

AM-101

AM-101AirMedia® Presentation Gateway

Supplemental Guide

Crestron Electronics, Inc.

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AM-101: AirMedia Presentation Gateway

Introduction

With an AirMedia® presentation gateway, a user can wirelessly present PowerPoint®, Excel®, Word, and PDF documents, as well as photos, on the room display from a personal iOS® or Android™ mobile device. MacBook® and PC laptops can be connected as well. There are no wires to hook up, no settings to configure, and no AV or control system is required. All that is required to share content from a portable device is a connection to a local Wi-Fi® network.

For information on installation and basic operation, refer to the AM-101 DO Guide (Doc. 7930) at www.crestron.com/manuals for details.

AM-101: AirMedia Presentation Gateway • 1

Configuration

Make all connections as described in AM-101 DO Guide (Doc. 7930) at www.crestron.com/manuals. The connected display device shows the AM-101 welcome screen.

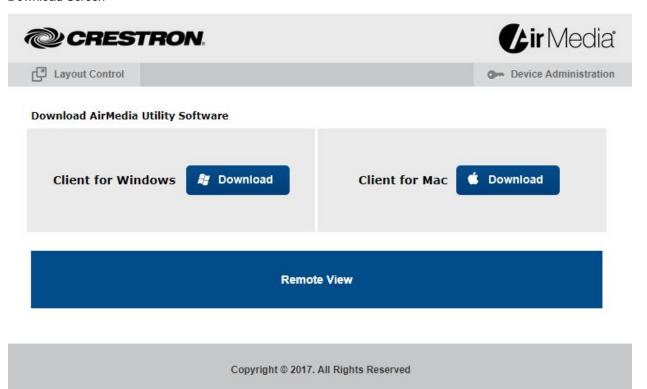
AM-101 Welcome Screen



1. Open a web browser on the computer, and navigate to the web address or the IP address that is displayed on the top left of the AM-101 welcome screen. The download screen is displayed.

NOTE: By default, the AM-101 displays the IP address in parentheses to assist in the configuration of the device. The IP address can be hidden so that the end user sees only a friendly URL (i.e., http://AirMedia-019647). For details, refer to "OSD Setup" on page 10.

Download Screen



2. Click **Device Administration**. The admin login screen is displayed.

NOTE: Prior to displaying the admin login screen, the web browser displays a security warning message about the security certificate. It is safe to ignore this warning as long as the user verifies that the browser's address bar indicates the correct IP address or host name.

Admin Login Screen



3. Enter the admin password (the default password is "admin") and click **Login**. The **Device Administration** menu showing the **System Status** screen is displayed.



NOTE: Changes made in any section of the Device Administration menu require that the AM-101 be rebooted for the settings to take effect. For details, refer to "Reboot System" on page 18 for details.

The **Device Administration** menu is divided into 12 sections:

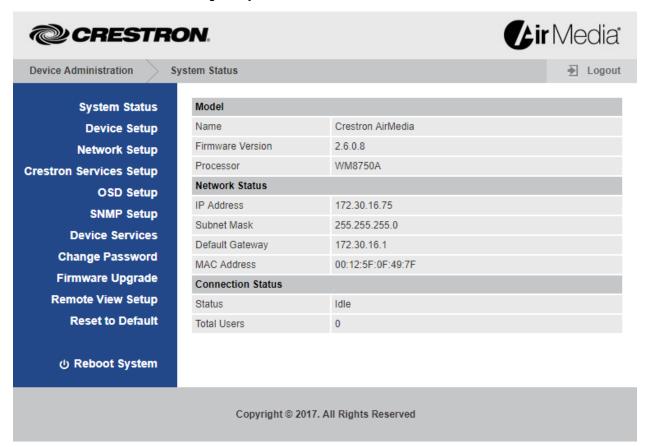
- System Status displays the operational status of the AM-101.
- **Device Setup** sets the AM-101's output resolution, under-scan setting, and access code.
- Network Setup sets the AM-101's parameters for operating in a network environment.
- Crestron Services Setup sets the AM-101's parameters for operating in a Crestron® network environment.
- OSD Setup configures the AM-101's on-screen display.
- **SNMP Setup** configures the AM-101 to use the Simple Network Management Protocol (SNMP).
- Device Services enables and disables remote viewing, SNMP, and other features.
- Change Password changes the admin password.
- **Firmware Upgrade** imports or exports the system configuration to match other AM-101 devices and upgrades the AM-101's firmware.

- Remote View Setup specifies the auto-refresh interval.
- Reset to Default resets the AM-101 to the default settings.
- Reboot System reboots the AM-101.

System Status

Click **System Status** to display the operational status of the AM-101.

