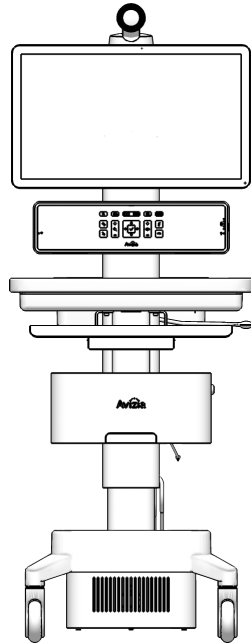


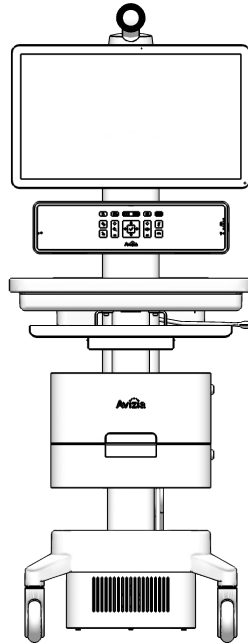


# CA750

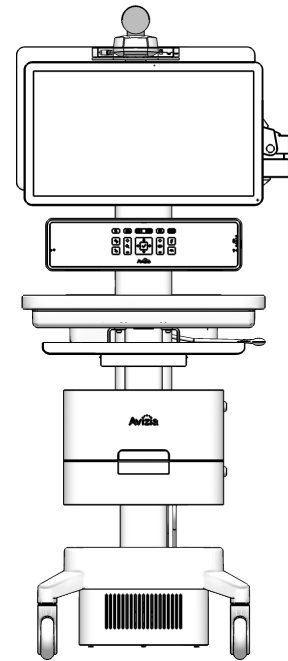
## User & Installation Guide



AVZ-CA750-1-IP40



AVZ-CA750-2-IP40



AVZ-CA750-3-IP40

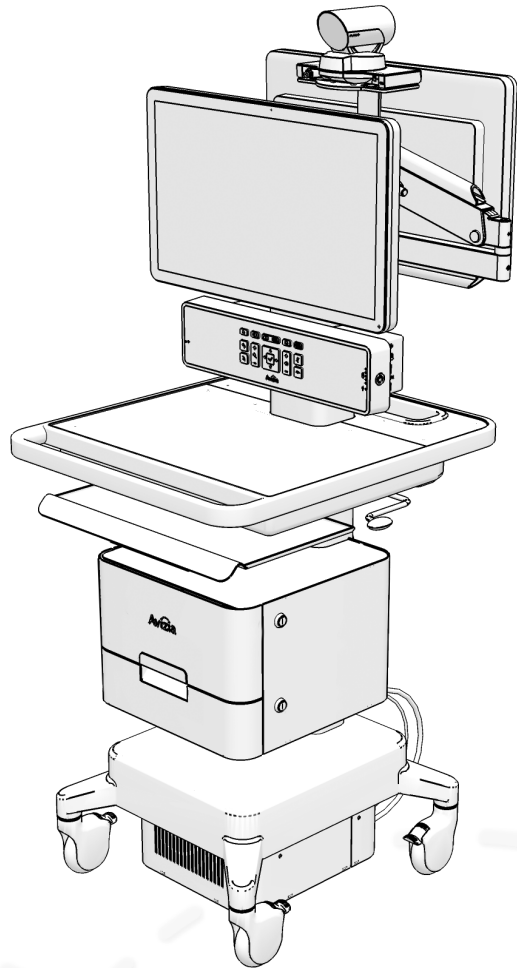
AVZ-CA750-DOC-UIG-04 (270593.D)

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# Table of contents

Table of contents .....	2	Controlling the camera.....	26
Before getting started.....	3	Camera controls.....	26
Indications for use.....	4	Selfview .....	26
Contraindications .....	4	Controlling volume and microphone .....	27
Safety precautions.....	5	Adjusting the speaker volume.....	27
Warnings .....	5	Turning microphone on and off.....	27
Environmental considerations .....	5	Navigating the menus.....	28
Waste handling.....	5	Making a video call .....	29
Warnings.....	6	Placing a call .....	29
Operator safety summary .....	7	When in a video call .....	30
Important safeguards .....	8	Using the PC .....	30
Equipment markings .....	9	Presenting an auxiliary device.....	31
Getting started .....	10	Presenting an electronic or digital stethoscope.....	32
Initial setup .....	11	Using headphones or a headset microphone.....	33
Best practices .....	12	Overview of typical display outputs.....	34
System overview .....	13	Maintaining the system.....	35
Console overview.....	14	Displaying system information .....	36
Power indicator LED states .....	14	Cleaning and maintenance guidelines .....	37
Console connections overview .....	15	Cleaning the system .....	37
Power considerations and configuration .....	16	Maintaining the system.....	37
Turning the system ON.....	17	Battery guidelines .....	38
System power modes.....	18	Installing updates .....	39
Network considerations and configuration .....	19	Factory defaulting the system.....	40
Connecting to a wired network.....	21	Storing the system.....	41
Connecting to a wireless network .....	22	Short-term storage.....	41
Using the system .....	23	Long-term storage.....	41
Adjusting the system height.....	24	Troubleshooting.....	42
Raising the work surface.....	24	Product Specifications .....	43
Lowering the work surface .....	24		
Adjusting the second display .....	25		

# Before getting started



- Indications for use
  - Contraindications
- Safety precautions
  - Warnings
  - Environmental considerations
  - Waste handling
- Warnings
- Operator safety summary
- Important Safeguards
- Equipment markings

# Indications for use

The Avizia CA750 enables secure and effective audio/video communication between multiple healthcare providers and between providers and patients. The system transmits real-time audio and video captured by a high-definition camera and integrated microphone. It also receives real-time audio and video from a similar system in a remote location. Finally, the CA750 supports transmission of real-time audio and video from peripheral audio/visual medical devices, which may be connected to standard audio and video inputs provided on the system.

The CA750 is intended to facilitate remote provider/patient and provider/provider consultations. These consultations should always be conducted with a licensed medical professional physically in the room with the patient.

## Contraindications

The CA750 is not intended to substitute for the in-person physical examination of a patient or as a substitute for direct medical intervention. It is also not intended for real-time, active, or online patient monitoring, nor is it intended to provide time sensitive data or alarms. The CA750 does not support transmission of numerical telemetric/serial data and is not intended for use with non-audio/visual medical devices.

# Safety precautions

## Warnings

Do not modify this equipment without authorization from the manufacturer!

Precaution should be taken during transportation of the system. It is recommended that the operator use caution when wheeling the unit over doorstops and/or into elevators to ensure their safety and prevent damage to the unit.

### For Customers In North America

This equipment complies to the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, which may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment

## Environmental considerations

Thank you for buying a product which contributes to a reduction in pollution, and thereby helps save the environment. Our products reduce the need for travel and transport and thereby reduce pollution. Our products have either none or few consumable parts (chemicals, toner, gas, paper). Our products are low energy consuming products.

### Battery Handling

Batteries for the Remote Control are Long Life Alkaline batteries; please follow guidelines on the packing material for handling and disposal of the batteries.

The system enclosed rechargeable battery is non-user replaceable and should be removed by a qualified service technician only.

**CAUTION**  
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO MANUFACTURER INSTRUCTIONS.

### Production of Products

Our factories employ efficient environmental methods for reducing waste and pollution and ensuring the products are recyclable.

## Waste handling

### EU Battery and WEEE Directives

For product safety and data integrity reasons the permanently affixed battery should only be removed or replaced professionally by a repair technician or waste management professional. Please contact Avizia or an authorized service agent if the product fails to perform due to malfunction of the permanently affixed battery.



This symbol on the product, battery or packaging means that the product and/or battery should not be disposed of with your household waste.

It is your responsibility to dispose of your waste equipment and batteries separately from your household waste and in accordance with local laws and regulations. The correct disposal of your old equipment and batteries will help prevent potential negative consequences for the environment and human health.

Please use the nearest waste collection facility as directed by your municipality or your retailer.

# Warnings

## Not Intended For Dialing Emergency Medical Services

The CA750 is not intended to make emergency calls. In the event of an emergency, the user should use a telephone or device other than the CA750 to call local emergency services.

## Use medically approved devices

Ensure that any device connected to the CA750 power outlets conforms to IEC 60601-1 standards in order to maintain compliance. Connecting electrical equipment to the CA750 effectively creates a new system, which can result in a reduced level of safety.

## Loss of Connectivity

During the use of the CA750, a healthcare professional may lose connectivity with the system. Loss of connectivity can result from power outages, network outages, failure in the CA750 software/hardware, or other causes. Loss of connectivity can prevent a health care professional from completing a patient session in a timely manner. In cases where time is critical, the user should not use the CA750 and seek an in-person examination from a licensed health care professional.

## Delay or Choppiness of Audio or Video Transmission

The CA750 may operate at a delay of up to 150 milliseconds, depending on network condition. This means that the provider may experience the audio and video transmissions later than they are really occurring. In cases where the remote health care provider needs to make time sensitive assessments or give instructions this delay may result in misalignment of audio and visual transmissions to the real-time procedure and/or inappropriate treatment or diagnosis.

## Proper Training Is Required

Healthcare professionals using the CA750 should be sufficiently trained and familiar with the Installation and User Guide and the instructions for use. Please refer to this guide under “Troubleshooting”, “Safety Precautions” and “Operator Safety.”

Go to <http://support.avizia.com> for additional support content.

## Audio and Video Distortions

The CA750 can experience audio and video distortions due to network latency, software/hardware malfunction, insufficient bandwidth, or for other reasons. If audio or video is not of sufficient quality for the intended use of the CA750, please refer to:

- this guide under “Technical Specifications” and “Troubleshooting,” or visit: <http://support.avizia.com>
- Cisco SX20 codec documentation at: <http://cisco.com/go/sx-docs>

## Network and Signal Input/Output

The network and signal input/output ports must only be connected to Low Voltage SELV connections.

# Operator safety summary

For your protection, please read these safety instructions completely before operating the equipment and keep this manual for future reference. The information in this summary is intended for persons who operate the equipment as well as repair (servicing) personnel. Carefully adhere to all warnings, precautions and instructions on the apparatus, and the ones described in the operating instructions.

Also, adhere to safety guidelines found in manuals for any peripheral equipment.

**This system contains no user-serviceable**

**parts:** The system enclosed battery (rechargeable battery for use in temporary relocation) in this product is non-user replaceable and should be removed by a qualified service technician only.



To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.



**Lower before transporting:** For your safety and to protect the CA750, fully lower the work surface before transporting the system. Pushing or pulling the system with any part of the system other than its handle may result in damage to the system.

**Traversing thresholds and obstacles on the**

**ground:** Use the system handle to PULL the system safely across thresholds, cords, cables, and other potential obstacles on the ground. Always fully lower the work surface before transporting the system.

- **Water and moisture** - Do not operate the equipment under or near water - for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool or in areas with high humidity.
- **Cleaning** - Unplug the apparatus from the wall outlet before cleaning or polishing. Please adhere to the general cleaning guidelines found in this document's section: "Cleaning the System."
- **Power-Cord Protection** - Route the power cord so as to avoid it being walked on or pinched by items placed upon or against it, paying particular attention to the plugs, receptacles, and the point where the cord exits from the apparatus.
- **Mobility** - Before transporting the system unplug the power cord and wrap it around the cable hook. Also ensure that the camera and display are in the operational position (facing forward) and not in the maintenance position (facing upward). Use the system handle to maneuver the system. Pull the system over thresholds, cords, cables, and other obstacles on the ground. Fully lower the work surface before transporting the system.
- **Ventilation** - Do not block any of the ventilation openings of the apparatus. Install in accordance with the installation instructions. Never cover the slots and openings with a cloth or other material. Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- **Attachments** - Only use attachments as recommended by the manufacturer.
- **Accessories** - Use only accessories intended for use with this system.
- **Lightning** - Unplug this apparatus during lightning storms or when unused for long periods of time.
- **Servicing** - Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- **Opening the System** - Do not open system service panels while system is in use.
- **Storage** - If you need to store the system, ensure that it is stored in a controlled environment to avoid damage. Refer to the codec documentation for further guidelines.
- **Repacking** - We recommend you save and store the system's packing materials. They make for an ideal container with which to transport the system.
- **Damaged Equipment** - Unplug the apparatus from the outlet and refer servicing to qualified personnel under the following conditions:
  - When the power cord or plug is damaged or frayed
  - If liquid has been spilled or objects have fallen into the apparatus
  - If the apparatus has been exposed to rain or moisture
  - If the apparatus has been subjected to excessive shock by being dropped, or the unit has been damaged
  - If the apparatus fails to operate in accordance with the operating instructions.
  - Cart is heavy. Move with caution.
  - Use wheel locks when cart is stationary.
  - Fold in 2nd monitor in proper position before transporting.

# Important safeguards

## Using System in a Medical Environment

No currently available technology can completely substitute the in-person physical examination of an individual patient. Avizia Telemedicine products provide high quality audio and video experiences; when used properly, these products provide a valuable tool for medical professionals. The use and value of the system will vary depending on the specific circumstances of the patient condition, data transmission speeds, and the capabilities of the local environment. Ultimately, the local medical professional supervising the patient's care should judge how this system is to be utilized.



The leakage current could increase when connected to other equipment.

## Warning on Power Connection

Use only with the supplied power cords or cords that meet local hospital-grade requirements. Users in the United States and Canada should use hospital-grade cords that meet the following requirements:

	United States	Canada
Plug Type	Hospital Grade	Hospital Grade
Cord Type	SJT3 x 16 AWG	SJT3 x 16 AWG
Minimum Cordset Rating	13A/125V	13A/125V
Safety Approval	UL	UL

NEVER USE AN EXTENSION CABLE TO POWER THE SYSTEM.

## ElectroStatic Discharge (ESD)

When subjected to an electrostatic discharge the Precision-HD camera image may suffer momentary interruption - this will self-recover in a few seconds after the discharge.

To avoid excess electrostatic discharge, floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.



# Equipment markings



The “exclamation mark” within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions within literature accompanying the equipment.



Pushing or pulling the system with any part of the system other than the handle may result in damage to the system. Always fully lower the work surface before transport and use the system handle to maneuver.



Manufacturer



Use the handle to pull the system safely across thresholds, cords, cables, and other potential obstacles on the ground. Always fully lower the work surface before transporting the system.



Follow instructions for use.  
Suivez les instructions d'utilisation.

## NOTICE

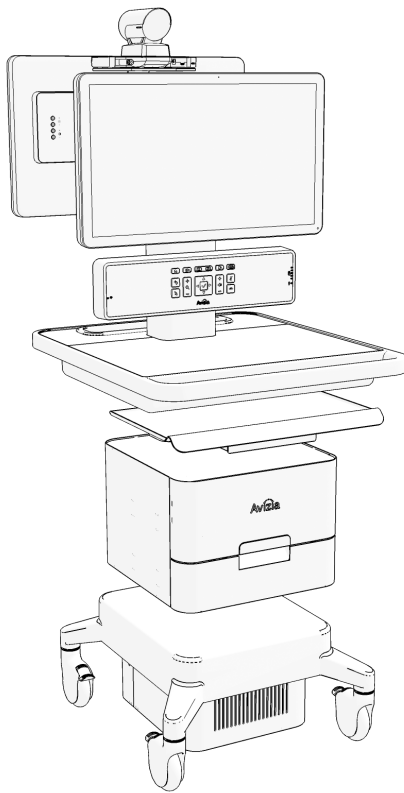
No currently available technology can completely substitute the in-person physical examination of an individual patient. Avizia Telemedicine products provide high quality audio and video experiences; when used properly, these products provide a valuable tool for medical professionals. The use and value of the system will vary depending on the specific circumstances of the patient condition, data transmission speeds, and the capabilities of the local environment. Ultimately, the local medical professional supervising the patient's care should judge how this system is to be utilized.

## NOTICE

The plug below has a 1 AMP max.

