

Cisco Room Panorama

Getting Started Guide



After installing Cisco Room Panorama as described in the Installation Guide, you must continue with the procedures in this Getting Started guide. They are a mandatory part of the Room Panorama installation process.

This guide includes:

- Registration with Cisco Webex and Cisco UCM
- Running the setup assistant to calibrate the camera and check that the audio system is correctly installed
- Screen calibration

Cisco Room Panorama is running the same software as the rest of the Cisco Room series.

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Register Room Panorama

Register Room Panorama with Cisco's cloud service

Room Panorama requires minimum software version RoomOS 10.11.

Register Room Panorama with Cisco UCM

Room Panorama requires as a minimum Cisco Unified Communications Manager (UCM) version 10.5 with a device enabler for Cisco Room Panorama.

We recommend that you use the latest Cisco UCM release version.

You need a device package that includes the following product types (released March 2020):

- Cisco Webex Room Panorama
- Cisco Webex Room 70 Panorama

You can download Cisco UCM and device packages from the software download page for the Cisco Unified Communications Manager. You need your Cisco login to get access.

- <https://software.cisco.com/download/home/268439621>

Room Panorama Settings for Cisco UCM

Device Pool and Location

We recommend you to use the same *Device Pool* and *Location* as for other devices that are running RoomOS software.

However, if you need better granularity with bandwidth management, it is also possible to assign Room Panorama video systems to a separate *Device Pool* with separate *Region Bandwidth* settings.

Bandwidth

The default bandwidth for Room Panorama is 16 Mbps total bandwidth, with 128 kbps reserved for audio.

When defining region relationship bandwidth settings you must make sure that the *Maximum Session Bit Rate for Video Calls* is set to 16000 kbps or above, and that *Maximum Audio Bit Rate* is set to 128 kbps or above.

For more details about Cisco UCM and bandwidth management, refer to the following documents:

- Preferred Architecture - <https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Collaboration/enterprise/12x/120/collbcvd/bwmgmt.html>
- Solution Network Reference Design - https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab12/collab12/cac.html

SIP message size

We recommend that you set the *SIP Max Incoming Message Size* parameter to 30000 bytes.

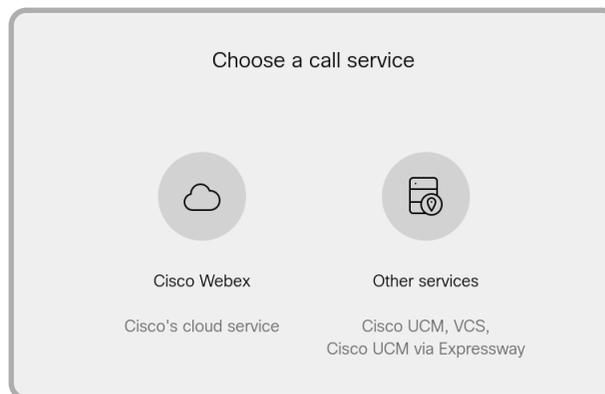
Run the setup assistant (page 1 of 6)

The setup assistant starts automatically when you power on the video system for the first time. It guides you through the initial setup of the system, including network setup, call service registration, selecting a time zone, setting the correct screen configuration, adjusting the camera, setting up microphones, testing the loudspeakers, and more.

If you wish to revisit any of the settings after the initial setup, open the control panel (swipe from the right or tap the controls icon in the upper, right corner). Then tap [Device settings](#) and find the setting you want to change or the wizard you want to rerun.

Choose a call service

If your video system is automatically provisioned, the IP and provisioning settings are automatically configured and the setup assistant skips this step.



For Cisco's cloud service:

1. Select [Cisco Webex](#).
2. Enter the activation code.

For Cisco UCM:

1. Select [Other services](#).
2. Select [Cisco UCM](#).
3. Enter the Cisco UCM server address (e.g., IP address or DNS name) in the [Enter server address](#) field.*
4. Select [OK](#) to confirm the change.

* The DHCP server can be set up to provide the Host server address automatically (DHCP Option 150). Any input set up here overrides the setting provided by DHCP.

Set time zone

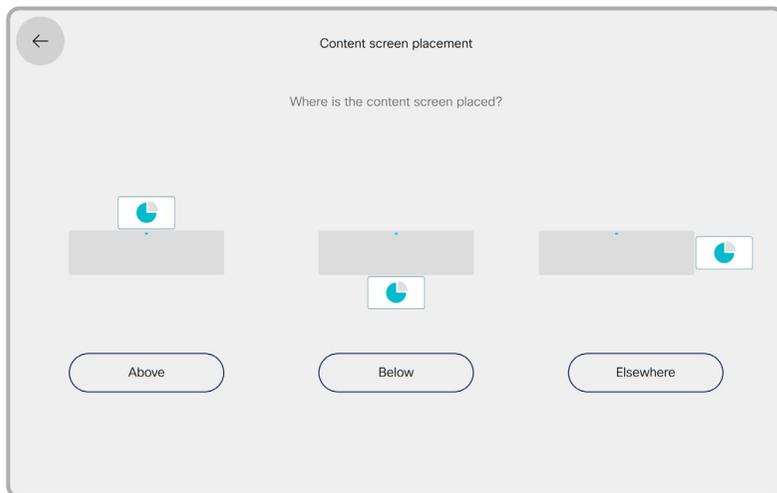
Check that the date and time settings are correct when you set up your video system. The system uses this information to, for example, generate time stamps for messages transmitted to gatekeepers and other network elements.

1. Select [Change time zone](#).
2. Select region, time zone, and time format. Choose from 12h or 24h.

Run the setup assistant (page 2 of 6)

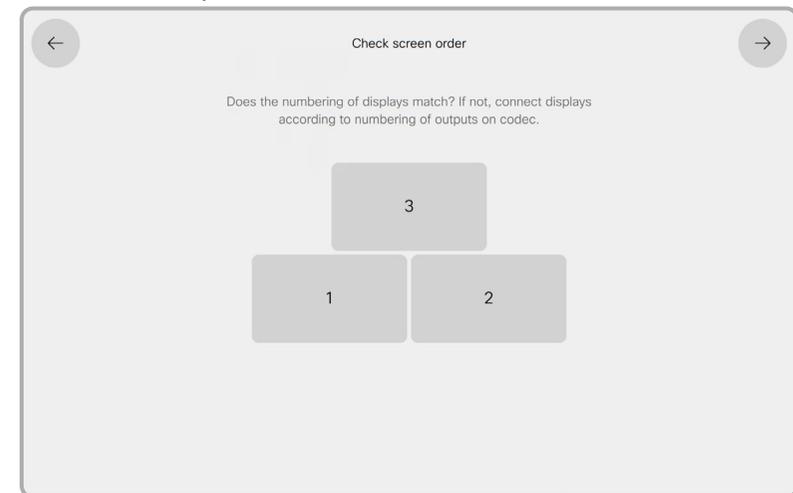
Set placement of content screen

Specify the placement of the content screen in relation to the main screens.



Check the screen order

The numbers 1, 2, 3 are shown on the three Room Panorama screens. Check that there is a number on all screens, and that the numbers match the order you see on the touch controller.



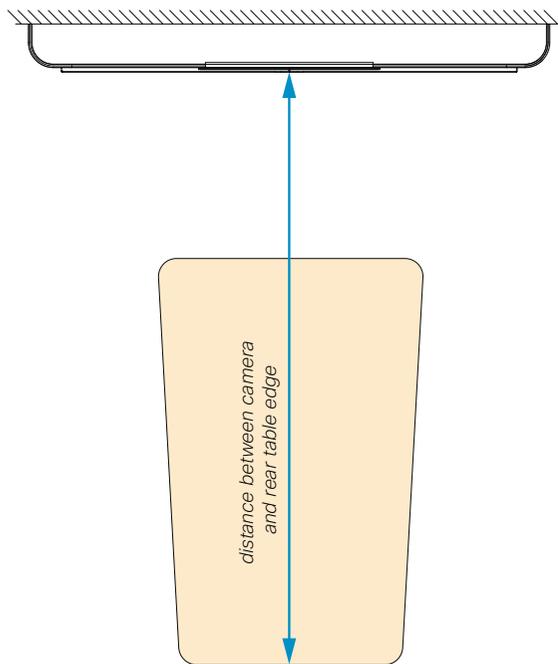
If the numbers do not match the order on the touch controller, see how to fix this in ["Appendix 1: Fix a screen connection issue"](#).

Run the setup assistant (page 3 of 6)

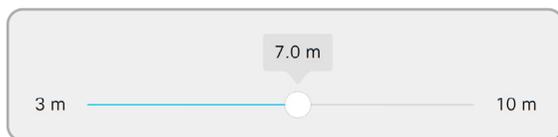
Adjust the camera view

To get the best possible Panorama view, you must carefully adjust the camera. The camera has two lenses and you have to adjust them to match each other and the room.