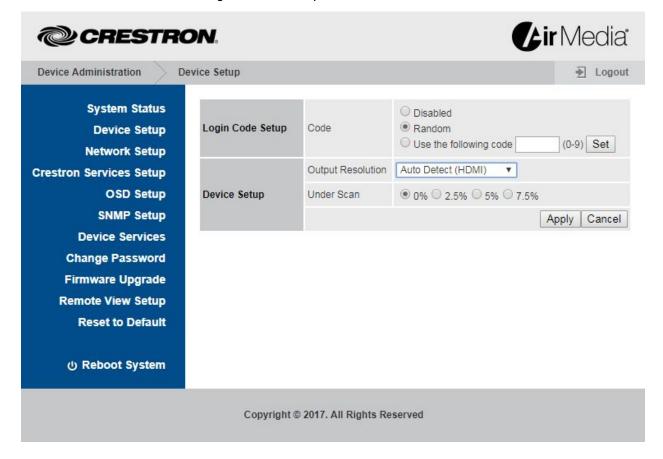
Device Administration Menu Showing the System Status Screen



The **System Status** screen displays the device's name (host name), firmware version, network status (IP address, subnet mask, default gateway, and MAC address), and connection status.

Device Setup

Click **Device Setup** to configure the output resolution, under-scan setting, and access code.



Code

A code can be used to limit access to the AM-101. The code feature can be disabled, randomly generated, or fixed to a specific value.

- Select one of the following options from the Code section to specify how the access code is used:
 - **Disabled** allows any user with the AM-101's IP address or host name to open a client connection without entering an access code.
 - Random sets the AM-101 to randomly generate an access code. A new code
 is generated when the last connected presenter disconnects from the AM-101.
 The access code is displayed on the top right of the AM-101 welcome screen
 as shown on page 2.
 - Use the following code sets the AM-101 to display a user-specified, four-digit access code. Enter a code and click **Set**. The access code is displayed on the top right of the AM-101 welcome screen as shown on page 2.
- 2. Click **Apply** to apply any changes. Click **Cancel** to cancel.

Output Resolution

- 1. Select a resolution setting from the **Output Resolution** drop-down menu.
- 2. Click **Apply** to apply any changes. Click **Cancel** to cancel.

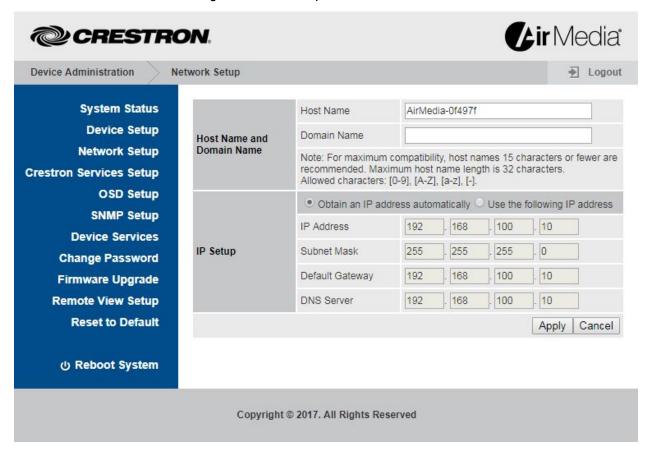
Under Scan

- 1. Select an amount of under scan to be applied to the displayed image.
- 2. Click Apply to apply any changes. Click Cancel to cancel.

Network Setup

Click **Network Setup** to configure the AM-101's parameters for operating in a network environment.

Device Administration Menu Showing the Network Setup Screen



Host Name and Domain Name

Use a host name and domain name as an alternative to IP addressing when connecting client computers to the AM-101.

NOTE: When specifying a host name, choose one that has less than 15 characters.

NOTE: To use a host name, set the AM-101's **IP Setup** to **Obtain an IP address automatically** or, if using a static IP address, specify the domain name in the **Domain Name** field.

- 1. Enter a host name (15 characters or less) in the **Host Name** field and a domain name (optional) in the **Domain Name** field.
- 2. Click **Apply** to apply any changes. Click **Cancel** to cancel.