*Located on the rear of the system on the system column.*

# Getting started

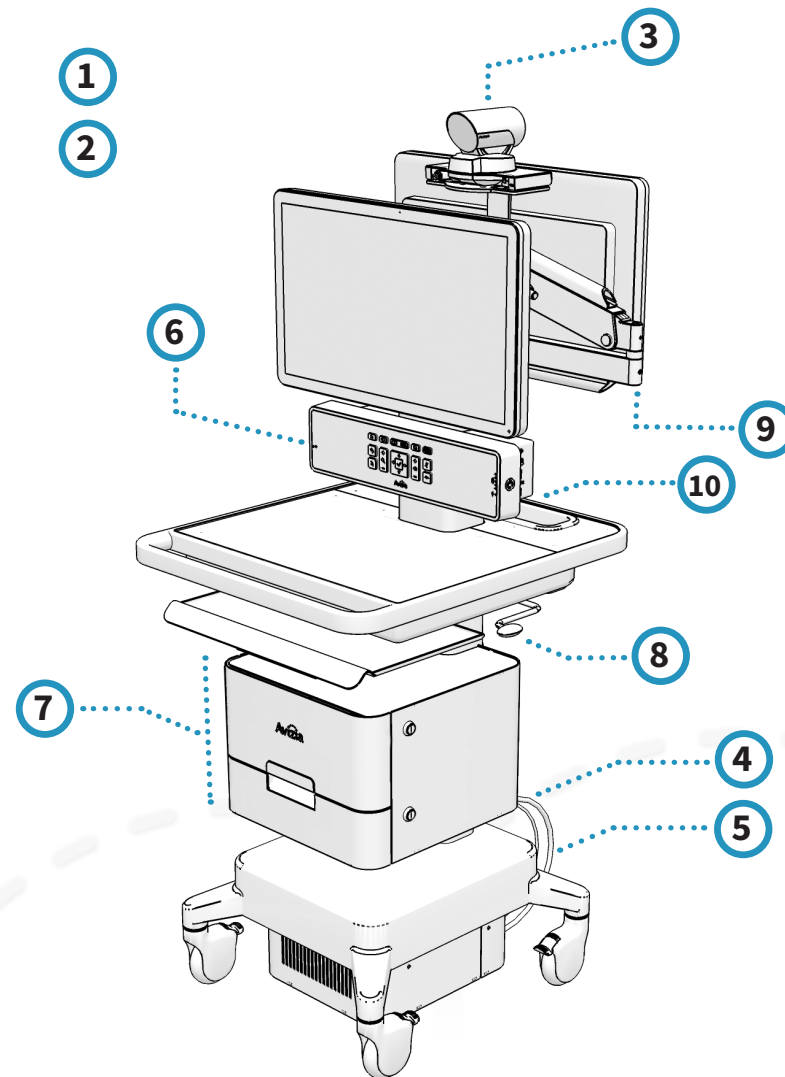


- Initial setup
- Best practices
- System overview
  - Console overview
  - Power indicator LED states
- Power considerations and configuration
  - Turning the system ON
  - Power modes
- Network considerations and configuration
  - Connecting to a wired network
  - Connecting to a wireless network

# Initial setup

Refer to the **Avizia CA750 Quick Start Guide** (included with the system packaging) for procedures pertaining to initial system setup. The Quick Start Guide includes the following items:

1. System overview
2. Unpacking the system
3. Mounting and connecting the camera
4. Providing system power and turning on the cart
5. Providing network using an Ethernet cable
6. Providing network using a wireless network
7. Peripheral drawer and PC drawer option
8. Adjusting the cart height
9. Adjusting the second display arm
10. Utilizing Auxiliary power



The **CA750 Quick Start Guide** (AVZ-CA750-DOC-QSG) is included on the outside of the system packaging. It can also be found online at <http://support.avizia.com>.

# Best practices

## Enable Auto-answer

Setting your system to auto-answer can be a good way to make sure you don't miss a call. You can toggle auto-answer on by accessing the Cisco codec menu system with the system console controls.

Press ☒ (OK) to bring up the Home menu and use the Directional pad to navigate the system menu:

- HOME > SETTINGS > CALL SETTINGS...
- Configure the auto answer settings

We recommend you download the user documentation for details and advanced Cisco SX20 codec functions. Go to: <http://cisco.com/go/quickset-docs>.

## Plug in when storing system

We recommend that the system is plugged in to an electrical outlet when storing the CA750. This ensures that the system battery maintains a full charge and is ready when needed.

## Use call history for quick redial

When calls are placed, missed or received, navigating to your Recent calls list allows you to utilize contacts quickly.

Press ☒ (OK) to bring up the Home menu and use the Directional pad to navigate the system menu:

- HOME > CALL > RECENT CALLS...
- Select contact to call

## Save frequently called numbers

You can save frequently called or favorite video numbers to make them that much easier to call.

Press ☒ (OK) to bring up the Home menu and use the Directional pad to navigate the system menu:

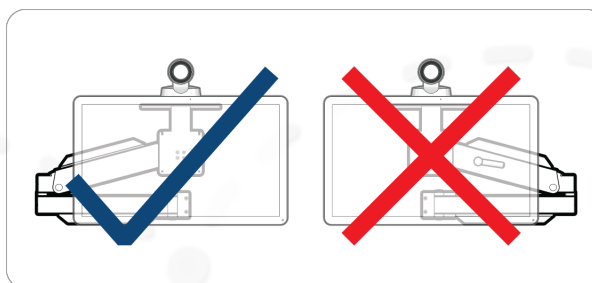
- HOME > CALL... select **PHONE BOOK** or **RECENT CALLS...**
- Select contact and choose **SAVE TO MY CONTACTS**

To place a call from the My contacts directory, press ☒ (OK) to bring up the Home menu and use the Directional pad to navigate the system menu:

- HOME > CALL > PHONE BOOK > MY CONTACTS...
- Select contact to call

## Storing the second display

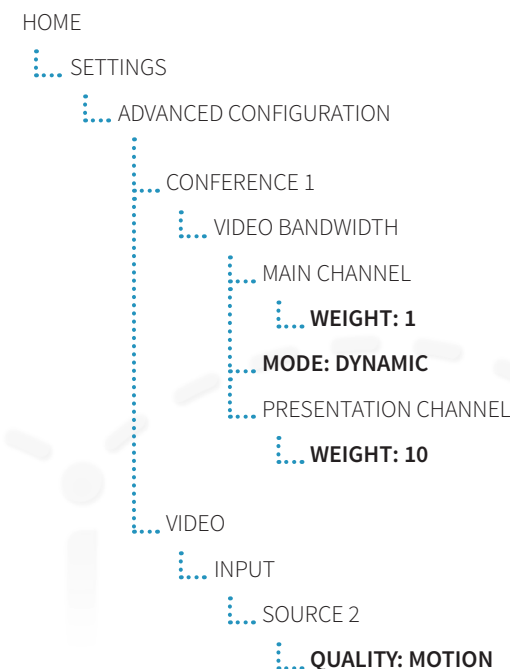
When collapsing the second display to its folded position, heed the labels on either side of the arm and ensure that the bend in the arm is positioned to the left of the second display as you are facing the back of the cart.



## Set peripheral sharing resolution

The CA750's content sharing settings are factory set to optimize the bandwidth allocation to the shared content source when in a video call. As call bandwidth decreases, the codec will allocate more bandwidth to the shared content stream from the main source stream. This allows the shared content (scope image, computer presentation, etc.) to be presented as clearly as possible in lower bandwidth situations.

The default settings are found in the following menu tabs, and can be adjusted as needed or desired:



# System overview

## What's included:

- CA750 system cart
- PrecisionHD Camera with camera mounting screw
- Display (single or dual display with articulating arm)
- Remote control with batteries
- Key for locking drawer(s)
- Auxiliary power share cord
- USB flash drive
- Hex key set

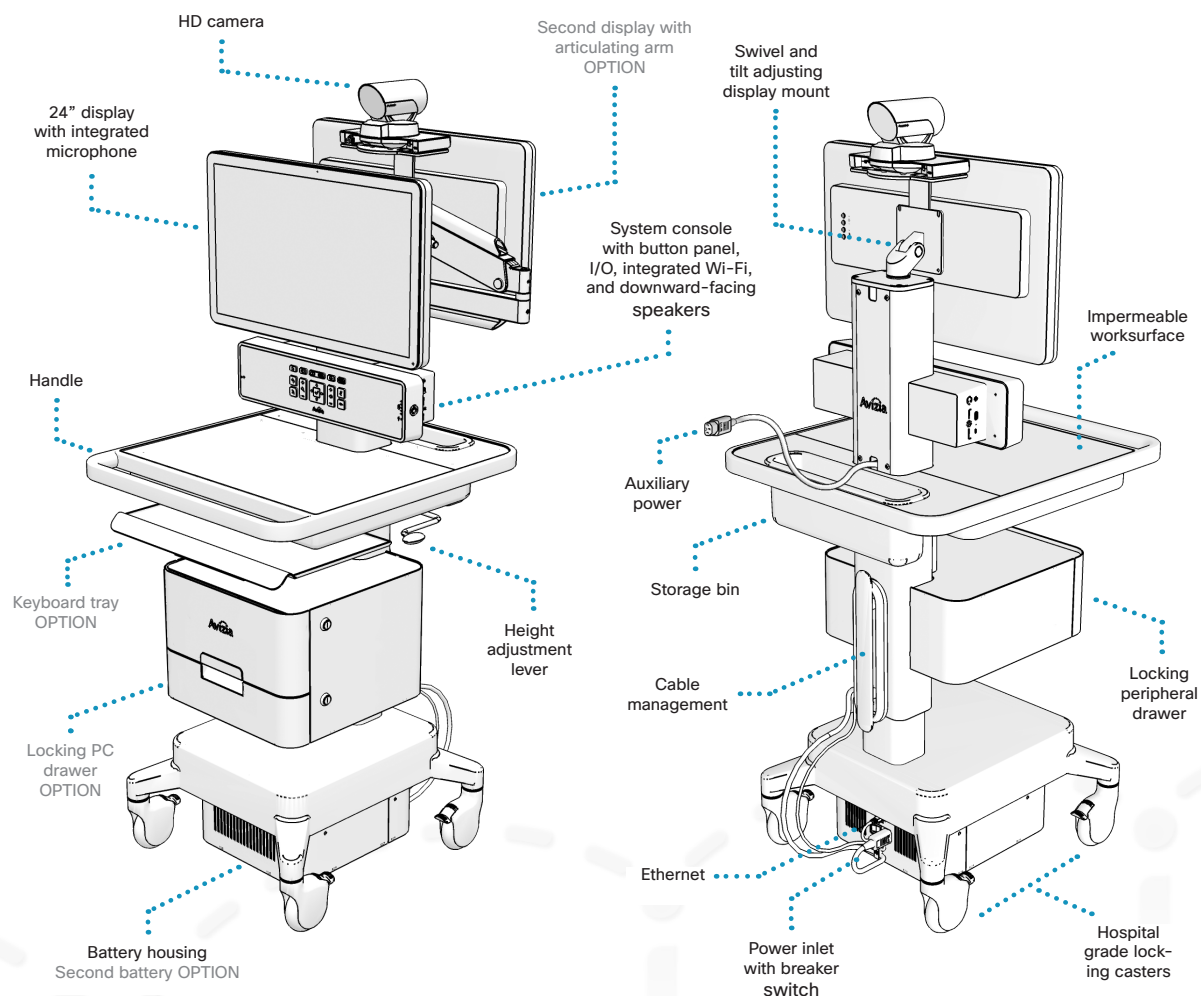
## Configurations and Options:

- MultiSite certificate
- HORUS Scope and accessories
- PC drawer with cables (power, Ethernet, 3.5mm audio, and HDMI to HDMI) — to integrate a user-supplied Ultra-Small Form Factor (USFF) PC.
- Keyboard tray
- Retractable power and/or network caddy

## Tools Required for Assembly

Refer to the **CA750 Quick Start Guide** (AVZ-CA750-DOC-QSG) included on the outside of the system packaging for initial assembly and setup.

The user documentation for this product, including compliance and safety information, is found on the Avizia website. Go to <http://www.avizia.com>.

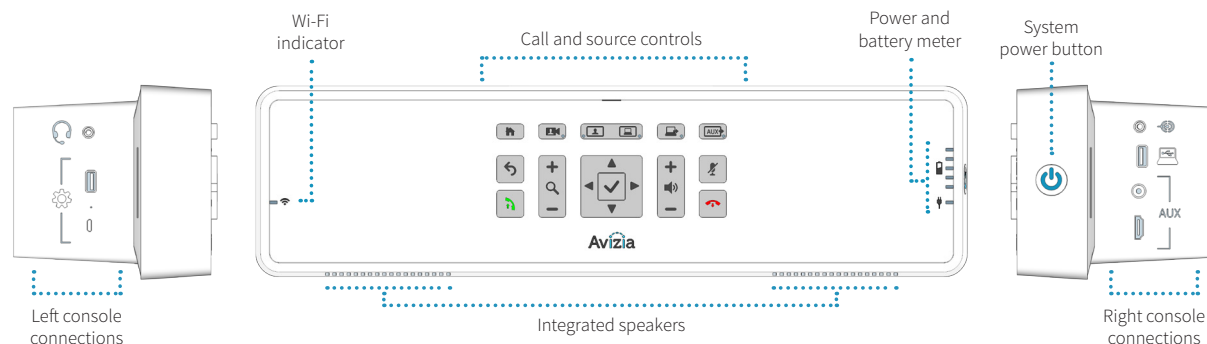


# System overview

## Console overview

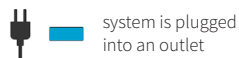
System navigation, call controls, and connectivity to peripheral sources can all be done through the system's console.

Please see [Using the system](#) to understand the console interface and how to use the CA750 system.

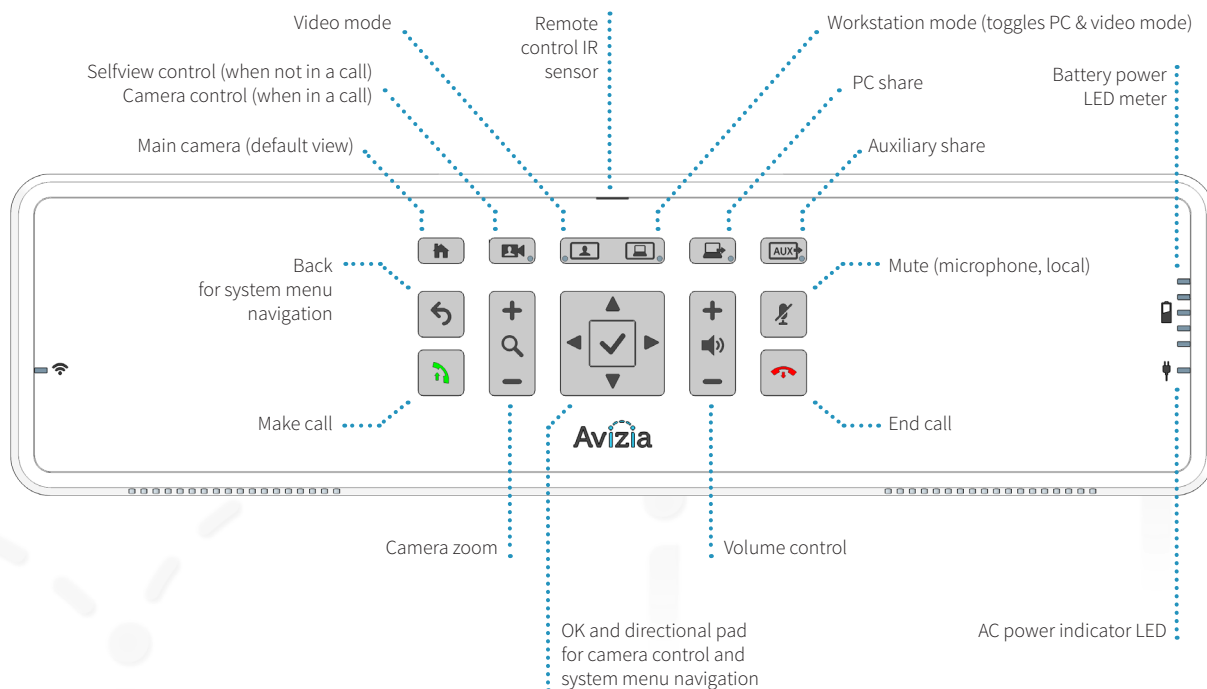
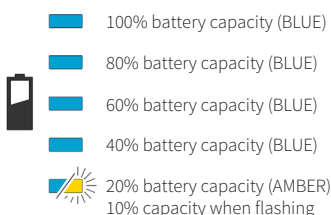


