



Cisco SX20 Set Top User Guide

FOR FIXED EQUIPMENT

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1.0 OBJECTIVES

This user guide will provide you with an overview of the Cisco SX20 videoconference solution and the knowledge to setup and use the equipment.

Learning Outcomes:

After reviewing this guide, you should be able to:

1. Identify and explain the main parts of your videoconference solution.
2. Use the remote control to navigate through the menus, set camera presets, and access additional video sources.
3. Setup and use the equipment.

2.0 OVERVIEW

The main components of the Cisco SX20 videoconference solution are the Camera, Codec, Ethernet Cable, Microphone, Screen/Monitor, Router, Remote Control and for some units, the Cart.



1. **Camera** - The built-in camera is a high quality imaging device which transmits images to the screen/monitor. The camera movements are controlled by a wireless infra-red (IR) remote control that controls a variety of functions, both on the near and far end.
2. **Codec** - The codec is the central part of the videoconferencing equipment. The main task of the codec is the compression of outgoing video, audio and data, the decompression of the incoming information and the transmission of this information between endpoints. The name codec comes from a combination of the two words compression and decompression.

- 3. Microphone** - The table microphone is designed to be located on a flat surface in front of the participant. The microphone cable should always face towards the videoconferencing system. The system will automatically equalize sound levels so that loud and soft voices are picked up and transmitted to the far end at approximately the same level.



- 4. Screen/Monitor** - The videoconferencing equipment may utilize single or dual screen/monitor configurations. The screen/monitor displays the far end or the near end image and content as selected by the user.



- 5. Router** - When connected to an MBTelehealth drop, the Router provides a secure connection back to the MBTelehealth network



- 6. Remote Control** - The remote control is used to place calls, adjust the volume, navigate screens and select options. It controls all functions of the videoconferencing equipment. The equipment will not function without the remote control.

The Cisco TR5 Remote Control



Microphone On/Off. 

Adjust loudspeaker volume. 

Use the **Arrow** keys to navigate in the menus and the center **✓** key to confirm your choice or selection. When no menu is open, **Arrow** keys can be used to move the camera.

Use this key to display the **Home menu** on the screen. 

Use this key to display the **Phone book** (your contacts) on the screen. 

Place a call. 

Use this key to remove characters in a text field. 

Switch to show PC screen on the system. Press again to go back to the main camera.  **Press and hold**

Zoom the camera. 

These keys correspond to the five context sensitive softkeys along the bottom of the screen. 

Use this key to change the layout on the screen. 

Use this key to end an ongoing call. Outside a call, press and hold to enter the standby mode. 

Use the keypad to enter letters and numbers, as with a mobile phone. Press a key repeatedly to access the characters displayed on each key. 

Press and hold the **#** key to switch between touch tone mode (press and hold), lower case characters and numbers. 

Use this key to enter touch tone mode (DTMF) in a call. Press the **✓** key when done. When entering text this key is used to toggle between upper and lower case letters. **Press and hold**  **Press and hold** to change between characters and numerics.

Waking up the system
Grab the remote control and make sure your hand touches the rubber line sensors located on both sides of the remote control, or just touch any key on the remote control.

3.0 GENERAL USE

The following sections will provide instructions for using your Cisco SX20 solution to place and receive videoconference calls.

3.1 Set Up

To setup and use the videoconference solution:

1. Wake the codec by picking up the remote control then turn on the screen/monitor. After approximately 15-20 seconds you will see the home screen.



If the Ethernet cable is connected correctly, you will see a flashing green VPN light on the front of the Router.

2. Place the microphone on the table in front of the participants.

3.2 Camera Controls

The camera can be controlled manually by selecting the **Camera Control** option from the **Home Menu** and then using the arrow keys and the zoom + and – keys to adjust the camera to the desired position.

