Custom Zoom Room

Control Specification

Contents

Summary

Project: Micron Custom Zoom Rooms
Prepared By: Level 3 Audio Visual
Date Revised: 06/26/23

This document will serve to define the control functionality of the Micron Custom Rooms audiovisual control systems. Described are all control functions and interface pages that are common to the Micron Custom spaces. Addendums for each specific room type are included at the end of this document.

The number of displays, audio levels and other hardware shown in the advanced settings menus will vary based on site requirements.

Each site will have its own submittal created from this template outlining the specific equipment used at each site.

This document is not intended to serve as an instruction manual for the operation of a Zoom Room. Additional documentation describing Zoom Room operation is available from Zoom and is subject to change as requirements evolve.

Revision History:

|	
1.4.01 (9-28-20)	- Added revision history (pg.3)
	- Added Xpanel requirements (pg.4)
	- Added global automation definitions (pg.4)
1.5.00 (10-22-20)	- Added additional verbiage for clarity of operation
1.6.00 (3-18-21)	- Revised for TS-1070 touch panel
2.1.00 (4/22/22)	- Revised for latest zoom app, white background
	- All available zoom controls in one page
	- Re-organized content for clarity
2.2.00 (08/30/22)	- Revised combine/divide rules
3.0.00(09/30/22)	- Changed formatting for dynamic table of content
	- Re-organized pages to keep it consistent with UI references – Updated titles
	- Updated latest Timer control changes
	- Updated latest 1 Beyond camera controls
	- Added Camera Lift controls
3.0.02(09/30/22)	- Added Clock Audio Mic behavior
	- Removed screenshots with sensor page shown (Admin)
3.0.03(01/13/23)	- Removed some OCC sensor notes
	- Added clarification for Manual overwrite of the partition sensor
	- Updated content table' page numbers
3.0.04(01/20/23)	- Removed all references to default passwords
3.0.05(03/09/23)	- Adjusted ceiling MIC LED function description for clarity
	- Adjusted Laptop routing automation description for clarity
	- Updated Camera control page for Zoom UI
	- Added page numbers
3.0.06(4/14/23)	- Added Combinable Audio Zones (pg.33)
	- Removed 'Continued' pages from Table of Contents
3.0.07(6/26/23)	- Added Ceiling Mic On/Off feature.
	- Added pages for zoom UI with single camera and multiple cameras
	- Added separate number indicators
	- Revised User page volume control.
3.0.08(11-7-23)	- Remove help page
	- Add code to force all panels to the Zoom App on startup and online events
	- Added code to send Vaddio (Crestron controlled) cameras to off/sleep position when room is powered off.
	- Added 30 minute shutdown on/off to accommodate Digital Signage
3.0.09(01-16-24)	- Added Status Page
	- Changed Routing Page
	- Changed audio page (removed extra lines)

Overview

1) The Zoom Application, running on a Crestron touch 10-inch panel will be the primary interface used by typical Micron users.

2) The Crestron control system will communicate with the Zoom App via device extenders and JSON messages from the Zoom Room Application.

3) Where applicable, and called out in the appropriate addendum, microphone mute controls and indicators shall be directly synchronized with the Zoom App.

4) Camera controls shall be accomplished through the Zoom App via USB connected cameras unless otherwise specified.

5) All presentation sources shall operate through the Zoom App as described later in this document.

6) Administrative support of the spaces shall be accomplished using the traditional Crestron control pages also described later in this document.

Global Automation Definitions

- System turns on with Zoom Meeting
  - Display(s) turn on.
  - Zoom PC is displayed when a Zoom Meeting is started.
  - Microphones are un-muted and the mic LED (if available) turns from off to green

- System turns on with laptop connection.
  - Display(s) turn on.
  - Zoom PC is displayed and a Presentation only Meeting is started.
    - Automatic presentation start is dependent on Zoom settings.
  - Microphones are un-muted and the mic LED (if available) turns from off to green

- When the meeting or presentation ends the system turns off after a JSON config determined delay. This delay is defined in the micron.json file loaded into the Crestron processor.
  - Immediately upon the end of a Zoom Meeting or Zoom Presentation the microphones mute and the mic LED (if available) turns off.
  - After the Crestron JSON configuration delay (default setting is 30 minutes) and no other meeting or presentation has started the displays turn off
- The JSON config file defines an auto off function at a preset time to ensure that the system is off at the end of the day, in the event that it is left on from an advanced page.
  - This end of day shutdown does not include the subpage allowing the extension of the shutdown time.

- Table mic with LED Ring (typically ClockAudio with Biamp EX-UBT)
  - Single button press: toggles Mutes state ON/OFF.
  - If any mic is live when a button is held, all mics are muted.
  - If no mic is live when a button is held, all mics are live.
  - From Zoom - Pressing the "Mute" button will cause all microphones to mute, and their LEDS to turn red.
  - From Zoom - pressing the "Unmute" button will cause all microphones to unmute, and their LEDs to turn green.

- Rooms with microphones that have built-in LEDs exhibit the following behavior:
  - When the room is off, the microphones are muted, and the microphone LEDs are turned off.
  - When the room turns on, the microphone LED turns green, and the microphones become un-muted. This applies to both Zoom and Crestron-initiated controls.
  - Zoom-initiated controls are triggered when a Zoom meeting or content sharing is started, and Crestron-initiated controls are triggered when a laptop is connected and a startup macro is executed.
  - Pressing the microphone mute button from the Zoom meeting interface turns the microphone LED red when the microphone is muted and green when the microphone is un-muted.
  - For rooms with a Ceiling mic mute feature. When enabled, the ceiling mics LED will stay OFF and muted until the mute is disabled.

- Panel reboot and panel offline events have programming to force the panels to the Zoom App
  - This also occurs at midnight and program restarts.
  - Panel's web interface settings switching panels to Zoom after 10 minutes have been implemented.
- Auto Shutdown can now be enabled or disabled from Admin pages by selecting a mode.
  - During Business hours: Room will only shutdown after business hours
  - After call ends: Room will shutdown a specific time (config only) after a call or presentation is ended.

Zoom UI - Main Screen
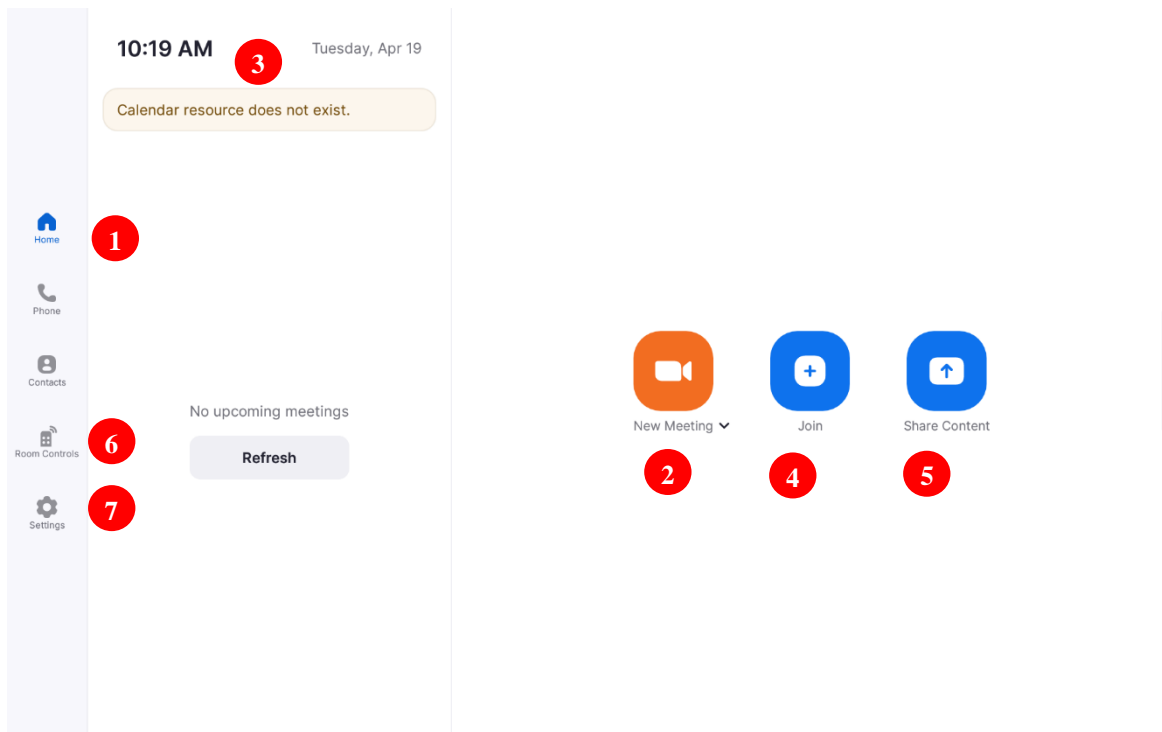
1) The touch panel will be on and displaying the Zoom App. The home page is shown and is the primary landing page for the Zoom App. No changes to the room's operation take place upon entry into the room.

   a. The installed touch panel shall be set to never go to sleep.

2) Pressing the New Meeting button will start an ad-hoc Zoom meeting, turn on the system and display the Zoom meeting using the default layout settings.

   a. Default layout settings are defined in the Admin Video Output Routing page.

3) Selecting the Meeting List will display a page showing scheduled meetings for the room. Starting a scheduled meeting will start the system as described in #2

4) Selecting the Join button will bring up a page with a keypad allowing the user to join a meeting using a provided Meeting ID and password. Once connected to the meeting the system will startup as described in #2.

5) Selecting Presentation will take the user to a page allowing the selection of the type of presentation method desired. This will be described later in this document.

6) Selecting Room Controls will take the user to a custom Room Control page. This page will be customized to allow basic controls of a specific room type. Specific control pages will be described in each room type's addendum.

   a. In the event that there are no custom controls for a given space this button will not be shown.

7) The Settings page will allow users to select the main camera (if multiples are available) and confirm the audio microphone and speakers.

Zoom UI - Active Meeting with multiple camera feeds
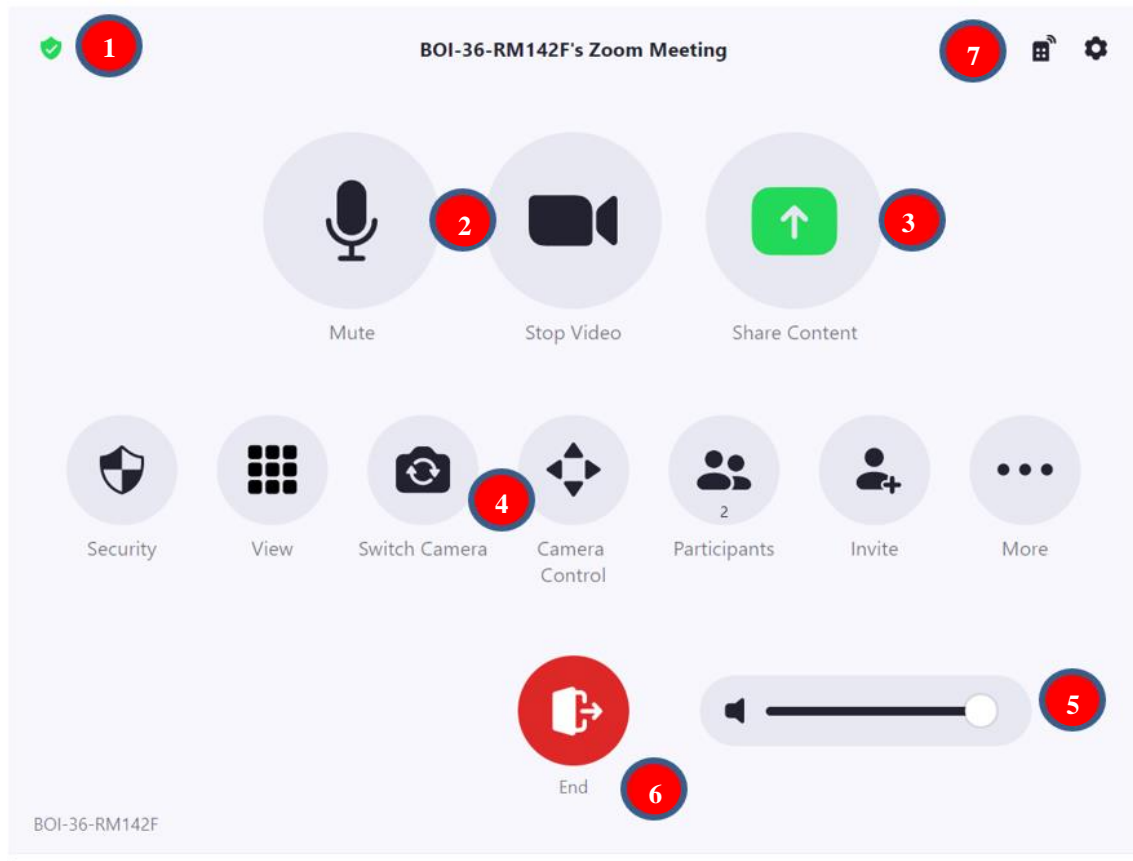
1) This is the screen that is displayed by the Zoom App when an active meeting is in progress.

2) This button will mute and unmute the room's microphones. This indication is displayed to the far end call participants. The in-room microphones will display the mute state if the room supports that capability. See each the specific room for its microphone's available features.

3) Selecting Share Content or Camera will bring up a presentation screen with instructions that will be described later in this document.

4) Selecting camera control will show a page that allows selection and native control of directly connected USB cameras.

5) Adjusting the volume slider will affect the volume level of the connected conference incoming volume.

6) Pressing the End button will bring up a confirmation page allowing the user to leave the meeting or end the meeting for all participants, if the room is the host of the meeting. Either selection will power down the room after a preset duration of room vacancy AND no active calls.

7) Selecting this button will bring up a subpage allowing basic controls specific to each room type. These controls are described in each room type's addendum.

   a. If no room controls are available for this space this button will not be shown.

Zoom UI - Camera Names and multi-stream
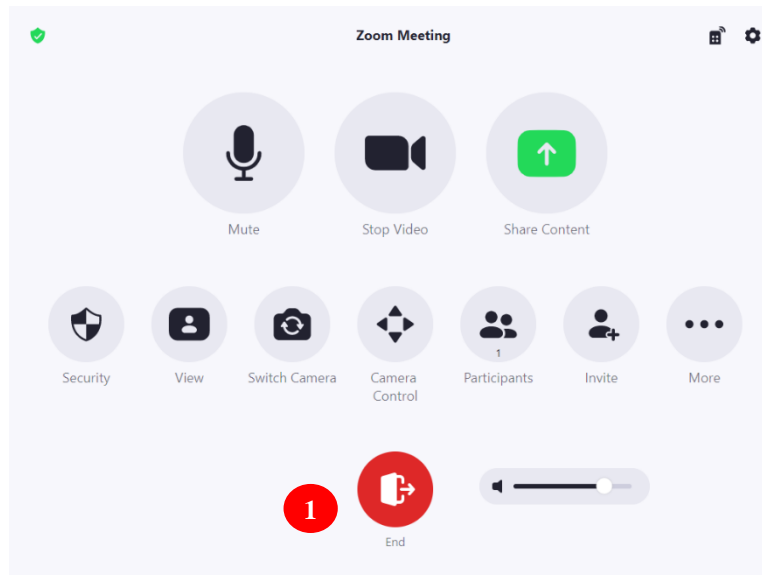
1) In the video settings window, the user can select the camera they want to control from the drop-down menu below "Camera control."
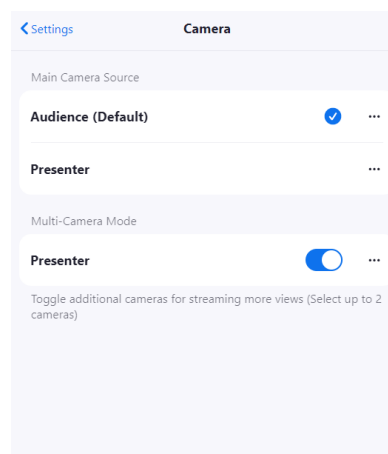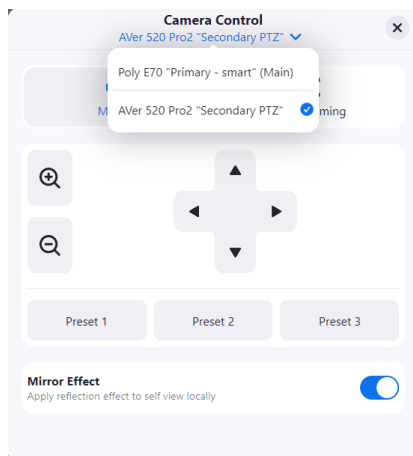

2) By default, the cameras will be a Poly E70 set as the main camera, which captures the audience, and an AVER 520 PRO camera set as their secondary camera, which captures the presenter. The camera names are changed to "audience" for the Polycom E70 and "presenter" for the Aver to make it easier for the user to identify them.

The stream names for the cameras will be in the format of "room name_#" (incremental from none), which means that if the room name is "conference room 1," then the main camera stream will be named "conference room 1_1" and the secondary camera stream will be named "conference room 1_2." This helps to differentiate between multiple camera streams.