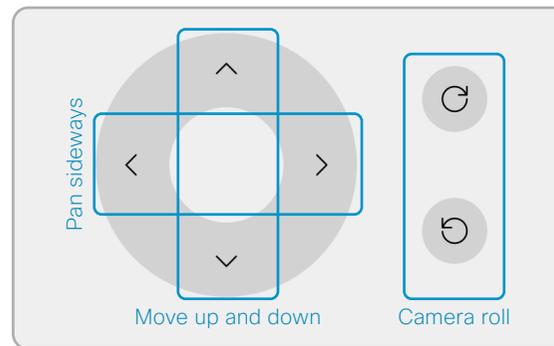
1. Measure the distance between the camera and the rear table edge.



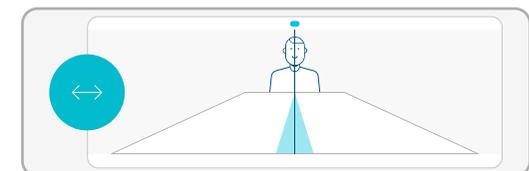
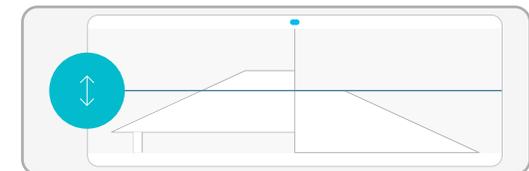
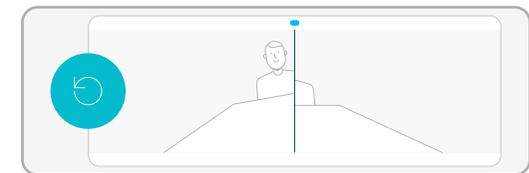
Use the slider to set the distance.



2. For adjusting the camera view, you have controls for both the left and right camera lenses. The adjustments steps are small to allow high accuracy. Be prepared to tap a control many times for larger movements.



- Adjust the **camera roll** to make the scene appear vertical.
- **Move the camera framing up and down** to match the rear table edge height.
- **Pan the camera framing sideways** so objects at the rear table edge appear with natural width. Objects in the blue area will appear in both camera views.



Run the setup assistant (page 4 of 6)

Digital microphone setup

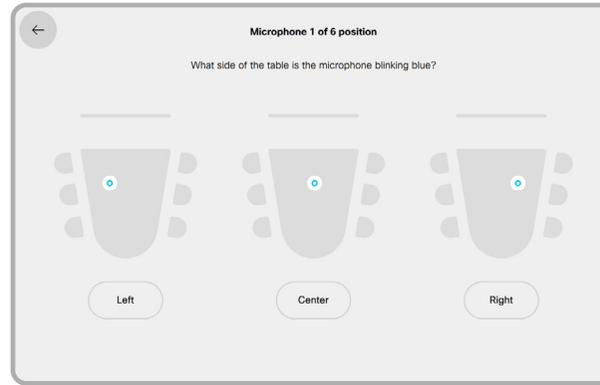
The Cisco Table Microphone Pro* is directional. Correct configuration is important to ensure that remote participants hear your voice from the correct direction.

If the microphones are connected correctly, they should display a blinking blue light during the setup process. This will help you to identify the microphone that is being configured.

You will be asked to specify your table layout. Select the diagram that most closely matches your table.

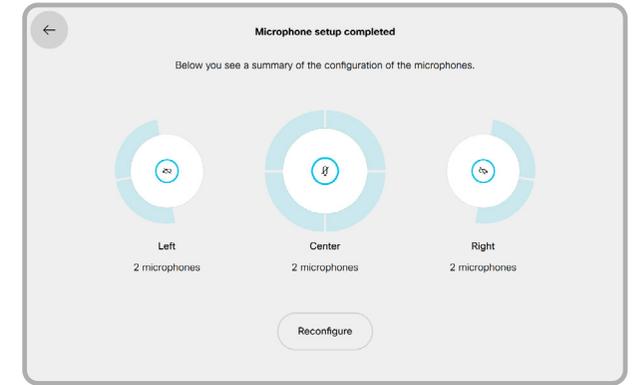


For each microphone, the light will blink blue and you will be asked to specify where on the table this microphone is placed. Use the diagrams to help identify this position in reference to the screen.

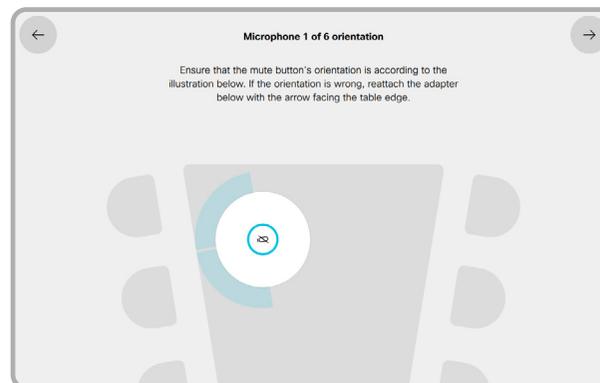


Repeat the process for all the microphones.

At the end, you will see a summary of your configuration.



Ensure that the mute button is oriented as suggested by the setup assistant. This is important for configuring the microphone to pick up sound from the correct direction.



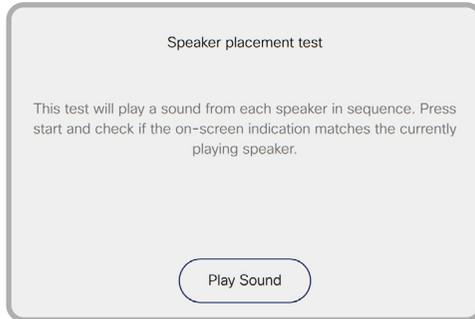
* The product name changed from Cisco Microphone Array to Cisco Table Microphone Pro early 2023.

Run the setup assistant (page 5 of 6)

Speaker placement test

When you perform the speaker test, a sound plays from each speaker in sequence.

1. Tap *Play Sound* to start the test.



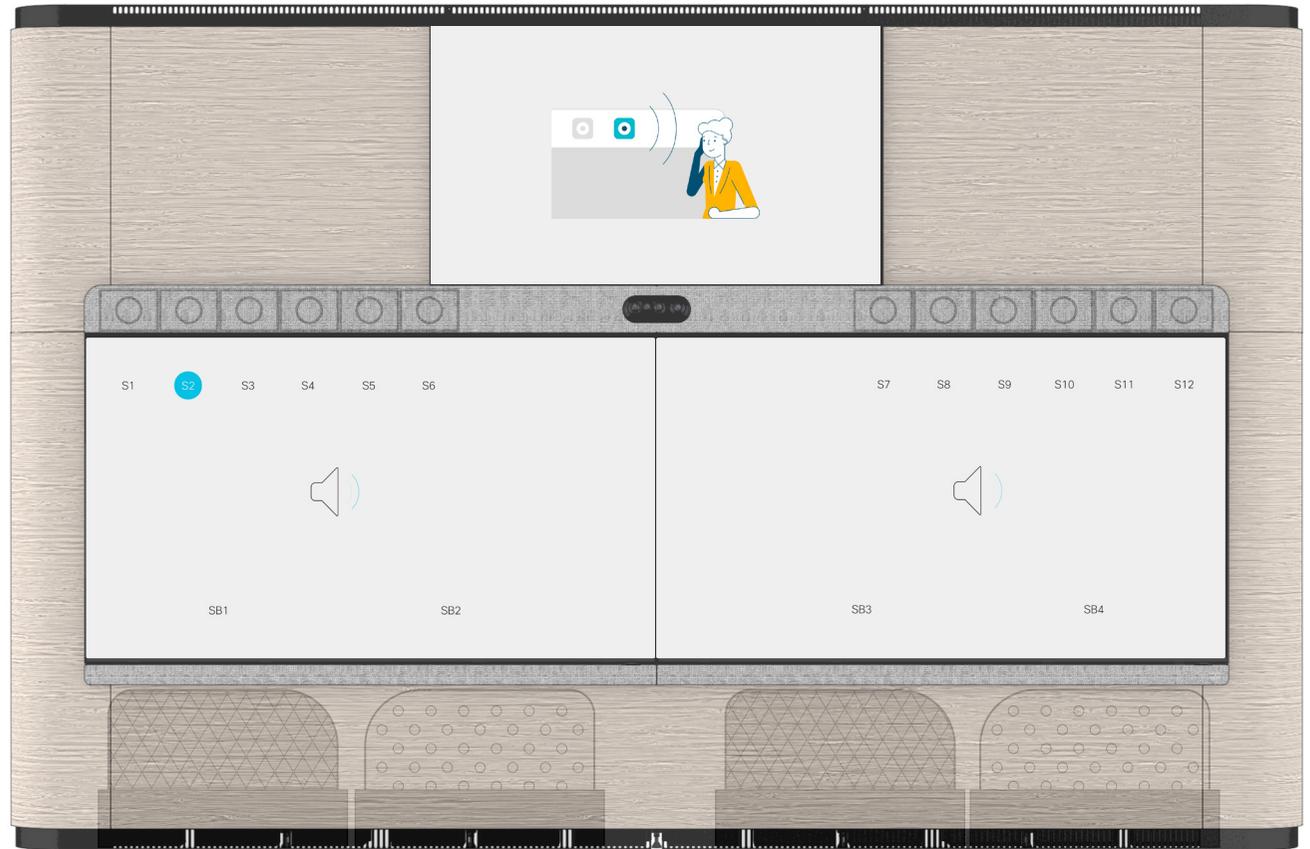
2. Tap *Next* to listen to the next speaker, or *Previous* to go back and listen to the previous speaker again.