IP Setup

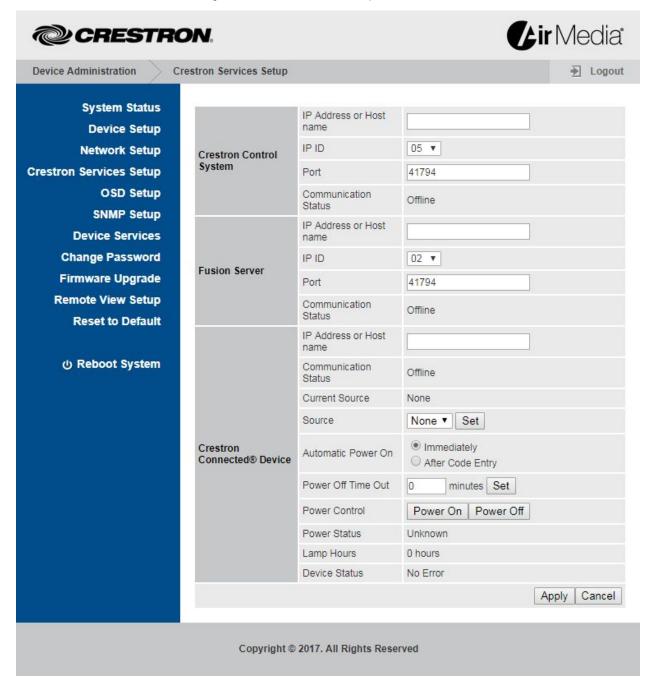
In the IP Setup section, the IP address, subnet mask, default gateway, and DNS server of the AM-101 can be set. The settings can be set manually or obtained from a DHCP server.

- 1. Select **Obtain an IP address automatically** to use a DHCP server to provide the IP address, subnet mask, default gateway, and DNS server. Otherwise, select **Use the following IP address** and enter the Ethernet parameters.
- 2. Click **Apply** to apply any changes. Click **Cancel** to cancel.

Crestron Services Setup

Click **Crestron Services Setup** to configure the AM-101 for operation in a Crestron network environment.

Device Administration Menu Showing the Crestron Services Setup Screen



Crestron Control System

The **Crestron Control System** section specifies the control system that controls the AM-101.

- IP Address or Host name is the IP address or host name of the Crestron control system. Enter the IP address or host name of the Crestron control system and click Apply.
- IP ID identifies the AM-101 in the control system's program. Select the AM-101's IP ID from the drop-down menu and click **Apply**.
- Port is the port number used to communicate with the control system.
- Communication Status indicates the status of the communication link between the control system and the AM-101.

To apply any changes, click Apply. To cancel, click Cancel.

Fusion Server

The **Fusion Server** section specifies the Crestron Fusion® server communicating with the AM-101.

- IP Address or Host name is the IP address or host name of the Crestron Fusion server. Enter the IP address or host name of the Crestron Fusion server and click Apply.
- IP ID identifies the AM-101 in the Crestron Fusion server's program. Select the AM-101's IP ID from the drop-down menu and click **Apply**.
- Port is the port number used to communicate with the Crestron Fusion server.
- Communication Status indicates the status of the communication link between the Crestron Fusion server and the AM-101.
- Click **Apply** to apply any changes. Click **Cancel** to cancel.

Crestron Connected Device

The **Crestron Connected Device** section specifies the Crestron Connected® display device that is connected to the AM-101. Once the device is specified, basic status information and controls are displayed.

- 1. Enter the IP address or host name of the Crestron Connected device to specify the Crestron Connected device.
- 2. Click **Set** to apply changes to the **Source** and **Power Off Time Out** settings.
- 3. Click **Apply** to apply any changes. Click **Cancel** to cancel.

NOTE: The Apply button does not affect changes made to the Source and Power Off Time Out settings.

OSD Setup

Click **OSD Setup** to specify a logo image to display and to display or hide the AM-101's connection information.



Change Logo Image

The **Change Logo Image** section is used to select the logo image on the AM-101 welcome screen.

- Logo Image displays the file name of the logo image. If the default logo image is used, "Default" is displayed.
- Restore to default reverts to the default logo image.

- Customized OSD Image source allows the user to select a static image file from the connected PC, a website, or an FTP server. To upload a custom file, perform the following procedure:
 - 1. Select the location of the image file (Local, HTTP, or FTP).
 - o For a Local image file, click Choose File and select the local file.
 - o For an image file stored on a web site, select **HTTP** and enter the address where the image is located.
 - o For an image file stored on an FTP site, select **FTP** and enter the FTP address where the image is located, the FTP site's port number, user ID, and password.

When choosing a file, follow these guidelines:

- Use logo images in JPEG format.
- Do not exceed a file size of 510 kB.
- For a given native display resolution, use the following table to create a properly sized logo.

Native Display Resolution and Logo Image Size

NATIVE DISPLAY RESOLUTION	LOGO IMAGE SIZE
800 x 600	800 x 500
1280 x 720	1280 x 600
1024 x 768	1024 x 640
1360 x 768	1360 x 640
1280 x 800	1280 x 667
1400 x 900	1400 x 750
1920 x 1080	1920 x 900
1600 x 1200	1600 x 1000

2. Click Image File Upload.

OSD Timeout

The OSD Timeout section specifies how long the connection information is displayed after a presenter connects to the AM-101. When DO NOT DISTURB is set Off, the connection information is always displayed when a user opens the AirMedia application.