Alternatively, you can use **Camera Presets** to change to a predetermined camera position:

Camera presets

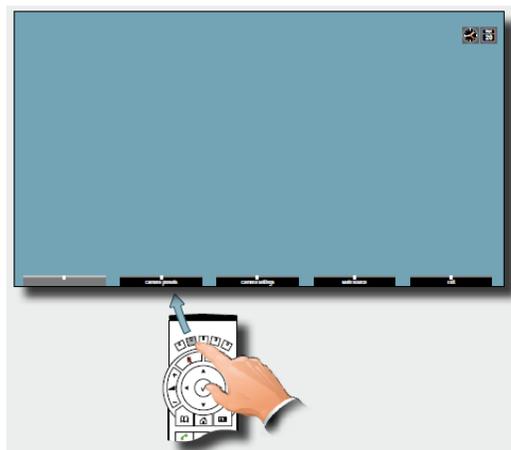
Camera presets are useful when images from many different camera positions and video sources are to be viewed by the far end site(s). Presets are used to switch camera positions without having to manually move the camera.

The SX20 Set Top is set up with four (4) Standard Presets:

1. **Sign** - The first preset is of a sign with the sites name. This is an off screen camera view that allows users to move about the room without being on camera and identifies the sites that are connected.
2. **Participant** (Presenter/Provider/Patient) – This preset is a close up view of the person or persons involved in the event. Whether it is the patient, provider or a presenter, when setting this preset, you want to ensure that the far sites are able to see the person clearly.
3. **Room** –Part of videoconference etiquette includes making the sites you are connected to aware of everyone involved in the event. By setting a preset of the entire room, you can easily identify everyone in attendance and then switch back to preset number 2 as necessary. This preset is also helpful for question and answer periods.
4. **PC/Patient Camera** – Selecting this preset will display whatever device is connected to the DVI port on the back of the codec. This is most often used for connecting a laptop or a patient camera.

To use camera presets:

1. Press the **Main Menu** button  until the preset listing shows on the softkey displays along the bottom of the screen.



2. Press the softkey that corresponds with the image you would like to display.

Camera presets will be set up and saved as part of equipment implementation but there may be a need to change or resave presets.

To change or resave presets:

1. Move the camera to the desired position using the arrow keys and the zoom + and – keys.
2. Use the softkey to select **Camera presets**.
3. Then scroll down and select **Edit Camera Presets**.
4. Scroll down to the **Preset** you want to change the press the **Right Arrow Key** and select **Update to current camera position**.

3.3 Microphone

To mute the microphone:

1. Press the Mic Off  key on the remote control or on the microphone itself. An onscreen indicator will appear when the microphone is off and the button on the microphone will change to red.
2. To unmute, press the Mic Off key on the remote control or on the microphone again. The onscreen indicator will disappear and the button on the microphone will change to green.

3.4 Making and Receiving a Video Calls

Making video calls to MBT Site:

1. For connections to **MBT Sites**, press the **Phone Book** button .
2. Scroll down the list of contacts to find the site and equipment you are scheduled to connect to then press  to initiate the call.



You can also use the Search field and key board on the remote control to find the site you are scheduled to connect to. Use the keys on the remote to enter the name of the site then select it from the list provided.

Making video calls to outside the MBT network:

1. For **Out of Network** connections, select Call from the **Home** menu then enter the dial in number you have been provided and click  to initiate the call.

Receiving video calls:

Your Cisco SX20 Set Top solution has been configured to automatically accept all incoming connection requests. This means that both site to site connections initiated by another site and multi-site connections will be automatically connected.

You will hear a dial tone that indicates there is an incoming call and your microphone will automatically mute so that the connecting site cannot overhear what you are discussing. Once the connection is made, you will need to unmute your microphone so that the other site(s) can hear you.

If you do not want to accept an incoming call, press  to reject the call.



If you are participating in a multi-site event (3 or more participating sites) you will be automatically connected by the MBTelehealth service desk. Do not attempt to connect to another location.