Zoom UI - Active Meeting with Single Camera feed
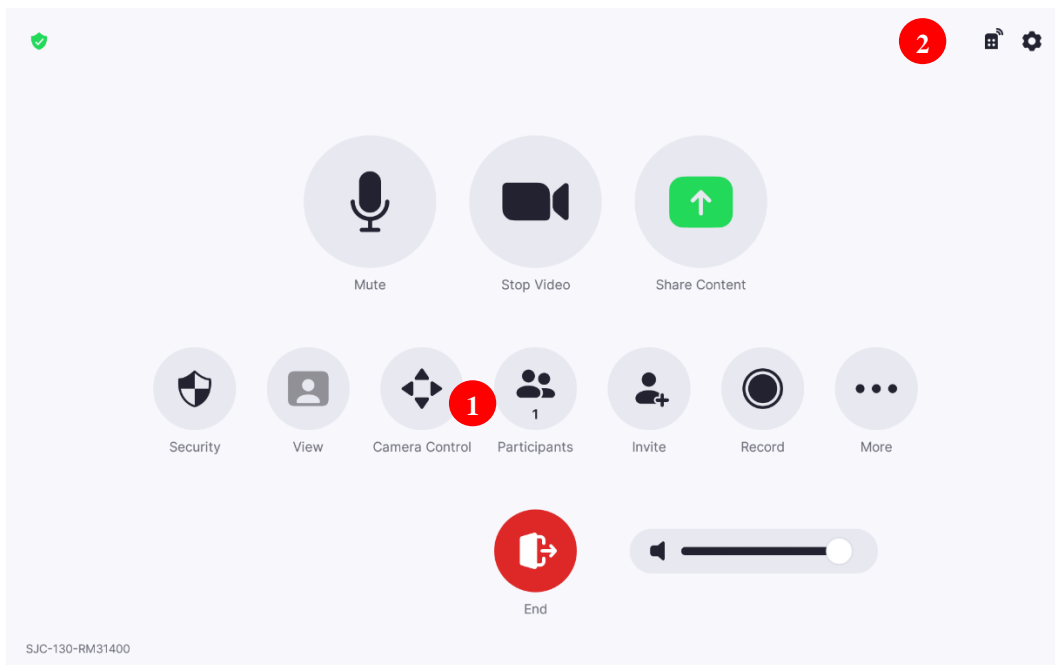
1) For operator-based spaces such as ATM, SOC, MPH, or MPRs the camera video is sent to a video switcher and routed as a single feed to the zoom PC. In these cases, the switch camera button will not show in the zoom UI. To switch cameras user needs to navigate to the custom controls.

2) From custom controls, select which camera will be sent to the far end.
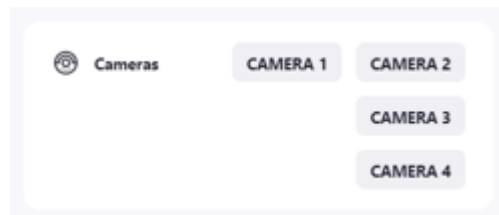
3) To control the cameras, use the camera controller (hardware) at the podium or the Camera control page under Crestron/ Admin/ Camera


9
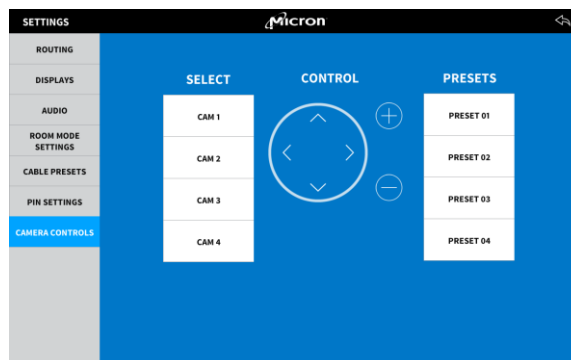
Zoom UI - Present Screen – (not in meeting)
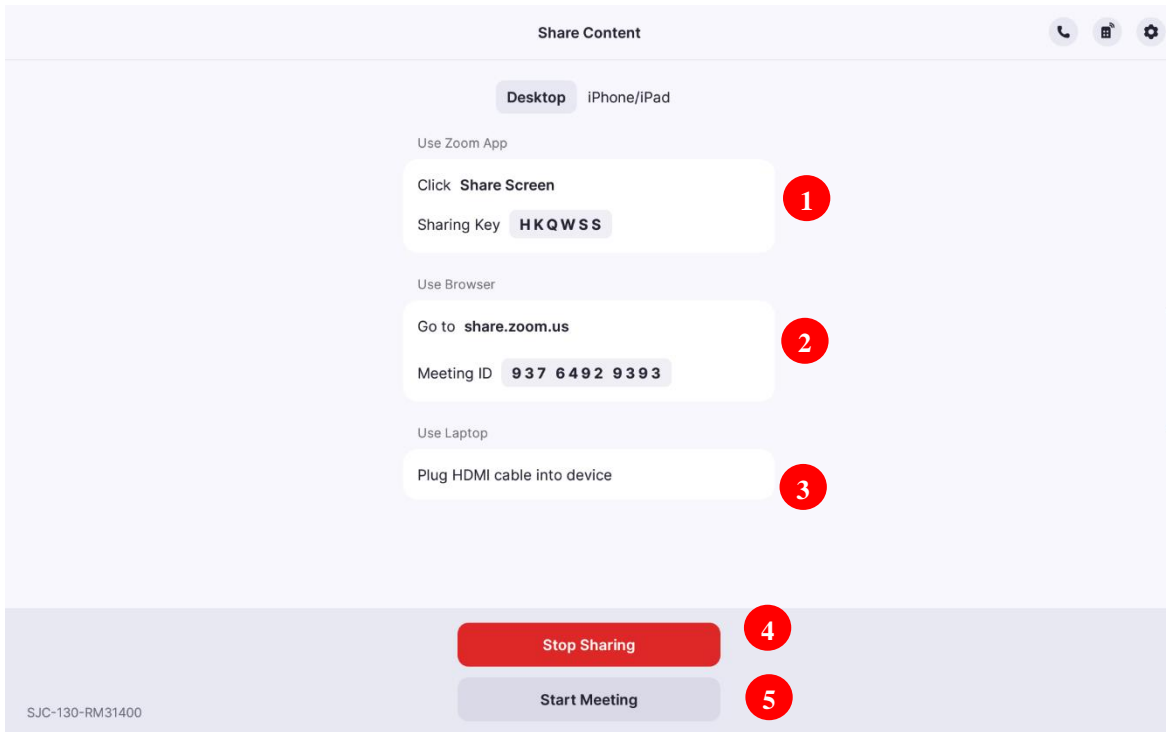

1) Instructions for wirelessly sharing using the sharing key are shown.

2) Instructions for wirelessly sharing using a web browser are shown.

3) Use of the HDMI cable will cause the laptop's image to be automatically routed when detected.

    a. In spaces with multiple HDMI connections the detected laptop will be automatically selected and routed to the Zoom computer.

    b. If more than one laptop is connected the last connected laptop will be shown.

    c. As laptops are disconnected the previously connected laptop will be shown.

4) Pressing Stop Sharing will disconnect the laptop(s) from the Zoom computer and turn off the system after a preset duration of room vacancy AND no active calls.

5) Pressing Start Meeting initiates an Ad Hoc meeting with the current presentation shown in the meeting.

    a. Pressing Share Content brings up the menu allowing the user to stop the screen sharing.

Crestron Pages Access
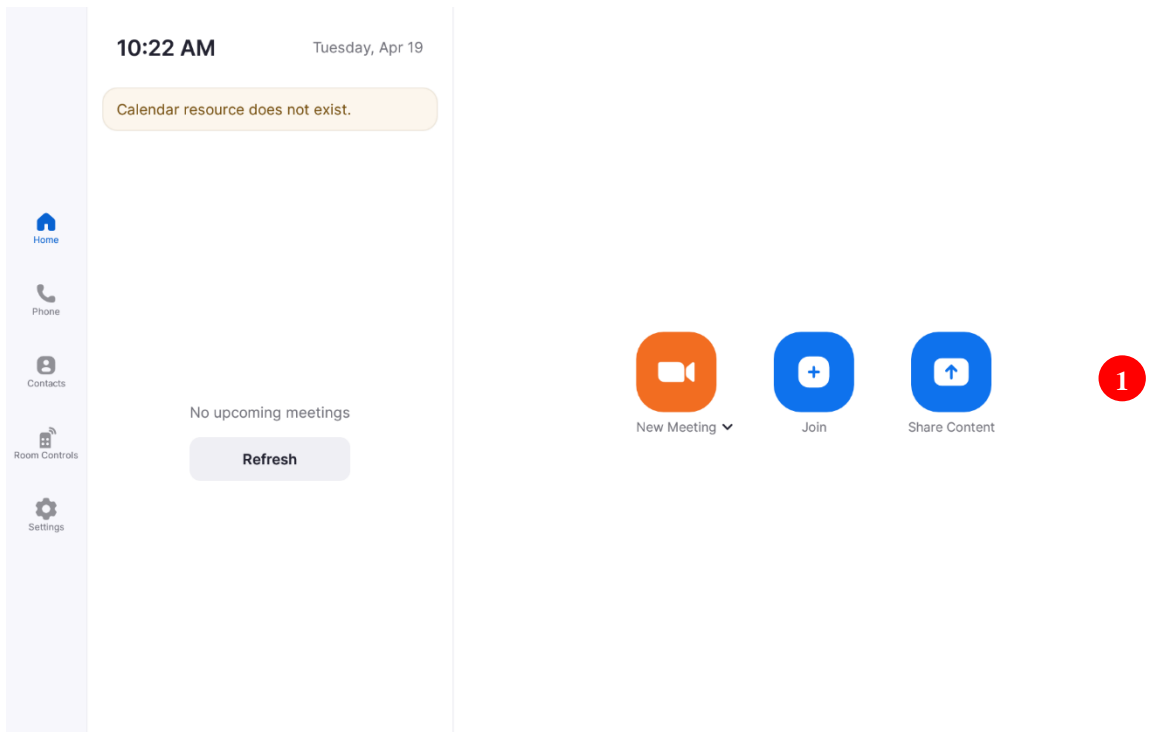
1) Press the left grey vertical bar to reveal the button allowing navigation to the custom Crestron control page.
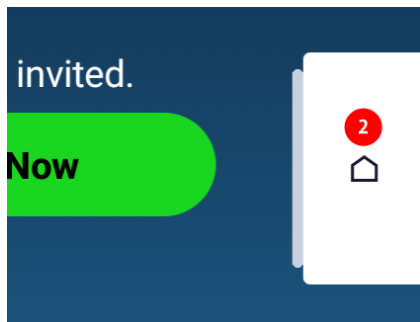

2) Press the house shaped button to switch to the custom Crestron control page.

   a. Pressing the vertical grey bar will hide the navigation button page.

   b. This slide-out page is set to disappear after 10 seconds.

Crestron Landing Page - PIN
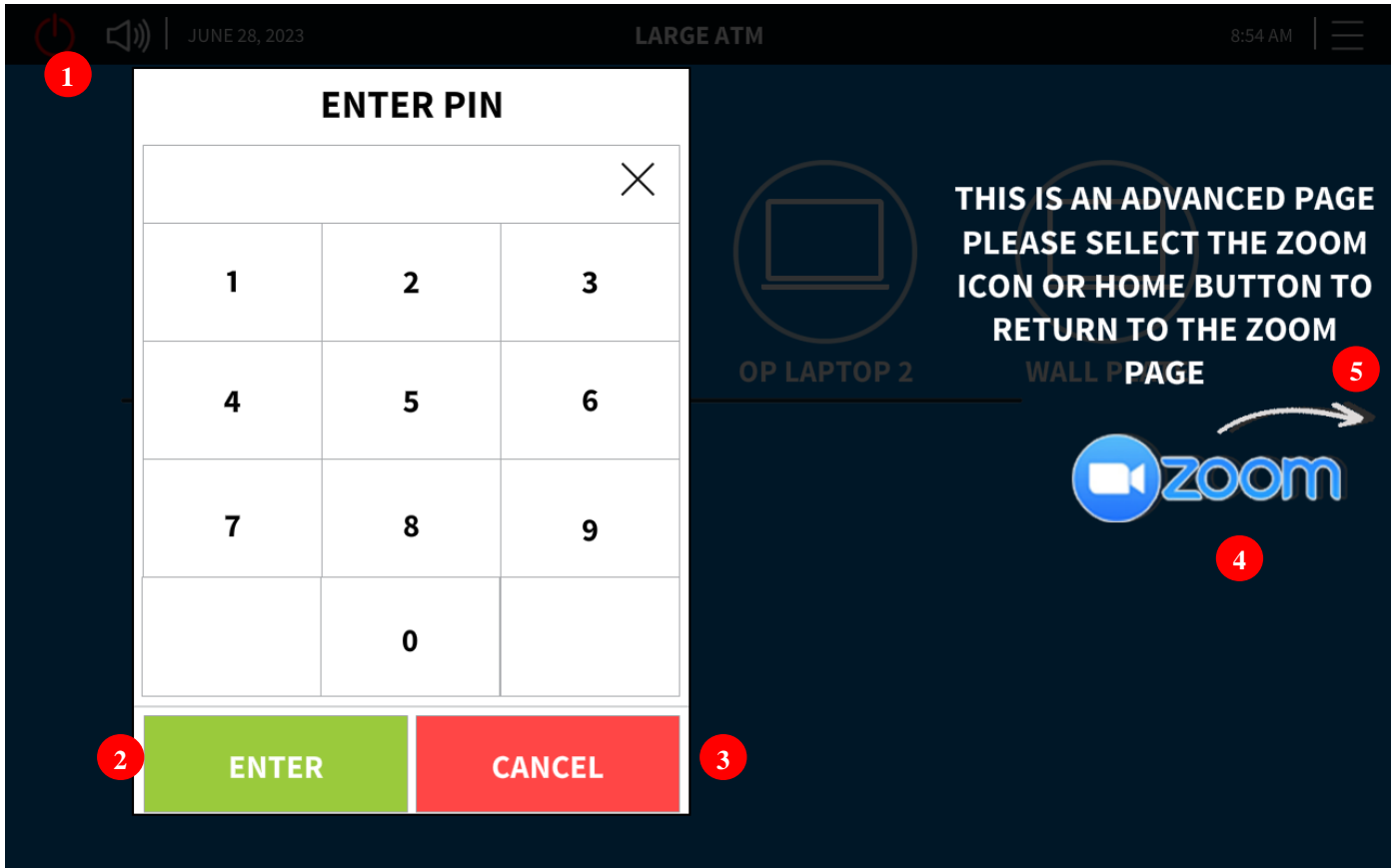
1) Shown is the password protected landing page requiring trained users to enter a password to use more advanced features.

   a. This page is not used in boardroom systems.

2) Successful entry of the password and pressing enter will take the user to the Advanced User Crestron Landing Page.

   a. If an incorrect password is entered the password field will be cleared allowing the user to re-attempt the password entry

3) Pressing the Cancel button will flip to the Zoom App

4) Pressing the Zoom Logo button will flip to the Zoom App

5) Pressing the grey vertical bar will expose the navigation page, pressing the Home button on that page will flip the Zoom App.

6) Initial password will be setup for both user and admin, so the local team can access the configuration and change it.