The illustration to the right shows what is displayed on the the screens. The number nearest to the speaker that is expected to play sound is indicated with blue color.

Symbols S1 - S12 represent the full range speakers above the screens (hidden behind the speaker grille). Symbols SB1 - SB4 represent the subwoofers, which are behind the wooden panels under the screens.

If the full range speakers and subwoofers are connected correctly, you will hear that the sound is played from the speaker in the position that is marked with blue.

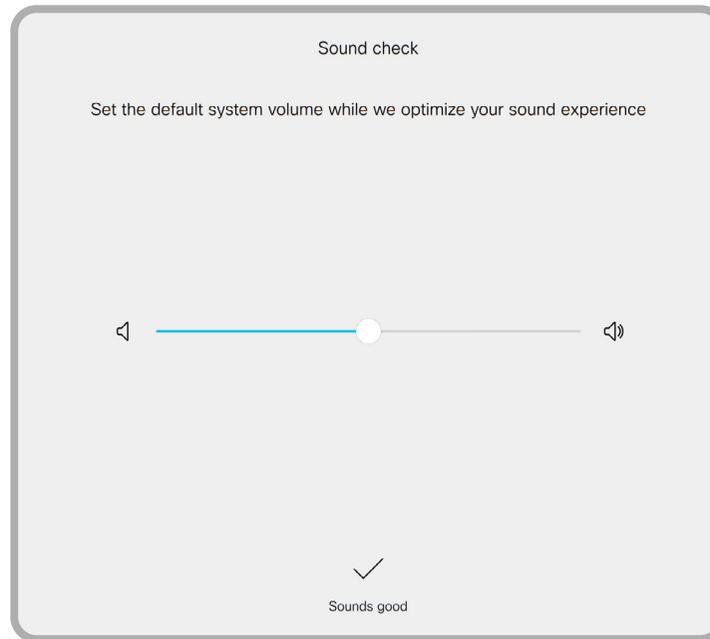
If this is not the case, see how to fix this in ["Appendix 2: Fix a speaker connection issue"](#).



Run the setup assistant (page 6 of 6)

Sound check

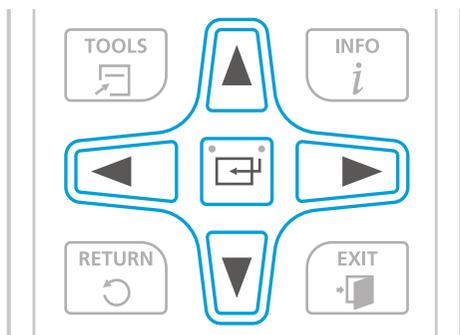
Set the default volume for your system.



Configure the screens

When you first power on the Samsung screens, a setup wizard will begin. The settings you need are described to the right. Please disregard the *Samsung Quick Setup Guide* that comes with the screens.

All three screens in your Room Panorama system must be configured.



Note: Point the remote toward the lower right corner of the main screens and toward the center of the content screen, when making your selections.

Use the arrow buttons to move between different options; and use the button at the center of the arrows to make a selection.

1. **Choose your language.**
Use the up and down arrows to highlight the correct language, then press the center button to select and move to the next page.

Note, you can use the right and left arrows to go back and forth in the wizard.
2. **Display orientation: Landscape**
Use the up and down arrows to highlight *Landscape*, then press the center button to select and move to the next pane.
3. **Auto Power Off: Off**
Highlight *Off*, then press the center button to select.
4. **Wired Connection: Skip.**
Press the center button to *cancel* the setup. Then, when you see the option to retry, instead press the right arrow to skip.

A dialog box will appear and you will be prompted if you want to skip network settings. Select *Skip* (right arrow, then center button).
5. **Play via: MagicInfo Server**
Highlight *MagicInfo*, then press the center button to select.

You will not use this, but it is necessary to select something and this does not require you to input a URL, as does the URL option.
6. **Connect to MagicInfo Server: Skip**
Highlight *Skip*, then press the center button to select.
7. **Clock Set**
Set both the date and the time. Press the center button to access the dropdown fields and to move between menus. Use the up and down arrows to modify the numbers.

When finished, press the right arrow to move to the last page.
8. **Complete**
Press the center button to close the wizard.

Repeat this procedure for all three screens.

Calibrate the screens (page 1 of 6)

The two main screens and the content screen of your Room Panorama system must be calibrated.

You must repeat the procedure described here for all the three screens.

The calibration is a required part of the installation procedure for new products, and also when you replace one or more screens in an existing installation.

Screen calibration is done when the system is up and running, after you have run the setup assistant.

Equipment needed

USB 2.0 extension cord (3m)

Ethernet cable (5m)

Calibrator: X-Rite i1 Display Pro

Windows PC/laptop with:

- HDMI output port
- Ethernet 10/100 port
- USB 2.0 port (regular USB-A port)
- One of these Windows versions:
 - Windows 7, 32 bit / 64 bit
 - Windows 8, 32 bit / 64 bit
 - Windows 10, 32 bit / 64 bit
- Samsung Color Expert Pro software installed on the PC/laptop (use the default settings).

Download the Color Expert Pro software

The calibration software for the screens (*Color Expert Pro*) is on the Cisco Download Software web page.

<https://software.cisco.com/download/home>

Open the web page and search for product name *Panorama*. In the panel to the left, select the version "1" and you will see the Samsung Display as an option. Select this and find the newest Color Expert Pro download.

Calibrate the screens (page 2 of 6)

Calibration set-up and preparation

The video system must be turned ON when running the calibration.

1. Connect the PC to one of the HDMI presentation cables that comes from the Panorama system.
2. Connect the PC to one of the Ethernet switches of the Panorama system (behind the right screen or under the table).
3. Connect the X-Rite Display Pro to the PC through USB, using the extension cord.
4. Start the *Color Expert Pro* software.

The calibration PC always gets IP address: 169.254.1.30

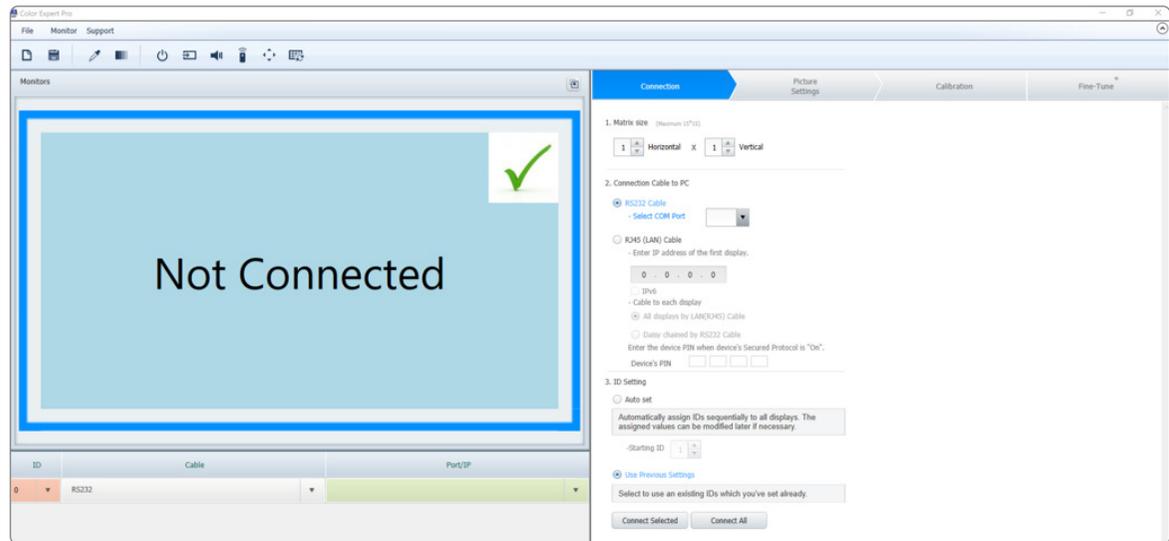
The three screens get unique IP addresses in the following range, depending on how they are connected: 169.254.1.35 - 169.254.1.39

5. Use one of the provided Samsung IR remote controls and find the IP address of the respective screens.

Press *Menu* and use the *arrow keys* on the remote control to navigate to *Network > Network Status*; then press *Enter*.

Wait a few seconds until the status window displays the IP address.

Note: The status screen error “*Wired network connection failed.*” is normal as the screen is connected to the internal Panorama network, and not Internet.