Video Out Timeout

The Video Out Timeout section specifies how long the video output stays on after inactivity.

Display Option

The **Display Option** section controls how the connection information is displayed.

Display IP address sets the AM-101 to display the IP address after the host name.
 Select On and click Apply to display the IP address, or select Off and click Apply to hide the IP address.

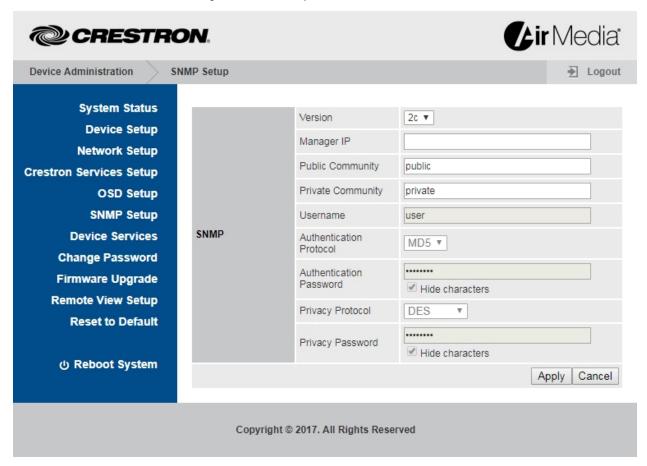
- **Display Code** sets the AM-101 to display the access code on the AM-101 welcome screen. Select **On** and click **Apply** to display the access code, or select **Off** and click **Apply** to hide the access code.
- **Display Host Name** sets the AM-101 to display the host name. Select **On** and click **Apply** to display the host name after the presenter connects to the AM-101, or select **Off** and click **Apply** to hide connection information after the presenter connects to the AM-101.
- Display Domain Name sets the AM-101 to display the domain name to which the AM-101 is attached when a host name is used to connect with the AM-101 instead of an IP address. To display the domain name when the AM-101's host name is used for connection, select On and click Apply. To hide the domain name, select Off and click Apply.

Click **Apply** to apply any changes. Click **Cancel** to cancel.

SNMP Setup

Click **SNMP Setup** to configure the AM-101 to use SNMP.

Device Administration Menu Showing the SNMP Setup Screen



- The AM-101 supports SNMP versions 1, 2c, and 3. Select the version from the **Version** drop-down menu.
- The AM-101 uses an IP filter for SNMP connections. When an IP address is specified in the **Manager IP** field, the device accepts an SNMP request only from

that IP address. If the field is blank, the SNMP request is honored from any IP address.

• If using SNMP version 3, specify a user name, authentication protocol, authentication password, privacy protocol, and privacy password.

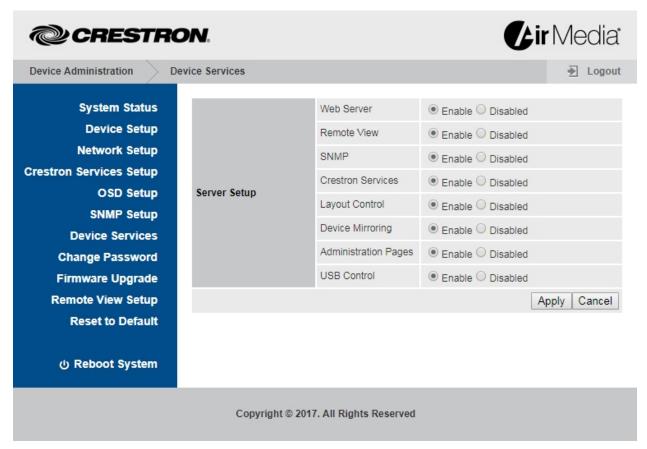
The default settings are as follows: **Version** is set to **2c**, **Public Community** is set to **public**, and **Private Community** is set to **private**.

Click Apply to apply any changes. Click Cancel to cancel.

Device Services

Click **Device Services** to enable and disable remote viewing, SNMP, and other features.