## Power indicator LED states

### AC Power



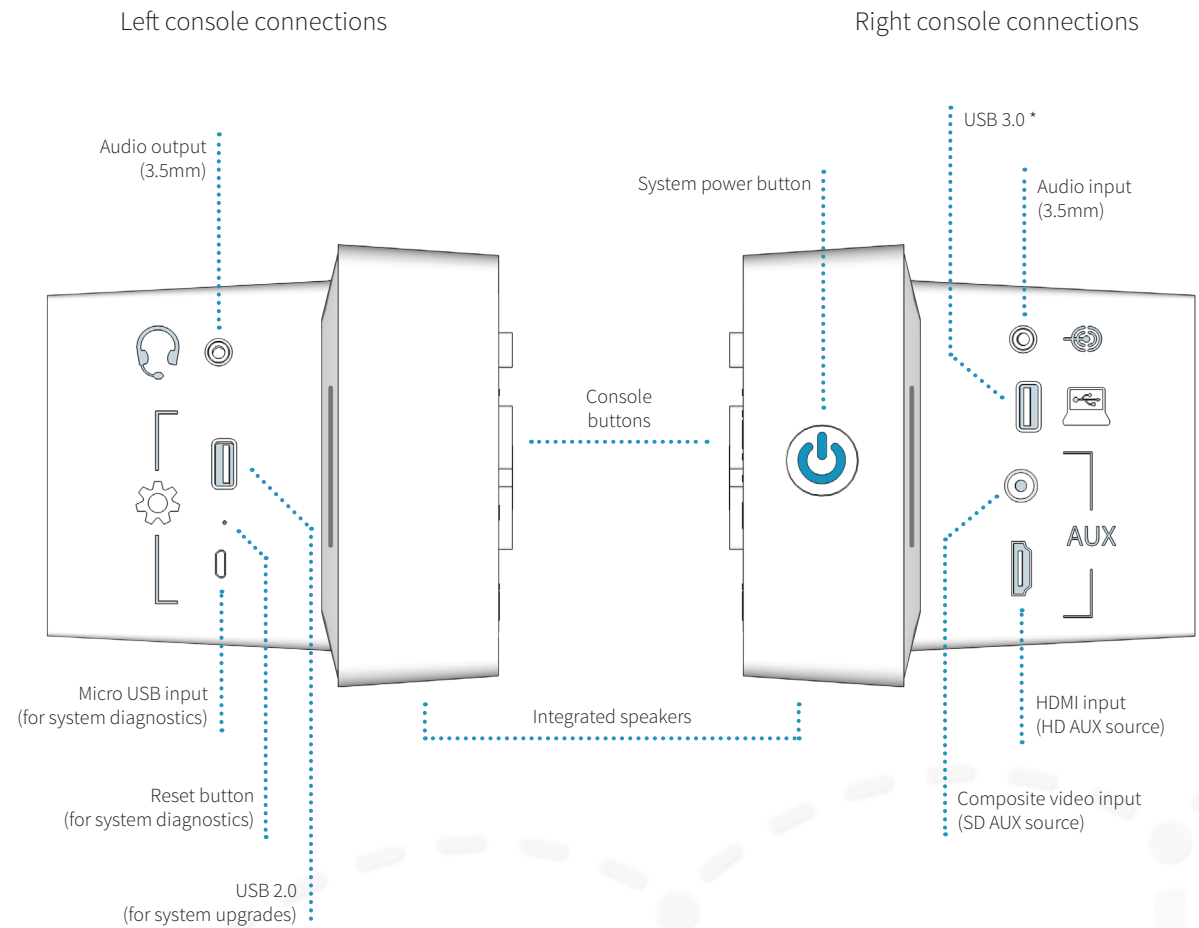
### Battery meter



# System overview

## Console connections overview

The left and right console connections allow the user to connect peripheral devices that will enhance the CA750's capabilities.



\* USB port provides only charging functionality when there is no PC integrated into the optional PC drawer. When a PC is integrated into the optional PC drawer with the provided USB connection, the console's USB port functions as an extension or hub to the PC's USB port.

# Power considerations and configuration

The CA750 can run on AC or battery power.

When the system is plugged into an outlet, the Power LED on the System Console will light up solid blue in about 10 seconds. The integrated battery will also begin charging.



Though the system will arrive with some charge, we recommend you charge the system battery for at least 4 hours before running on battery power.



Smart power management will prevent over-charging and provide feedback for remaining battery capacity.

Each system includes a standard single or optional dual battery to power the cart when not connected to AC power.

SINGLE BATTERY      DUAL BATTERY (OPTION)

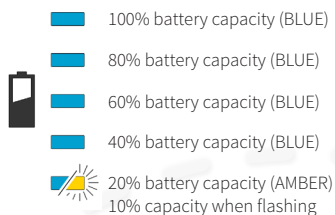


RUN TIME  
CHARGE TIME

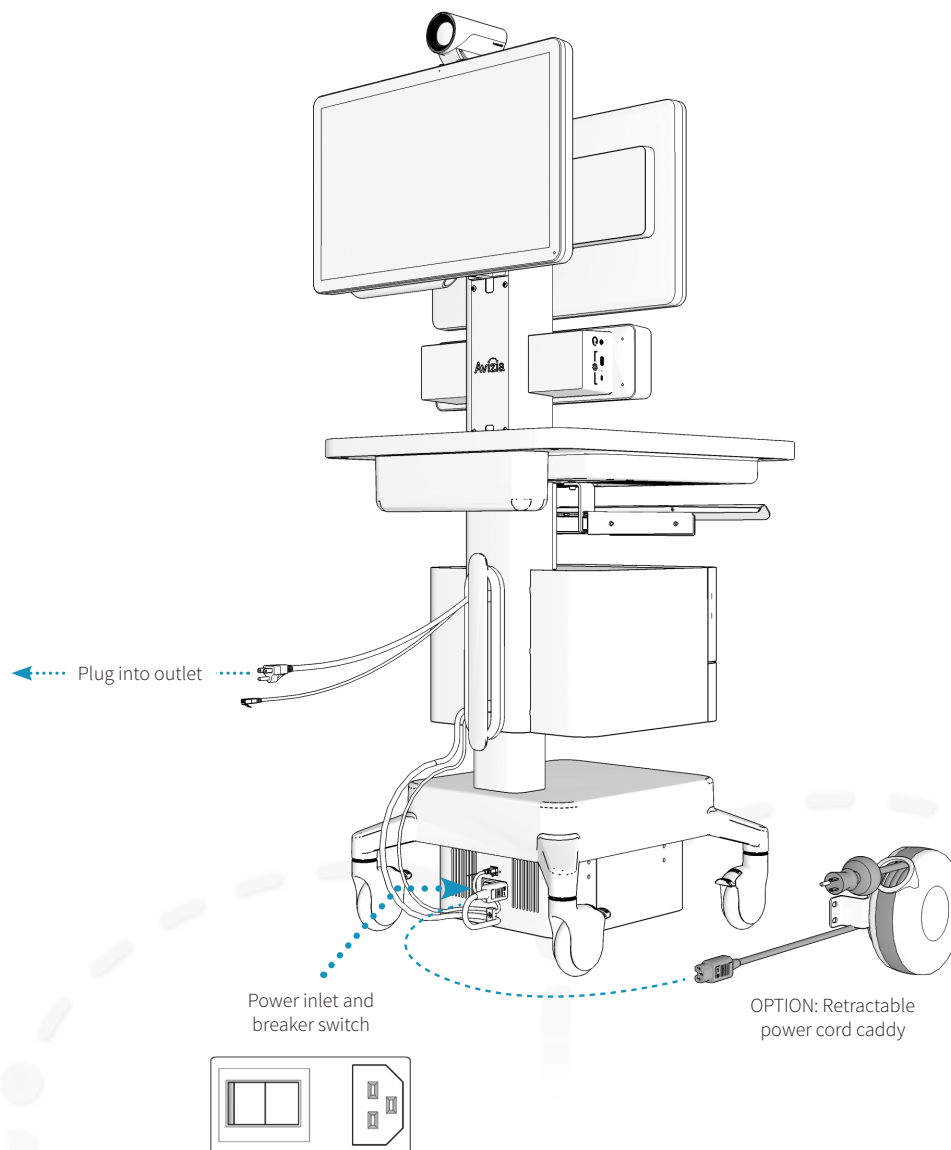
3-4 hours  
1.5 hours

6-8 hours  
3.5 hours

BATTERY  
CAPACITY LED



The system includes a breaker switch for protection. Should the system indicate there is no power, check the breaker and ensure that it is switched to the ON position.



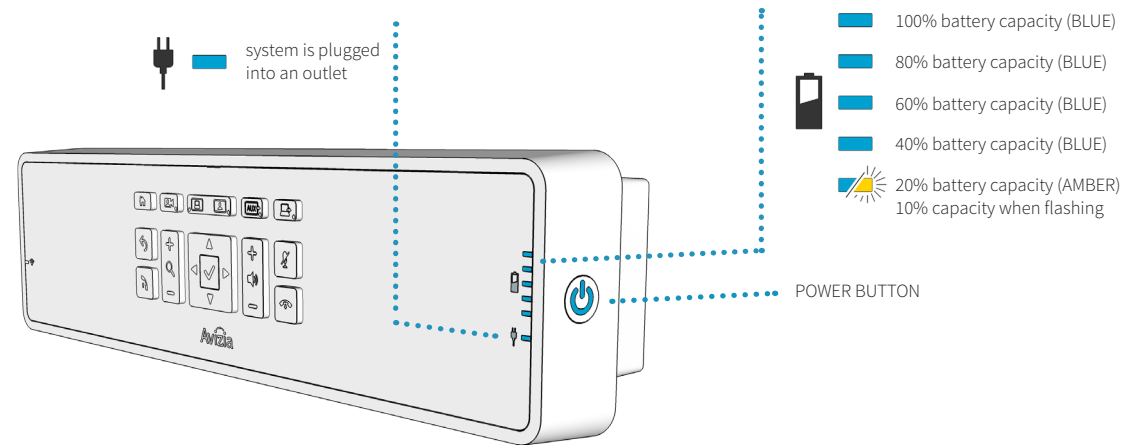


# Power considerations and configuration

## Turning the system ON

Press the system's Power Button on the side of the Console to turn ON the system. This button will illuminate blue when active, and the codec, camera, and display(s) will power on.

While the system is plugged into AC or running on battery, power will be available to the appropriate console, peripheral, and optional PC connections (e.g. auxiliary power cord, peripheral drawer, optional PC drawer, USB ports).



# Power considerations and configuration

## System power modes

### ACTIVE MODE

Pressing the POWER BUTTON on the console will activate the codec, camera, and display(s).

While the system is plugged into AC or running on battery, power will be available to the appropriate console, peripheral, and optional PC connections (e.g. auxiliary power cord, peripheral drawer, optional PC drawer, USB ports).

### STANDBY MODE

If the system is inactive for 10 minutes, the codec, camera, and display(s) will enter STANDBY MODE to conserve power. The camera will turn to its side and the display(s) will turn off (the blue indicator light will not be lit).



If a PC is connected to a dual display cart, then the front-facing display will not enter standby mode unless:

1. The PC also is configured separately to enter standby or sleep.
2. The system is in VIDEO MODE.

When in Standby, the system can be activated by any button press, detection of the codec's remote control, or an incoming call.

### SLEEP / DO NOT DISTURB MODE

Pressing the system's Power Button on the side of the Console for one second will place the system into SLEEP MODE. The blue light for the power button will go dark, the codec will enter DO NOT DISTURB mode, the camera will turn to its side, and the display(s) will turn off (the blue indicator light will not be lit).

The system cannot be used, though power is still provided to the rest of the system where powered connections are made available (e.g. auxiliary power cord, peripheral drawer, optional PC drawer, USB ports).



Any device (PC, scope, etc.) connected to power the powered connections will remain on until otherwise placed into standby, turned off, or disconnected.

To return the system to ACTIVE MODE, press the power button on the side of the console to activate the codec, camera, and display(s).

# Network considerations and configuration

The network module is built into the console of the CA750 and is a dual-band Wi-Fi IEEE 802.11 a/b/g/n wireless network module. The network module can be used in one of two ways: connected to the network infrastructure by Ethernet cable, or connected over the Wi-Fi infrastructure.



It is important that you understand how your wireless infrastructure is configured BEFORE you connect the CA750 to your wireless network.



Determine how you will set up your cart to connect to your wireless network, as this may affect your wireless network settings:

**Single Client** mode allows a one-to-one connection to the wireless network. No other networked devices on the cart will have connectivity except the video codec.

**Multi-Client** mode allows multiple devices to connect to the wireless network. In most cases, “client-bridge” or “passive client” mode must be enabled on the wireless network before devices can obtain an IP address.

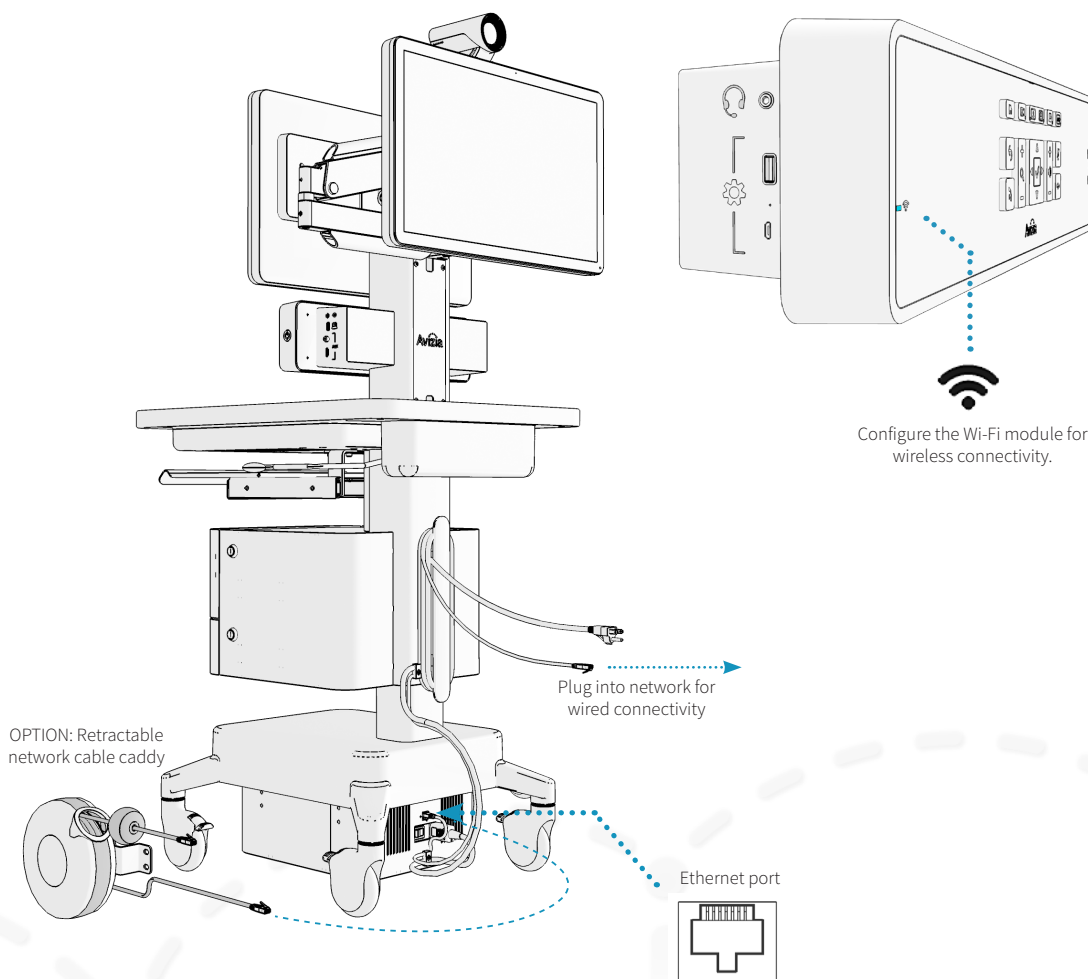


The wireless radio switches off when the system detects a wired network connection. To enable wireless, disconnect the Ethernet cable at the base of the cart.