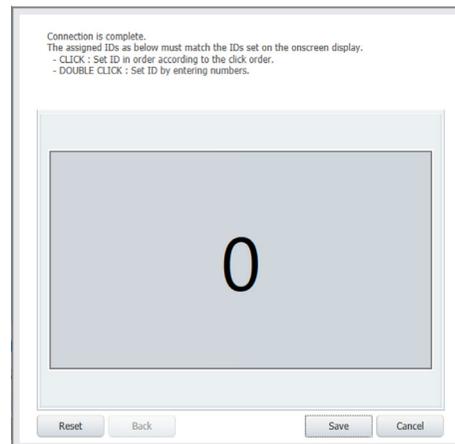
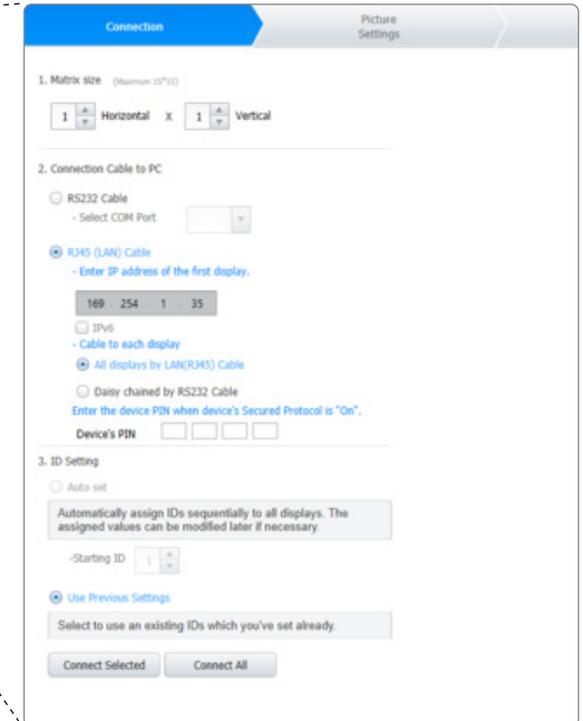
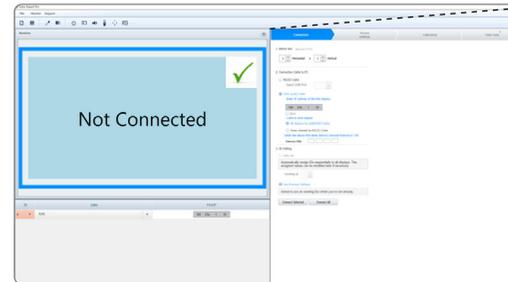
Calibrate the screens (page 3 of 6)

Calibration software configuration

Important: You must repeat the complete configuration and calibration process for all the three screens.

In the *Connection* tab, set the following:

1. *Matrix size:* Keep the default values (1 Horizontal x 1 Vertical)
2. *Connection Cable to PC:*
 - Select **RJ45 (LAN) Cable**
 - **Enter the IP address** of the screen you are going to calibrate. Use the IP address that you found in the previous section.
 - Select **All displays by LAN(RJ45) Cable**
3. *ID Setting*
 - Select **Use Previous Settings**
4. Click **Connect Selected**
 - The Connection window will appear for a few seconds.
 - Click **Save** when the Connection complete window appears.



Calibrate the screens (page 4 of 6)

In the *Picture Settings* tab, set the following:

1. *Gamma*
 - Select **Gamma Curve Value**
 - Keep the default values (10 steps and 2.2)
2. *Uniformity*
 - Select **Not use (Monitor Native Uniformity)**
3. *White Balance*
 - Select **Use**

For *Luminance*:

- Select **Specific Value**
- Use the arrow keys or type **300** cd/m²

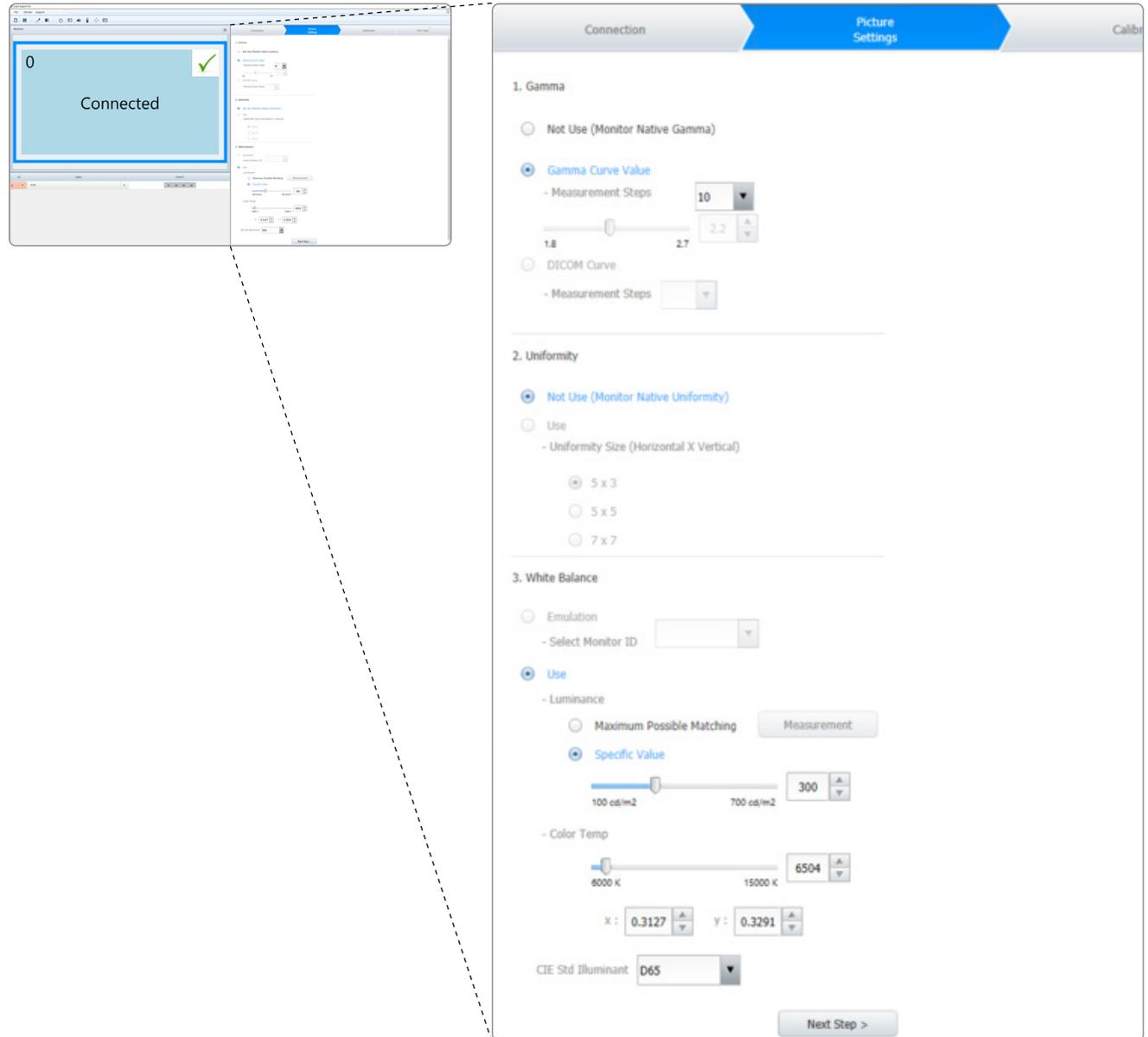
For *Color Temp*:

- Keep the number of Kelvin (K) and x: and y: values as is

For *CIE Std Illuminant*

- Select **D65** from the dropdown menu

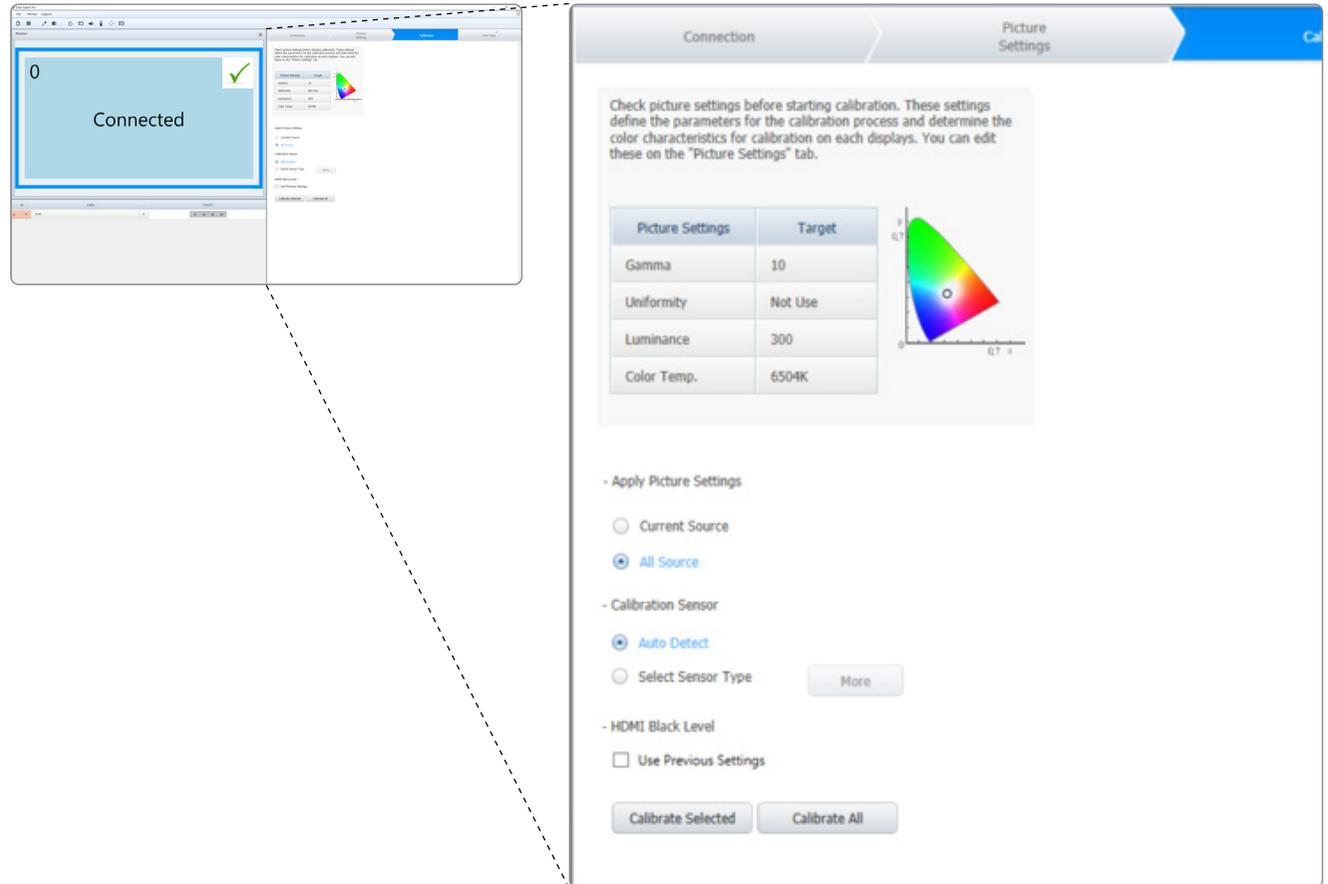
4. Click **Next Step >**



Calibrate the screens (page 5 of 6)

In the *Calibration* tab, set the following:

1. *Apply Picture Settings*
 - Keep the default setting (**All Source**)
2. *Calibration Sensor*
 - Keep the default setting (**Auto Detect**)
3. *HDMI Black Level*
 - Make sure **Use Previous Settings** is NOT checked
4. Click **Calibrate Selected** to start the calibration of one screen.



Calibrate the screens (page 6 of 6)

The calibration process

All three screens will now turn black with a crosshair in the middle.

1. Place the calibrator, X-Rite i1 Display Pro, facing the center of the crosshair on the screen that you want to calibrate.

Make sure the lens faces the screen and that the white diffusor is NOT in front of the lens.

2. Click *Next*.
3. Wait for part 1 (of the 2 parts) of the auto-calibration process to complete. It takes 2-5 minutes.
 - The image will change, showing different values of red, green, blue and white.
 - When this step is finished, the screen will first flicker, and then return to the black screen with the crosshair.
4. Click *Next*.
5. Wait for part 2 (of the 2 parts) of the auto-calibration process to complete. It takes 2-5 minutes.

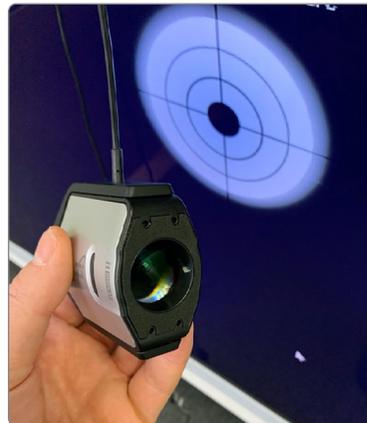
When finished the *Calibration Result* window appears with the calibration report.

6. Double check that the *Target* values were:
 - Color Temp: **6504K**
 - Luminance (Max): **300**
7. Click *Close* to end the calibration process for this screen. *Fine Tuning* is not necessary.

Note: If anything went wrong during the calibration, go back and repeat all steps from the start.

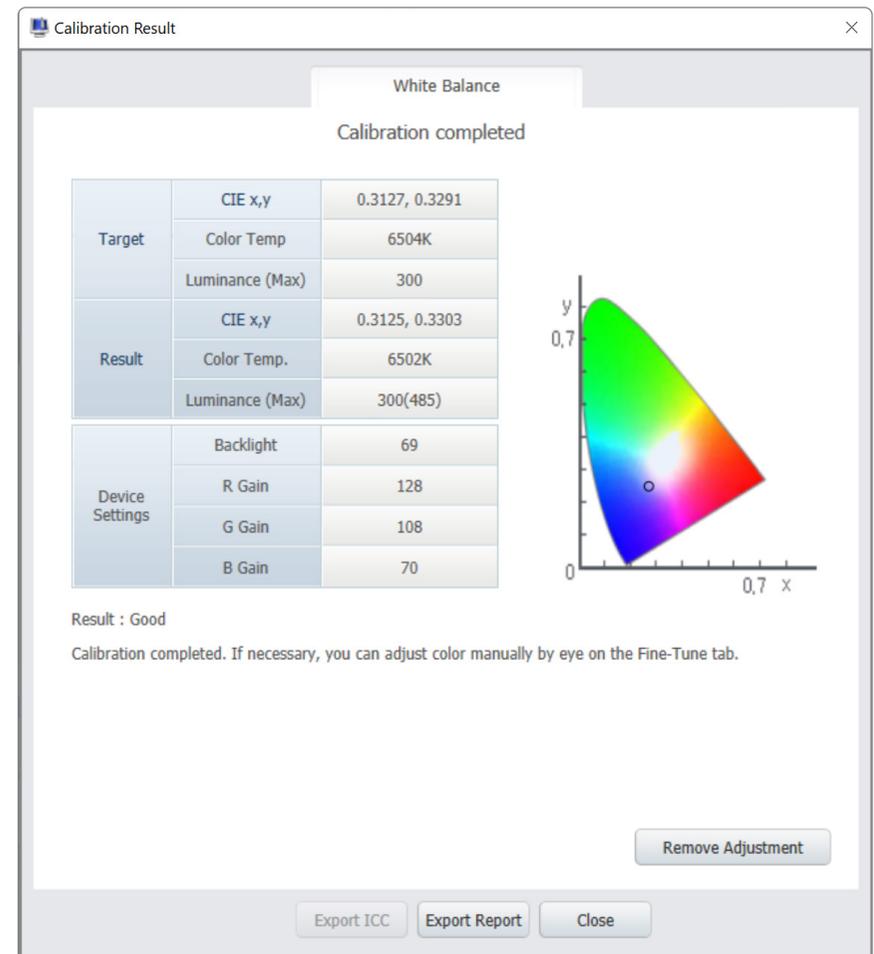
Important: After finishing calibration of the first screen, click the *Connection* tab, and start over for the next screen. The settings from the previous calibration is not saved.

Continue until you have performed the full calibration procedure (page 12 to page 15) for all the three screens.



When all three screens are calibrated, disconnect and remove the Ethernet cable and calibrator.

The calibration process for Room Panorama is now complete.



White Balance		
Calibration completed		
Target	CIE x,y	0.3127, 0.3291
	Color Temp	6504K
	Luminance (Max)	300
Result	CIE x,y	0.3125, 0.3303
	Color Temp.	6502K
	Luminance (Max)	300(485)
Device Settings	Backlight	69
	R Gain	128
	G Gain	108
	B Gain	70

Result : Good
Calibration completed. If necessary, you can adjust color manually by eye on the Fine-Tune tab.

Remove Adjustment

Export ICC Export Report Close

Appendix 1: Fix a screen connection issue (page 1 of 3)

The screen numbers are mixed up

Check that the HDMI cables between the codec and the One Connect boxes (S1, S2) and content screen (S3) are connected as shown in the illustration below.

Most likely, the cables are swapped at the codec side.

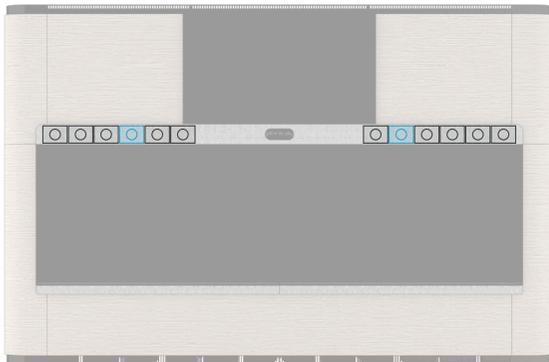
- Use the handle below to pull the left screen down. This gives access to the codec and connectors.