7) Some basic systems may not have a user page (if requested by Micron, this page will be removed)

12

Crestron Advanced User Landing Page
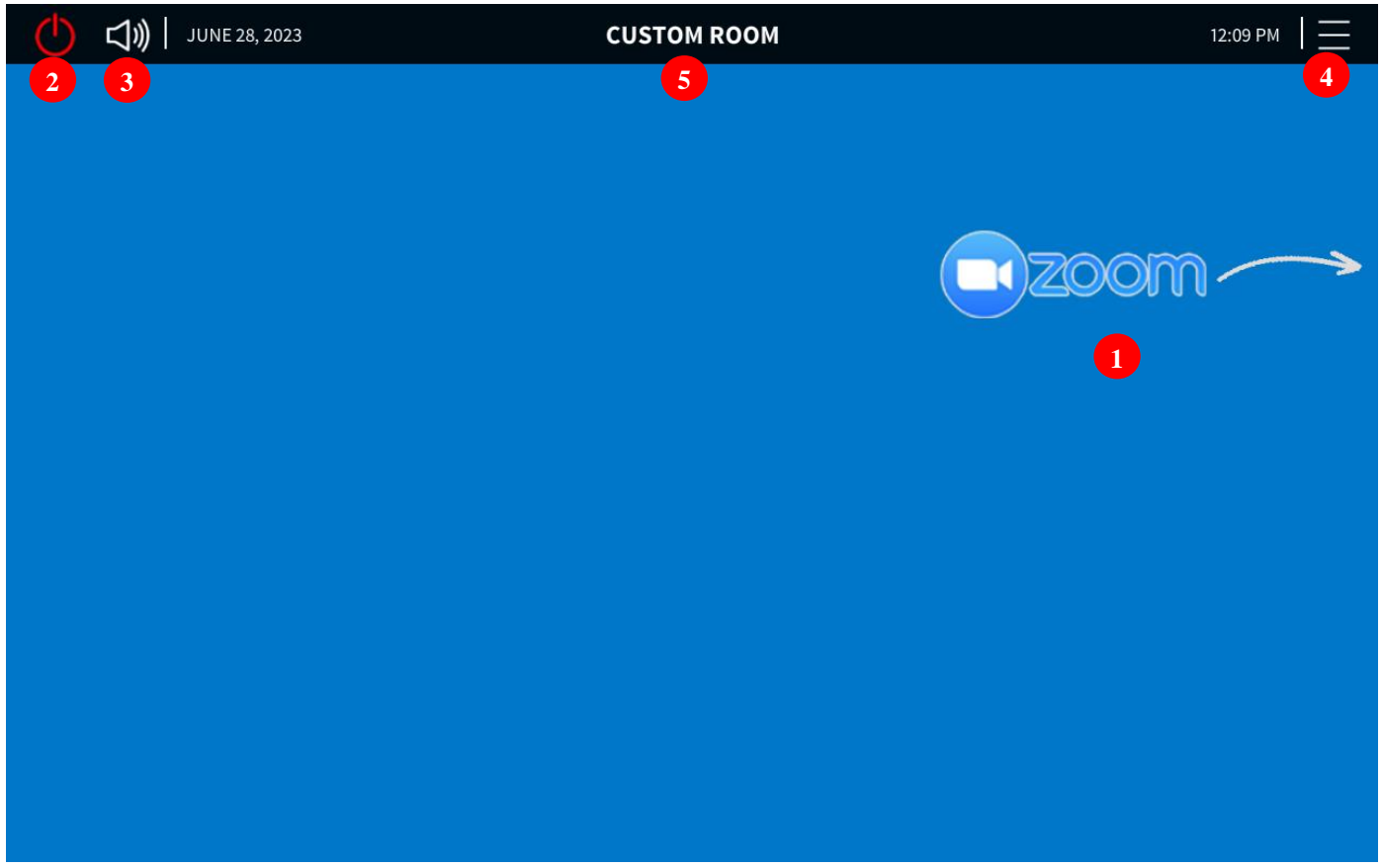
1) Pressing the Zoom icon or pressing the grey vertical bar which exposes the navigation page, then pressing the "Home" button on that page will flip to the Zoom App.

2) Pressing the power button will manually turn the system on or off.

    a. Manual on follows the same steps as the Start Zoom Meeting automation described earlier.

        i. When the system is manually turned on the JSON configurable 30-minute auto off is bypassed and the user is responsible for turning off the system.

        ii. There is an end of day auto off (default is midnight and set to on from the JSON configuration file) that will turn the system off.

    b. Off includes a power off confirmation sub-page

3) Pressing the speaker button displays a volume control sub-page.

    a. This page will control in-room mic volumes and/or other volumes where applicable.

    b. Additional volume controls will be included as required.

4) Pressing the menu (hamburger) button exposes a drop-down menu allowing the selection of Timer, Info and Admin functions.

5) The Room's name as defined in the JSON file is displayed here.

Crestron System Startup
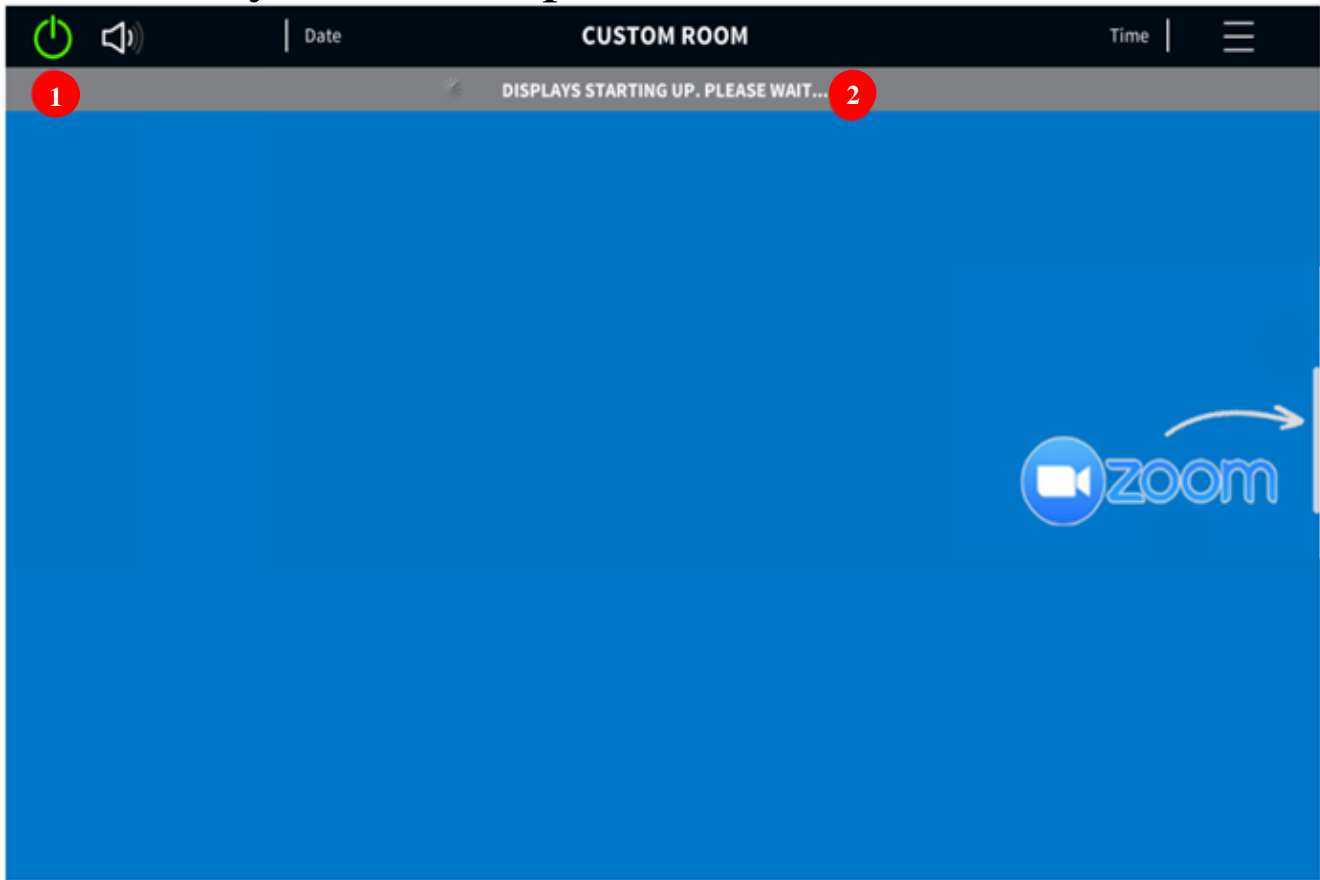
1) Pressing the power button when the system is off will produce the "Displays Starting Up" dialog until the system is fully powered up and ready to use.

    a. Specific routing is defined in the admin section. Default will be to display the Zoom PC

    b. No audio presets are recalled during startup.

2) The following warning will be displayed during startup.

Crestron System Shutdown
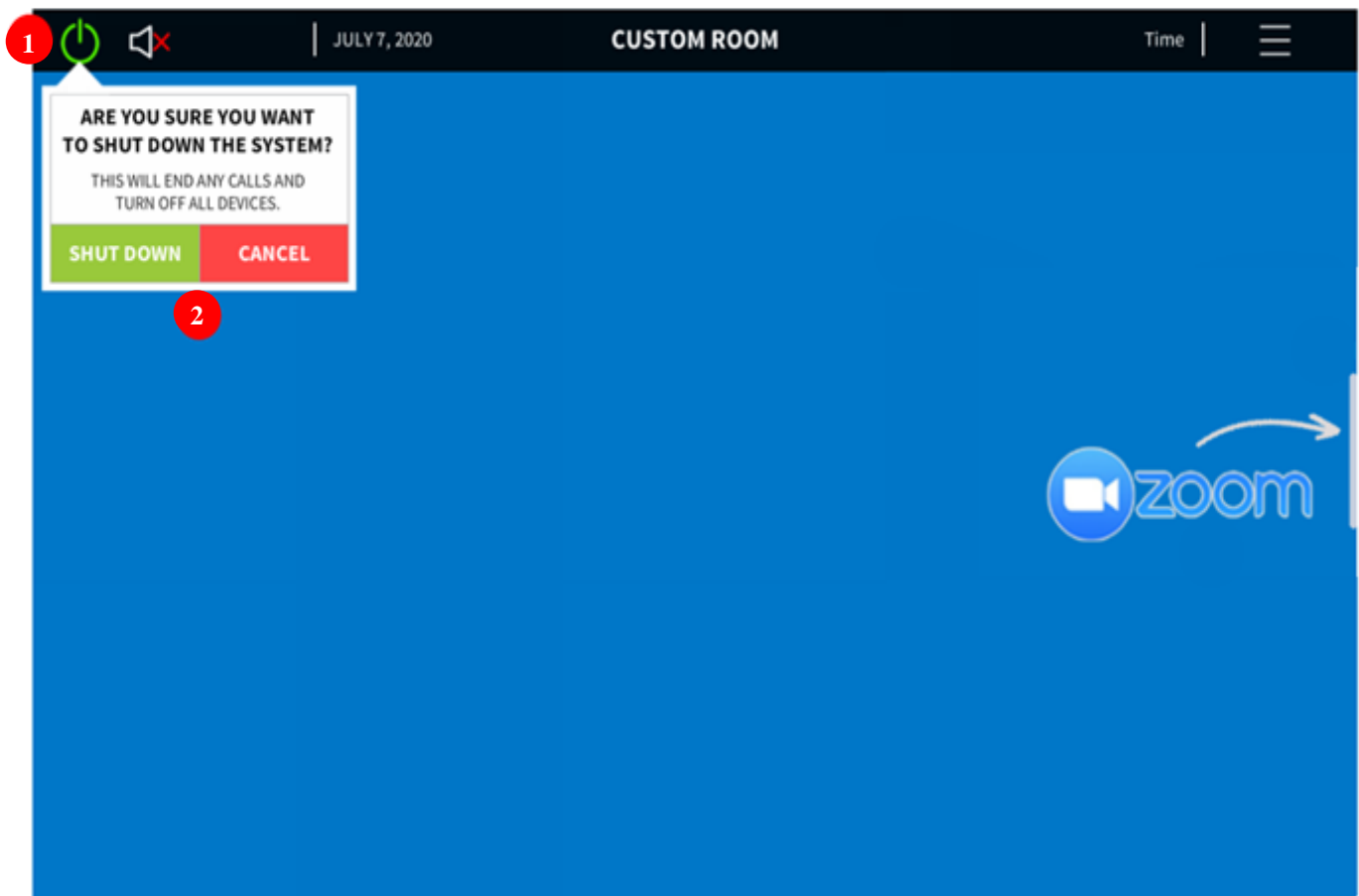
1) The user can shut the system down by pressing the power button on the home page while the system is on.

    a. Manual shutdown immediately turns off all displays, mutes microphones and, when applicable, turns off the mic LEDs

2) The user will be prompted to confirm the shutdown.

Crestron Volume Control – Main Program
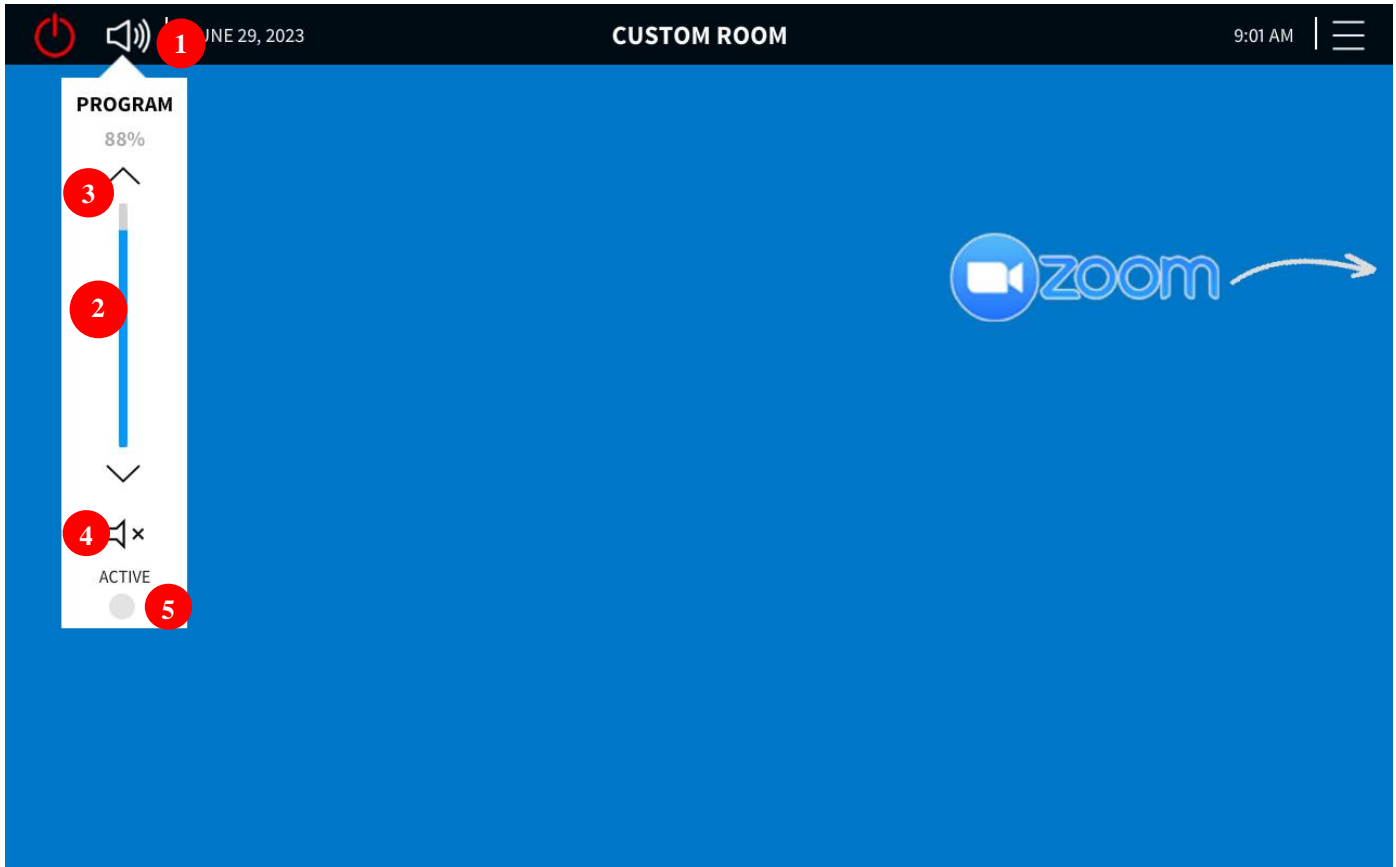
1) The user can quickly access the volume control for the program sources by pressing the speaker icon.

    a. The Zoom PC audio is adjusted on the Zoom App in call screen.

2) The current volume level will be indicated by a bar graph and a percentage.

3) The user can adjust the volume level using the up, down, and mute buttons.

4) The mute button will be highlighted red while the audio is muted.

5) A green dot indicates the presence of audio for the current audio source.

Notes
- The volume icon will visually indicate the general volume level by showing more bars when the volume is louder and fewer bars when the volume is quieter or a red X when the main audio is muted.

Crestron Volume Control – Main Mics

1) The user can quickly access the volume control for the in-room microphones by pressing the speaker icon.

    a. If there are no in-room volume controls adjustable by the advanced user, the speaker icon will not appear.

    b. The Zoom PC audio is adjusted on the Zoom App in call screen.

2) The current volume level will be indicated by a bar graph and a percentage.

3) The user can adjust the volume level using the up, down, and mute buttons.

4) The mute button will be highlighted red while the audio is muted.

5) A green dot indicates the presence of audio for the current audio source.

Notes

- The volume icon will visually indicate the general volume level by showing more bars when the volume is louder and fewer bars when the volume is quieter or a red X when the main audio is muted.