Ending video calls:

At the completion of the call, press  to disconnect

3.5 Volume

To adjust the volume:

1. Use the **Volume Key** to increase or decrease the volume. A **Volume Bar** will appear at the bottom right of the screen



3.6 Far End Control

Site to Site

Taking Far End Camera Control allows you to move the camera at the far end site as well as control their video sources and presets *during Site to Site calls only*.

Before taking far end camera control, always request permission first and explain why you are taking control. You may need to take far end camera control if:

- There is an unskilled operator at the far end.
- The operator requests that you take control.
- If the operator isn't able to facilitate the event at their end.

To use far end camera control during a call:

1. Press the **Main Menu** button  then select **Camera Control**
2. Use the softkey to select **Far End** which will enable Far End Camera Control
3. Move the camera to the desired position using the arrow keys and the zoom + and – keys
4. Use the softkey to select **Near End** which will turn off Far End Control

Multi-Site

During Multi-Site calls, the Far End button allows you to control how the other sites are displayed on your screen.

To split the screen in a multipoint session:

1. Press the **Home** button  then select **Camera Control**.
2. Use the softkey to select **Far End** which will enable Far End Camera Control.
3. Use the Up and Down arrow keys to scroll through the layout options.



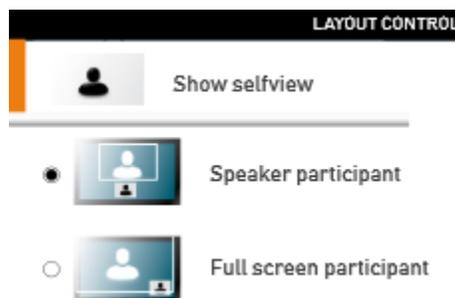
4. Use the softkey to select **Near End** which will turn off Far End Control.

3.7 Layout/Selfview

The **Selfview** button  on the remote control allows you to control how images are displayed on your screen.

To use the **Selfview/layout** options:

1. Click on the **Selfview** button  to open the **Layout Control** window.



2. Select **Show selfview** to display an image of your camera view on screen and select **Hide selfview** to turn that image off.
3. When connected to another site or sites, you will also be provided options on how to display the content being received. Scroll through the options using the arrow keys and press  to select.



Options available are dependent on what content the other site(s) are sharing.

4.0 SHARING CONTENT – PERIPHERAL DEVICES

The Cisco SX20 Set Top allows for users to display additional video sources through a single DVI port connection. The Cisco SX20 also supports dual video streams.

Dual Video

With dual video stream you can view two different live video streams simultaneously; the main video and one additional source. This could for example be both a PC presentation and the person who gives the presentation.

If the connecting video system does not support dual video stream, no second video stream will be established for this system and the PC presentation will be shown as the main video.

Connecting additional video sources

The instructions below show users how to connect a Laptop or Patient camera individually and how to manage a set up where both may be required at different times.

To connect a laptop to the videoconferencing equipment:

1. Using a VGA/ DVI cable, connect the DVI end to the DVI-I In at the back of the codec.

DVI Connector



2. Connect the VGA end to the matching port on the laptop.

VGA Connector



3. Turn the laptop on.



4. Press the Presentation button on the remote control or select the PC/Patient Camera preset option.

5. You should now see you PC displayed in the Selfview window on the videoconference monitor.



If you do not see your PC image, do the following: on the laptop keyboard, press the Function key (Fn) and the appropriate F key (often F5, F8 or F10) simultaneously. A display options menu will appear, select the option to display on both as shown below.

Display options



6. Press the Presentation button again to return to the Main Camera view.
7. To disconnect, remove the VGA cable from the laptop.