If this is not the case, also check the content screen and One Connect boxes.

- Tilt out the **content screen** to get access to its connectors.
- The **One Connect boxes** that are connected to the main screens are behind the loudspeakers.

To get access to the boxes' connectors, you must:

1. Tilt out the content screen.
2. Remove the deco ring around the camera.
3. Take off the speaker grille (it's fastened with magnets).
4. Pull out the loudspeakers marked with blue in the illustration below.



There is no number or content on a screen

1. Use the provided Samsung IR remote control and check that the correct input source is selected on the screen.
2. Check that the screen is connected to power (S7, S8, S9). Refer to the diagrams on the next pages. The socket outlets are behind the main screens. Use the handle below to pull the screen down.
3. Check that the screen is properly connected to the codec (HDMI - S1, S2, S3) and Ethernet switch (S4, S5, S6). Refer to the diagrams on the next pages.

Access the connector panels as follows:

- The **codec** is behind the left screen. Use the handle below to pull the screen down.
- The **Ethernet switch** is behind the right screen. Use the handle below to pull the screen down.
- The One Connect boxes for the left and right screens are behind the loudspeakers; see the previous page how to access them.

Caution: The cable between the screen and One Connect box is fragile. Always take care not to pinch or bend it too much, as described in the Installation Guide.

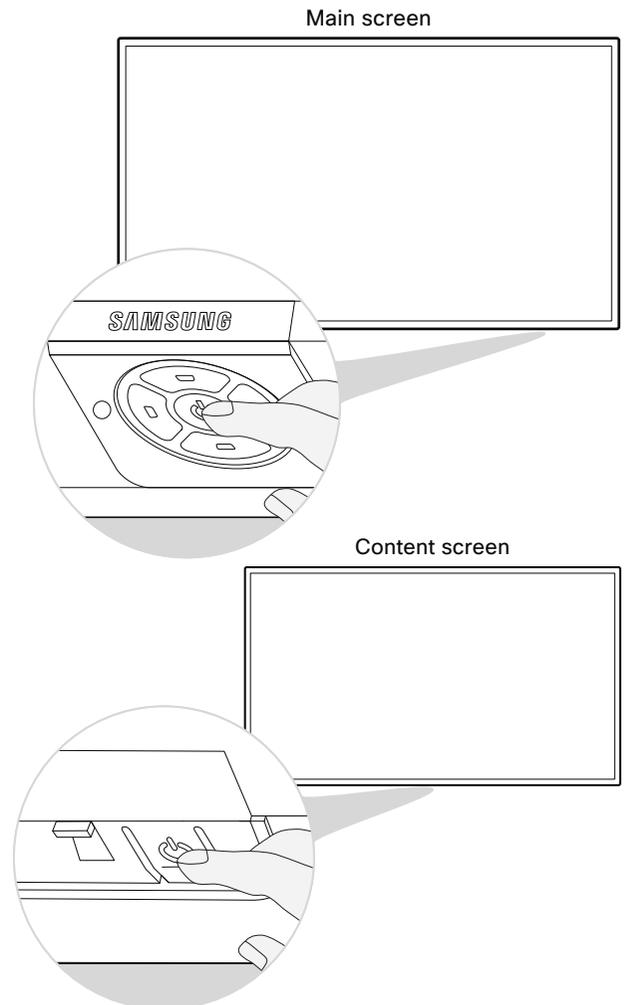
- The **left and right screen** has a connector on its rear side. Use the handle below to pull the screen down.
- Tilt out the **content screen** to access the connectors on its rear side.

Note: See wiring diagrams on the next pages.

Auto power-on

The screens are configured to turn on automatically when you connect the power cord. Also, the screens wake up from standby automatically.

If the screens don't wake up, you can try to unplug the power cord, and connect it again. Or you can tap the power button at the bottom of the screen.



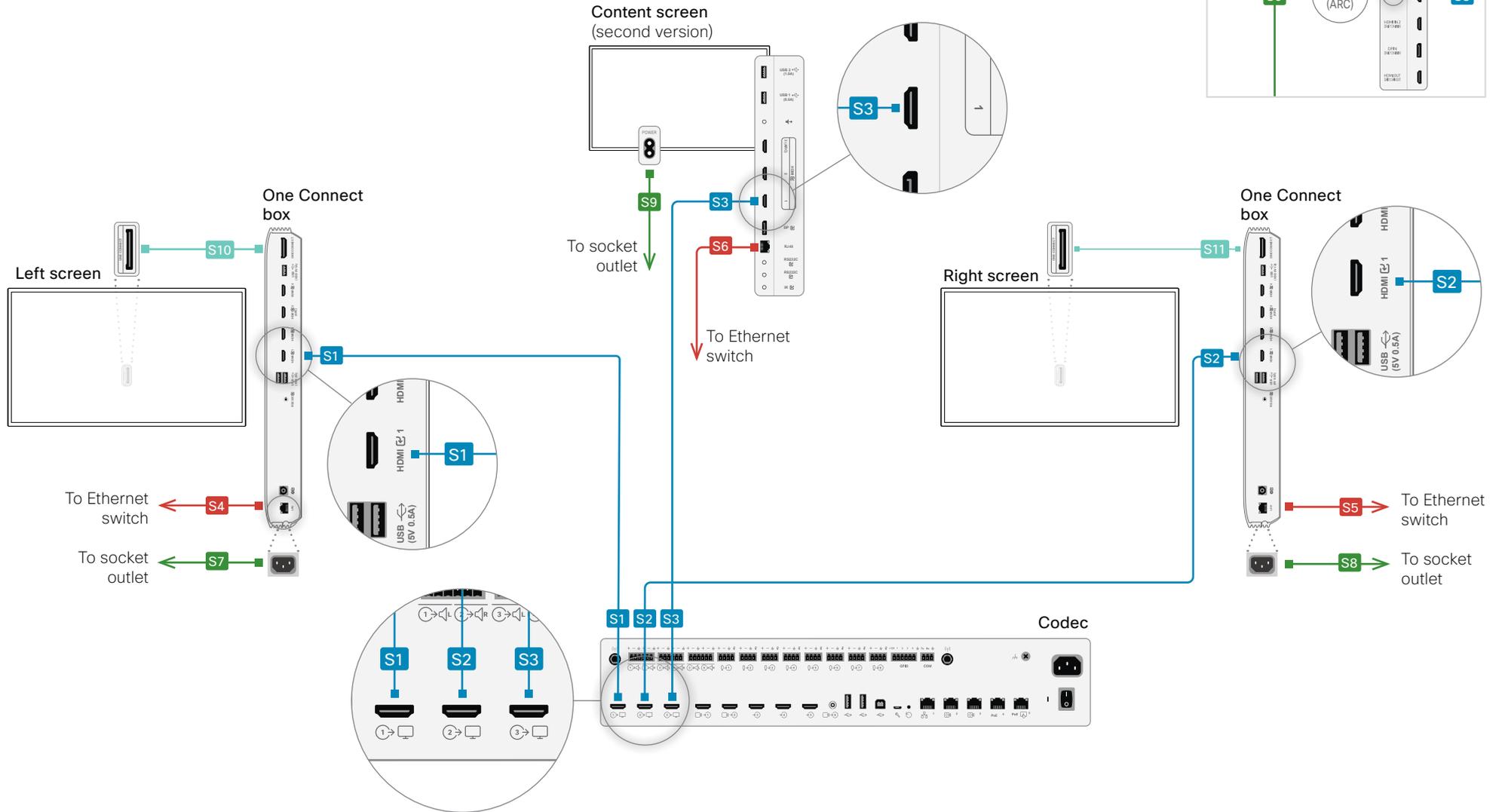
Appendix 1: Fix a screen connection issue (page 2 of 3)

Wiring diagram for Room Panorama with 85-inch main screens

Wiring diagram for systems with 82-inch main screens is on the next page.

Note: A complete Wiring Diagram was shipped with the product.