Crestron Volume Control – Main Zoom
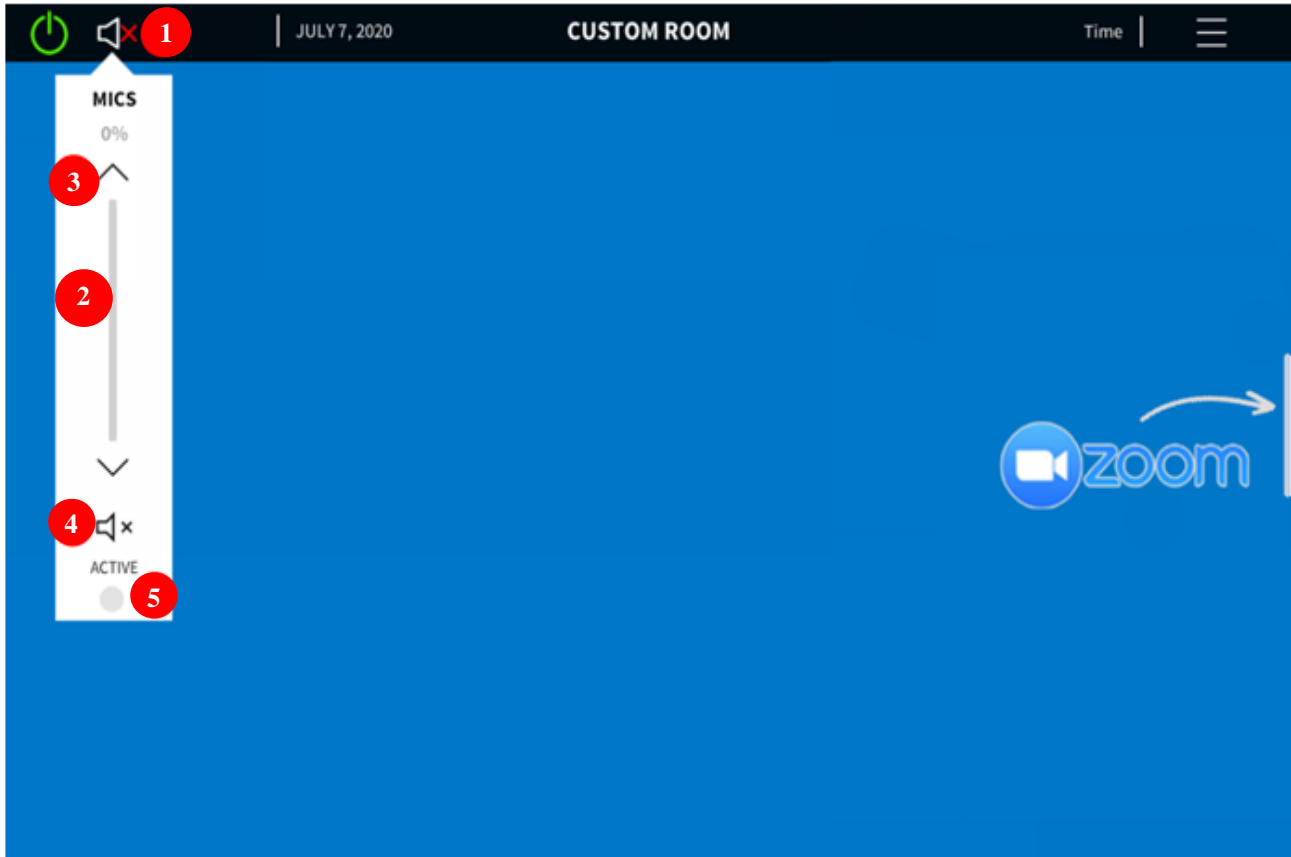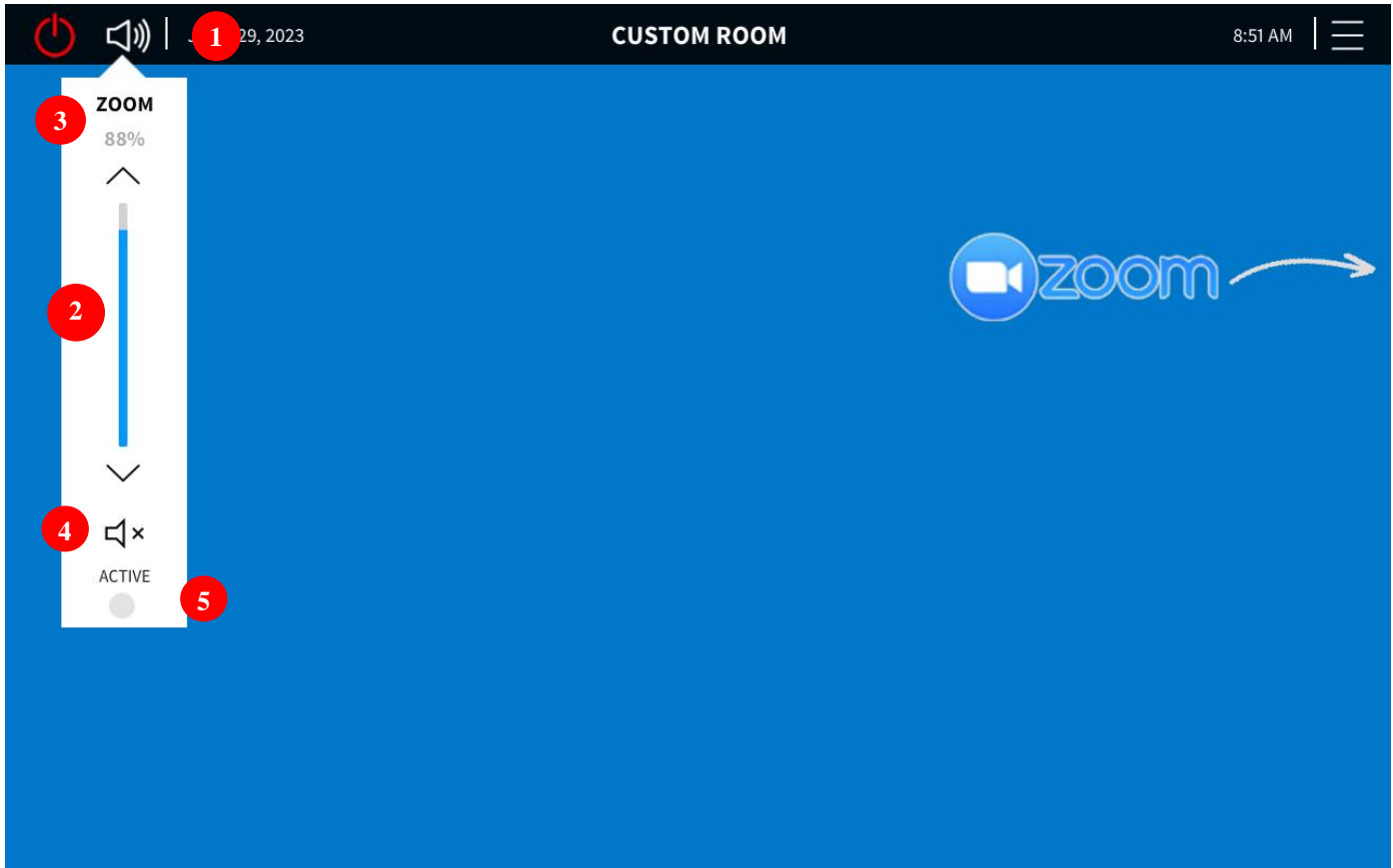

1) The user can quickly access the volume control zoom by pressing the speaker icon.

    a. The Zoom PC audio can also be adjusted on the Zoom App in call screen.

2) The current volume level will be indicated by a bar graph and a percentage.

3) The user can adjust the volume level using the up, down, and mute buttons.

4) The mute button will be highlighted red while the audio is muted.

5) A green dot indicates the presence of audio for the current audio source.

Notes

- The volume icon will visually indicate the general volume level by showing more bars when the volume is louder and fewer bars when the volume is quieter or a red X when the main audio is muted.
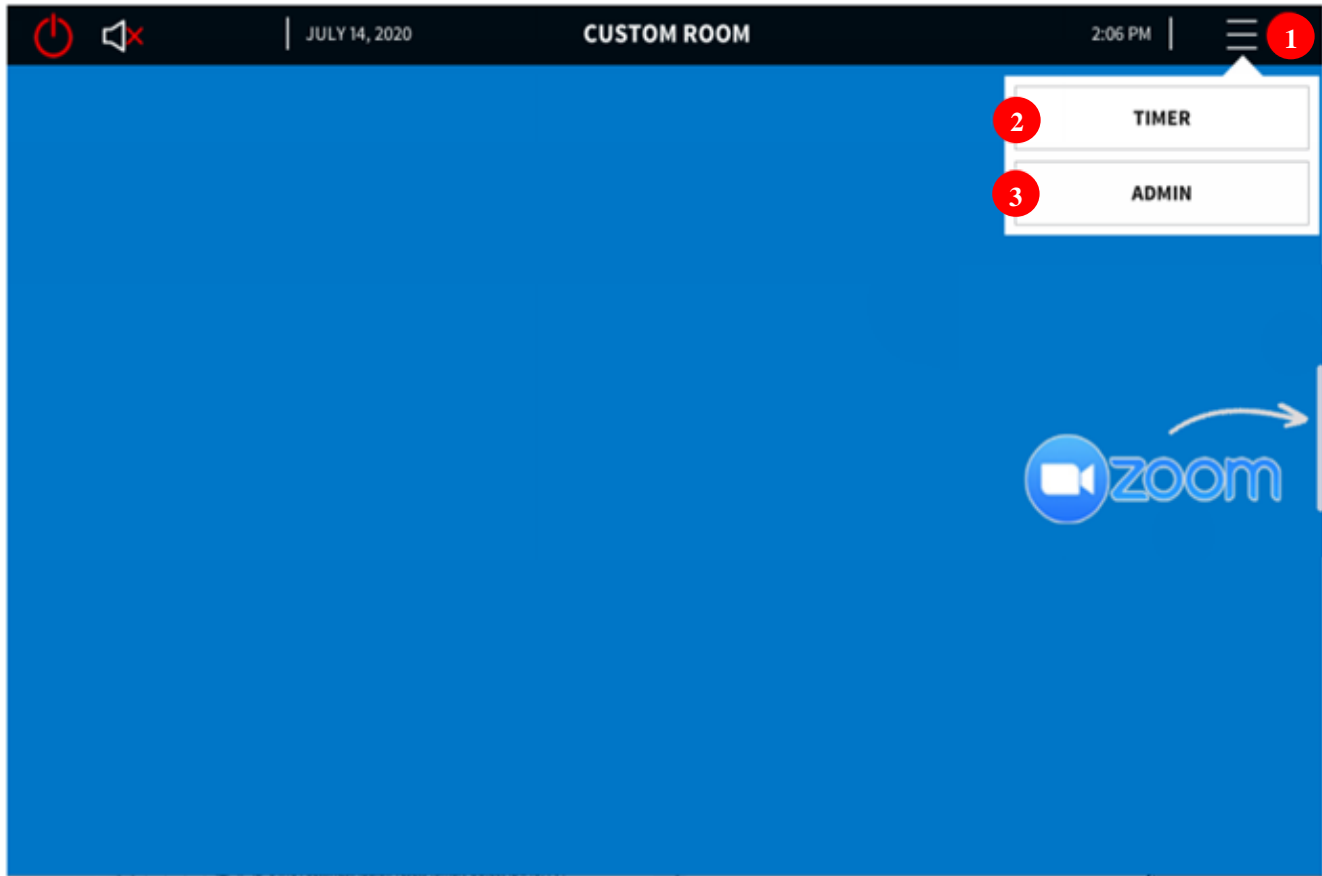
Crestron More Menu Options

1) If the user presses the "Menu" button, a list of additional control pages will appear.

   a. Pressing the "Menu" button again will cause the list to disappear.

2) The "Timer" option will present the user with controls for managing the presentation timer.

3) The "Admin" option will present the user with a keypad to access advanced room controls.

Crestron Timer Controls Version 1
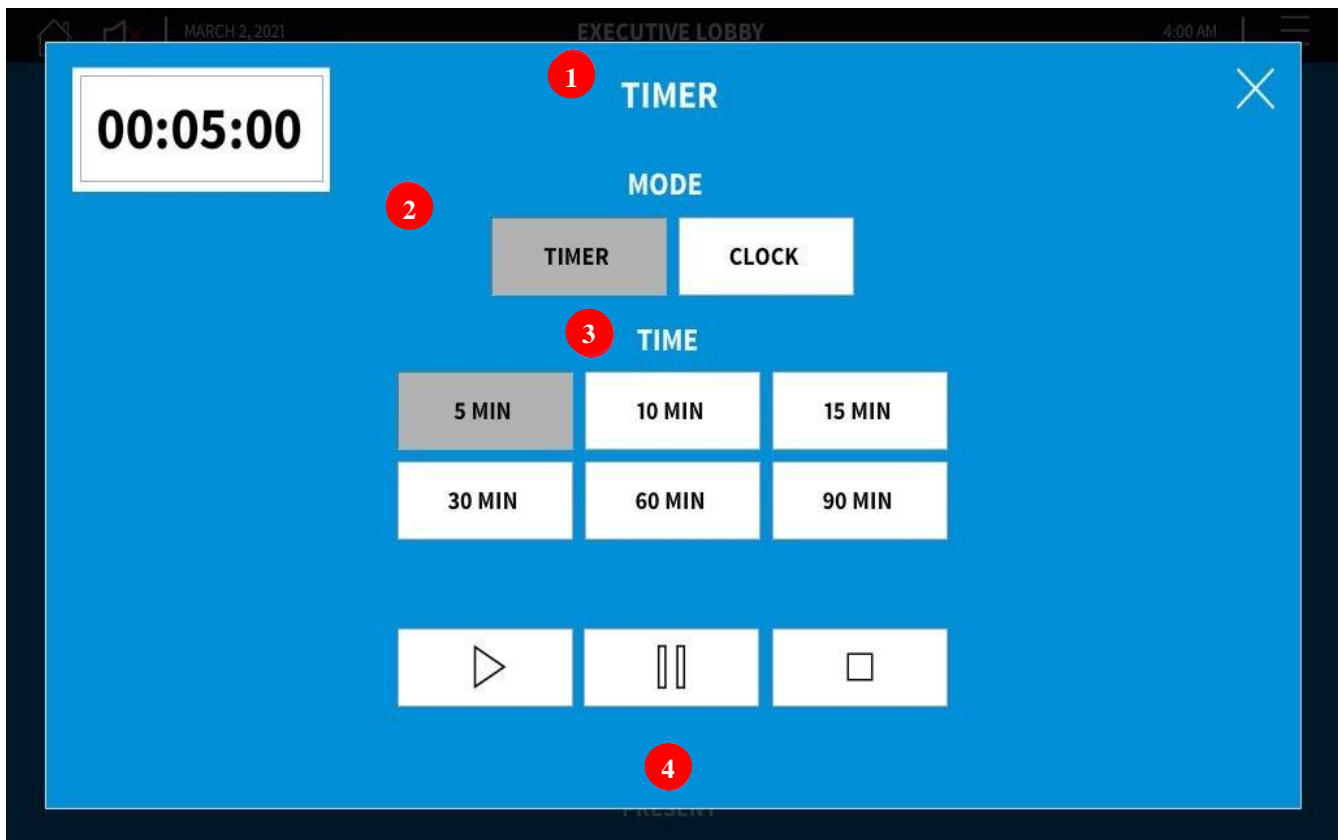
1) The user will be presented with these controls after pressing the "Timer" option from the flyout menu.

2) The user can toggle between timer and clock modes. This affects what the touch panel and any physical clock will show. In clock mode, any physical clock will simply show the current time. While in timer mode, both the touch panel and any physical clocks will show a countdown timer for timing a presentation.

3) The user can set how long the timer should countdown for by selecting the corresponding option.

4) The user can start, pause, and stop the timer with these buttons.

Notes
-        While the timer is active the Crestron pages of the touch panel will show a persistent popup showing the current countdown time.

Crestron Timer Controls version 2
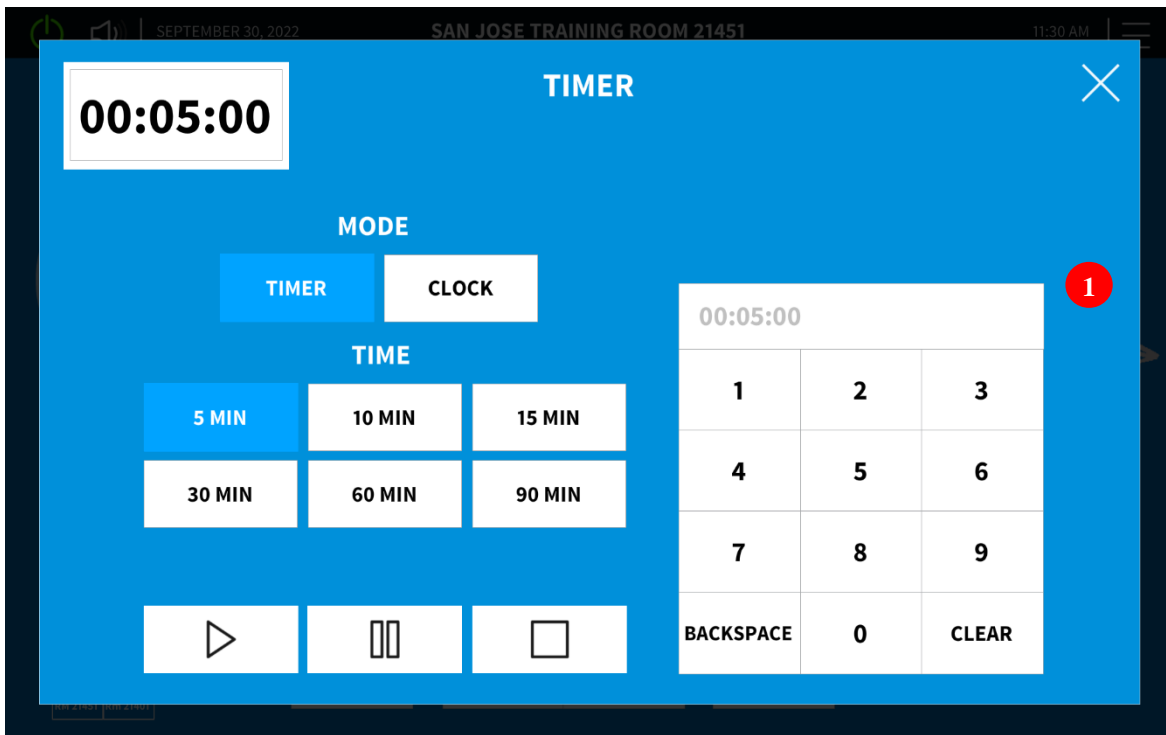
1) Some rooms may have a more refined version of the timer.

   a. For these cases, users will be able to adjust the time increments to any amount by using the keypad added to the right.

   b. The user can start, pause, and stop the timer as with the other versions.

