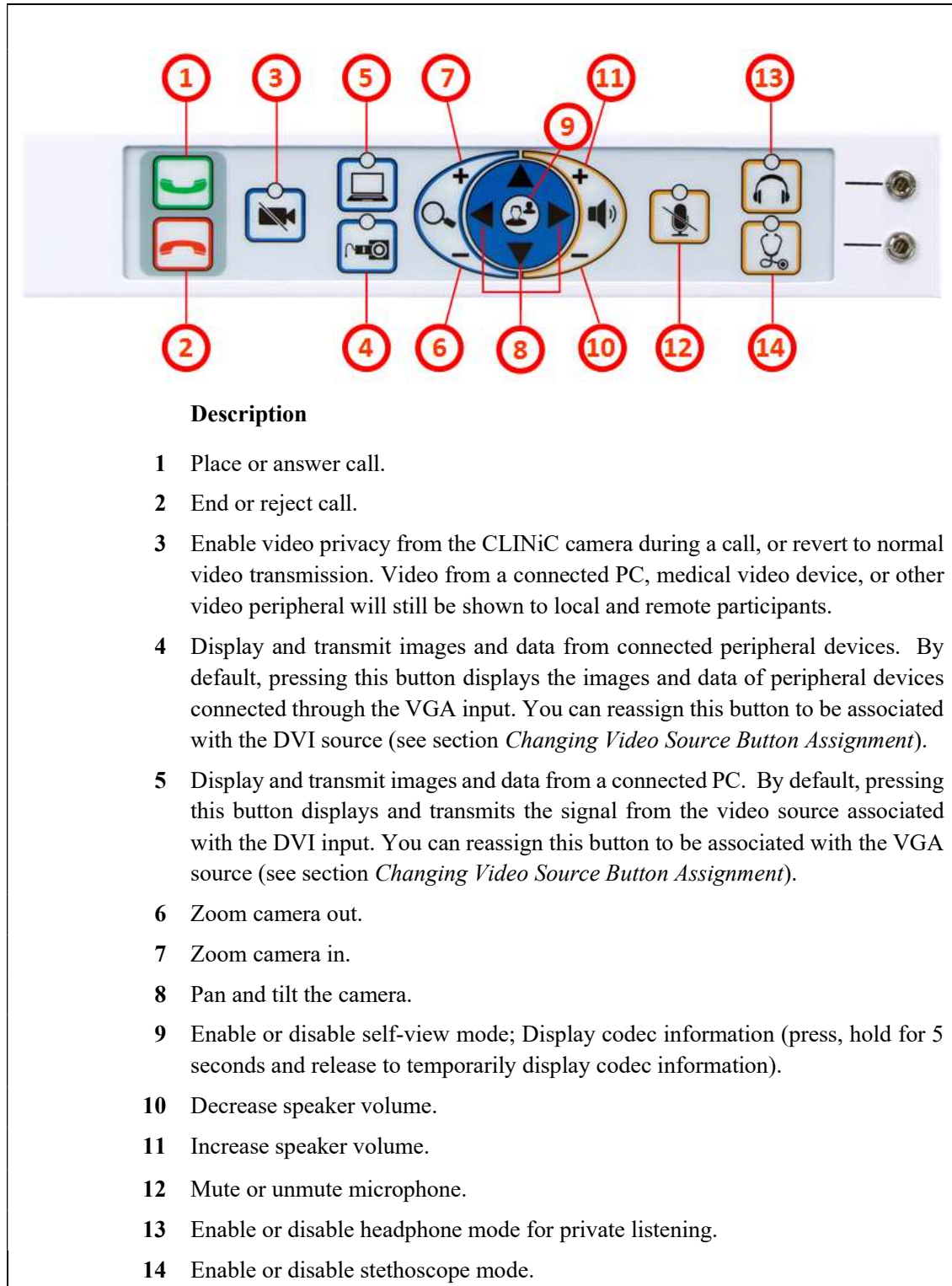

Description

1 Place or answer call.

2 End or reject call.

3 Enable video privacy from the CLINiC camera during a call, or revert to normal video transmission. Video from a connected PC, medical video device, or other video peripheral will still be shown to local and remote participants.