The diagram is also available online: <https://www.cisco.com/go/panorama-installation>



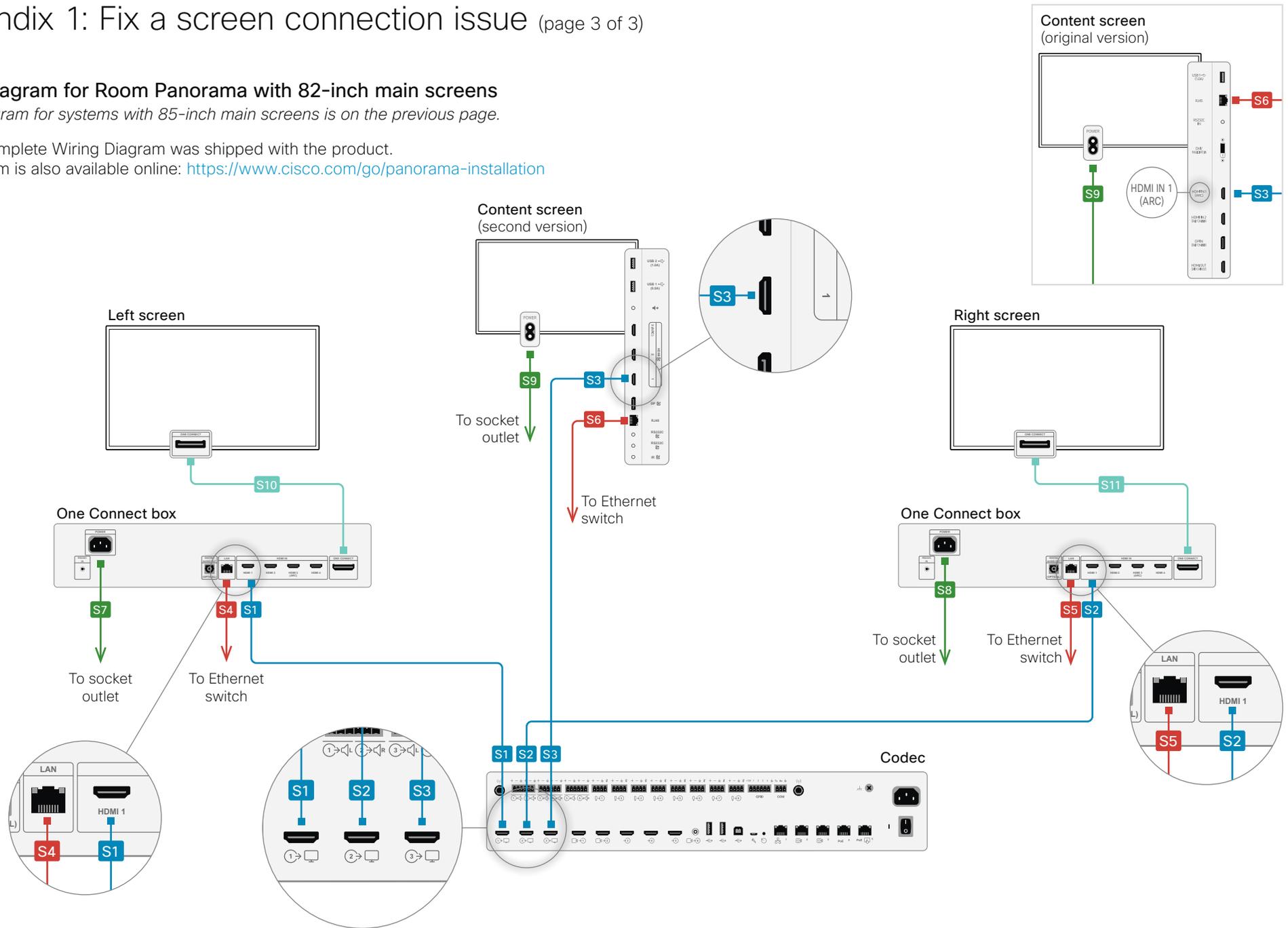
Appendix 1: Fix a screen connection issue (page 3 of 3)

Wiring diagram for Room Panorama with 82-inch main screens

Wiring diagram for systems with 85-inch main screens is on the previous page.

Note: A complete Wiring Diagram was shipped with the product.

The diagram is also available online: <https://www.cisco.com/go/panorama-installation>



Appendix 2: Fix a speaker connection issue (page 1 of 3)

The Room Panorama has the following speakers:

- 12 main speakers, 6 to the left of the camera and 6 to the right. They are behind the speaker grille.
- 4 subwoofers below the main screens, 2 to the left and 2 to the right. They are behind the cosmetic panels.

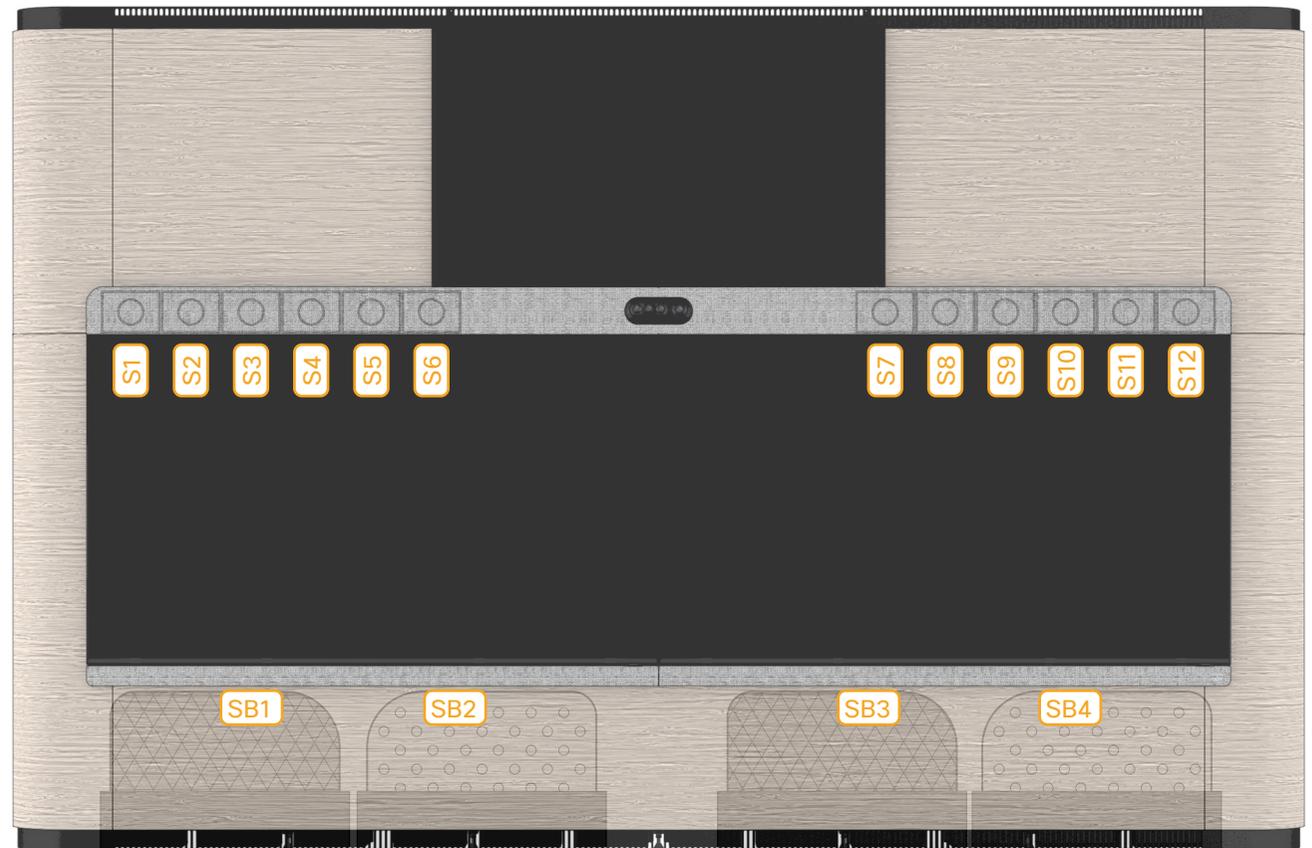
Speaker cables

The speaker cables connect the speakers (both main speakers and subwoofers) to the amplifier.

The speaker cables come as two bundles, one for the left side, and one for the right side.

The end that connects to the amplifier are marked with **Left Speakers ch1-8 (A1)** and **Right Speakers ch9-16 (A2)**.

The end that connects to a speaker is marked as shown in the illustration: **Sn** on the cables to the main speakers, and **SBn** on the cables to the subwoofers.



Appendix 2: Fix a speaker connection issue (page 2 of 3)

Issues with the main speaker connections

Carefully remove the speaker grille to get access to the main speakers. The grille snaps to magnets.

The order of speakers are wrong

This means that wrong cables are connected to some of the speakers.

1. Pull speakers that are in a wrong position gently off their pegs, and disconnect the cable.
2. Check the number that is printed on the cable (close to the connector), and connect it to the correct speaker (see illustration).
3. Push the speaker back onto its pegs.