Device Administration Menu Showing the Device Services Screen

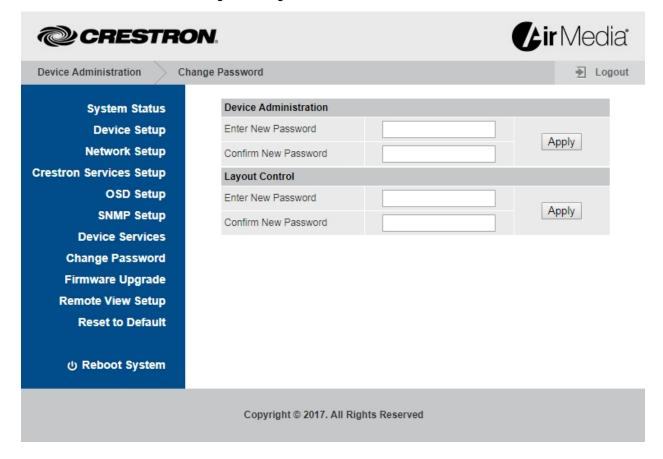


Select Enable or Disabled for each service listed in Server Setup.

NOTE: Disabling the administration pages prevents access to the AM-101's configuration screens. These pages can still be enabled by SNMP or the control system connection. However, if SNMP and Crestron Services are disabled as well, the AM-101 must be restored to the original factory settings to gain access to the configuration screens. For details, refer to "Hardware Reset" on page 29.

Change Password

Click Change Password to set a new admin password or layout control password.



Device Administration

Perform the following procedure to change the admin password:

- 1. Enter a new password in the Enter New Password field.
- 2. Enter the new password in the Confirm New Password field and click Apply.

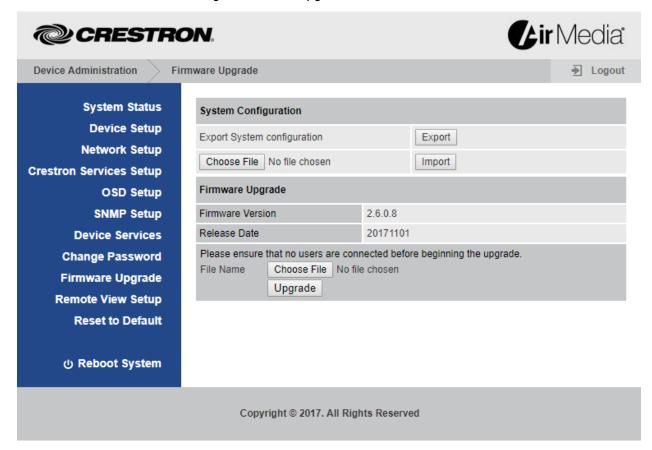
Layout Control

Perform the following procedure to change the layout control password:

- 1. Enter a new password in the **Enter New Password** field.
- 2. Enter the new password in the **Confirm New Password** field and click **Apply**.

Firmware Upgrade

Click **Firmware Upgrade** to import or export device configuration settings or upload new firmware.



Device settings can be imported from another device or exported to a file for use on another device.

Export and Import System Configuration Settings

Click **Export** to export the system configuration file.

Perform the following procedure to import a system configuration file:

- 1. Click Choose File to select a file to import. The file has the .conf extension.
- 2. Click **Import** to import the configuration file and change the AM-101's settings.

Upgrade Firmware

Perform the following procedure to update the AM-101's firmware:

- 1. Click Choose File to select the desired firmware file. The file has the .img extension.
- 2. Click **Upgrade** to update the AM-101's firmware.

NOTE: Firmware upgrades may take up to 30 minutes.

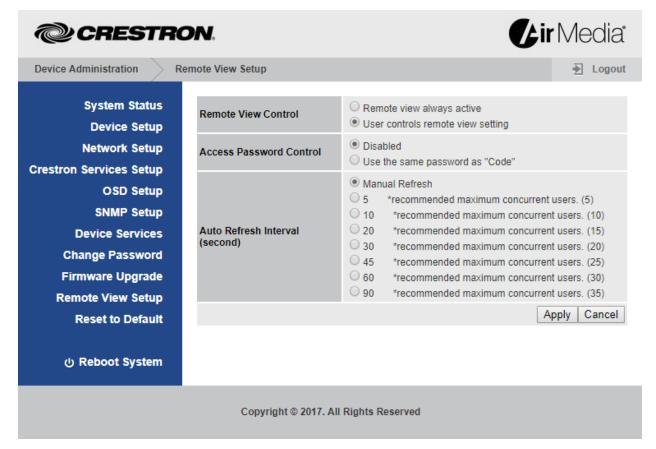
NOTE: Ensure that all users are disconnected from the AM-101 before upgrading the firmware.

NOTE: Use the AirMedia Firmware Update Utility (which is available for download from www.crestron.com/airmedia to update multiple AM-101s across an enterprise.

Remote View Setup

Click Remote View Setup to configure remote view operations.

Device Administration Menu Showing the Remote View Setup Screen



Remote View Control

The **Remote View Control** section specifies whether remote viewing is available to connected viewers when a presenter connects to the AM-101.