The system is ready use once the cart has network connectivity and the video codec (Cisco SX20) has been registered to the video infrastructure. For more information on registering your codec and setting a static IP address, please reference the Cisco SX20 Quick Set Administrator Guide:

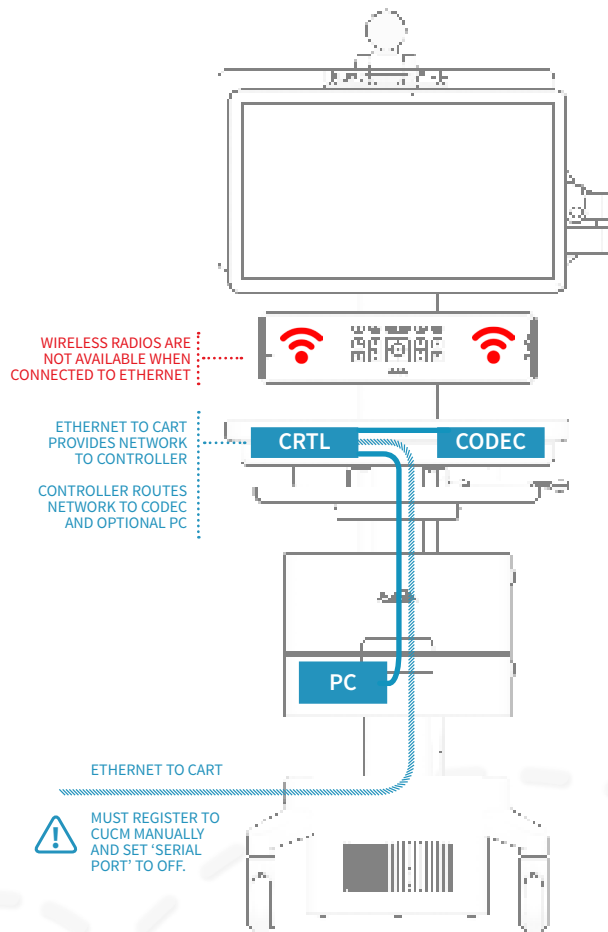
<http://j.mp/Cisco-SX20-Admin>



## Network considerations and configuration

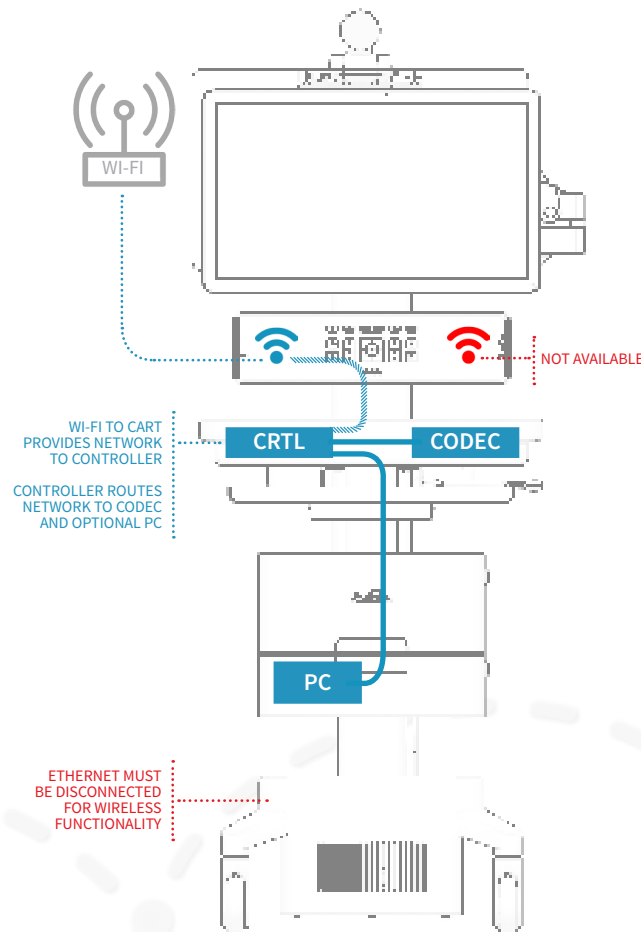
## WIRED CONNECTION

You must manually register the Cisco codec to the CUCM and ensure that the SERIAL PORT setting is set to OFF.

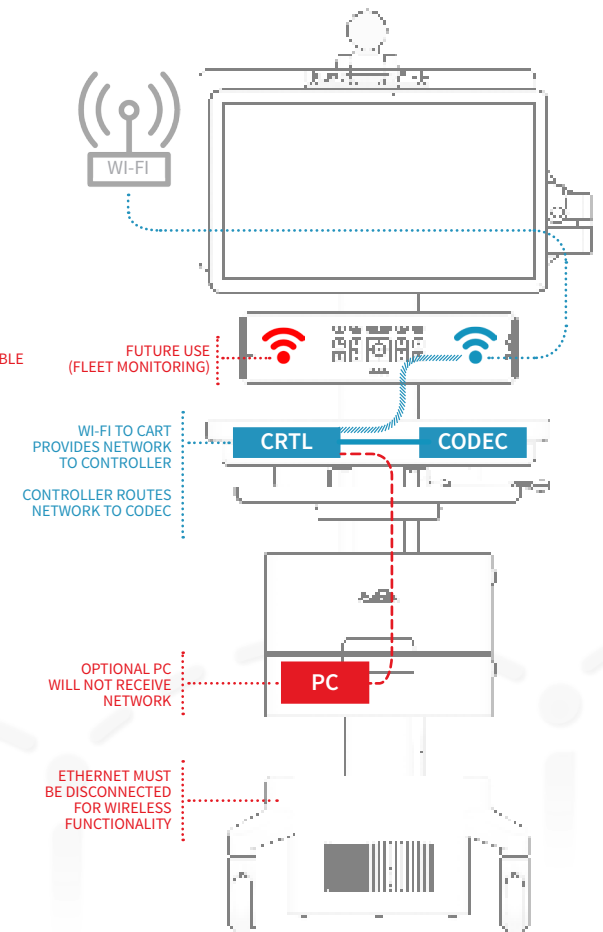


## MULTI-CLIENT WI-FI

Your wireless infrastructure must allow Client-Bridge access (e.g. passive client mode).



## SINGLE-CLIENT WI-FI



# Network considerations and configuration

## Connecting to a wired network

Plug the cart's Ethernet Cable into an active network port. The cable will be installed and ready to use. The optional Retractable Network Caddy may be used in place of the standard cable.

The system is ready to use when the Network LED on the console is a solid blue (network connection is detected) and the codec is registered to your network.



The Wi-Fi radio will be disabled when the system detects an active wired Ethernet connection.

If the LAN has a DHCP service, the system will retrieve a DHCP IP address, which will be displayed in the upper left hand corner of the display.

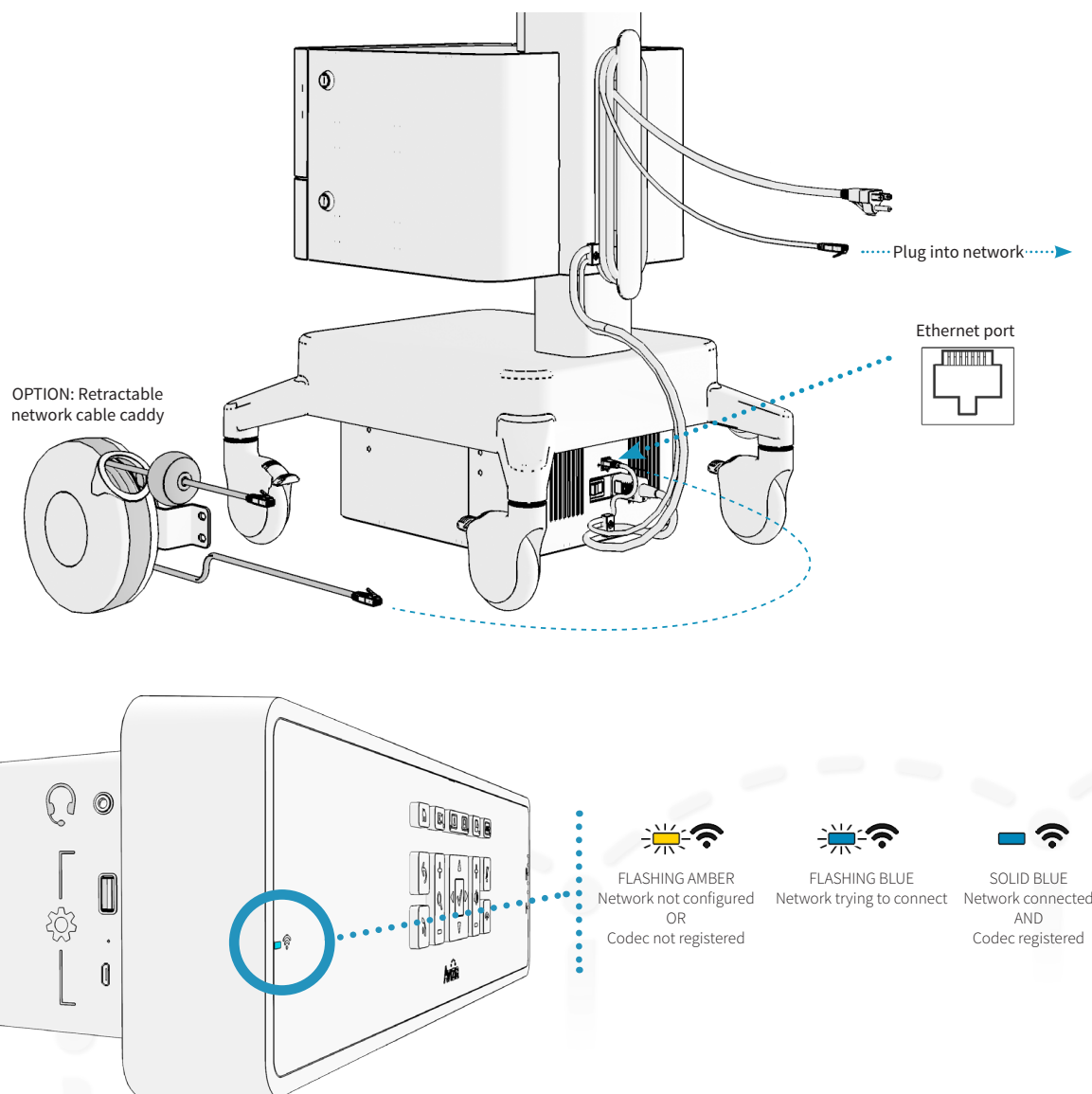
If a static IP is required for the CA750 then this requires configuring the SX20 endpoint within the CA750.

For more information on registering your codec and setting a static IP address, please reference the Cisco SX20 Quick Set Administrator Guide for the SX20: <http://j.mp/Cisco-SX20-Admin>.



For a wired network connection only: You must manually register the Cisco codec to the CUCM and ensure that the SERIAL PORT setting is set to OFF.

The system can be configured to operate on a wireless network. To configure the system for wireless operation, please refer to **Connecting to a wireless network** in the next section.

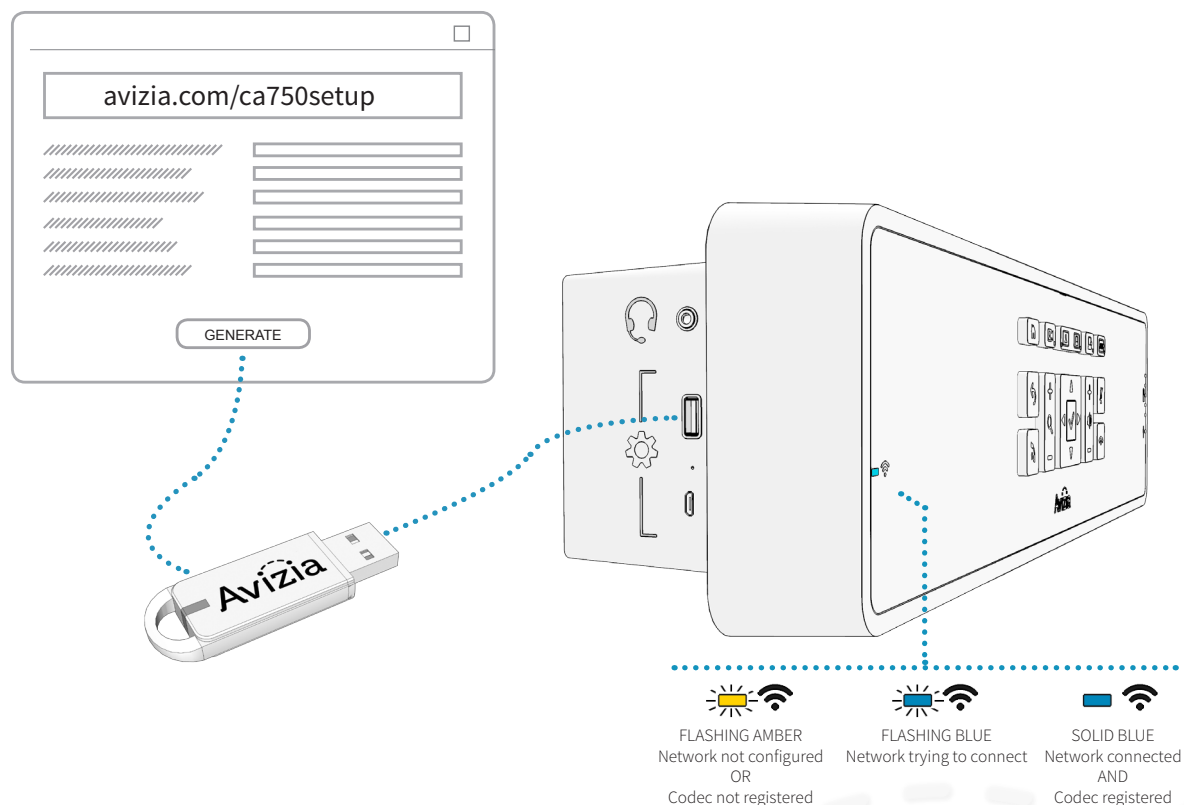


# Network considerations and configuration

## Connecting to a wireless network

The default mode for the CA750 is Single-Client (SC) mode. This provides two dedicated Wi-Fi radios for the Cisco SX20 codec and the cart CPU.

1. Use a computer web browser to navigate to: [avizia.com/ca750setup](http://avizia.com/ca750setup) and fill in the secure webform with the wireless network settings on which the cart is to be connected. Consult your network administrator for the appropriate wireless network settings.
2. Save the configuration file (**CA750CONFIG.TXT**) to the root directory on the included Avizia USB flash drive (a user-supplied flash drive may be used instead).
3. Insert the USB flash drive into the USB 2.0 port on the left side of the console. A message will appear on the display confirming drive detection. The system will begin its configuration routine and may take up to a minute before a message indicating successful configuration appears.
4. The Network LED on the console will be a solid blue when a network connection is detected and the codec is registered.



This procedure does not configure the SX20 codec — separate codec configuration is required.

Please refer to the Cisco SX20 Quick Set Administrator Guide\* for registering your codec:  
<http://j.mp/Cisco-SX20-Admin>.

# Using the system

- Adjusting the system height
  - Raising the work surface
  - Lowering the work surface
- Adjusting the second display
- Controlling the camera
  - Camera controls
  - Selfview
- Controlling volume and microphone
  - Adjusting the speaker volume
  - Turning microphone on and off
- Navigating the menus
- Making a video call
  - Placing a call
- When in a video call
  - Using the PC
  - Presenting an auxiliary device
  - Presenting an electronic or digital stethoscope
  - Using headphones or a headset microphone
- Overview of typical display outputs

# Adjusting the system height

## Raising the work surface

Lift the height-adjustment arm while gently assisting the work surface to the desired height.

## Lowering the work surface

Lift the height-adjust arm and firmly lower the surface to the desired height.



You may need to apply some extra pressure to the work surface as you lower the cart.

## Lower before transporting

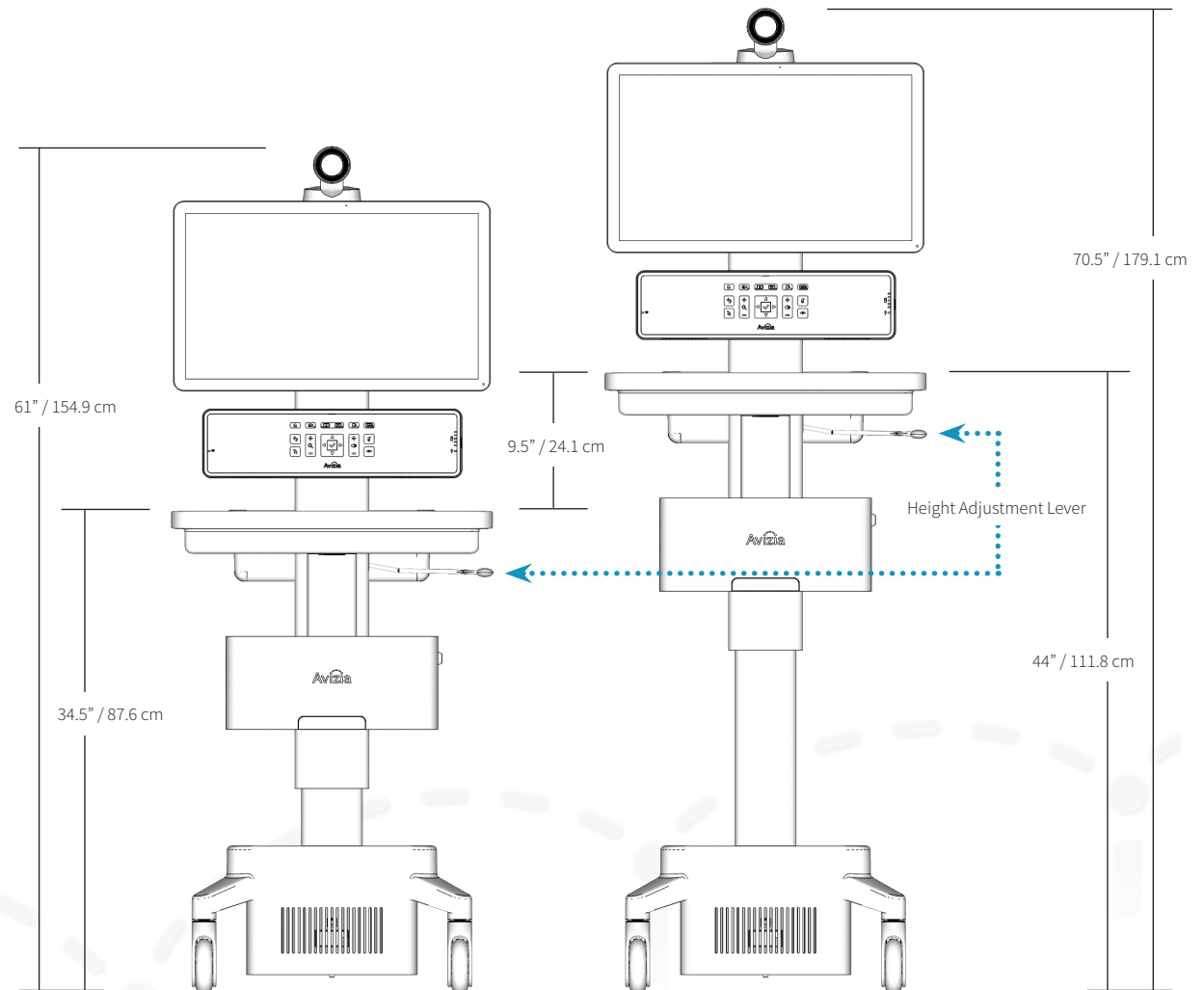


For your safety and to protect the CA750, fully lower the work surface before transporting the system. Pushing or pulling the system with any part of the system other than its handle may result in damage to the system.