4 Display and transmit images and data from connected peripheral devices. By default, pressing this button displays the images and data of peripheral devices connected through the VGA input. You can reassign this button to be associated with the DVI source (see section *Changing Video Source Button Assignment*).

5 Display and transmit images and data from a connected PC. By default, pressing this button displays and transmits the signal from the video source associated with the DVI input. You can reassign this button to be associated with the VGA source (see section *Changing Video Source Button Assignment*).

6 Zoom camera out.

7 Zoom camera in.

8 Pan and tilt the camera.

9 Enable or disable self-view mode; Display codec information (press, hold for 5 seconds and release to temporarily display codec information).

10 Decrease speaker volume.

11 Increase speaker volume.

12 Mute or unmute microphone.

13 Enable or disable headphone mode for private listening.

14 Enable or disable stethoscope mode.

Figure 14. Control panel functions

Managing Calls

You can manage calls by either using the integrated control panel or the remote. This section describes how to manage calls by using the integrated control panel. For instructions on how to manage calls using the remote, please refer to the *Cisco TelePresence SX20 Quick Set User Guide for Remote Control*, available at the following link:

http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-quick-set-series/products-user-guide-list.html

NOTE: If you are managing the Cisco TelePresence SX20 integrated into the CLINiC using Cisco Unified Communications Manager (CallManager) or TelePresence Management Suite (TMS), please ensure that the template used for the codec has the **Serial Port Login Required** set to **Disabled**.

Answering a Call

The default behavior of the CLINiC is to answer all incoming calls automatically.

This behavior can be changed from the web interface to the codec (see *Change Conference Settings* under *CLINiC Administration*).

If the CLINiC is not set to answer incoming calls automatically, the system will prompt you to answer the call manually when an incoming call is received.

To answer a call manually:

Press on the integrated control panel.

Ignoring a Call

If the CLINiC is not configured to answer calls automatically, you can manually ignore a call.

To ignore an incoming call manually:

Press on the integrated control panel.

Ending a Call

To end a call:

Press on the integrated control panel.

Placing a Call

You may place a call to a pre-defined address. Before you can place a call to an address, it must be added in the codec as a favorite contact with first name **auto** and last name **dial**, using the web interface to the codec (see *Manage Favorites* under *CLINiC Administration*).

To place a call to the auto dial address:

Press on the integrated control panel.

Managing Video Settings

This section describes how to manage video settings by using the integrated control panel. For instructions on how to manage video settings using the remote, please refer to the *Cisco TelePresence SX20 Quick Set User Guide for Remote Control*, available at the following link:
http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-quick-set-series/products-user-guide-list.html

Enabling and Disabling Video Privacy Mode

To enable privacy, you can turn off normal video transmission from the CLINiC camera to the remote end while still remaining connected to the call. This virtual muting of the video is achieved by setting the camera brightness to its minimum value (1).

NOTE: Depending on the room lighting, the remote party may still be able to distinguish shapes and silhouettes (video transmission is not interrupted, just dimmed to the maximum level). For complete video privacy, tilt the camera fully to the right or to the left in addition to enabling the privacy mode.

In the privacy mode mode, video from a PC or other video peripheral that is being shared will still be seen normally. The privacy mode can be enabled or disabled at any time, whether you are in a call or not.

To enable privacy mode:

- Press on the integrated control panel. The associated LED will light when the video from the CLINiC camera is dimmed completely.

To disable privacy mode:

- Press again on the integrated control panel. The associated LED will turn off, and normal video transmission from the CLINiC camera will resume.

Enabling and Disabling Self-View Mode

You can display or hide the self-view window on the screen.

To enable self-view:

- Press on the integrated control panel.

To disable self-view:

- Press again on the integrated control panel.

Zooming Camera In and Out

To zoom camera in:

- Press the zoom in ✛ button on the integrated control panel, immediately above the magnifying glass symbol 🔍. Press this button repeatedly to zoom in further.

To zoom camera out:

- Press the zoom out ⚊ button on the integrated control panel, immediately below the magnifying glass symbol 🔍. Press this button repeatedly to zoom out further.