Select **Remote view always active** to automatically allow remote viewing when the presenter connects to the AM-101. Select **User controls remote view setting** to require the presenter to allow remote viewing.

Access Password Control

The Access Password Control section allows the code that is displayed on the screen to control access to the device when remote view is used. Select **Disabled** or **Use the same password as "Code."**

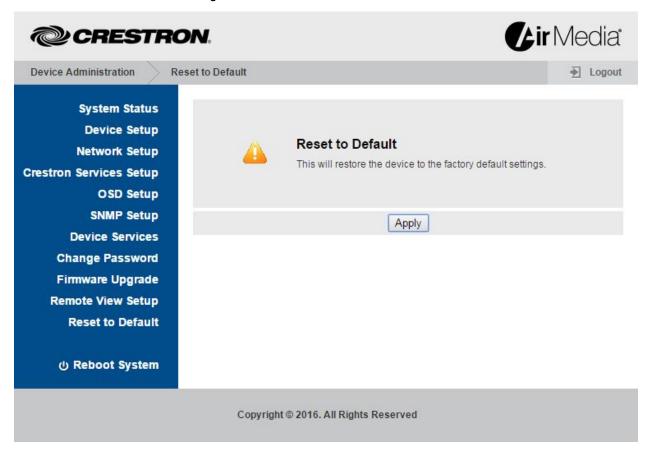
Auto Refresh Interval

The **Auto Refresh Interval** section specifies how often the presented content should be refreshed. Using the recommended maximum amount of concurrent users shown, select a refresh interval (in seconds) from the list and click **Apply**. To cancel, click **Cancel**.

Reset to Default

Click Reset to Default and then click Apply to reset the AM-101 to the factory settings.

Device Administration Menu Showing the Reset to Default Screen



Reboot System

Click Reboot System and click Apply to reboot the AM-101.

Operation

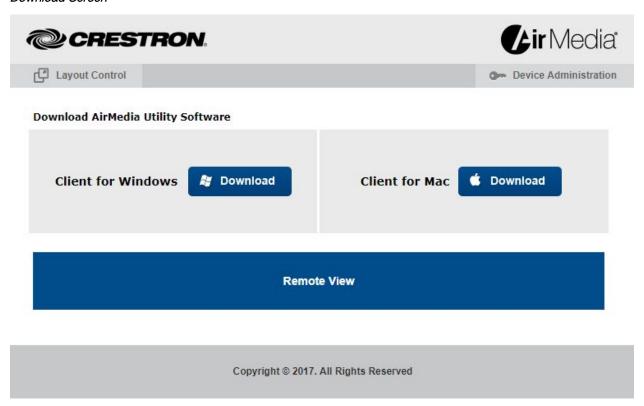
The AM-101 uses a client application to share a PC or Mac[®] (hereafter referred to as "computer") desktop. The computer should be able to access the AM-101 over the network.

NOTE: Crestron offers a stand-alone application for enterprise deployments. This application features additional connection methods and device management. For details, visit present.crestron.com.

NOTE: Mobile devices can share their content using the Crestron AirMedia app or the Crestron PinPoint™ mobile app, which are available for iOS® and Android™ devices. Both apps may be used for full screen sharing on devices running Android 5.0 Lollipop and above. Download the latest version of these apps from the App Store® app in iTunes® software or Google Play™ store.

1. Open a web browser on the computer, and navigate to the web address or the IP address that is displayed on the top left of the AM-101 welcome screen as shown on page 2. The download screen is displayed.

Download Screen



2. Click on the **Download** icon for the computer's operating system and follow the instructions for running the client application.

NOTE: When used on a Mac, the AirMedia application must be run from within the disk image file. Do not drag the application out of the disk image file.

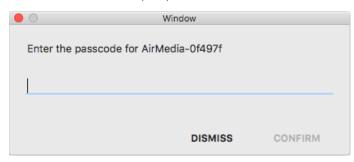
Run the AM-101 Client

1. Run the client application. The **Enter Code** (**Enter Passcode** on Mac) screen is displayed.

Enter Code Screen (Windows)

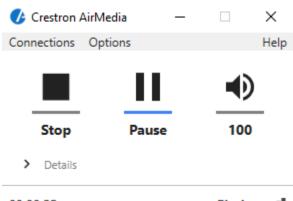


Enter Passcode Screen (Mac)



2. Enter the code displayed on the AM-101 welcome screen and click **OK** (**CONFIRM** on Mac). The client establishes a connection between the computer and the AM-101 while displaying the Crestron AirMedia controls on the computer.