## Traversing thresholds and obstacles on the ground



Use the handle to PULL the system safely across thresholds, cords, cables, and other potential obstacles on the ground. Always fully lower the work surface before transporting the system.





# Adjusting the second display

The optional Display Arm for a second display can be adjusted laterally, vertically, and can tilt the display for optimal viewing from the front, sides, or rear of the cart.



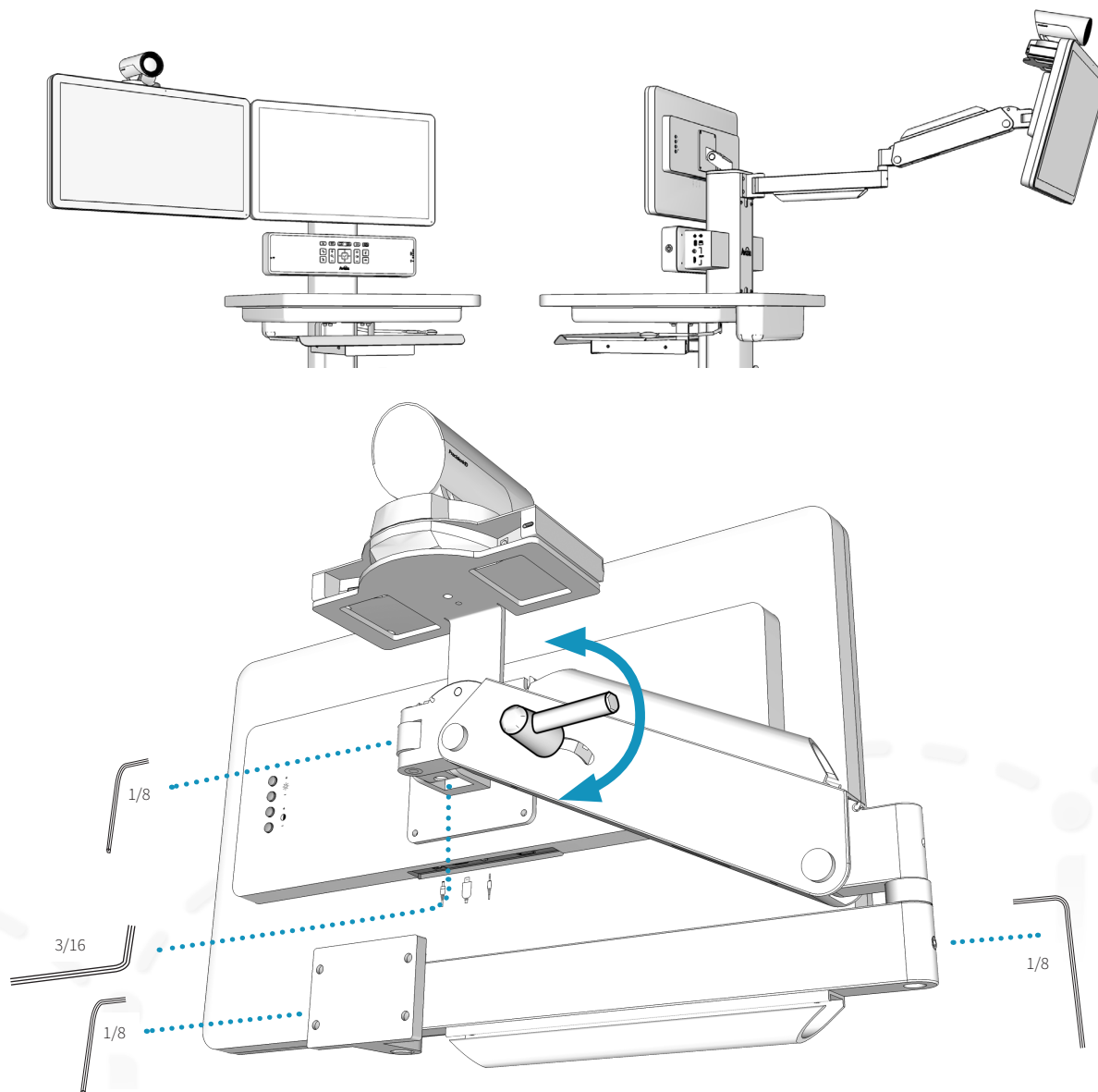
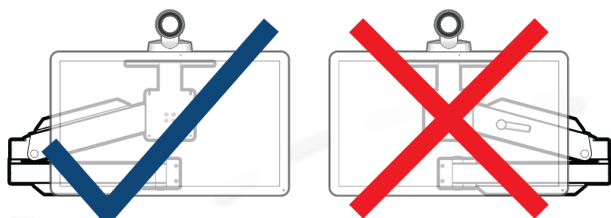
The provided hex wrenches can be used to adjust the tension on the arm at multiple points.

The vertical position is maintained by using the adjustment handle on the upper portion of the arm.

**WARNING:** Do not over-tighten but provide sufficient tension to each pivot joint so as to prevent unintended movement of the display, or the pinching fingers or cables.

When you collapse the display arm to reposition the second display closer to the cart, or to transport the cart to another location, ensure that the arm folds to the left of the display as you are facing the back of the cart.

This is to prevent damage to cables running along the arm.



# Controlling the camera

## Camera controls

Initiate CAMERA CONTROL by pressing the DIRECTIONAL PAD to pan and tilt the camera. Use the ZOOM buttons to adjust the camera's zoom level.

When you have finished adjusting the camera, select the source you want to see on the display: Selfview, PC, or AUX. If no button is pressed for approximately 10 seconds, the system will default back to the HOME view (codec Video Mode).

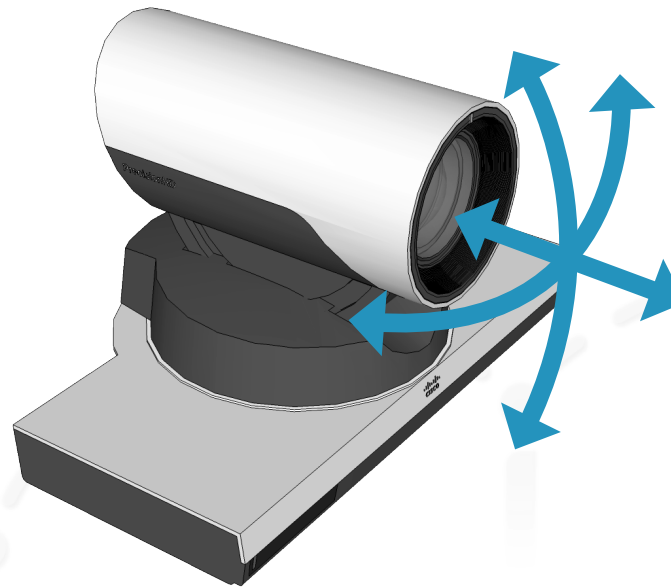
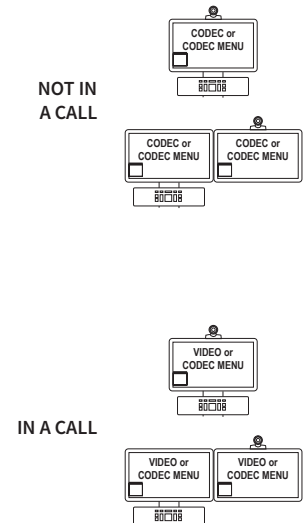
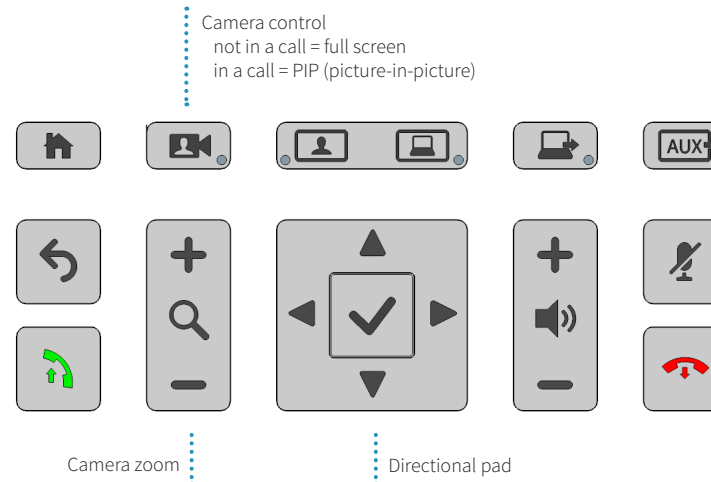
## Selfview

Selfview is the image remote participants will see of you — what is seen from your main camera.

Press CAMERA CONTROL on the system console to see your Selfview. You can adjust the camera's position and zoom with the Directional pad. The user-initiated selfview does not timeout.



When in a call, pressing CAMERA CONTROL will present your camera view as a PIP (Picture-in-Picture) at the lower right of the display.



# Controlling volume and microphone

The system microphone is located on the front of the display and is extremely sensitive. Do not block or cover the microphone.


The system automatically manages echo cancellation.

The system speakers are located at the bottom of the system console. This is to ensure that the console is protected from foreign objects, dust, or liquids.


## Adjusting the speaker volume

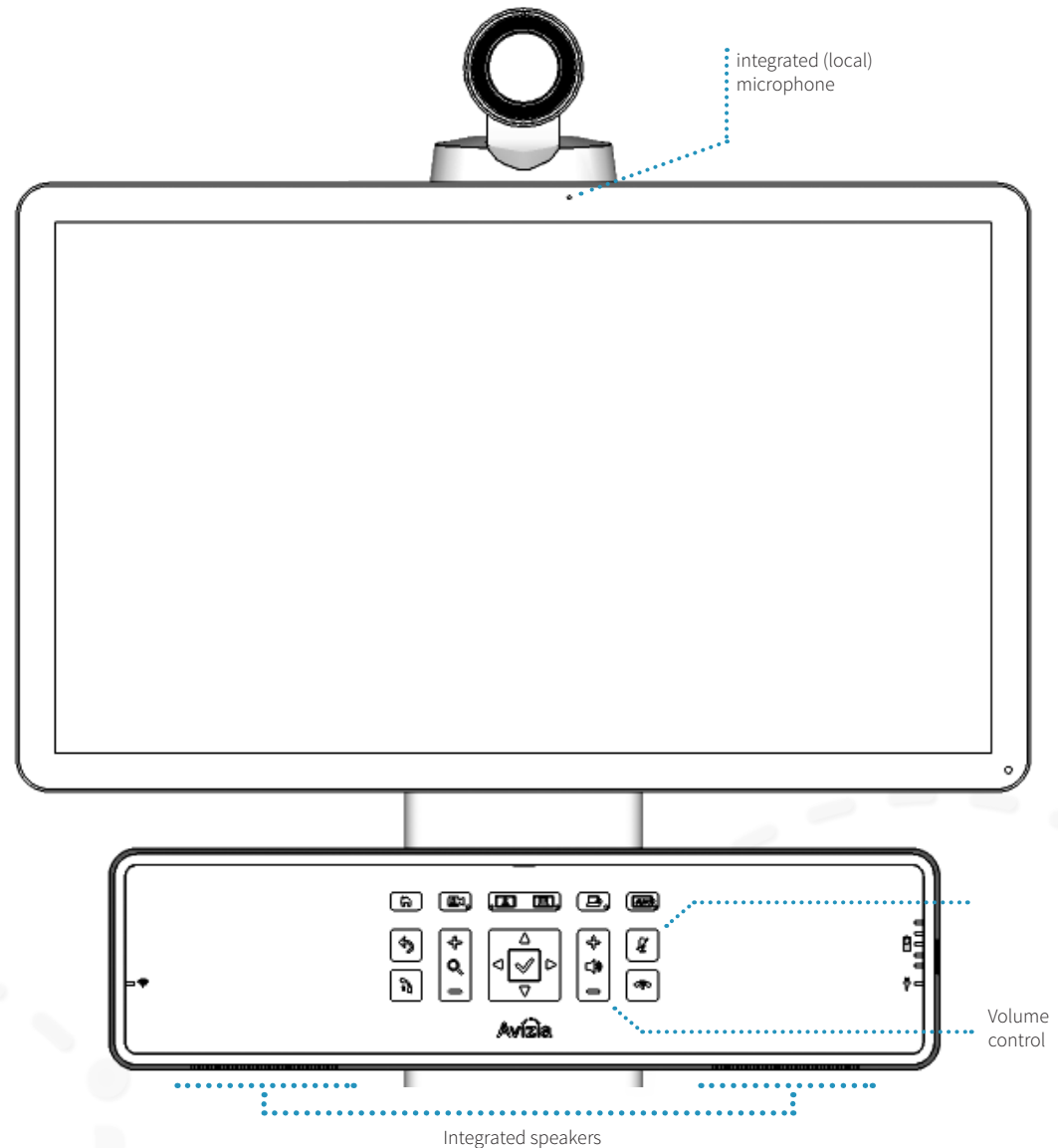
To adjust the volume, use the VOLUME CONTROL buttons on the console.

## Turning microphone on and off

To mute your microphone, press  (Mute) to prevent remote participants from hearing you. Press again to toggle the mic back on.



Pressing  (Mute) shuts off the internal (local) microphone only; all connected audio sources, such as a digital stethoscope or laptop audio, will continue to be heard during a call.




# Navigating the menus

The DIRECTIONAL BUTTONS on the CONSOLE provide navigational control when accessing the system menus. The accompanying remote control may also be used to navigate and control the system with its corresponding buttons.


Refer to the Cisco codec documentation for detailed information on advanced codec functionality, menu navigation, and using the remote control:



<http://cisco.com/go/sx-docs>

1. To show the system menu, press  (OK) at the center of the directional pad.
2. Use the arrow buttons to navigate through the menu structure.