To connect a Patient Camera to the videoconferencing equipment:

1. Using a DVI/ DVI cable, connect one end to the DVI-I In at the back of the codec.

DVI Connector



2. Connect the other end to the matching port on the Patient Camera base.

3. Turn on the Patient Camera.



4. Press the Presentation button on the remote control or select the PC/Patient Camera preset option.

5. You should now see the Patient Camera image displayed in the Selfview window on the video conference monitor.

When both a Laptop and a Patient Camera will be used with the videoconferencing equipment:

The instructions identified above will still be relevant but the addition of a Male to Female DVI cable will be added to the solution set up. The addition of this cable will allow for easy access and switching between the two peripheral devices.

The cable will be connected to the back of the codec with the Female end accessible for easy connection of a DVI/VGA cable for laptops and a DVI/DVI cable for the patient camera.

To display the local PC/Patient Camera full screen:

1. Click on the **Selfview** button  to open the **Layout Control** window.
2. Use the softkey to select **Maximize Selfview**.
3. Click the **Selfview** button and select **Restore Selfview** to return to the default display option.

5.0 TROUBLESHOOTING

5.1 Audio Issues

Issue	Possible Cause(s)	Resolution
Far-end site unable to hear you	<ul style="list-style-type: none"> ▪ Your microphone is muted ▪ Your microphone is obstructed or too far from the person speaking 	<ul style="list-style-type: none"> ▪ Un-mute your microphone ▪ Check microphone and ensure it points towards the person speaking
Unable to hear far-end site	<ul style="list-style-type: none"> ▪ Microphone is muted at far end site ▪ Near end monitor and/or codec Volume is too low 	<ul style="list-style-type: none"> ▪ Try to instruct far site to un-mute their microphone ▪ Increase the volume on the monitor and/or the codec
Audio distortion from far-end site	<ul style="list-style-type: none"> ▪ Far site monitor volume is too high 	<ul style="list-style-type: none"> ▪ Turn down the volume on the far end monitor
Echo or distortion at near-end when people speaking	<ul style="list-style-type: none"> ▪ Far-end microphone is situated too close to the monitor ▪ Speaker/volume is too high on far-end monitor 	<ul style="list-style-type: none"> ▪ Ask to move microphone further away from monitor ▪ Ask far-end site to turn volume down on their monitor.

5.2 Video Issues

Issue	Possible Cause(s)	Resolution
Picture is blank on the monitor	<ul style="list-style-type: none"> ▪ System has gone into “sleep” mode ▪ Monitor has been powered off ▪ Monitor input has changed 	<ul style="list-style-type: none"> ▪ Pick up the remote, system will reactivate in normal mode. ▪ Turn the monitor on ▪ Check to see if the monitor input has been changed (using the select or input button on the TV Monitor)
Near-end site unable to hear or see the picture from far-end peripheral	<ul style="list-style-type: none"> ▪ Proper input has not been selected ▪ Cables are not properly connected 	<ul style="list-style-type: none"> ▪ Check for correct input selection on remote control ▪ Check that output from laptop patient camera, VCR, or document camera are connected properly



If you are experiencing any problems with the videoconferencing equipment or have any questions, please contact the MBTelehealth Service Desk for assistance:

Winnipeg or outside of Manitoba

Phone: (204) 975-7714 Option 1

Outside of Winnipeg (within Manitoba only)

Phone: 1-866-667-9891 (toll free) Option 1

6.0 ADDITIONAL TRAINING INFORMATION

For additional information on videoconference equipment visit www.mbtelehealth.ca or contact your Facilitator-eHealth Solutions.

7.0 VIDEOCONFERENCING ETIQUETTE

The following tips on videoconferencing etiquette will help prepare you for a successful session:

- ✓ Assume that people can see and hear you as the Camera and Microphone are always “Live”.
- ✓ Identify yourself and anyone else in the room to the client.
- ✓ Speak directly towards the microphone and use your normal speaking voice.
- ✓ Try to avoid a lot of movement or shuffling of papers as this may affect the quality of the sound transmission.
- ✓ Due to the audio delay, pause for clients to ask or answer questions or when they have comments.
- ✓ Always ensure there are no further questions and that the client is aware of follow-up instructions before signing off.