

Cisco Room Kit Plus: converting for software calling (v2.0)



A Room Kit Plus consists of a Cisco Quad Cam and Codec Plus (control box). The functions of the Quad cam are processed by the Codec Plus. N.B. Although the Quad Cam's specifications mention built-in microphones, those are only used for speaker tracking. The systems will all feature external microphones.

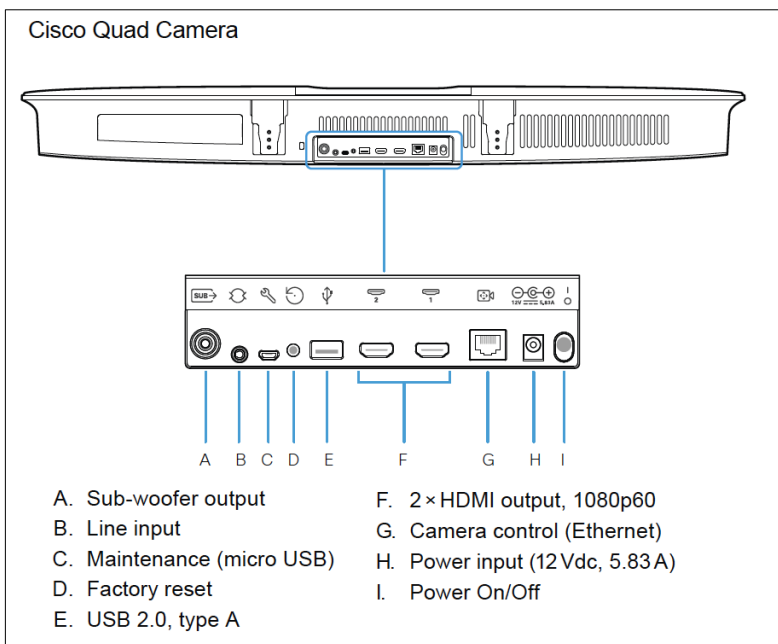


Fig1. Quad Cam Connections

The quad cam's features are controlled by the system's control box. If converting a system to a simplified, high quality video bar for software clients such as MS Teams, Near Me, Webex or Zoom, then the control box must be retained. It controls the PTZ functionality or speaker tracking of the cameras as well as tracking and the echo cancellation of the microphones. The touch panel is also integral and must be kept.

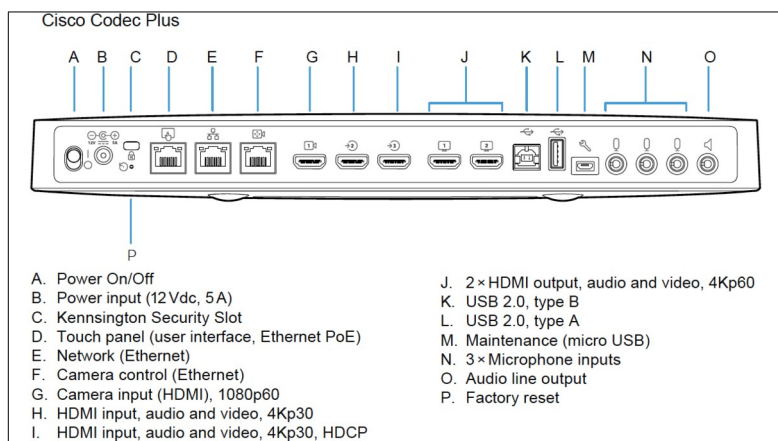


Fig2. Codec Plus (control box) Connections

For software conferencing applications

If you only require software application conferencing (e.g., MS Teams, Near Me, Webex or Zoom), you can use the Room Kit Plus to provide high-quality camera, microphone and audio output capabilities for a room-based PC or laptop. Speaker tracking, echo cancellation, etc. is maintained.

Just in case...

Before undertaking any configuration changes to your system, you may want to take a backup of its current configuration. To do so, get to its web interface, login and choose Backups and Recovery from its left-hand menu. Make sure Select All is ticked and click the Download button to save a copy.

Likewise, before altering your cable connections, you may want to take some pictures of the existing cabling and create a wiring diagram before you change any connections.

1. Software

The Cisco Room Kit Plus should be on Room OS11.5.3 as a minimum.

If upgrading from CE 9, CE10 will need installed first. Some versions of CE10 require incremental upgrades before CE11 can be installed. If the system is networked, with an IP address (or NAT) in the range 10.247.64.0/18, we should be able to update it for you.

2. Touch panel

Once installed, get to the system's web interface and start by going to Settings. Set Video/Output/HDMI/Passthrough/Allowed to True (remember to Save). That action results in a 'Call from Laptop' button appearing on the touch-panel. While you are in that setting and assuming you no longer need to make standards-based video calls (you will be using a software application instead), you should change the behaviour of that new Call from Laptop button. To do so, change Video/Output/HDMI/Passthrough/AutoDisconnect > Enabled: from True to False (then Save) - which keeps Call from Laptop running until manually closed.

Other changes can be made in the web interface, as necessary.

From January 2024, your system will lose its ability to register and call through NHS Scotland's video infrastructure. From that point, the touch panel and system would show a "Not Registered" message. To prevent that, you will need to change Settings/UserInterface/ContactInfo Type to SystemName or None.