Crestron Non-Zoom Spaces
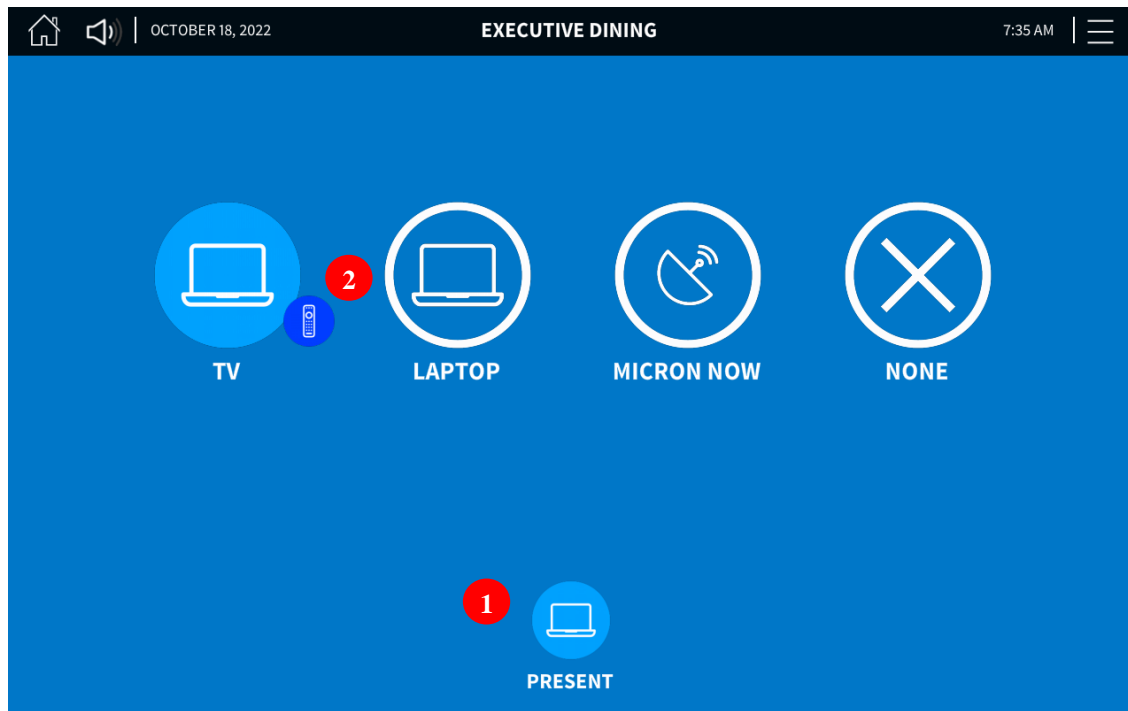
Some rooms may have only local sources and not be zoom capable. This is the case for lobbies, executive dining, or Gyms.

1   For these cases, users will be able to select from available sources by pressing the Present button selecting one from the list.

2   When a TV Tuner is available, pressing the remote icon will give users control of the TV.

Crestron Cable TV Controls Page

1. Pressing the Zoom icon will flip to the Zoom App.
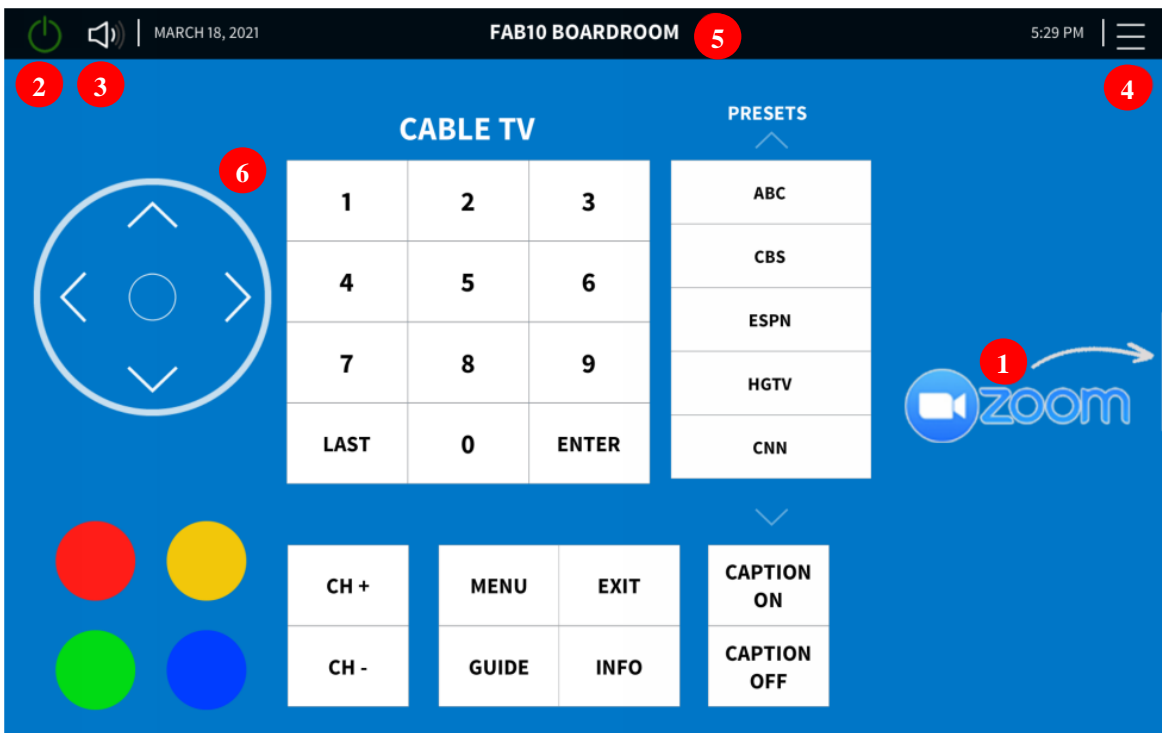2. Pressing the power button will manually turn the system on or off.
   a. Off includes a power off confirmation sub-page.
3. Pressing the speaker button displays a volume control sub-page.
   a. This page will control in-room mic volumes where applicable.
   b. Additional volume controls will be included as required.
4. Pressing the menu (hamburger) button exposes a drop-down menu allowing the selection of Timer, Info and Admin functions.
5. The Room's name as defined in the JSON file is displayed here.
6. Full function CATV controls are available, including dynamic preset selection.
   a. Dynamic presets are set on the admin page.

Crestron Combinable Training Room – Combine Indicators
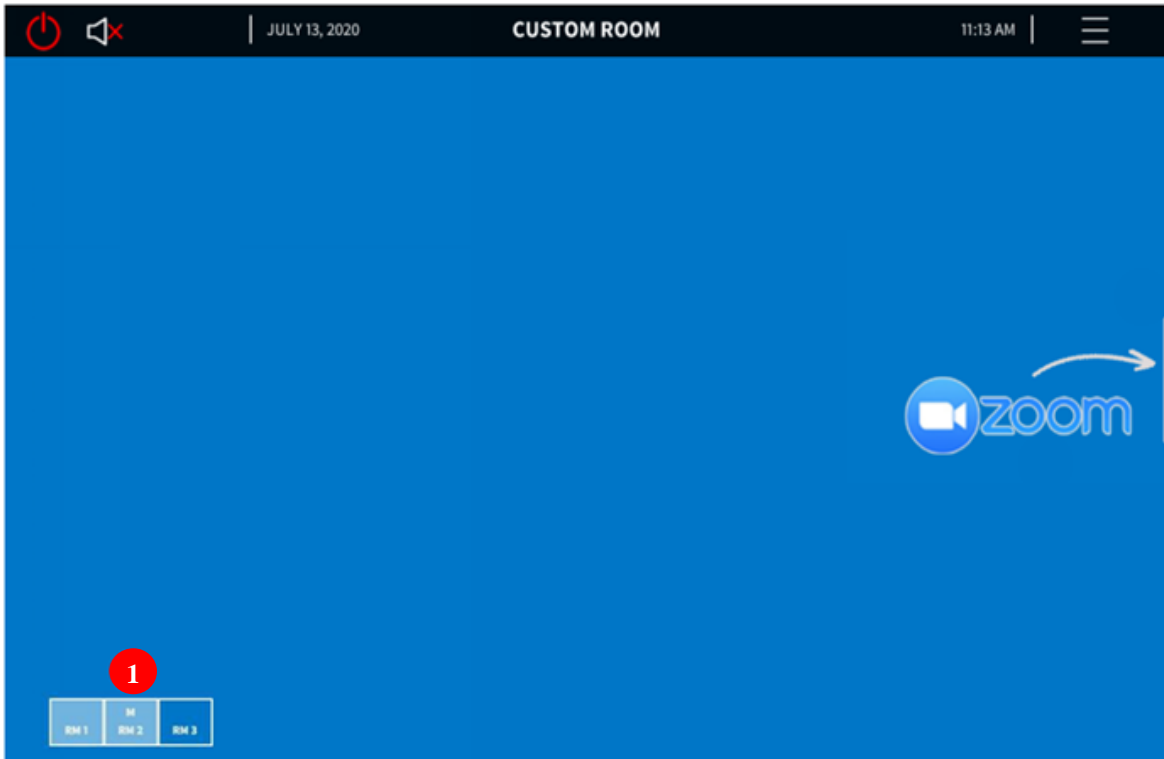
1. For combinable systems, a set of icons indicate current room combination status.

   a. Each box represents a room.

    b. Rooms that are combined are highlighted.

    c. A room with an "M" represents the "Master" room, of which the Zoom PC will be utilized.

Notes

- **The room state (combined or divided) should only be changed while the rooms are completely turned off and not in a meeting. Even if the partition manual overwrite is selected, the rooms should still be completely shut down before changing modes.**

- Room combination will be detected via a partition sensor. This sensor can be overwritten by selecting Manual overwrite.

- Upon combining rooms, the combined rooms will automatically match the state of the Master room and be ready to turn on and start meetings.

    o This includes audio configuration, video routing and display power.

    o The room with a "M" becomes the master room, meaning that the video (and audio if applicable) calls originate from this room.

- Upon dividing a room, the divided room will return to its previous state and be ready to turn on and start meetings.

Crestron Combinable Training Room –Panel Locked
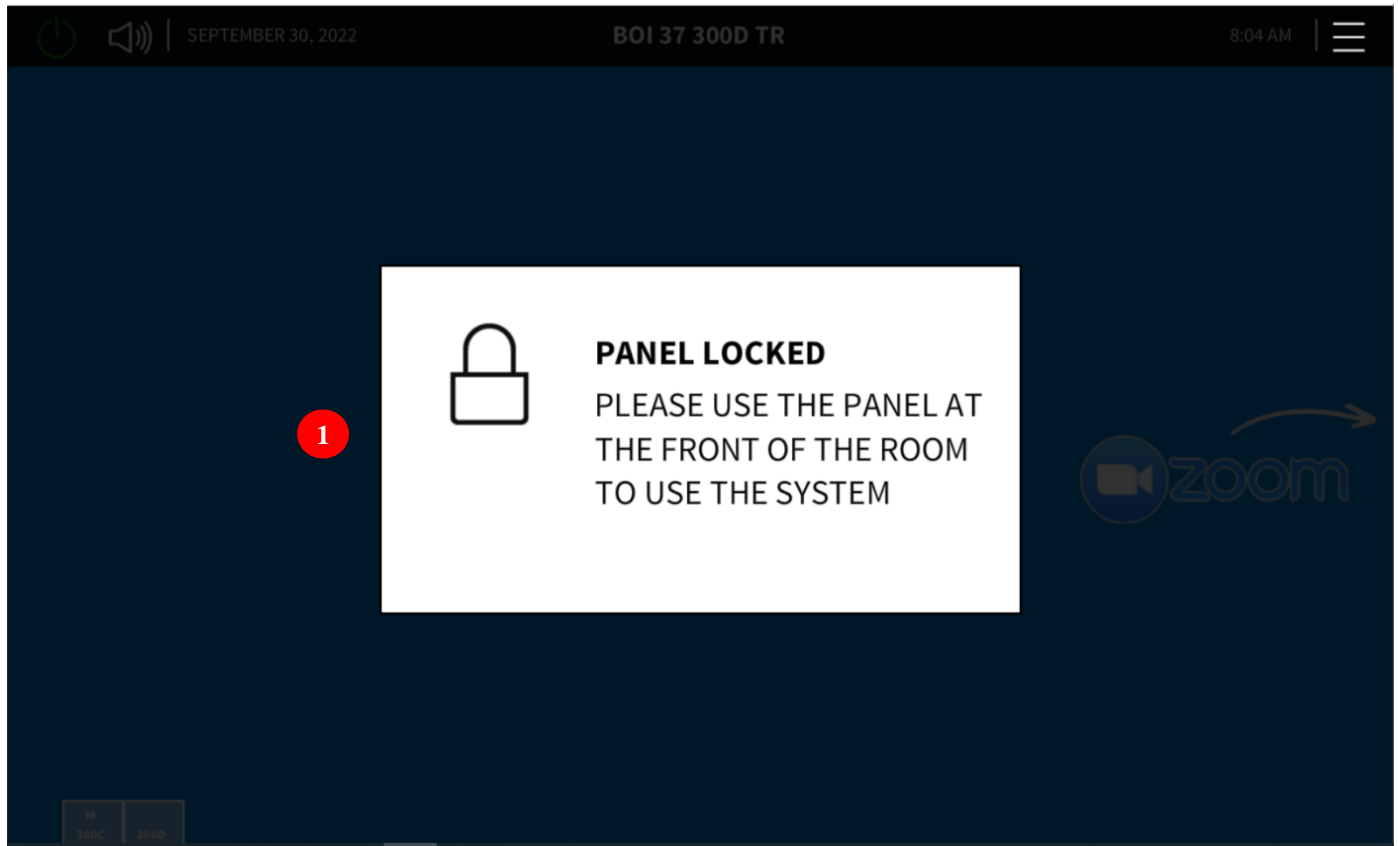
1. When two or more rooms are combined in a divisible training room, the secondary touch panels will be locked. This is to prevent the slave room zoom PC from being used.

2. The "Admin" section is still available in case any setting pages are needed (such as turning displays ON or OFF or making manual routes)

Crestron One Beyond
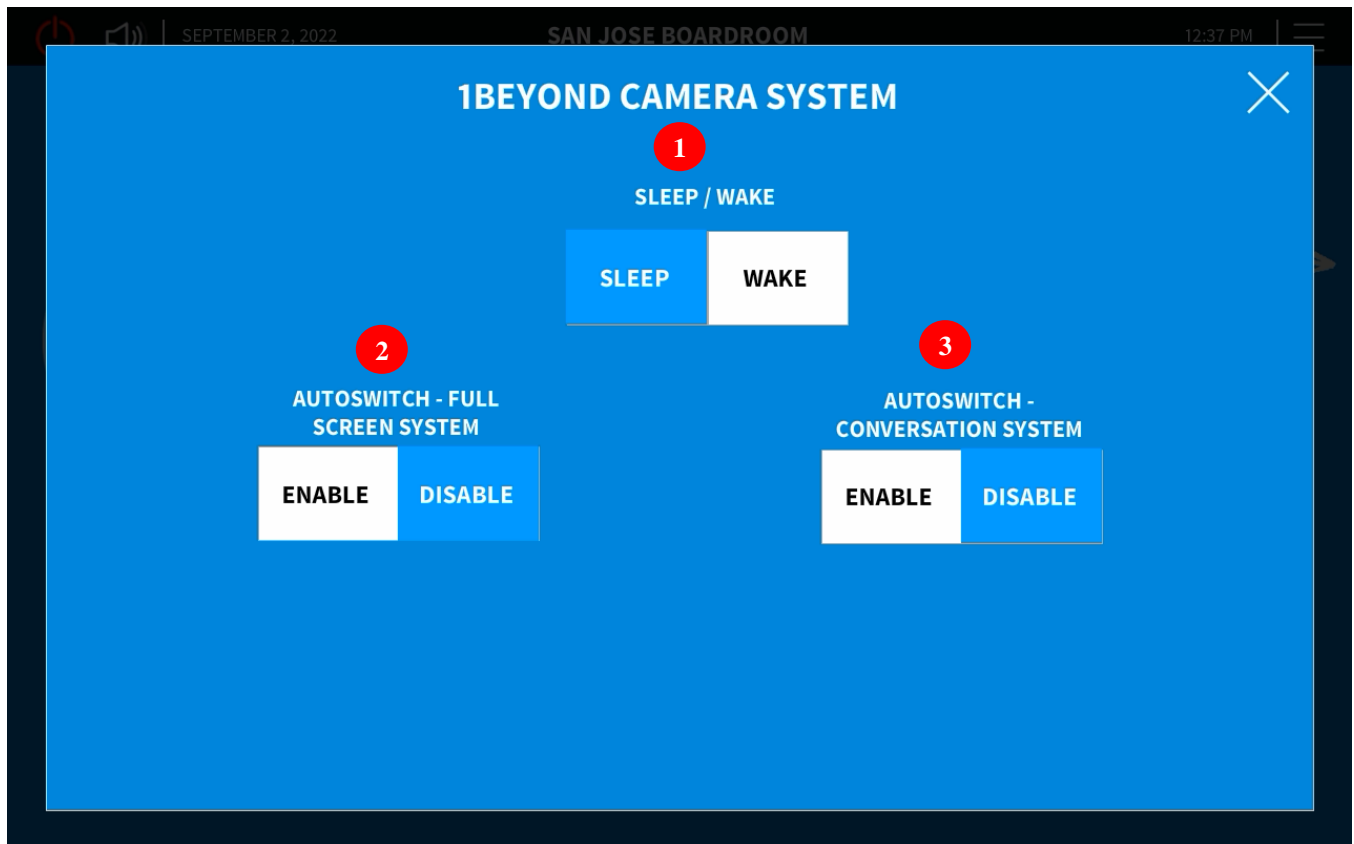
For rooms with a 1 Beyond system, there are three video feed sent to the zoom PC (regardless of the number of cameras in the room)

- First video feed is a stationary view of the entire room.
- Second video feed is either full screen mode (Enabled - active speaker) or one side of the conference table (disable – one side of the table)
- Third video feed is either conversation mode (Enabled - active speaker) or one side of the conference table (disable –one side of the table)

1) Manually set all cameras in the room to sleep or wake mode.