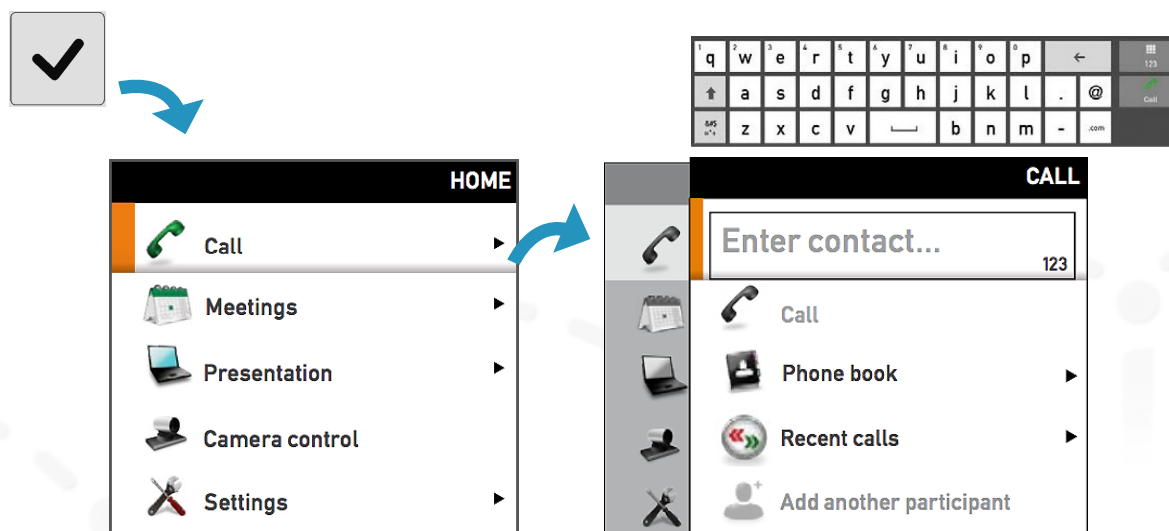
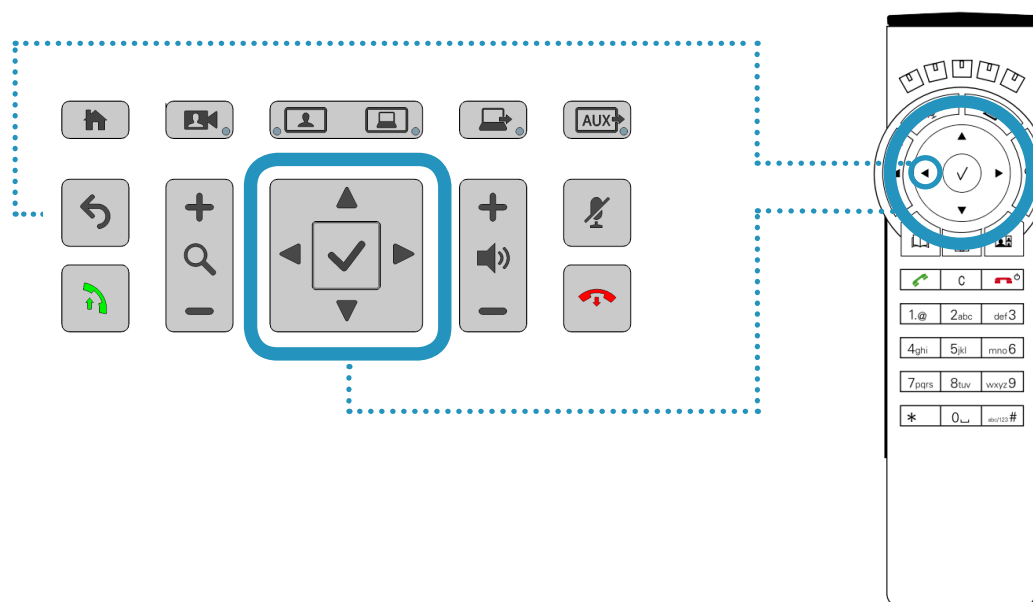
If a menu item shows an arrow, selecting RIGHT will navigate to the next menu level.

To “go back” in the menu structure, press LEFT or  (Back).


3. To type, use the onscreen keyboard or the keypad on the remote. Use the directional arrows to move to the appropriate letter, number, or symbol. Press  (OK) to select the desired character.
4. To quickly exit the menu structure, press  (Disconnect).




When navigating the menu structure while you are in a call, pressing  will not disconnect a call. Exit the menu system and then press  to disconnect a call.



# Making a video call


Press  (OK) to bring up the Main Menu and select CALL for options to enter a contact number or address, select a phone book entry, or select from the Recent calls list.

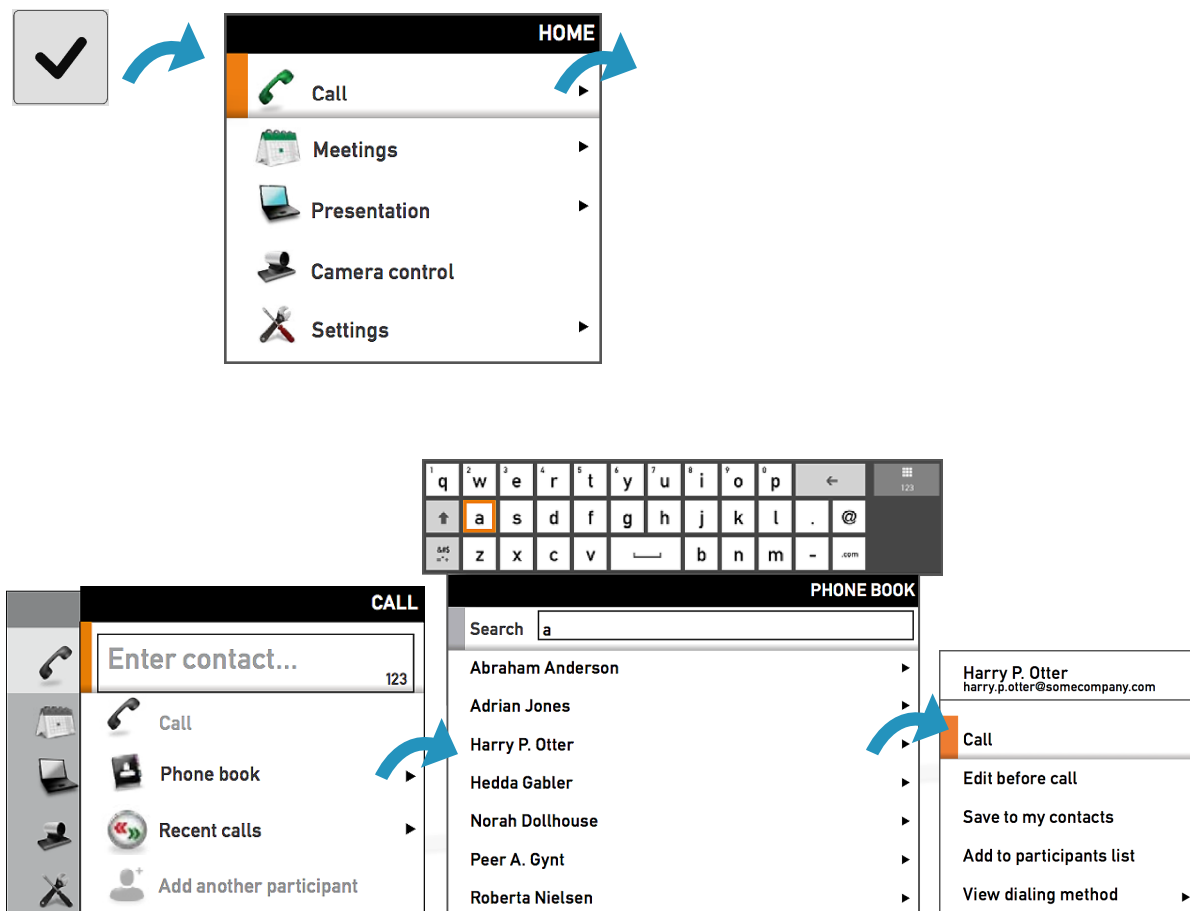
## Placing a call

Enter or select the contact to call and press  (Connect) to place a call.

Each contact can be edited, added to personal contact lists, or added as participants to a Multisite call (optional feature). This is done by selecting a contact entry and pressing RIGHT to see these additional entry options, as seen in the images on the right.

## Calling options

- **Specifying name, number, or address:** You can place a call by entering the contact number or address directly.
- **Using the phone book:** Navigate to Phone book by going to the Call menu option on the main menu. From the phone book, you can search, scroll through the directory, or create a directory entry, and then select the contact you wish to call.
- **Use the Recent calls list:** A list of recent calls can be accessed, from the Call menu option on the main menu, as a streamlined alternative to manually entering the contact information or using the phone book directory. **TIP:** When not in a call and not in the menu system, pressing  (Connect) will take you directly to the Recent calls list.




# When in a video call

## Using the PC

The PC drawer option provides space to house an Ultra Small Form Factor (USFF) PC for integration with the CA750. The system is designed to allow the user to operate the computer and cart as a workstation, showing the computer desktop on the front display. The PC can also be shared to remote participants.


### Workstation mode

To use the user-integrated PC, press  (Workstation mode) to show the PC desktop on the cart's display.



On a dual display system, the PC will be seen on the cart's front display only. The second display will show video

### PC share

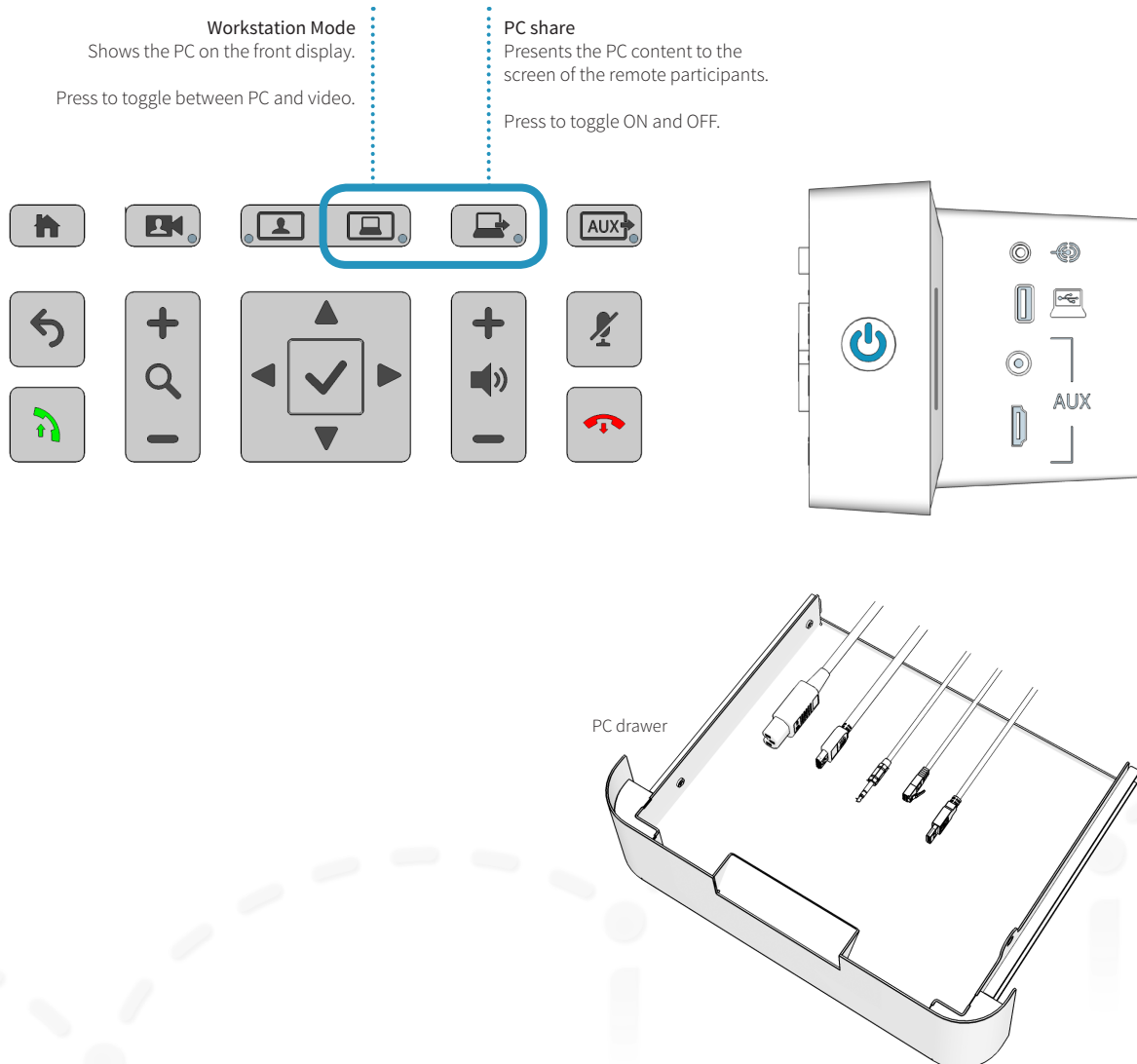
Press  (PC share) present the PC during a video call. The remote participants can now see the contents of your PC you are sharing.



On a dual display system, the PC will also be seen on the cart's front display only.




The PC HDMI connection does not support audio. To enable PC audio use the 3.5mm connector.



# When in a video call

## Presenting an auxiliary device

Optional AV devices for transmitting images and video can be connected to the CA750. These auxiliary sources can be connected simultaneously via the console and the peripheral drawer, however only one source may be presented at a time.

1. Connect auxiliary devices to the HDMI inputs and/or Composite inputs. Any device that provides video output and is connected to the system's HDMI or composite inputs can be displayed on the system: laptop computer, digital scope, examination camera, video feed from ultrasound, etc..
2. Press  (AUX) to present the contents of your device to the call participants. The system will detect the first active auxiliary source and the blue light on the button will indicate that the AUX source is presenting.

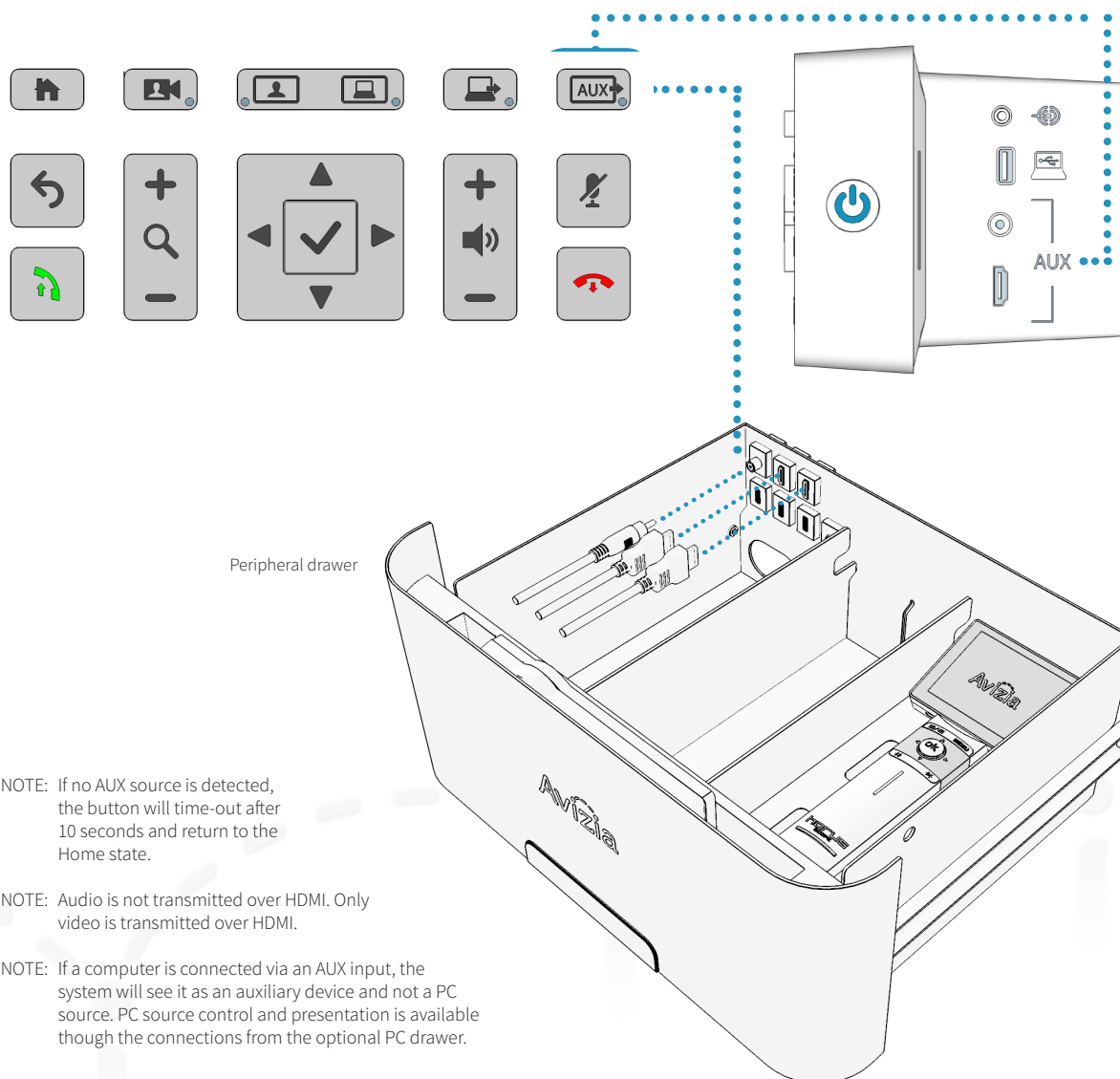
3. Press again to toggle through the connected devices.

Ensure the AUX source(s) are appropriately powered and turned on to be viewed as the AUX source when selected.



There are five auxiliary inputs on the CA750 which toggle through a prioritization schedule:

1. Composite (SD) on console
2. HDMI (HD) on console
3. Composite (SD) in drawer
4. HDMI (HD) in drawer
5. HDMI (HD) in drawer
6. Default view (Home)



NOTE: If no AUX source is detected, the button will time-out after 10 seconds and return to the Home state.

NOTE: Audio is not transmitted over HDMI. Only video is transmitted over HDMI.

NOTE: If a computer is connected via an AUX input, the system will see it as an auxiliary device and not a PC source. PC source control and presentation is available though the connections from the optional PC drawer.

# When in a video call

## Presenting an electronic or digital stethoscope

The optional E-Scope II and other electronic or digital stethoscopes can be connected to the CA750 to transmit the corresponding audio to remote participants.