Panning and Tilting Camera

The camera on the CLINiC 12x supports full pan and tilt functionality.

To pan the camera:

- Press ◀ or ▶ to pan to the left or to the right, respectively.

To tilt the camera:

- Press ▲ or ▼ to tilt up or down, respectively.

Managing Audio Settings

This section describes how to manage audio settings by using the integrated control panel. For instructions on how to manage audio settings using the remote, please refer to the *Cisco TelePresence SX20 Quick Set User Guide for Remote Control*, available at the following link:

http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-quick-set-series/products-user-guide-list.html

Enabling and Disabling Microphone Mute Mode

You can mute and unmute the microphone during a call. Muting the microphone prevents the remote end from hearing conversations at your site.

NOTE: Muting the microphone does not mute the audio sources connected to the CLINiC input ports, such as the stethoscope.

To mute microphone:

- Press [icon] on the integrated control panel. The associated LED will light when the microphone is muted. Additionally, a microphone mute icon appears on the display.

To unmute microphone:

- Press again [icon] on the integrated control panel. The associated LED will turn off.

Adjusting Speaker and Headphone Volume

To increase speaker and headphone volume:

- Press and hold the [icon] button on the integrated control panel, immediately above the speakerphone [icon] symbol until the desired sound level is achieved.

To decrease speaker and headphone volume:

- Press and hold the [icon] icon on the integrated control panel, immediately below the speakerphone [icon] symbol until the desired sound level is achieved.

Enabling and Disabling Audio Privacy Listening Mode

Audio from the remote participant always plays through both the integrated speakers and the headphone output. Enabling Audio Privacy Mode mutes the integrated speakers so that audio plays only through the headphone output for private listening. The headphone audio output is shown in Figure 12.

To enable Audio Privacy Listening Mode:

- Press ⬚ on the integrated control panel. The associated LED will light when this mode is enabled.

To disable Audio Privacy Listening Mode:

- Press again ⬚ on the integrated control panel. The associated LED will turn off.

Enabling and Disabling Stethoscope Mode

The Stethoscope Mode optimizes audio transmission of the stethoscope signal connected to the stethoscope audio input, while automatically muting the microphone to minimize audio interference. In Stethoscope Mode, the stethoscope signal is only sent to the remote end and will not play through the speakers. The stethoscope audio input is shown in Figure 12.

To enable Stethoscope Mode:

- Press ⬚ on the integrated control panel. The associated LED will light when this mode is enabled.

To disable Stethoscope Mode:

- Press again ⬚ on the integrated control panel. The associated LED will turn off.

Adjusting Transmission Audio Level

You can adjust the level of the audio signal transmitted from the codec to optimize the audio experience at the remote end (see *Adjusting Audio Level* under *CLINiC Administration*).

Sharing Content from Connected Devices

You can share content from devices connected to either the DVI port or the VGA port. These two ports are shown in Figure 11.

Sharing Content from the DVI Source

By default, the [icon] button is associated with the DVI source. This assignment can be changed (see *Changing Video Source Button Assignment*).

To share content from the DVI source:

- Press [icon] on the integrated control panel. The associated LED will light when this source is selected. Video from this source will be displayed on the screen.

Sharing Content from VGA Source

By default, the [icon] button is associated with the VGA source. This assignment can be changed (see *Changing Video Source Button Assignment*).

To share content from the VGA source:

- Press [icon] on the integrated control panel. The associated LED will light when this source is selected. Video from this source will be displayed on the screen.

Switching between Video Sources

You can easily switch between video sources by pressing the button associated with the video source to which you want to switch.

For instance, if video from the DVI source is displayed on the screen, press on the button associated with the VGA screen to switch to the VGA source. Video from the VGA source will then be displayed.

Changing Video Source Button Assignment

By default, [icon] is associated with the DVI source, and [icon] is associated with the VGA source. However, you can reverse this assignment.

To change video source button assignment:

- Press and hold [icon] and [icon] simultaneously for approximately six to eight seconds. The source assignment is reversed. A message will display on the screen, indicating which input is assigned to the PC (for example, PC input is DVI or PC input is VGA).