2) Select Full Screen mode for auto-switching.

      a. Cameras will track the last active speaker.

3) Select Conversation mode for auto-switching.

      a. Cameras will show the last two speakers side by side

Settings - Admin
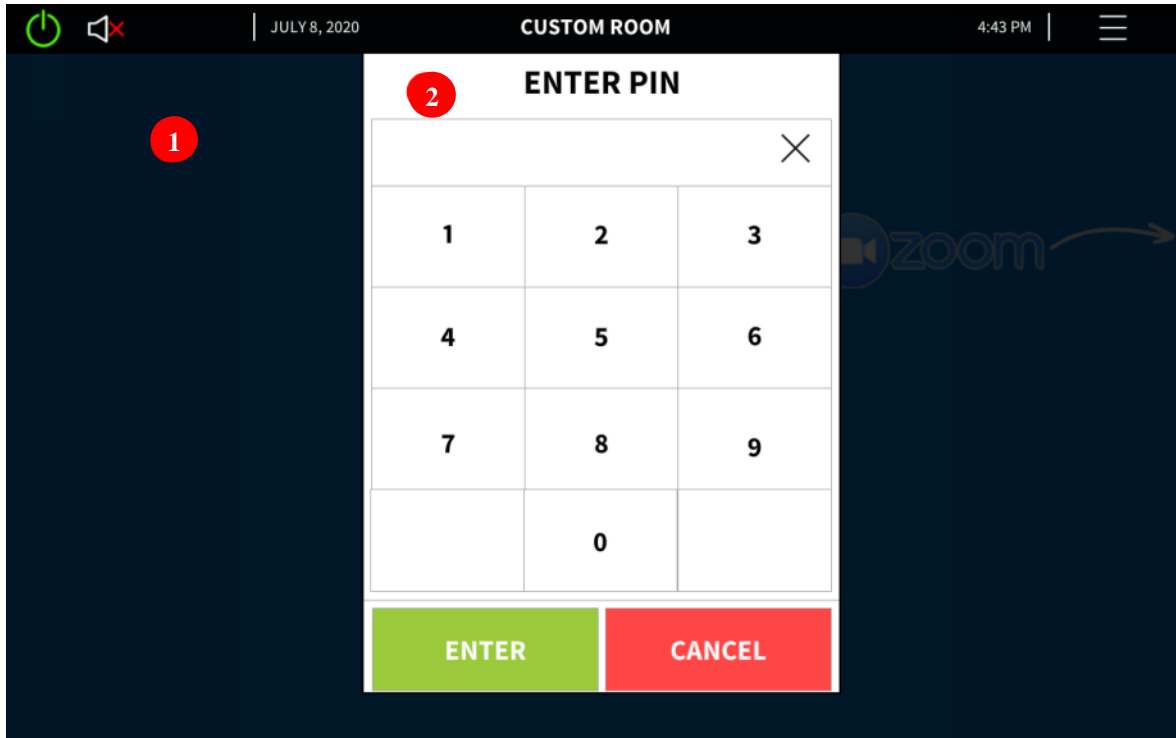
1. The user can access a set of advanced controls and settings by pressing the "Admin" button at the bottom of the drop-down menu accessed by pressing the upper right menu button.

   a. If an incorrect password is entered the password field will be cleared allowing the user to re-attempt the password entry

2. The settings pages are pin protected so the user will need to enter the correct password to access the advanced pages.

Notes
The pin can be reset from the settings pages and there is a persistent backdoor pin to override the user defined pin.
The user can return to the home page by pressing the Cancel button or home icon in the top right corner of the screen after accessing the settings pages.

Settings – Routing Page
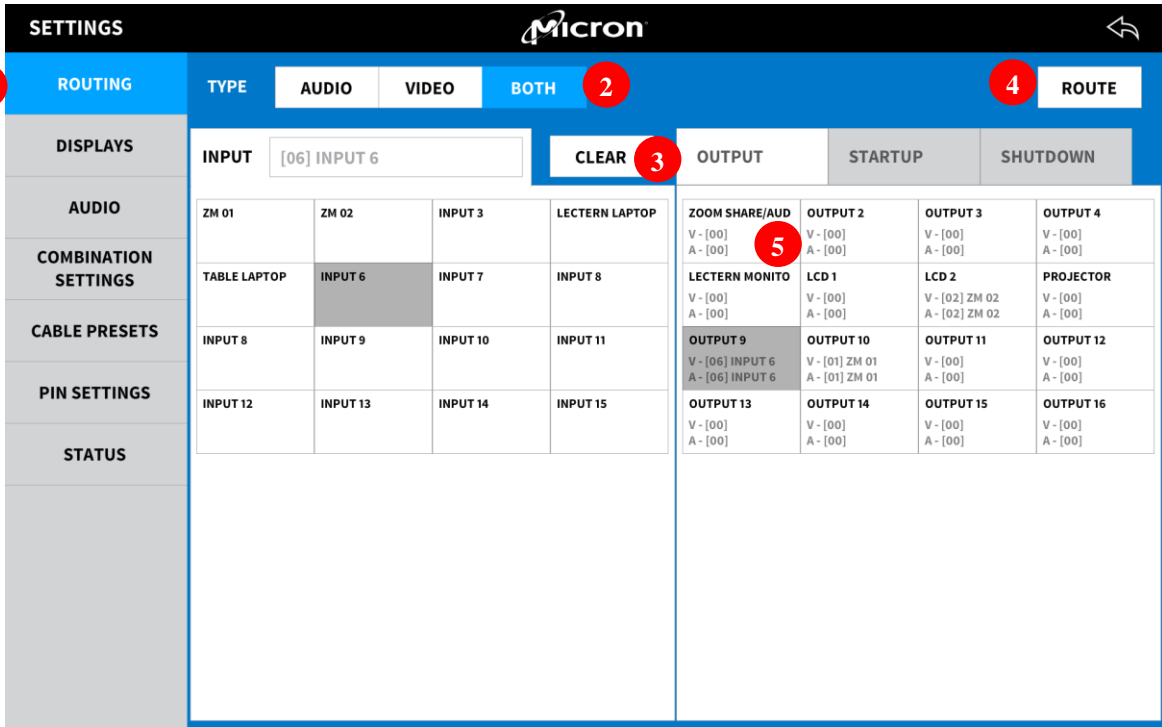
1. The user can manually route any video and/or associated audio sources to any number of outputs using the routing controls.

1. The user can start by selecting what type of input signal they intend to route; audio, video, or both. "Both" is selected by default.

2. The user can then select the source to be routed from the list on the left and one or more destinations on the first list on the right (labeled Outputs).

3. Pressing route will send the source to all selected outputs.

4. The name of the source will appear under the output(s) it is routed to.

5. Sources can also be routed to the startup and shutdown presets as follows:

    i. The Startup Routing selections will be routed upon system start up.

    ii. The Shutdown Routing selection will be routed when the system shuts down.

    iii. These fields are dynamically set by the Tech. Default values are entered at the time of commissioning. Changing these fields will affect how the system operates on startup and shutdown – Be very careful and intentional when making changes to either of these fields!

    iv. If "Nothing" is selected for a shutdown field the specific display system will also be powered off.

Notes
All available inputs supported by the switching hardware will be listed.
The Input/Output names are defined via a JSON configuration file loaded into the control processor.

Settings – Displays
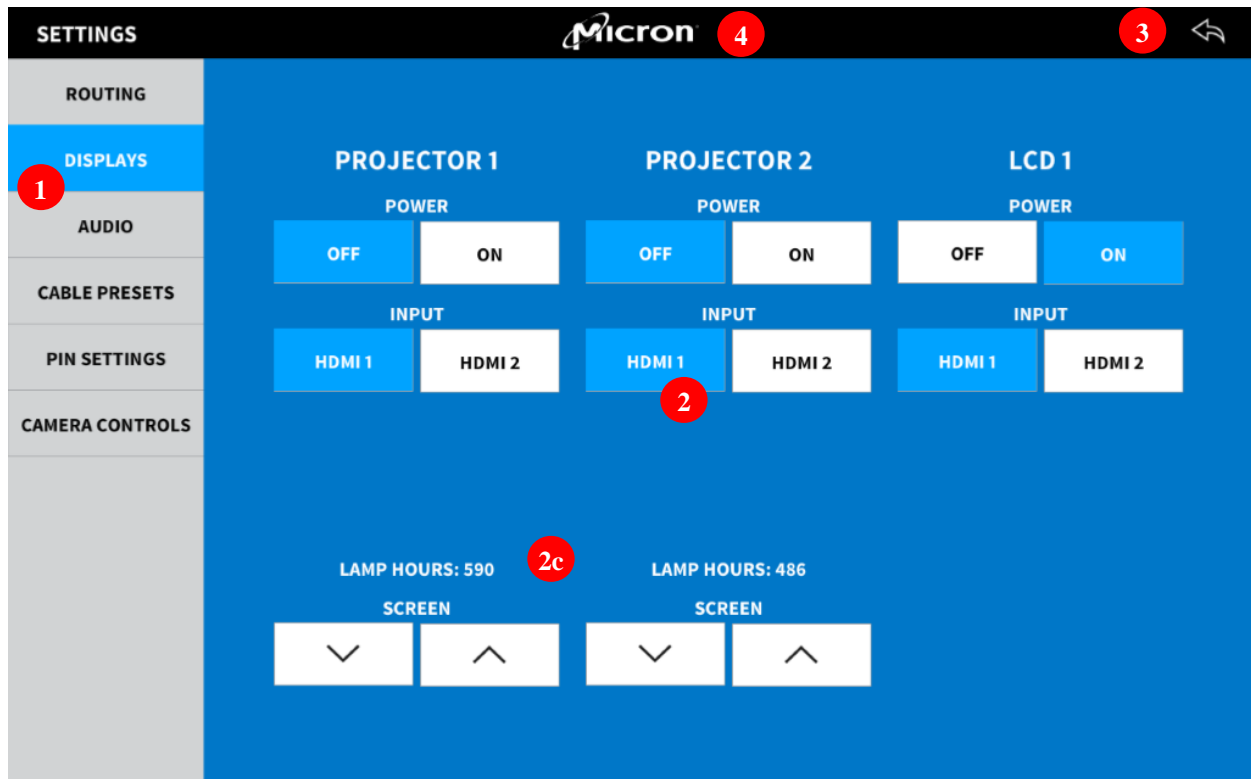
1. The user can access controls for any controllable displays in the system by selecting the "Displays" option from the settings menu. Each available display will have its own set of controls and will appear in the list on this page.

2. Power On/Off and physical input source selection is available for all displays.

    a. HDMI 2 selection will only be shown when there is an active connection to that input

    b. For projectors, lamp hours will also be displayed.

    c. For projectors with automatic screens, a set of up/down controls will be available for manually controlling the corresponding screen.

    d. For Projectors on lift, a set of up/down controls will be available for manual controls.

3. Pressing this button will return the user to the Crestron landing page.

4. Pressing and holding the Micron logo for 3 seconds will cause a manual re-load of the JSON configuration files. A text message will appear to the right of the logo during the file loading process.

Notes
-	Any system automation such as system shutdown or entering call mode will override settings that have been manually set from this page
-	When there are more displays than can be shown on a single page scrolling to the left will expose more

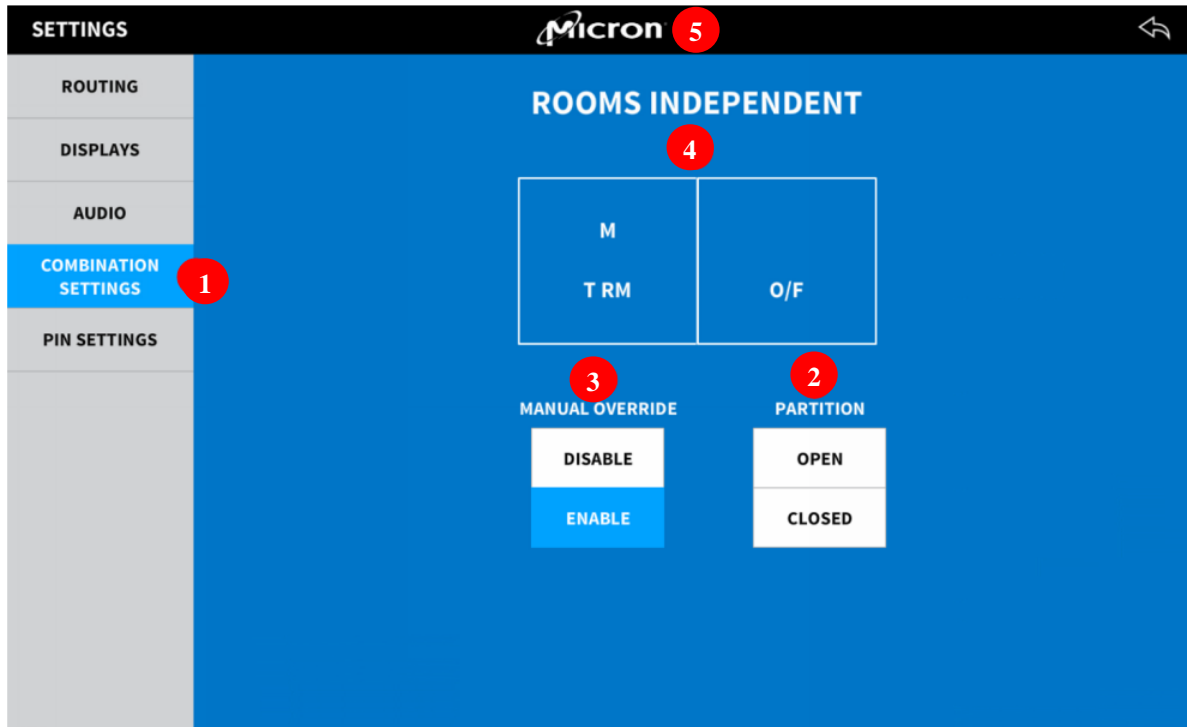displays.

Settings – Audio
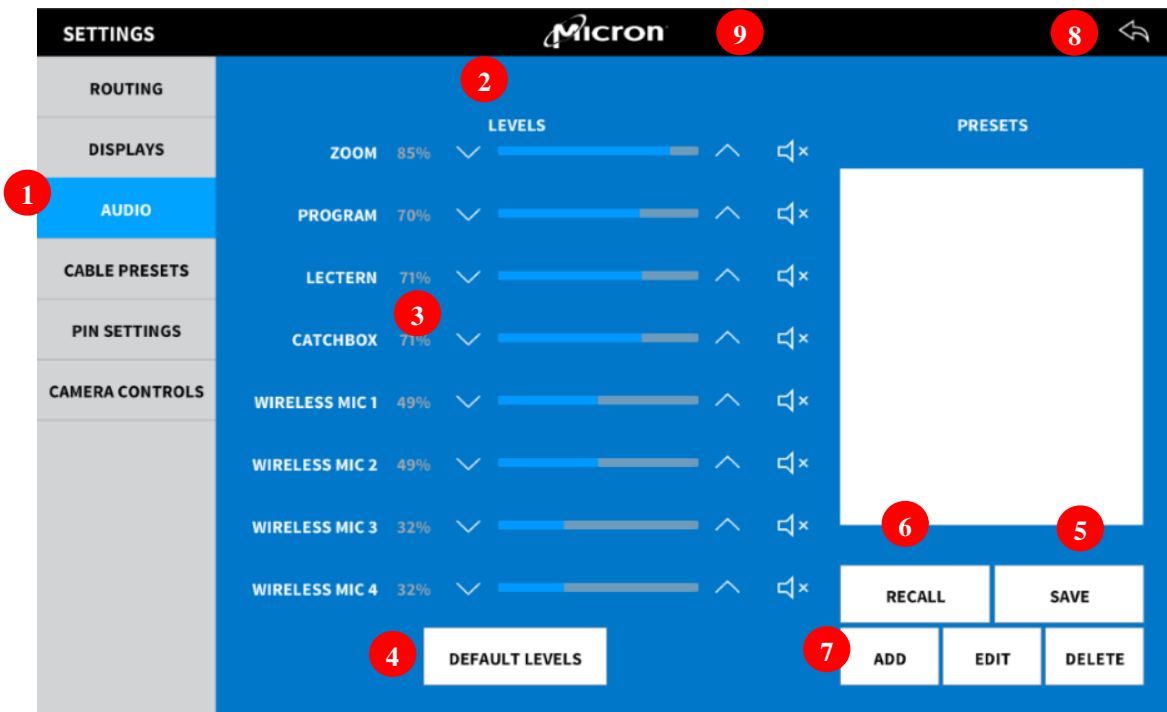
1. The user can access any controllable audio level in the system by selecting the "Audio" option from the settings menu.