Connect the 3.5mm cable from the stethoscope or audio device to the 3.5mm audio input on the system. The audio from the device is now mixed into the video call.



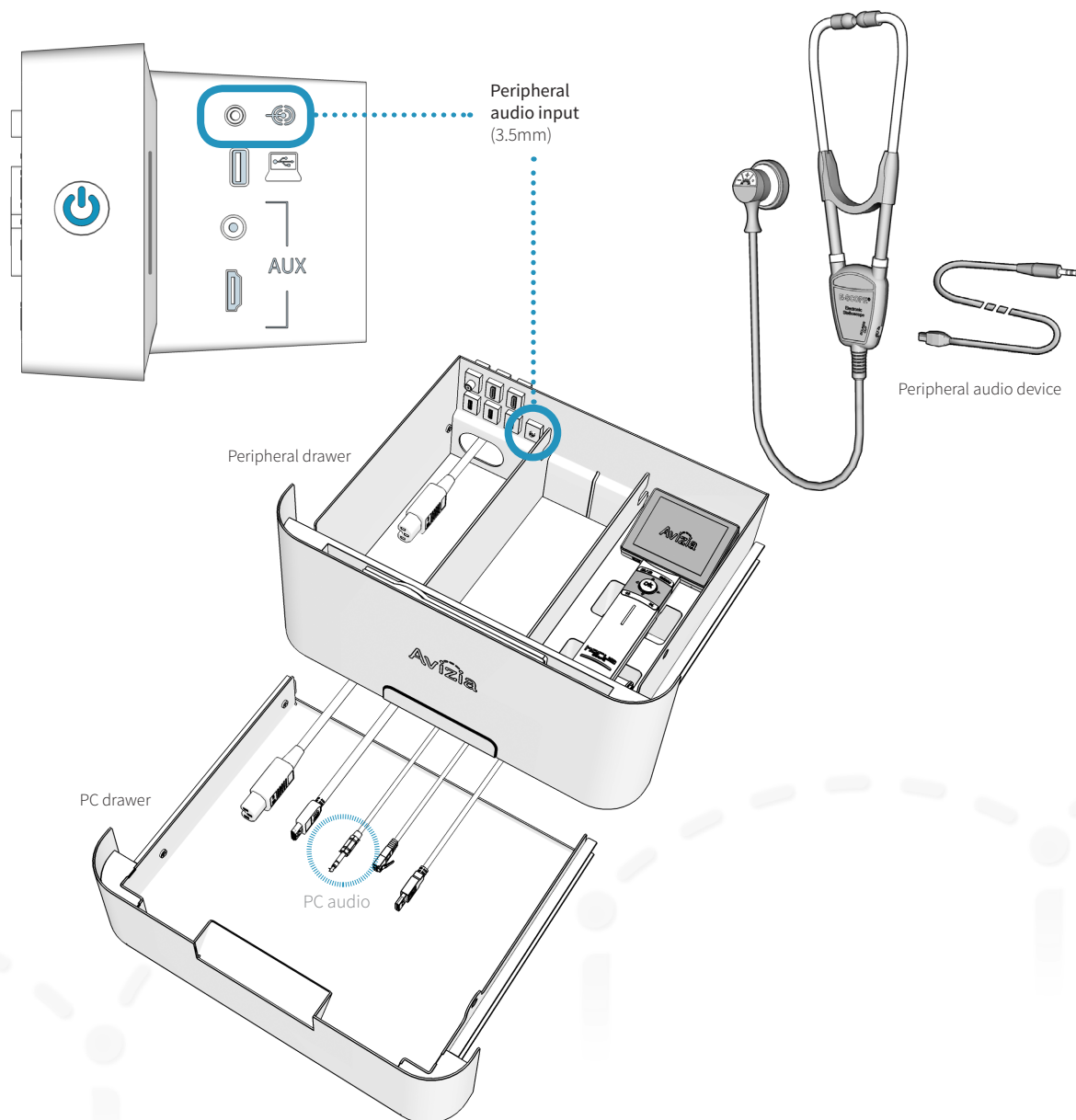
There are three audio inputs on the CA750. Each connected audio source will be mixed into the video call.

1. Peripheral Audio Input (console)
2. Peripheral Audio Input (drawer)
3. PC Audio Input (with PC drawer option)

Unplug any other audio connection(s) to present the desired audio without disruption from other sources.



The CA750 can experience audio distortions due to network latency, software/hardware malfunction, insufficient bandwidth, or for other reasons.





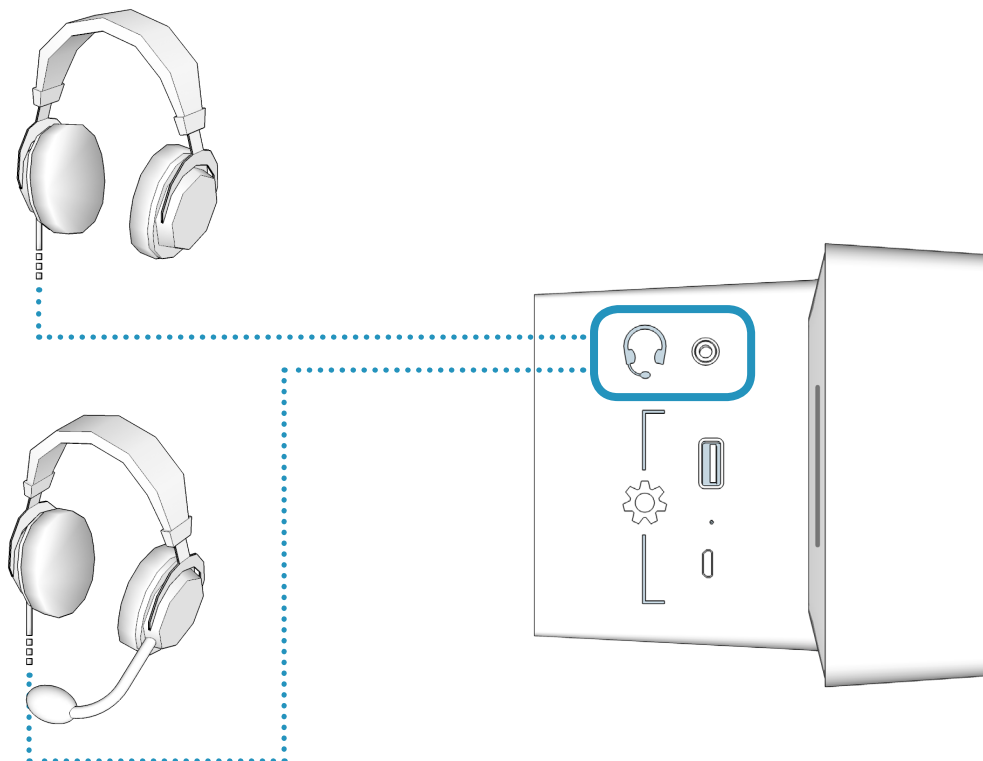
# When in a video call

## Using headphones or a headset microphone

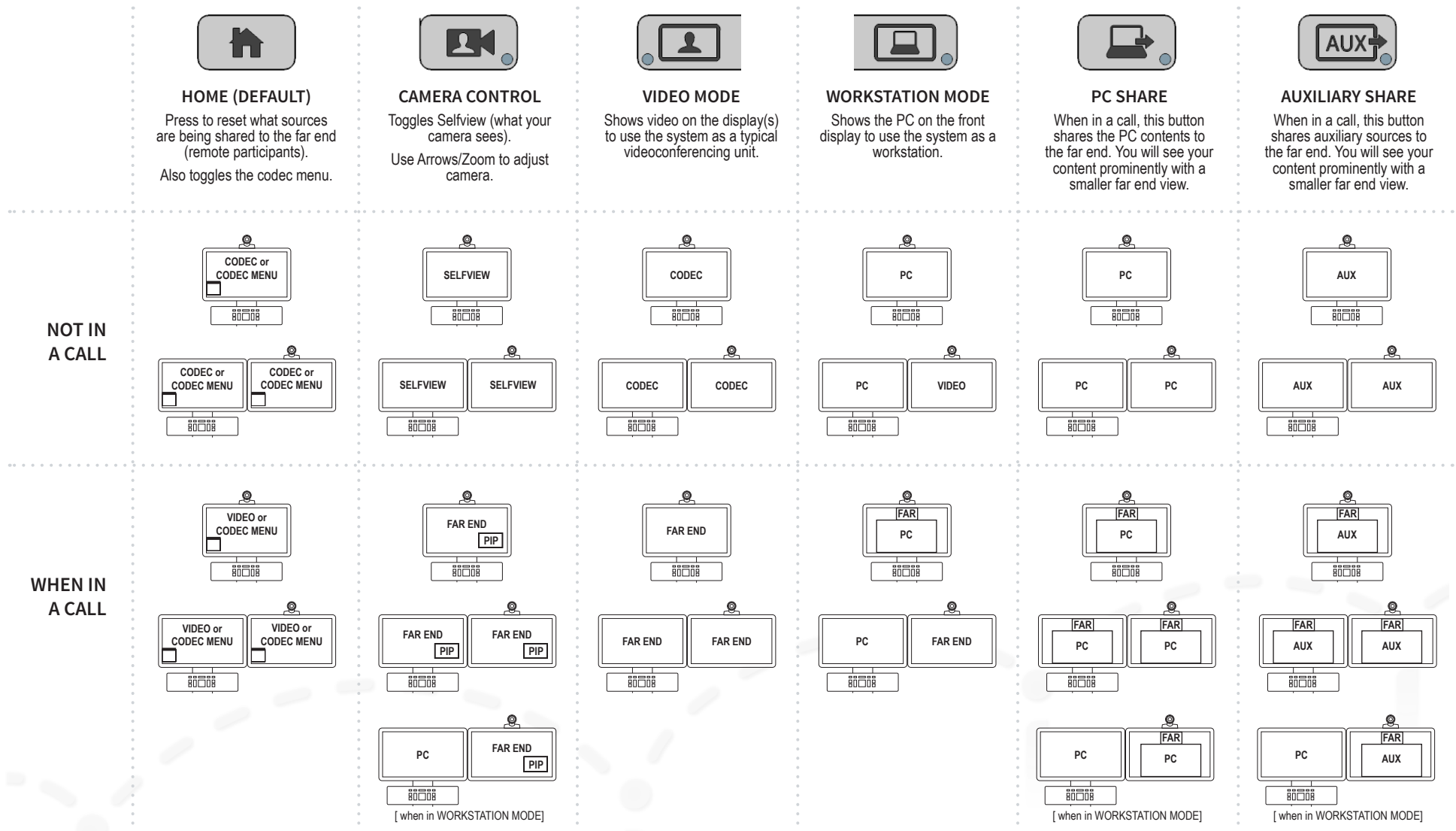
When in a call and privacy is desired, a standard 3.5mm headphone or a headset with an integrated microphone can be plugged into the CONSOLE to provide audio output.

When plugged into the Console, all audio will be directed through the headphones and speaker audio out of the Console will be turned off.

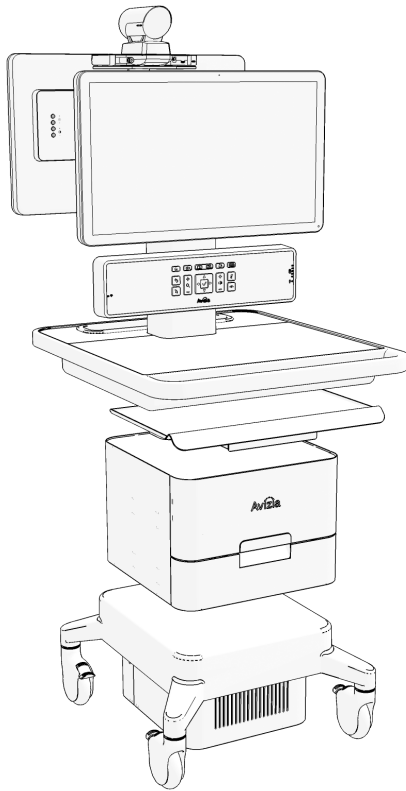
If you are using a headset with a microphone then the integrated system mics will be muted and only the headset microphone will be mixed into the call.



# Overview of typical display outputs



# Maintaining the system



- Displaying system information
- Cleaning and maintenance guidelines
- Battery guidelines
- Installing updates
- Factory defaulting the system
- Storing the system

# Displaying system information

There are several Console button combinations you can perform to provide specific information pertaining to your CA750 cart. Press and hold any of the following combinations for about three seconds to view the appropriate dialogue box. Press ☒ (OK) to close the information window.

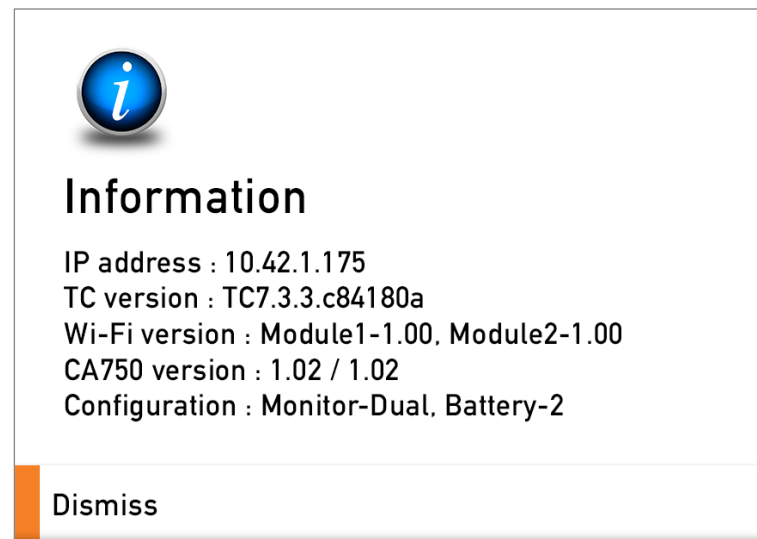
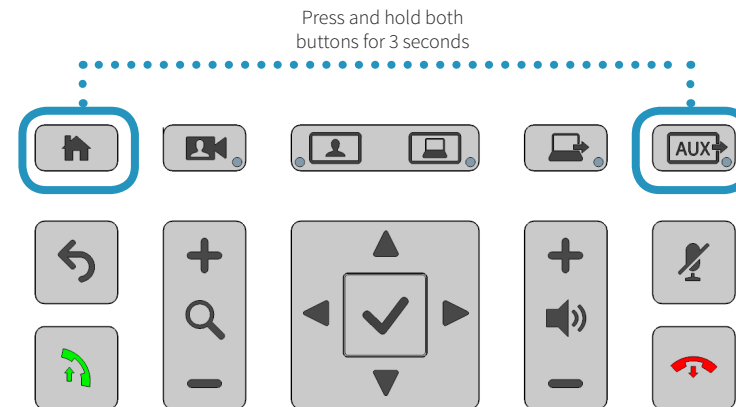
## System Information: Home + AUX



## Wi-Fi Information: Home + Video Mode



## Serial and MAC Addresses: Home + PC Share



# Cleaning and maintenance guidelines

## Cleaning the system

The surface materials of the CA750 are durable and easy to maintain. Follow the general cleaning guidelines, found to the right.

## Maintaining the system

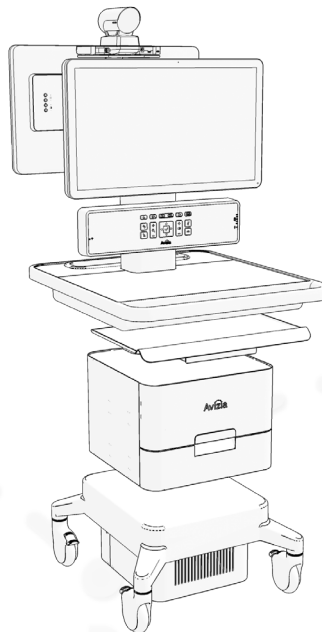
The CA750 is designed with minimal maintenance requirements. However, a yearly check on system fasteners and cables (screws, nuts, bolts, cables) will ensure that the CA750 is in good operating order.



Avizia will make available, on request, such circuit diagrams, component part lists, descriptions, calibration instructions or other information which will assist appropriately qualified technical personnel to repair those parts of the equipment which are classified by Avizia as field repairable.

### LCD monitor and Camera

- Always disconnect your monitor's power from the system before cleaning. Clean the camera and LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any liquid, aerosol or glass cleaners.
- Slots and openings on the back or top of the cabinet are for ventilation. They must not be blocked or covered. Your monitor should never be placed near or over a radiator or heat source, or in a built-in installation unless proper ventilation is provided.
- Never push objects or spill liquid of any kind into this product.