- If you desire to reverse the setup, repeat the steps above.

CLINiC Administration

You can modify the default functions of the CLINiC codec by logging in as an administrator to the codec web interface and performing the desired changes.

For the complete set of instructions, please refer to the *Cisco TelePresence SX20 Quick Set Administrator Guide*, available at the following link: http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-quick-set-series/products-maintenance-guides-list.html

Accessing the Codec Web Interface

To access the web interface:

1. In your web browser address line, enter the system IP address, for example, `http://10.11.12.13`.

   To display the system IP address, press and hold the button on the CLINiC control panel for 5 seconds or more, and then release. This will display the system information on the CLINiC screen, including the system IP address.

2. Enter the Admin ID as the user name (default is `admin`), and enter the Admin Remote Access Password, if one is set.

Change Standby Settings

The system goes into standby mode after two hours with no activity. You can change this setting to disable standby mode or change the delay after which the system goes into standby.

To change standby settings, navigate to **Configuration>System Configuration>Standby.**

To disable stand-by mode:

- Set **Standby Control** to **Off**.

  The system will no longer enter standby mode.

To enable stand-by mode:

- Set **Standby Control** to **On**.

  You will need to set the **Standby Delay** as well.

To set the delay after which the system goes to standby mode:

- Set **Standby Delay** to a number of minutes between 1 and 480.

  This requires the Standby Control to be enabled.

Change Conference Settings

You can change the way the CLINiC joins incoming conference calls.

To change conference call settings, navigate to **Configuration>System Configuration>Conference**.

To Disable Automatic Answering of Incoming Conference Calls:

- Set **AutoAnswer Mode** to **Off**.

    Once automatic answering is turned off, you must answer incoming calls by using the integrated control panel or the remote.

To Enable Automatic Answering of Incoming Conference Calls:

- Set **AutoAnswer Mode** to **On**.

Manage Favorites

You can add a favorite contact that can be dialed when pressing the button on the CLINiC control panel.

To create a new Favorites contact:

1. In the web interface, go to **Configuration > Local Contacts Management**.
2. To create a favorite contact, click **Add Contact**.
3. In the **Name** field enter the name **auto dial**.
4. Enter the information in the **Contact method** section and click **Save**.

IMPORTANT: in order to enable one-touch dialing from the CLINiC, the contact name must be **auto dial**.

Adjusting Audio Level

You can adjust the level of the audio signal transmitted from the codec to optimize the audio experience at the remote end.

To adjust the audio level of the signal associated with the microphone:

1. In the web interface, go to **Configuration > System Configuration > Audio**.
2. Set the **Audio Input Microphone 1 Level** to the desired value in dB (between 0 and 24).

To adjust the audio level of the signal associated with the stethoscope input:

1. In the web interface, go to **Configuration > System Configuration > Audio**.
2. Set the **Audio Input Microphone 2 Level** to the desired value in dB (between 0 and 24).
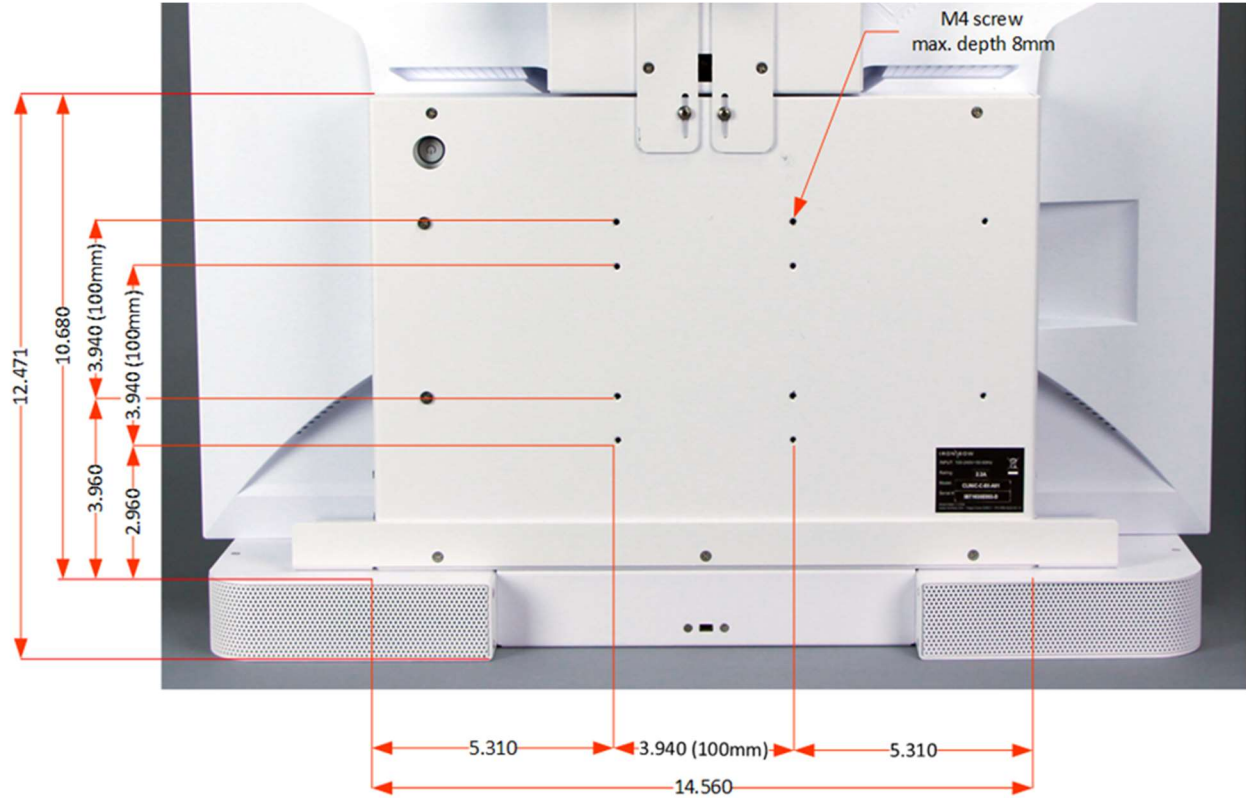
Appendix: Mounting Information

The following figure is not to scale and provided for dimensional information only.

Figure 15. CLINiC 12x rear view and mounting holes location

Specifications

Videoconferencing	
Codec	Cisco TelePresence SX20 codec
Camera	Sony SRG-120DU camera 12x optical/12x digital zoom
Display	
Type	27" IPS LED
Native Resolution	2560 x 1440
Viewing Angle	178°
Response Time	5 ms
Control	
Integrated Panel	Integrated panel with touch control for: • AutoDial/Connect • Disconnect • Camera Pan/Tilt/Zoom • Display Layout • Camera Mute (with LED indicator) • Microphone Mute (with LED indicator) • PC Source Selection (with LED indicator) • Video Device Source Selection (with LED indicator) • Volume • Stethoscope Mode (with LED indicator) • Headphone Mode (with LED indicator)
Remote Control	Cisco TRC remote
Control Port	DB9 expansion control port (for future use)
Video Input/Output	
Input	Sony SRG-120DU camera 12x optical/12x digital zoom
	1 x HDMI
	1 x USB
Output	1 x HDMI (dedicated to display)
Audio Input/Output	
Input	Integrated microphone
	1 x 3.5mm (for stethoscope)
	1 x 3.5mm (for PC)
Output	Integrated stereo speakers; 2 x 5 Watts
	1 x 3.5mm (for headphone)

Network	
	1 x 10/100/1G Ethernet
Dimensions	
	• 24" Wide • 21" High (Includes camera. Detachable speaker deflector adds 1.25") • 5.5" Deep
Weight	
	29.2 lbs.
Mounting	
	Compatible with 100mm x 100mm VESA mounts (refer to the Appendix for mounting hole location and required hardware)
Electrical	
	100-240V~50/60Hz, 2.2A Integrated auto sensing power supply 1 x IEC type inlet

IRON BOW
HEALTHCARE
SOLUTIONS

2303 Dulles Station Boulevard, Suite 400
Herndon, VA 20171

Toll: 800.338.8866
Tel: 703.279.3000

www.ironbowhealthcare.com