Carrying on from there we'll hide the Tips button: Settings/UserInterface/Help Tips and change from Auto to Hidden.

You can hide the Share Screen button: scroll down to Features. Change Share Start from Auto to Hidden.

To hide the Call button, get to the Call section within Features and change Start from Auto to Hidden

Then hide the Webex button: change JoinWebex to Hidden (further down within the Features/Call section).

Now Save and the buttons will be gone from the system's touch panel.

People can get confused by connected microphones with their own mute buttons. For simplicity, all muting and unmuting should be done using the software application. To disable the mute buttons of any attached microphone, set Audio/Microphones/HdmiPassthrough/MuteButton to Inactive.

3. Cable connections

You will require an HDMI to USB video capture card. This takes the output from the Room Kit plus and makes it available to your PC. There are many available from £20-£750. We have found success with a

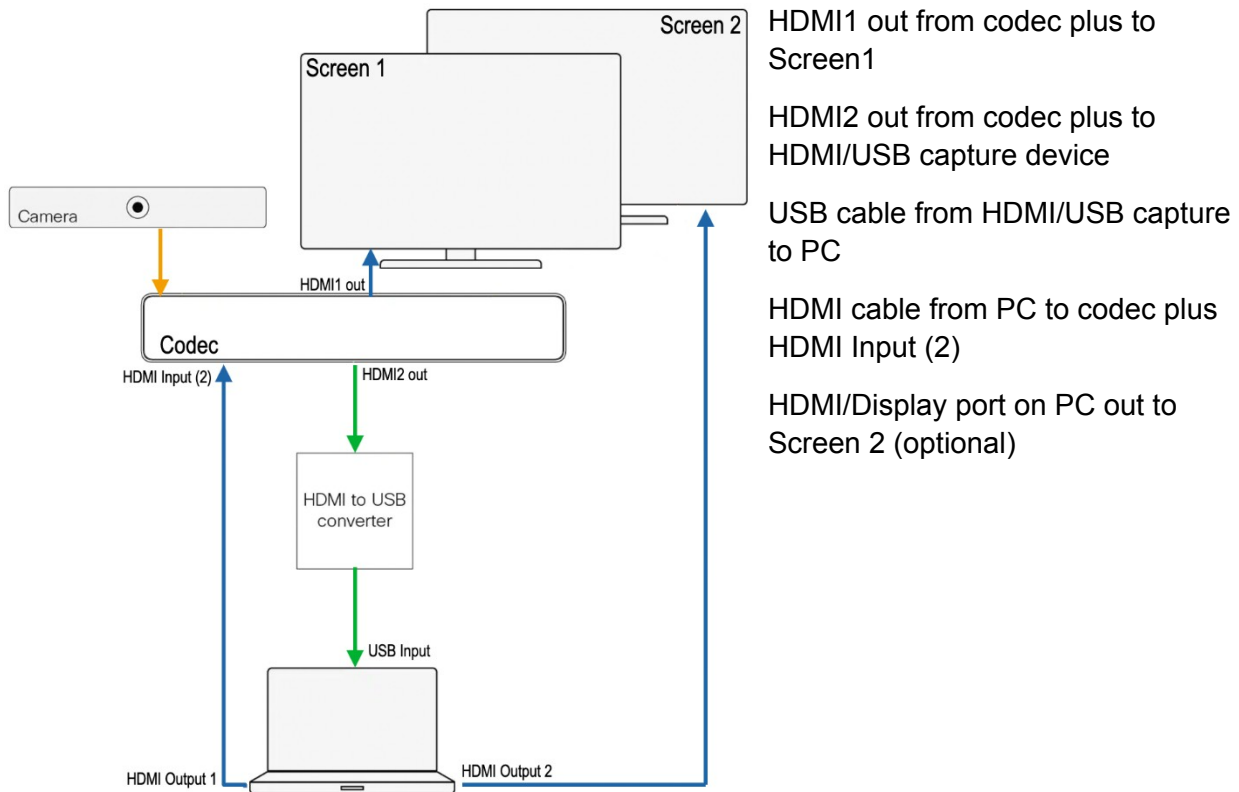


number of devices, around £30, calling themselves something like, "4K Audio Video Capture Card, HDMI USB 3.0 Video Capture Device" such as the Digitnow one pictured. The Lindy 43235 HDMI to USB 3.0 Video Capture Device at around £20 works well too. Cisco seems to recommend a particular [Inogeni](#) capture card.

4. Desktop/Laptop

For a twin-screen setup, a PC with two or more video output ports will be required.

Basic cable connections



If possible, set the defaults for camera, mic and speakers on the PC to the required ones described below. See our website for end-user guides.

Software Connection Settings

For software conferencing use, the application should have *USB HDMI capture card* (or similar) selected for camera and microphone. For audio output from the Quad Cam, select CS-CODECPLU.

Problem solving

When USB mode detects no video input signal from a computer, it is designed to disengage USB mode. An active presentation is required for USB mode to work. If the PC is off and is then turned on, the Share from Laptop button will probably need tapped to function. If the PC is restarted while the system is in USB mode, the Share from Laptop button will probably need tapped to function.