2. Each available audio source will have its own set of controls and will appear in the list on this page.

3. The user can adjust each individual volume level as they would any other volume level in the system.

4. The user can restore all the volumes to a predefined default level by pressing the "Default Levels" button.

    a. This shall recall a Crestron preset that restores all controlled levels including mute state.

    b. A maximum of 10 presets may be saved and recalled.

5. After adjusting the audio levels, the user can store the current state of all the audio levels in a preset by pressing the "Save" button.

    a. The user will be prompted to enter a preset name.

6. The user can recall preset audio states by selecting an item from the "Presets" list and pressing the "Recall" button. This process will recall volume level ONLY. All faders will be unmuted.

7. The user can add or modify presets using these buttons.

Notes
- When there are more faders than can be shown on a single page "Next Page" and "Previous Page" buttons will be shown at the bottom of the screen.
- Presets defined via the touch panel from this page are stored in the processor and will not affect any presets defined in the system's DSP.

Settings – Combination Settings - Combinable Training Room

1. For combinable systems, a set of icons indicate current room combination status. Selecting the Combination Settings tab displays the partition sensor information.

2. The Partition indicator(s) displays the current state of the physical sensor(s)

    a. These are also buttons that allow manually changing the room's combine state.

3. The Manual Override disables the installed partition sensor.

4. This graphic and text show the current state of the rooms.

    a. The text above the room graphic changes to show the current state of the rooms.

    b. T RM = Training Room, O/F = Overflow Room

5. Pressing and holding the Micron logo for 3 seconds will cause a manual re-load of the JSON configuration files. A text message will appear to the right of the logo during the file loading process.

Settings – Combination Settings - Combinable Audio Zones
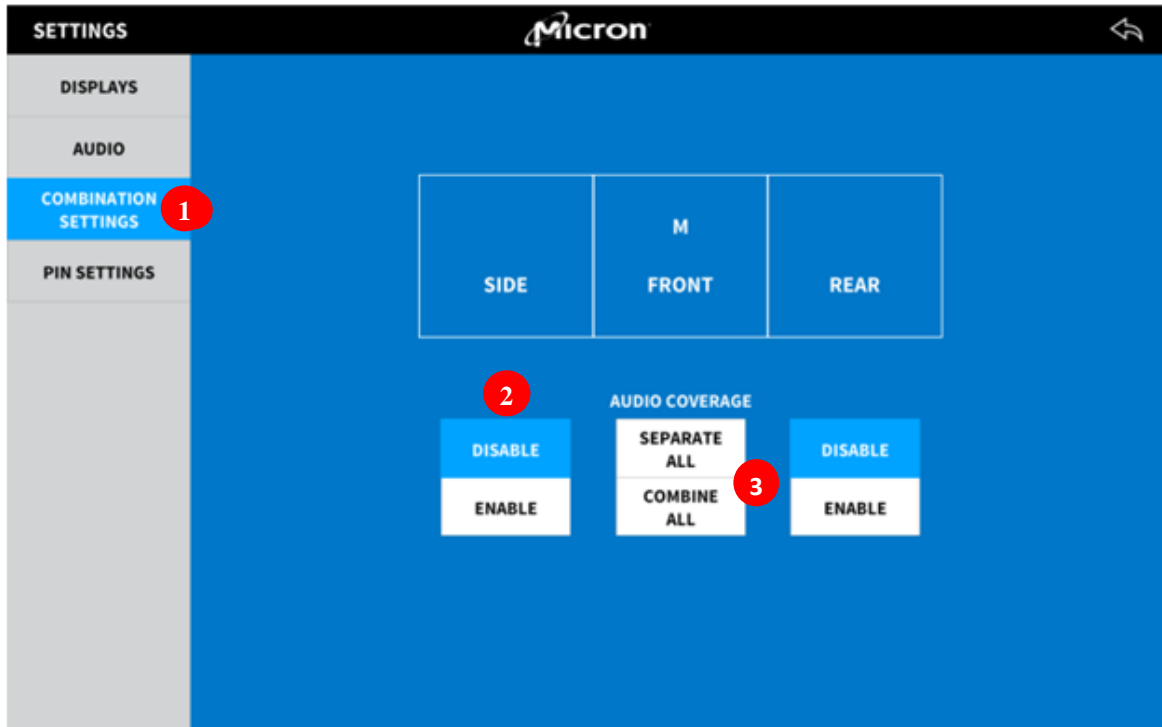
1. For systems with combinable audio zones, selecting the Combination Settings tab displays room and audio zone options.

2. The Audio Coverage buttons allow manually combining nearby audio zones with the main zone.

   a. Disable mutes audio in for the associated zone.

   b. Enable extends audio coverage to include the associated zone.

3. Separate and Combine All options extend audio to all zones or limit audio to just the main zone.

Settings – Camera Controls
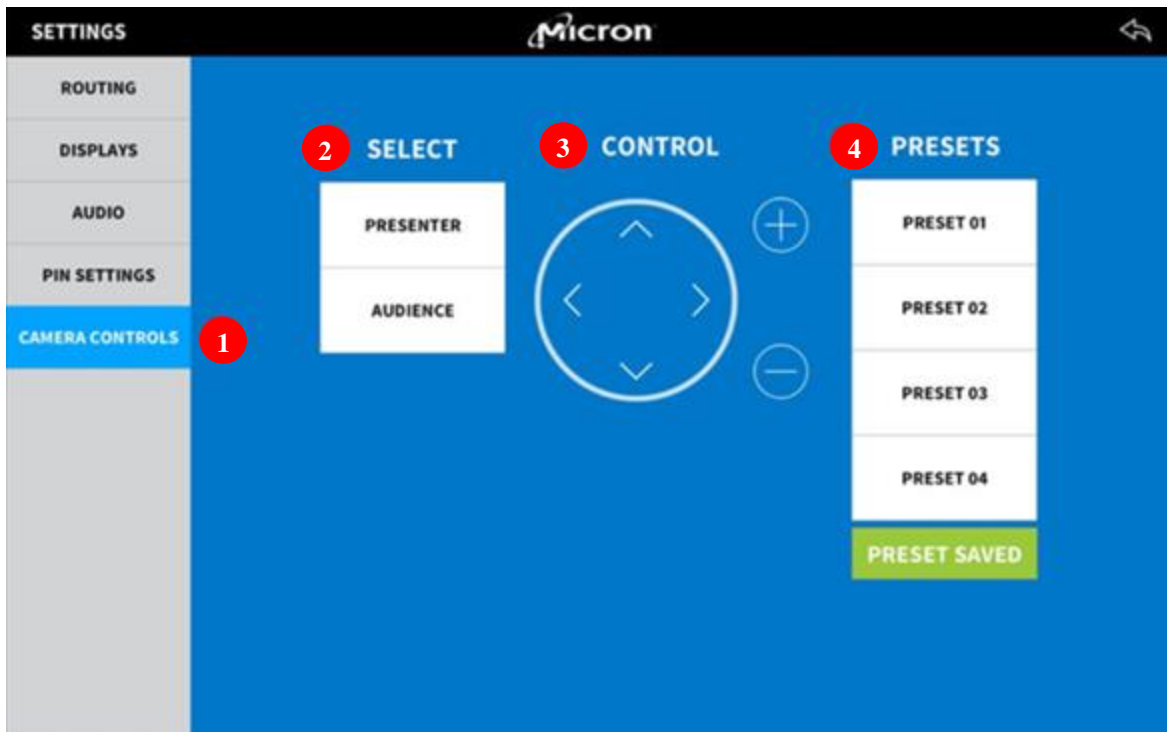
1. Users can control the cameras and save presets from the "Camera Controls" section.

2. Select which camera will be controlled (Presenter Camera 01 or Audience Camera 02).

3. Controls for Pan, Tilt, and zoom.

4. Save and recall presets:

    a. Press once: recall a preset.

    b. Press and Hold: save a preset.

5. Cameras will be programmed to go to a "sleep" preset when the system is powered off.

Settings – Cable Preset Setup

1. The user can define and adjust channel presets by selecting the "Cable Presets" option from the settings menu.

2. The user can add and edit items which will bring up a keyboard for entering a channel name and a channel number.

    a. To store a preset, press add, type in name, type in channel #, press save on the popup keyboard.

    b. To edit a preset, select the preset, press edit then press save on the popup keyboard.

    c. To delete a preset, select the preset, press delete, the preset is erased.

3. If more than one receiver is available, it will be selectable by these buttons.

    a. If only one receiver is installed these buttons will not be visible.

4. Pressing and holding the Micron logo for 3 seconds will cause a manual re-load of the JSON configuration files. A text message will appear to the right of the logo during the file loading process.
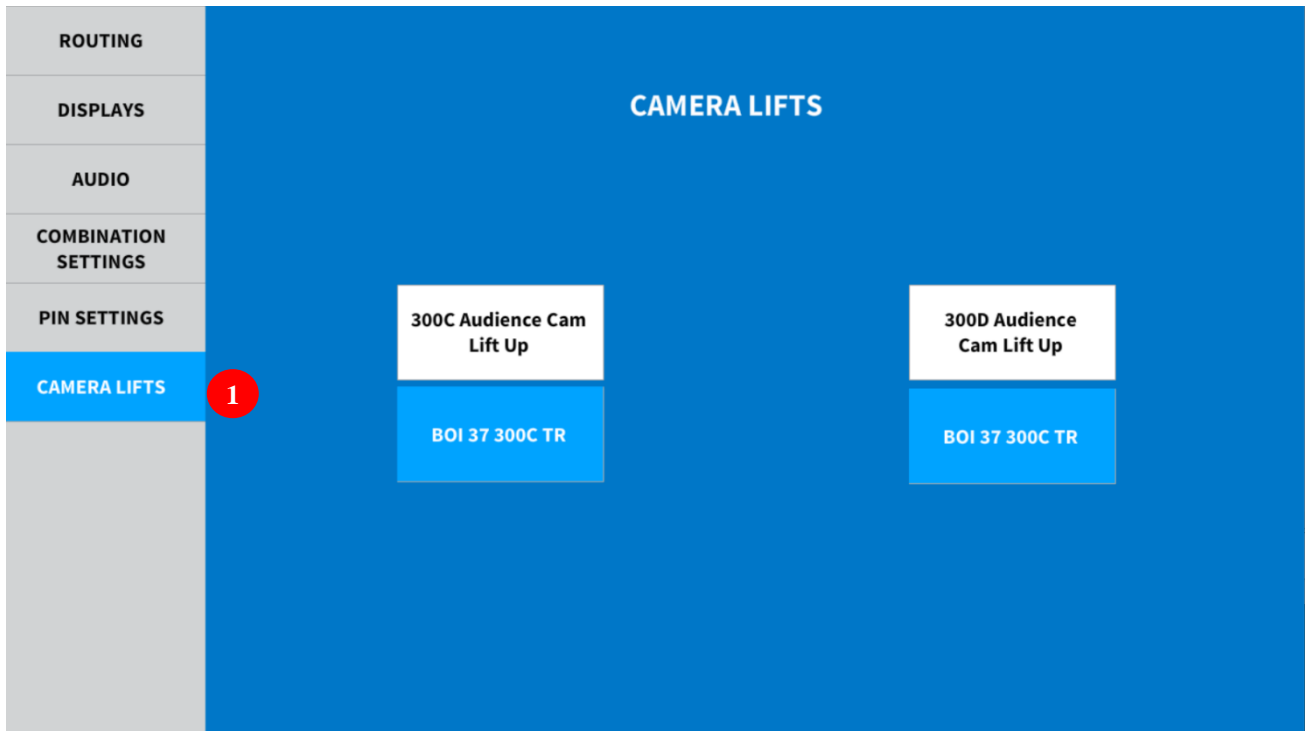
Settings – Camera Lifts

Some rooms may have a camera lift available.

     a. The lift will automatically come down when a meeting (or local presentation) is started.

     b. The lift will only go up when:

        i. System is shutdown from the Crestron main touch panel.

        ii. The system is shutdown automatically after 30 minutes of not being used.

1. The user can still manually control the lifts up or down from the main room's Admin/Settings Camera Lifts Page

Settings – PIN Settings
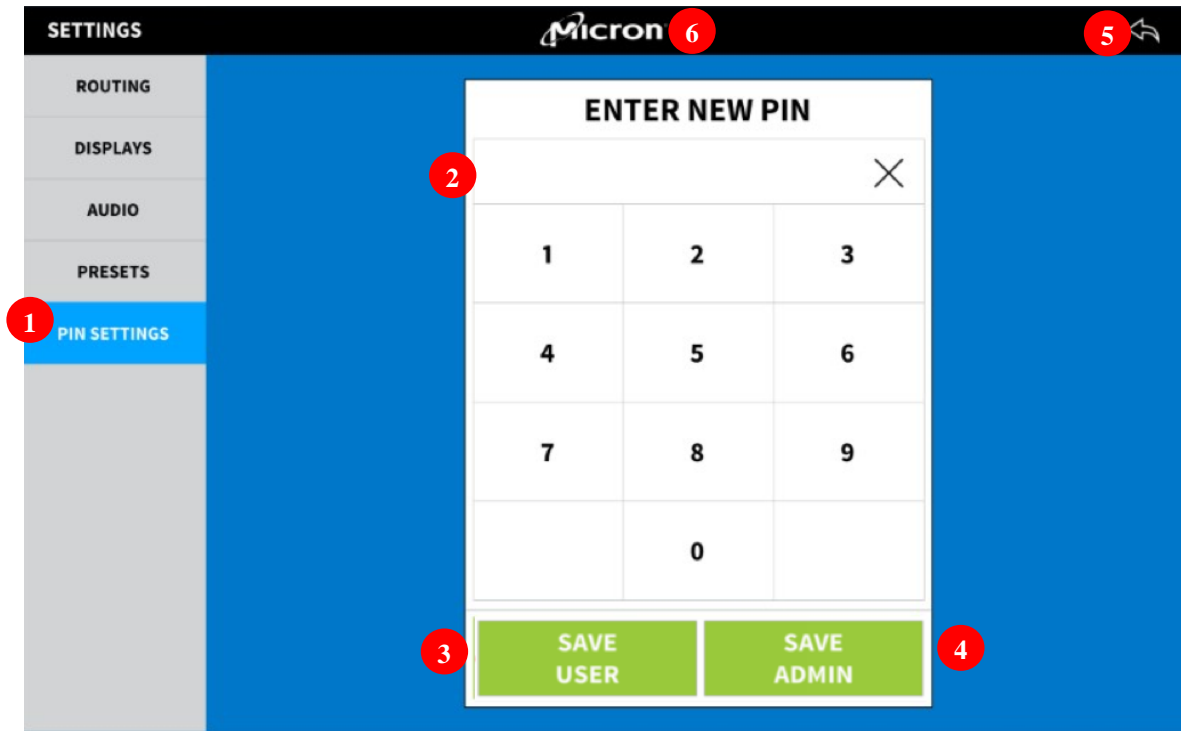
1. The user can reset the pin to access settings by selecting the "PIN Settings" option from the settings menu.

2. The user can enter the new PIN using the keypad.

3. Once the desired PIN has been entered the user can press the "Save User" button to apply the new PIN to the user password page.

4. Once the desired PIN has been entered the user can press the "Save Admin" button to apply the new PIN to the admin password page.

5. Pressing this button will return the user to the Crestron landing page.

6. Pressing and holding the Micron logo for 3 seconds will cause a manual re-load of the JSON configuration files. A text message will appear to the right of the logo during the file loading process.