Crestron AirMedia Controls (L-R, Windows and Mac)





00:00:25 Playing

NOTE: The application mutes the PC's local audio, since the audio is transmitted to the device and played through the display's speakers.

Control the Presentation

Direct the presentation with the following controls:

- Click to stop showing the computer's screen.
- Click to start showing the computer's screen.
- Click II to freeze the computer's screen.
- Hover over to show a volume slider control and drag the slider to raise or lower the volume.
- Click to mute the audio output.
- Click it to unmute the audio output.
- Click X to close the client application and the connection between the computer and the AM-101. On a Mac, click

 ■ to close the client application and the connection between the computer and the AM-101.
- Click to minimize the presentation control screen. On a Mac, click to minimize the presentation control screen.

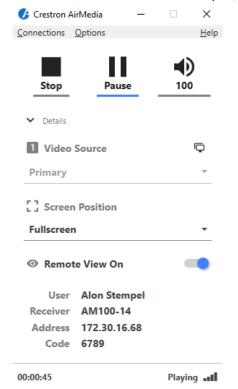
Configure Basic Presentation Settings

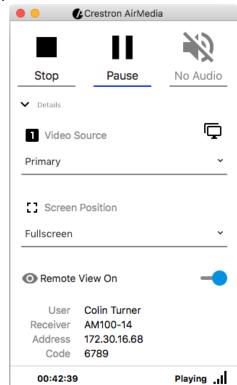
Once a link between the computer and the AM-101 has been established, the AM-101 can be configured for custom operation.

Perform the following to configure the AM-101:

1. On the presentation control screen, click **Details**. The screen expands to show additional controls and information.

Presentation Control Screen Details (L-R, Windows and Mac)

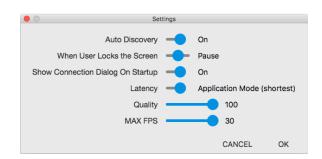




- 2. Configure the following options:
 - Video Source: On a Windows® computer, the user can share a secondary desktop. This is similar to the Extend mode in Windows for multiple displays.
 On a Mac, a secondary connected display can be shared.
 - Screen Position sets the position of displayed content on a remote viewer's display. For details, refer to "Quad View" on page 23.
 - Remote View allows the device to serve images of the desktop to remote viewers via the built-in web server.
- 3. Configure the operation and the image quality settings:
 - a. Click Options | Settings (on a Mac, click Crestron AirMedia | Preferences). The Settings screen is displayed.

Settings Screen (L-R, Windows and Mac)





- b. Customize the settings.
 - Auto Discovery should be set to On.

- When User Locks the Screen sets the behavior of the client software when the connected computer is locked. Choose from Stop (the client stops sharing), Pause (the client pauses sharing), or Nothing (nothing happens).
- Show Connection Dialog on Startup selects whether connection information is displayed when the client starts.
- Latency selects the amount of latency in transmitting the signal from the computer to the AM-101. Select Application Mode (shortest) for the least amount of latency or Video Mode (PreBuffer) for a longer amount of latency that is best suited for buffering shared video.
- Set the Quality of the projected signal (0 to 100 percent).
- Set the Max FPS (frames per second) refresh rate (1 to 30)
- c. Click **OK** to confirm the settings or click **Cancel** to cancel.

Quad View

Up to four computers can simultaneously share their desktops with the AM-101. Shared desktops are arranged with each computer using one quarter of the projected image.

NOTE: If moderator controls are enabled, the screen position can be set by the moderator only. For details, refer to "Moderator Controls" on page 25.

NOTE: Although the AM-101 can support up to 32 connected computers for sharing, only four desktops can be displayed simultaneously.

Perform the following to share multiple desktops simultaneously:

- 1. Connect the computer to the AM-101 as described in "Run the AM-101 Client" on page 20.
- 2. Connect up to three other computers as described in "Run the AM-101 Client" on page 20.
- 3. Click Details.
- 4. Select the shared desktop's quadrant on the display device from the **Screen Position** drop-down menu.

NOTE: If another computer is already sharing the selected position, the position is replaced by the newly shared desktop. Desktop playback ceases on the "booted" computer.

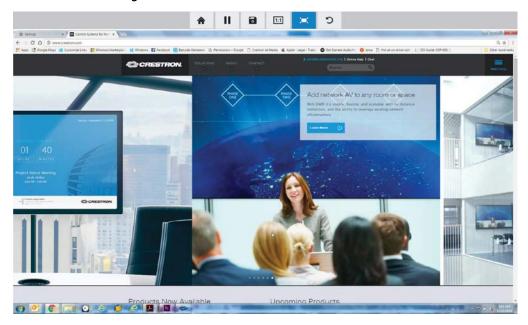
NOTE: If **Fullscreen** is chosen, any other shared desktops are replaced by the newly shared desktop. Desktop playback ceases on the "booted" computers.