The left and right speakers are switched

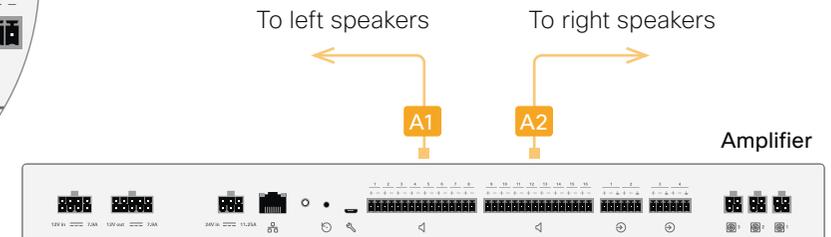
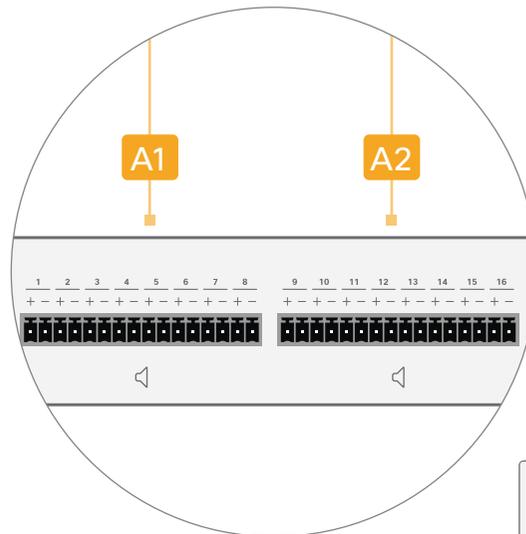
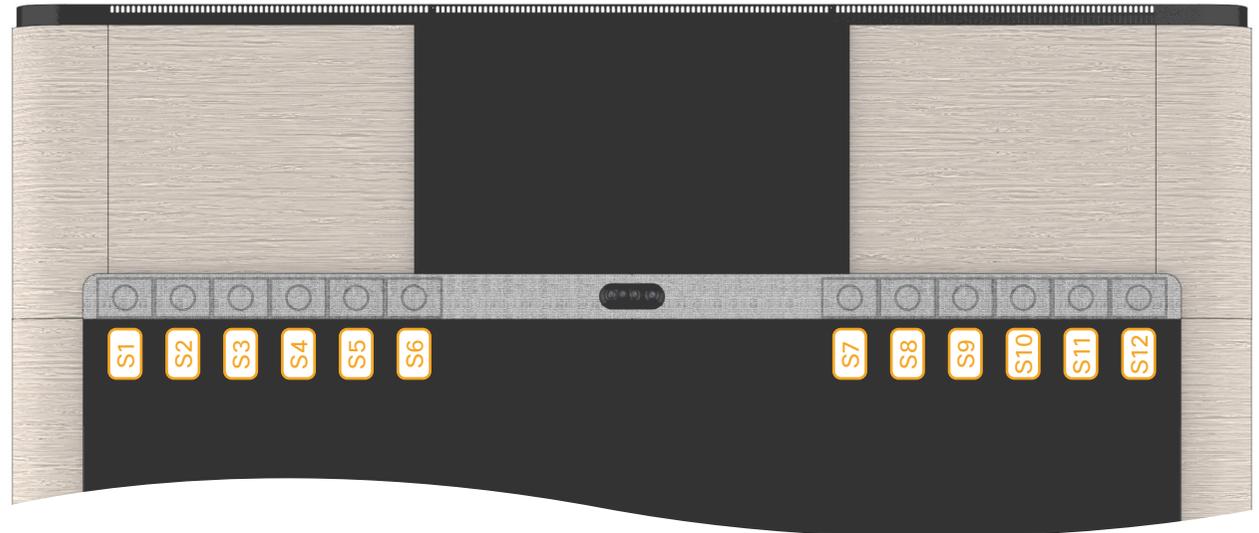
This means that the left and right cable bundles are connected to the wrong amplifier outputs.

1. Use the handle and pull the left screen carefully down, so that you get access to the amplifier. The amplifier is just below the camera.
2. Check that the cable marked with **Left Speakers ch1-8 (A1)** are to the left, and the cable marked with **Right Speakers ch9-16 (A2)** are to the right. You need some force to get the connector fully into the socket.

A speaker doesn't play

This means that the cable is not connected properly to the speaker or amplifier, or the cable is broken.

- Check the connection to the speaker and amplifier, as described in the two sections above.



Appendix 2: Fix a speaker connection issue (page 3 of 3)

Issues with the subwoofer connections

There is no sound from a subwoofer.

Check that the cable is properly connected to the amplifier:

1. Use the handle and pull the left screen carefully down, so that you get access to the amplifier. The amplifier is just below the camera.
2. Check that the cable marked with **Left Speakers ch1-8 (A1)** and **Right Speakers ch9-16 (A2)** are entered fully into the socket. You need to apply some force.

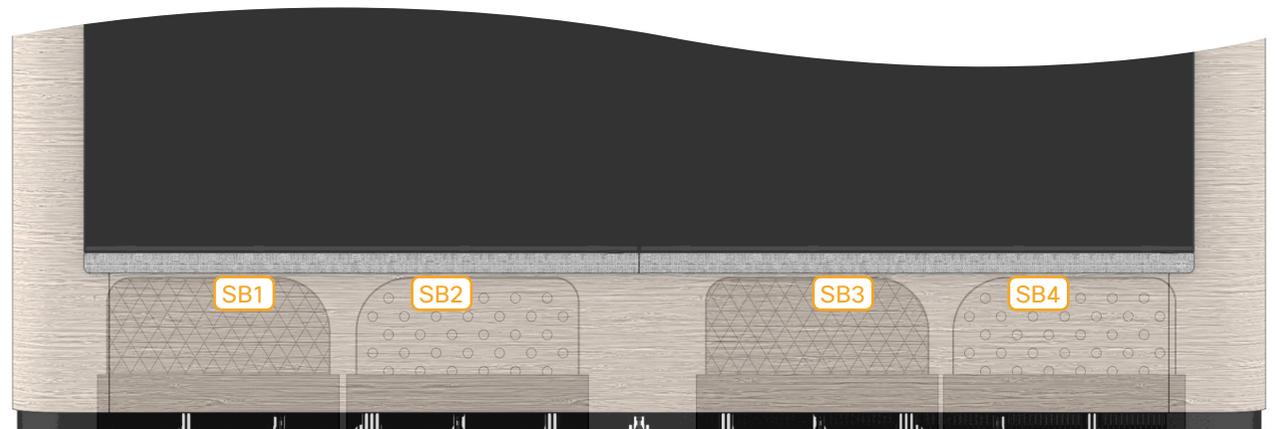
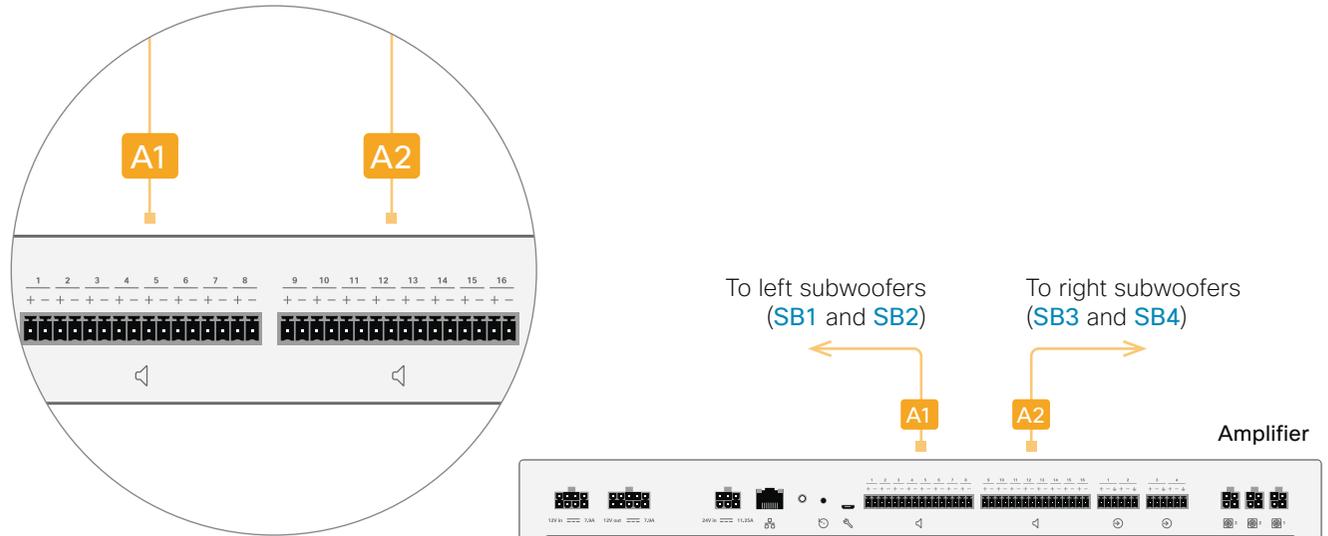
If this doesn't fix the problem, check that the cable is connected to the subwoofer:

1. Remove the trim that is on top of the cosmetic panel in front of the subwoofer. It's fastened with five screws.
2. Carefully loosen or fully remove the cosmetic panel so that you have access to the subwoofer connector.
3. If the cable is not yet connected, it should be hanging down behind the system.

Check the number that is printed on the cable (close to the connector), and connect it to the correct subwoofer (see illustration).

The subwoofer order is wrong

This means that wrong cables are connected to some of the subwoofers. You have to remove the wooden panels and re-connect the cables as described above.



Appendix 3: Chinese requirements for altitudes and tropics

海拔与气候声明

仅适用于海拔2000m以下地区安全使用

仅适用于非热带气候条件下安全使用

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