Notes
- There remains a backdoor password to bypass the user defined passwords, should the PIN be forgotten or otherwise unknown.
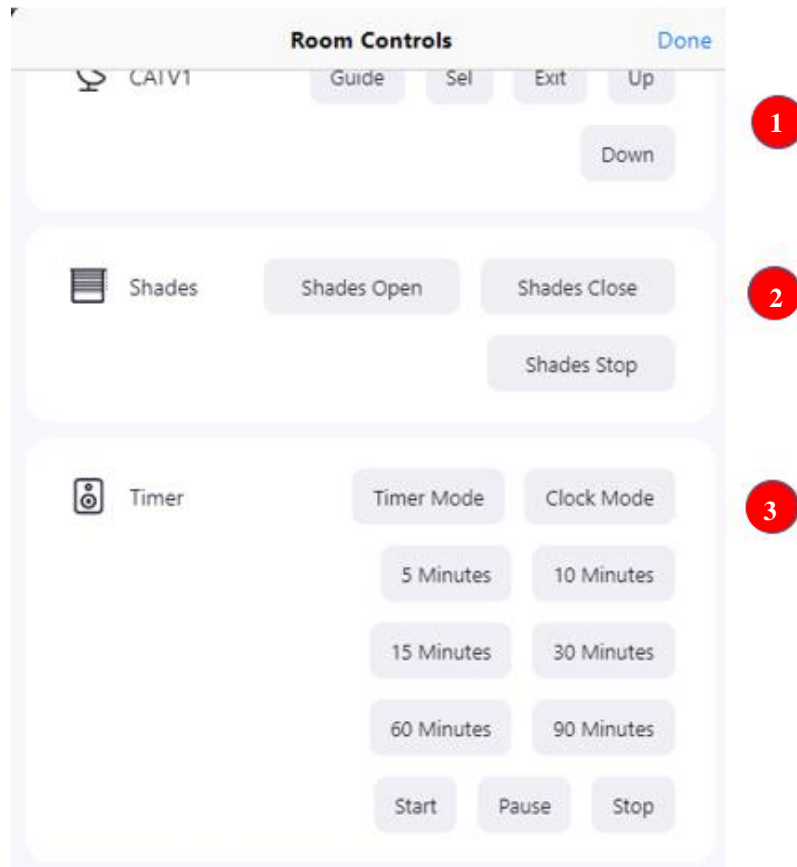
Zoom Room Controls 1 of 3
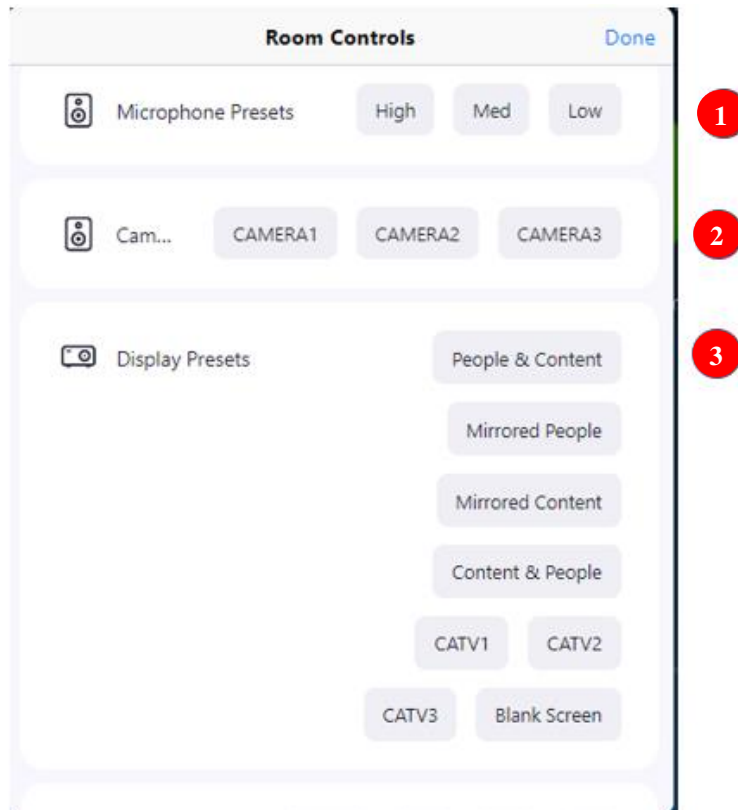
Selecting the Room Controls page on the Zoom App shows controls specific to this room type.

1. Sound reinforcement volume control preset levels are selectable here. There is no button feedback on this page.

    a. The High setting will be calibrated in the field to a level that will not produce feedback.

    b. The Medium setting will be calibrated to a level that is easily audible.

    c. The Low setting will be field calibrated to a level that is just audible.

2. Most zoom rooms use USB cameras connected directly to the zoom PC. In these cases, the cameras controls are available only from the zoom application UI. For the rare cases in which HDMI cameras are used, the routing of the video feed to the zoom PC is managed by a video switcher. For the user's convenience, the camera selection is added to the custom controls as shown here. Presets and PTZ is handled only from the Crestron Admin pages (will not be exposed in the zoom UI)

3. Display Presets

    a. Depending on the room's sources available and number of displays, the layout list will allow users to send them to the room in a pre-determinate mode: Zoom outputs (either single or dual), Micron and Marketing PCs, and CATV are all routable from the custom room control page.

Zoom Room Controls 2 of 3

1. CATV Controls are available for basic navigation. Selecting any of these controls will switch the CATV receiver to the Boardroom displays. Starting a meeting, the presentation will switch back to the Zoom Room computer or selecting one of the Display Presets will switch back to the selected image.

2. Shade controls are available here.

   a. If additional shade motors are to be controlled there will be additional controls labeled with the specific shades

   b. If available, lighting preset selection is also available from these controls.

   c. Lighting presets are stored in the lighting system. Zoom and Crestron are responsible for recalling these presets only.

3. Timer controls are available here. There is no feedback from the control system to these buttons. They activate the installed clock/timer system in the room.
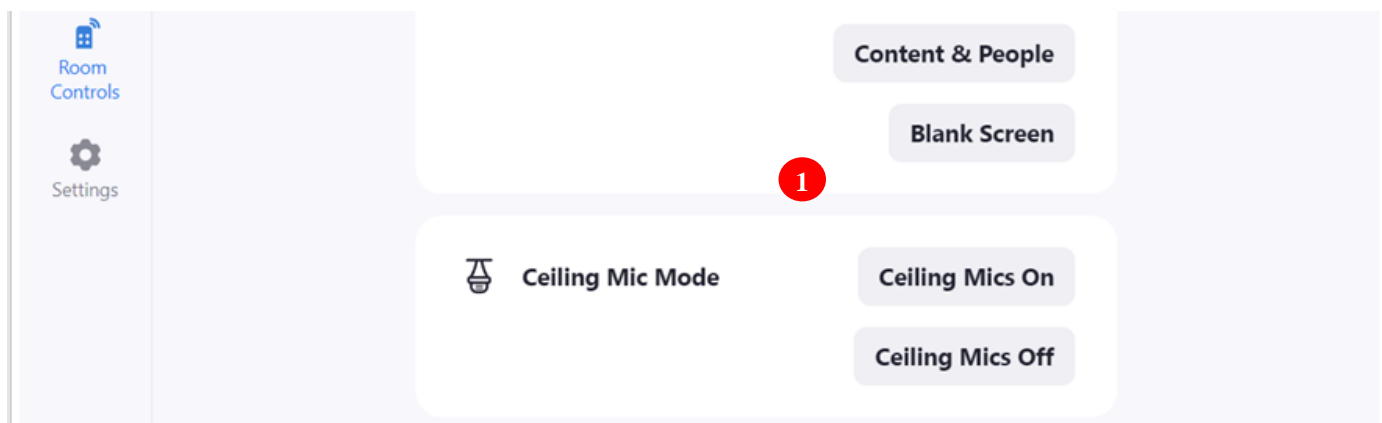
Zoom Room Controls Special Cases 3 of 3
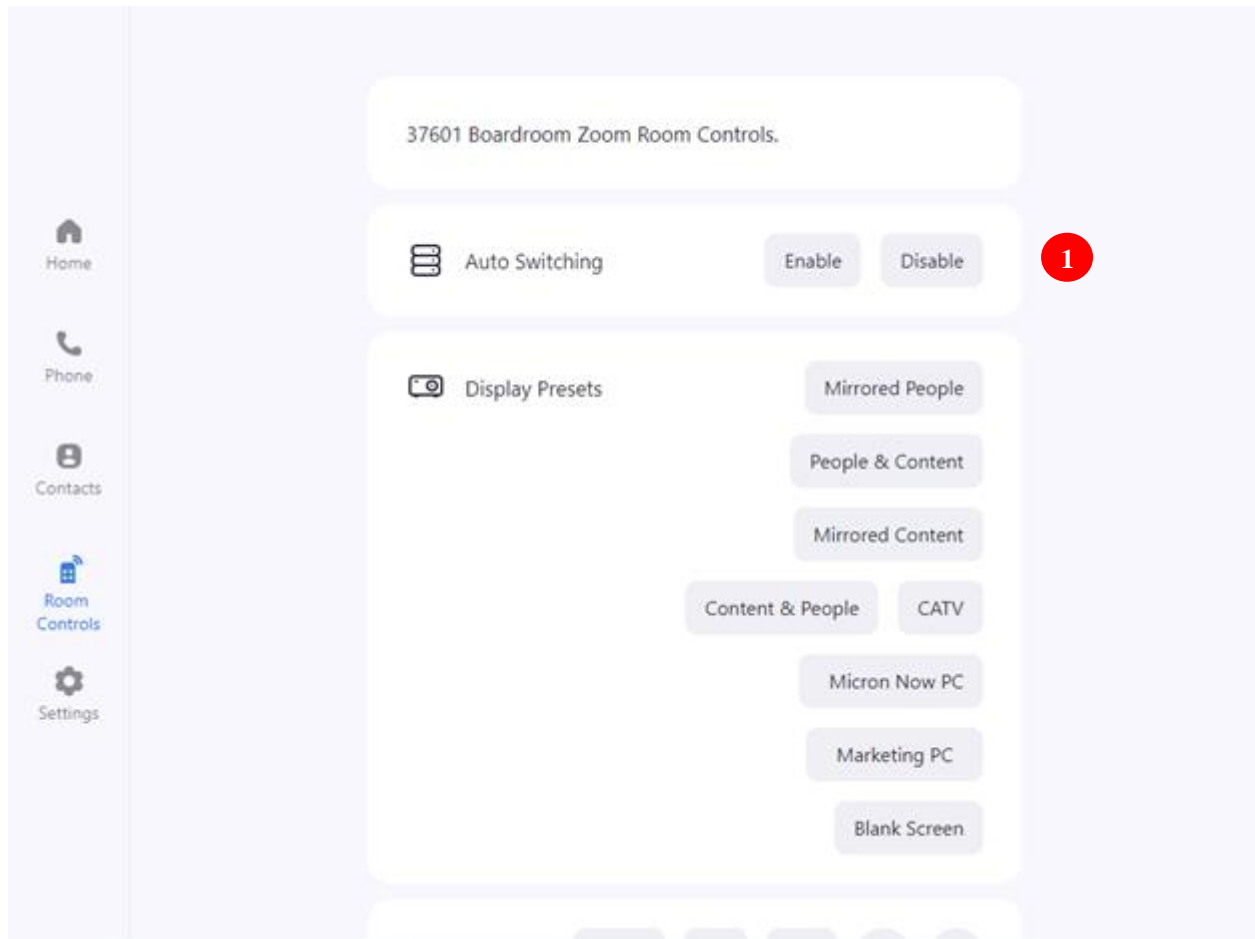
This custom controls work together with the 1 Beyond POC controls in the Crestron/Admin pages.

1) Press Enable to turn ON both the Full Screen and Conversation mode.

2) Press Disable to turn OFF both the Full Screen and Conversation mode.

# Zoom Room Controls - Ceiling Mic On/Off Feature

1. Zoom Room Controls on the Zoom application also gives the user the ability to control the state of the ceiling mics. No button feedback to indicate the state of the ceiling mic On/Off feature is available from the Zoom Room Controls page. State feedback is changed from this page and displayed on the Crestron page.

Settings - Ceiling Mic On/Off Feature

The ability to turn on and off the ceiling mics in spaces that include other microphones is available.

2. The microphone shaped button at the top left of the Crestron page will toggle between Muted and Unmuted states.
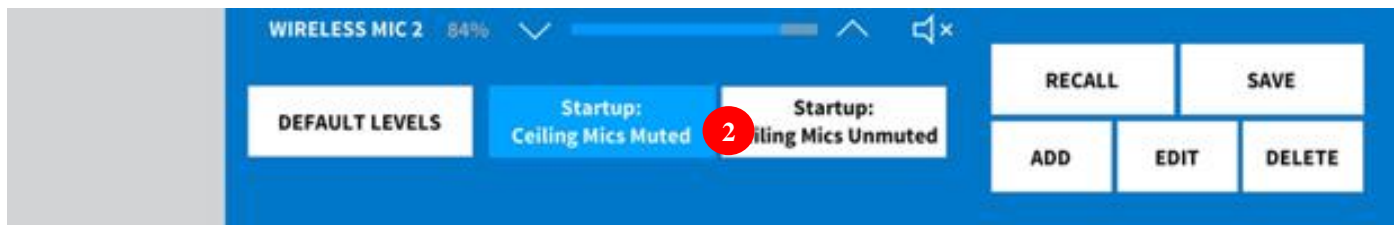

3. Default behavior is determined by buttons located in the Admin Audio section. Blue button color indicated the selected startup state.

LED behavior is as follows:

- o When the room is off, the microphones are muted, and the microphone LEDs are turned off.

- o When the room turns on, the microphone LED turns green, and the microphones become un-muted. This applies to both Zoom and Crestron-initiated controls.

- o Pressing the microphone mute button from the Zoom meeting interface turns the microphone LED red when the microphone is muted and green when the microphone is un-muted.

- o When Ceiling Mics Mute is enabled, the ceiling mics LED will stay OFF and muted until the mute is disabled.

Settings - Status
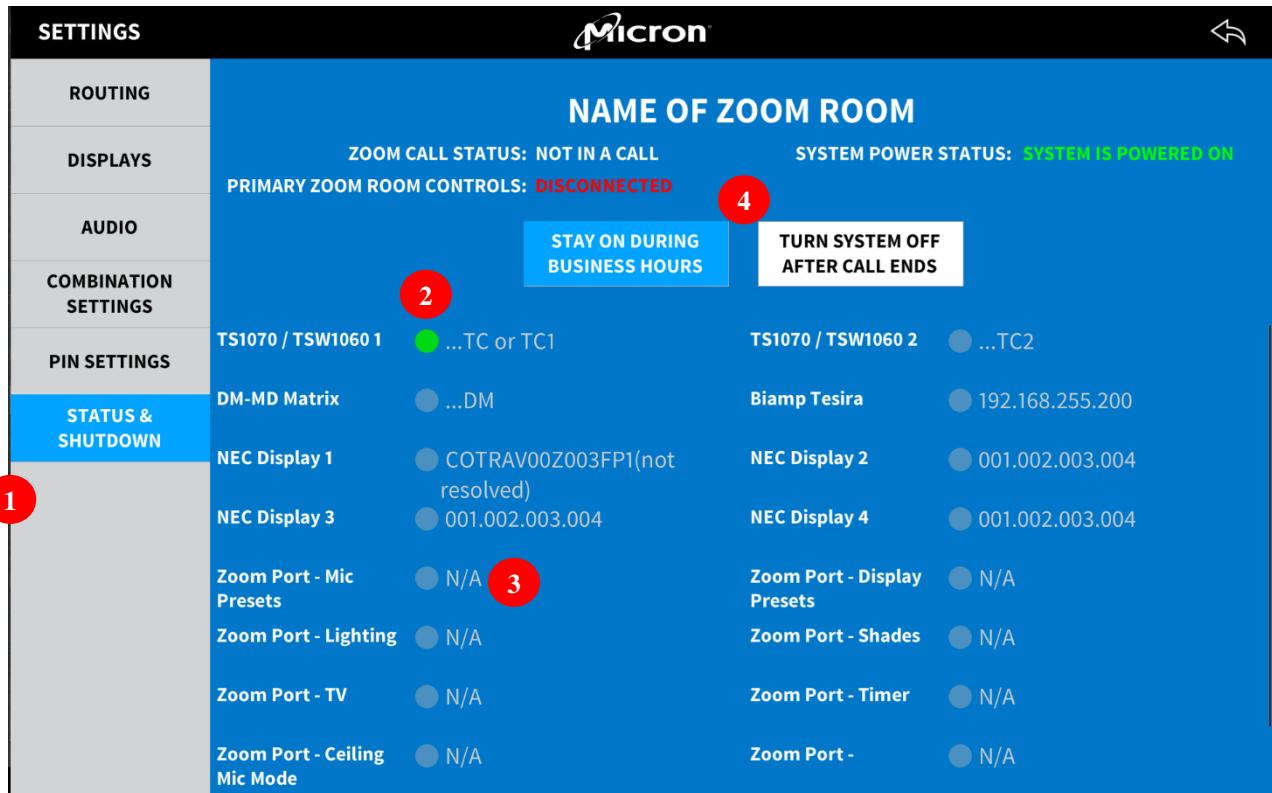
1. The user can see the connection status of crucial devices in the Status page.

2. A list of all networked devices will show here with a live status.

    a. Green: Connected

    b. Red: Disconnected

    c. White: Not configured

3. Zoom ports will show connection only for the ports that are enabled in the Jason file.

4. Shutdown options.
    a. During Business hours: Room will only shutdown after business hours
    b. After call ends: Room will shut down a specific time (config only) after a call or presentation is ended. Note that "after call ends" timing is configurable in file only.