View a Presentation Remotely

If Remote View is enabled, users can view desktop images via the AM-101's built-in web server. Perform the following to remotely view images:

 Open a web browser on a remote computer, and navigate to the web address or IP address supplied by the user or users that are sharing their desktops. The download screen as shown on page 19 is displayed. 2. Click **Remote View**. The shared desktop is displayed in the web browser as a web page.

Remote View Web Page



- 3. Use the following buttons when viewing the AM-101's output in a web browser.
 - A Exit remote viewing and return to the download screen.
 - Pause the currently displayed image.
 - Save the currently displayed image.
 - View the currently displayed image at actual size.
 - View the currently displayed image at full-screen size.
 - Refresh the image.

Moderator Controls

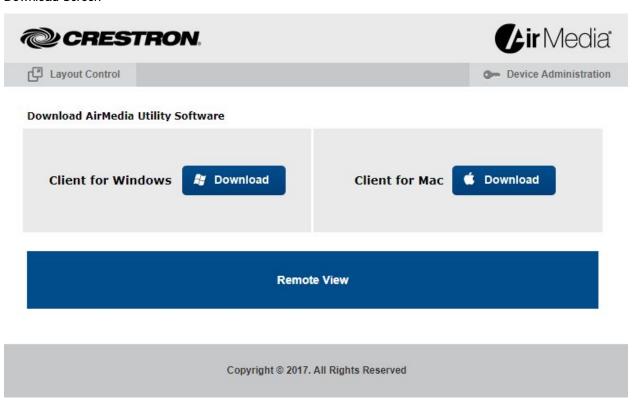
Moderator controls are used to determine which users can present to the display device and where their presented content is located on the display.

Log In

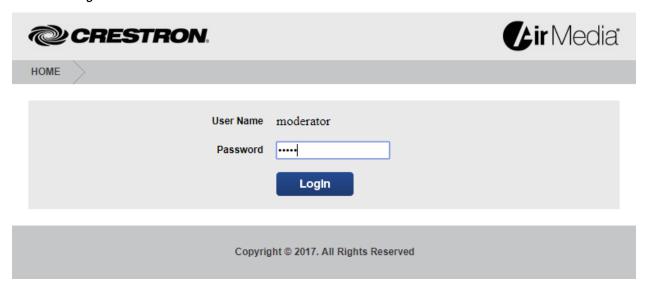
1. Open a web browser on a remote computer, and navigate to the web address or the IP address that is displayed on the top left of the AM-101 welcome screen. The download screen is displayed.

NOTE: By default, the AM-101 displays the IP address in parentheses to assist in the configuration of the device. The IP address can be hidden so that the end user sees only a friendly URL (i.e., http://AirMedia-019647). For details, refer to "OSD Setup" on page 10.

Download Screen



2. Click Layout Control. The moderator login screen is displayed.



3. Enter the moderator password (the default password is "moderator") and click **Login**. The **Layout Control** screen is displayed showing a list of connected presenters.



Control the Display Layout

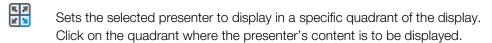
1. Click the **Moderator** check box to enable layout control.

NOTE: If **Moderator** is enabled, the play control can be changed only by the user who is logged in as the moderator.

2. Up to four connected users can share content on the display at a time. Select the display capability of each connected user. Use the following controls for each connected presenter.



Sets the selected presenter to display in full screen.



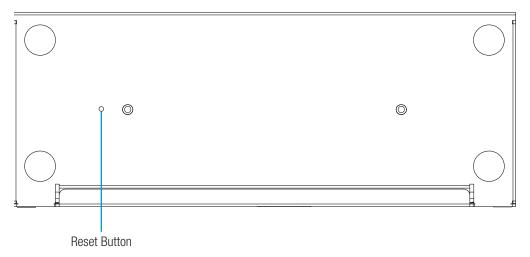


Hardware Reset

In the event the AM-101's configuration screen cannot be accessed, the AM-101 must be reset to the factory settings. Access issues may be due to the administration pages being disabled or the device may be configured with a static IP address that is on a different subnet. Perform the following to restore the factory settings:

1. Turn the AM-101 upside down as shown in the following diagram.

Underside of the AM-101



- 2. Unplug the AM-101
- 3. Press and hold the reset button.
- 4. Plug in the AM-101 with the button still pressed.
- 5. Wait approximately 30 seconds or until the front LED turns green.
- 6. Release the reset button.
- 7. Unplug the AM-101.
- 8. Plug in the AM-101.