### System

- All surfaces — painted and plastic cart components — will withstand cleaning by commonly available multi-purpose surface cleaners.
- To avoid risk of electric shock, do not expose electrical components to water, cleaning solutions or other potentially corrosive liquids or substances.
- Do not immerse system or system components in liquid or allow liquids to flow into the cart. Wipe all cleaners off surface immediately using a damp cloth. Thoroughly dry surface after cleaning.
- Do not use flammable cleaners on cart surfaces due to close proximity of electrical power and equipment.
- Never use steel wool or other abrasive materials that will damage the surface finish.
- Do not use strong solvents such as trichloroethylene and acetone. These solvents will damage the surface finish.
- It is recommended that any cleaning solution be tested on a small, inconspicuous area to ensure surface is not harmed.

# Battery guidelines



This system contains no user-serviceable parts.

## Remote control

Batteries for the Remote Control are Long Life Alkaline batteries; please follow guidelines on the packing material for handling and disposal of the batteries.



### CAUTION

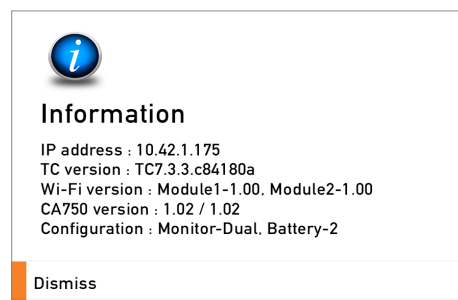
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO APPROPRIATE LOCAL REGULATIONS.

## Rechargeable system battery

The system enclosed rechargeable battery (LiFePo) in this product is non-user replaceable and should be removed by a qualified service technician only.

# Installing updates

Identify what versions of firmware are currently installed on your system by simultaneously pressing  +  for three seconds. This will bring up information about system firmware versions:



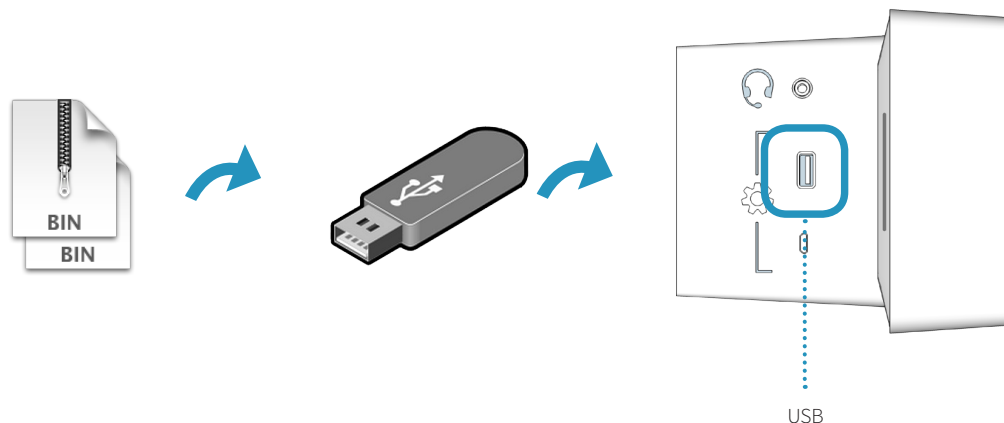
To update the firmware for the CA750:

1. Download the appropriate firmware file(s) to your computer from <http://avizia.com/firmware>.
2. Place the file(s) into the ROOT directory of a USB thumb/flash drive. Note that the USB drive must be formatted as FAT or FAT32.
3. Ensure the CA750 is powered on and in an idle state (not in a call). Insert the USB drive into the USB port on the side of system console and wait 5-10 seconds for an update prompt.
4. Use the directional pad to select YES and follow the onscreen prompts to update the firmware item(s).



The update process may take a little over two minutes to complete.

5. You can remove the USB drive once the system has rebooted and you see the default codec screen.



# Factory defaulting the system

Should a need arise to remove ALL system configuration settings, press and hold the following buttons at the same time for 5 seconds:

BACK + MAKE CALL + MUTE + DISCONNECT

The source selection LEDs will light up one by one and blink three times before the entire system reboots.

Once the system has fully booted up, it is ready for setup and configuration.

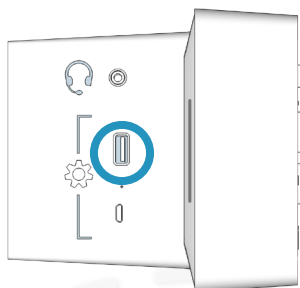


For a wired network connection only: Do not forget you must manually register the Cisco codec to the CUCM and ensure that the SERIAL PORT setting is set to OFF.

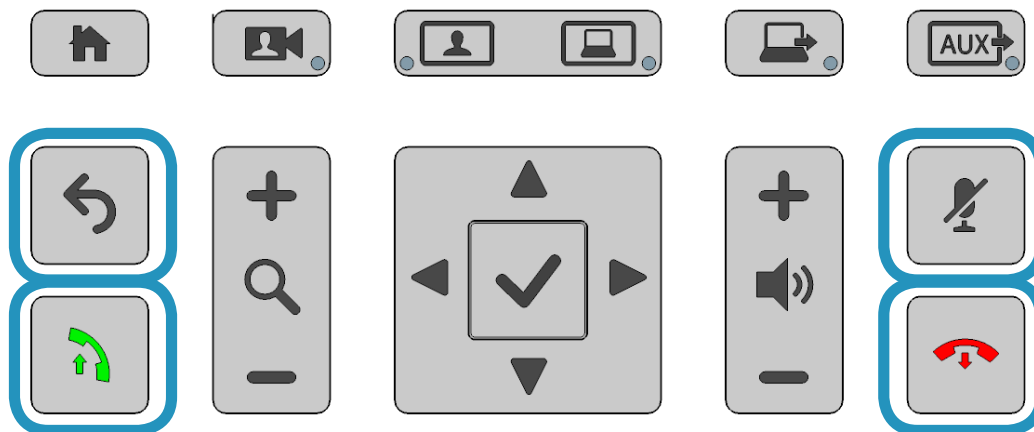
The Wi-Fi configurations can be reset by pressing the following for about three seconds:

BACK + MIC MUTE

To power-cycle the cart, use the end of a paperclip or something similar, and insert into the Pinhole on the side of the Console.



**WARNING:** Ensure that any connected devices requiring power is turned off before power-cycling the system. All connected devices requiring power will lose power when the system is power-cycled.







# Storing the system

## Short-term storage

If the system is to be stored for a relatively short period of time, we recommend that the system be plugged in to an electrical outlet during storage. This ensures that the internal battery maintains a full charge and is ready when needed.

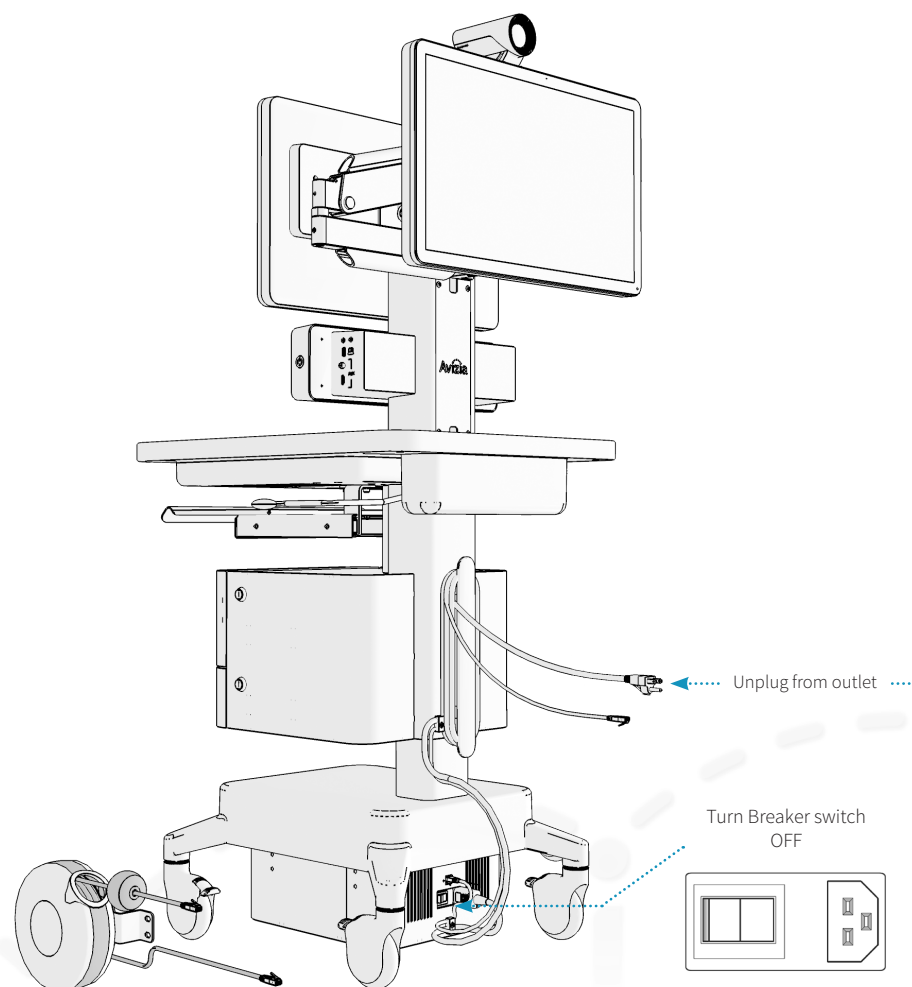
## Long-term storage

If the system is to be stored for an extended period of time, we recommend you place the system into “deep sleep” mode:

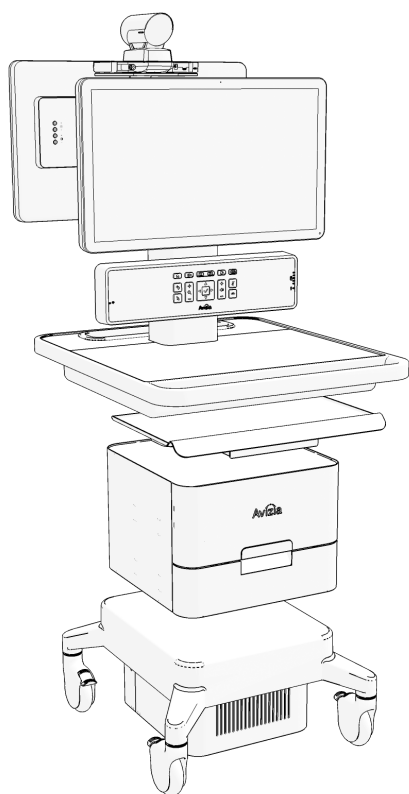
1. Disconnect the system from AC power:
  - Unplug from electrical outlet
  - Place the Breaker switch at the base of the cart to the OFF position.
2. Press the  (Home) +  (Disconnect) buttons simultaneously for about 3 seconds until the system turns off. This will prevent the battery from keeping the system powered.
3. Wrap power cord on the cable wrap.
4. Secure or appropriately store peripheral devices and cables.
5. Store the system in a cool, dry environment.



The battery will lose some charge if stored for an extended period of time. Ensure the battery is sufficiently recharged before running the system on battery power.



# Troubleshooting



## I can't turn the system on.

- Make sure the system breaker switch is in the ON position. This switch is by power inlet connector found at the base of the cart. Then, press the Power button on the right side of the console until the button illuminates blue.
- Ensure the power cord is properly connected to the system and to the AC outlet. You should see the LED power indicator on the front of the console illuminate blue.

## Why is the screen black?

- Ensure the system is powered on and the display's power cord and HDMI cable are properly inserted. Press the display's power button to turn on.
- The display setting may have been changed or set incorrectly:
  1. Ensure the display's HDMI cable is properly inserted.
  2. Press and hold the system power button on the side of the console until the blue LED turns off.
  3. Wait a few seconds and turn the system back on. The HDMI setting on the display should be automatically reset and no longer show a black screen.

- Pressing the PC or AUX source buttons when there are no devices connected to the corresponding connections will result in a black screen. The PC and AUX sources will time out after 10 seconds and return to the Main camera (default) view.

## I can't make a video call.

- Ensure the system has network connectivity:
  - check Ethernet connection
  - check wireless connection and/or the wireless configurations
- Make sure the system codec's network configurations are properly set and registered. Contact your network administrator or refer to the Cisco SX20 codec documentation at:  
<http://cisco.com/go/sx-docs>

## When I try to show my laptop or other device I get a black screen.

- Check that the video cable from the laptop or device is in the appropriate connection on the console.
- Make sure the laptop display setting is appropriately configured to mirror or extend to another display.

# Product Specifications

## AVZ-CA750-1-IP40

Avizia Clinical Assistant 750 - Single Screen with Drawer Module - includes integrated SX20 Codec, PHD camera (8X), single 24" HD LED monitors, peripheral device drawer with integrated power and inputs, foam drawer insert for Horus Scope, remote control, premium resolution software option, 4-hour battery, wired networking and integrated Wi-Fi.

## AVZ-CA750-2-IP40

Avizia Clinical Assistant 750 - Single Screen with PC Cabinet - includes integrated SX20 Codec, PHD camera (8X), single 24" HD LED monitors, PC Cabinet, peripheral device drawer with integrated power and inputs, foam drawer insert for Horus Scope, remote control, premium resolution software option, 4-hour battery, wired networking and integrated Wi-Fi.

## AVZ-CA750-3-IP40

Avizia Clinical Assistant 750 - Dual Screen with PC Cabinet - includes integrated SX20 Codec, PHD camera (8X), dual 24" HD LED monitors, PC Cabinet, peripheral device drawer with integrated power and inputs, foam drawer insert for Horus Scope, remote control, premium resolution and dual display software options, 4-hour battery, wired networking and integrated Wi-Fi.

## OPTIONS

- Dual display with articulating arm
- Additional 45 Ah Lithium Iron battery
- MultiSite for SX20 Codec
- Lockable PC cabinet
- Keyboard tray
- Retractable cable reels (power, Ethernet)

## VIDEO

- Cisco SX20 codec with 8x Precision HD camera

## DISPLAY

- 24" HD LCD (with integrated mic)
- 2nd 24" HD LCD (option)

## CONTROL OPTIONS

- Button panel with call, menu, camera and content control
- Cisco IR remote (use is optional)

## VIDEO INPUTS

- Three HDMI (fourth included in PC cabinet option)
- Two SD (composite)
- Four USB 3.0 routable to PC (three in peripheral drawer)

## VIDEO OUTPUT

- One HD (internal HDMI for 2nd display option)

## AUDIO INPUT

- Mic (integrated)
- Three 3.5mm

## AUDIO OUTPUT

- Speakers (integrated)
- One 3.5mm (integrated headphone and mic jack)

## NETWORK

- Wired Ethernet (10/100/1000 Mbps)
- Integrated Wireless (option) (2.4 GHz and 5 GHz, 802.11 a/b/g/n, WEP/WPA/WPA2, 802.11x LEAP, PEAP, TTLS, FAST)
- Will support client certificate loading in the future.

## POWER SHARING

- Two IEC-C13 120VAC connections (third included in PC cabinet option)
- Four USB 3.0 (three in peripheral drawer)

## STORAGE

- Lockable drawer (13"x 10"x5.25")
- Bin (13.25"x2.75"x2.75")
- Lockable PC cabinet (option) (13.25"x2.75"x2.75")

## HEIGHT ADJUSTMENT

- 10" (24.5cm)

## POWER

- 45 Ah Lithium Iron battery provides 3-4 hr. of power
- Additional 45 Ah Lithium Iron battery provides 6-8 hr. of power (option)

## CLEANABILITY

- Edge-to-edge glass displays
- Anti-microbial work surfaces
- Downward facing speakers (no speaker grill on front)

## PHYSICAL DIMENSIONS

- Width: 23" (58.5cm)
- Depth: 27" (68.6cm)
- Height: 60-70 in. (152.4-177.8 cm)
- Weight:
  - 180 lbs. (without options)
  - 215 lbs. (with 2nd display and PC cabinet)
  - 230 lbs. (with 2nd display, PC cabinet, and 2nd battery)

## OPERATING TEMPERATURE AND HUMIDITY

- 50 to 95°F (10 to 35°C) ambient temperature
- 20 to 90% relative humidity (RH)
- Atmospheric pressure: 700 to 1060 hPa

## STORAGE AND TRANSPORT TEMPERATURE

- 14 to 140°F (-10 to 40°C) at RH 10 to 80% (noncondensing) at RH 20 to 90%
- Atmospheric pressure: 700 to 1060 hPa

## APPROVALS AND COMPLIANCE

- ANSI/AAMI 60601-1-3rd edition
- CAN/CSA-C22.2 No. 60601-1:2014
- Compliance with FCC 47 CFR Part 15 Class A
- FDA Class I Medical Device Data System (MDDS)
- Medical Device Directive EN 60601-1 Class I Equipment

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