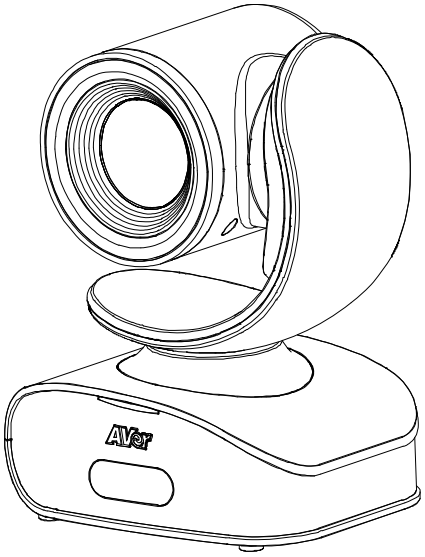
www.aver.com



CAM540

User Manual

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice.

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NOTICE

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

WARNING

- To reduce risk of fire or electric shock, do not expose this appliance to rain or moisture. Warranty will be void if any unauthorized modifications are done to the product.
- Do not drop the camera or subject it to physical shock.
- Use correct power supply voltage to avoid damaging camera.
- Do not place the camera where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
- Hold the bottom of the camera with both hands to move the camera. Do not grab the lens or lens holder to move the camera.

Remote Control Battery Safety Information

- Store batteries in a cool and dry place.
- Do not throw away used batteries in the trash. Properly dispose of used batteries through specially approved disposal methods.
- Remove the batteries if they are not in use for long periods of time. Battery leakage and corrosion can damage the remote control. Dispose of batteries safely and through approved disposal methods.
- Do not use old batteries with new batteries.
- Do not mix and use different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire.
- Do not attempt to short-circuit the battery terminals.

Contact Information

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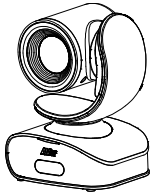
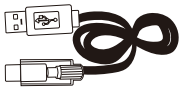
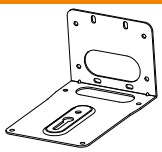
Package Contents

Camera	Remote controller AAA Batteries	Power Adapter Power plus*	USB Cable
			
Screws for mount	**L-Mount Bracket**	**Quick Guide**	**USB type-A to type-C adapter (For US only)**
			

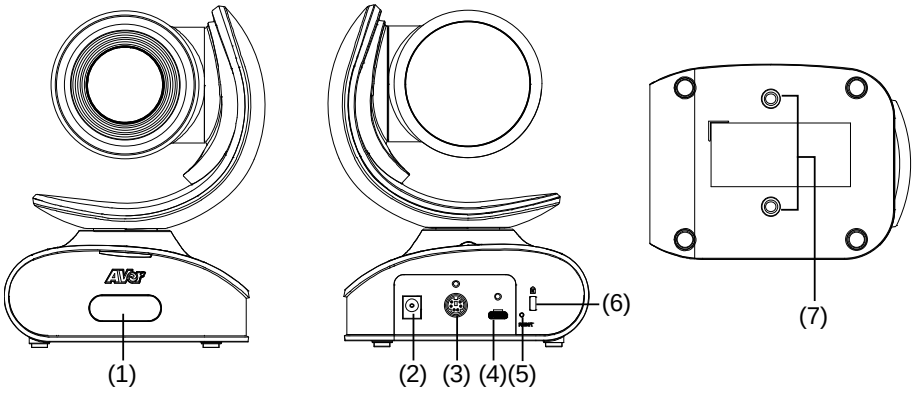
***** The power cord will vary depending on the standard power outlet of the country where it is sold.

Optional Accessories

RS232 to D-sub cable

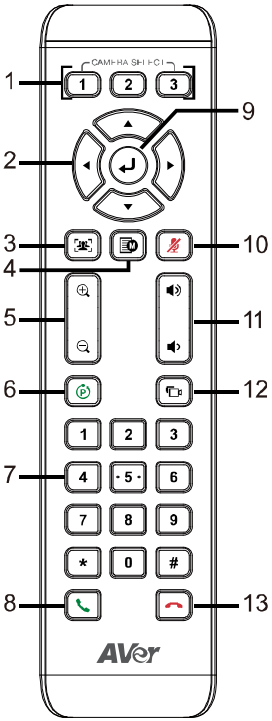
Product Introduction

Camera



(1)	IR sensor	(5)	Reset button
(2)	Power port	(6)	Kensington Lock
(3)	RS232 port	(7)	Screw hole for mounting
(4)	USB port		

Remote Controller



Name	Function
1. Camera select	One remote can control up to 3 AVer VC/CAM. Use AVer PTZApp sets number associated with each camera, select which camera you like to control on the remote.
2. Camera direction control	Use the direction button on the remote to control the direction of the camera. Press the direction button to move the camera or press and hold for continuous pan or tilt.
3. SmartFrame	One-click automatic FOV adjustment to fit all participants.
4. OSD menu**	Press to bring out OSD menu.
5. Zoom in/Zoom out	Increase/Decrease the camera zoom.

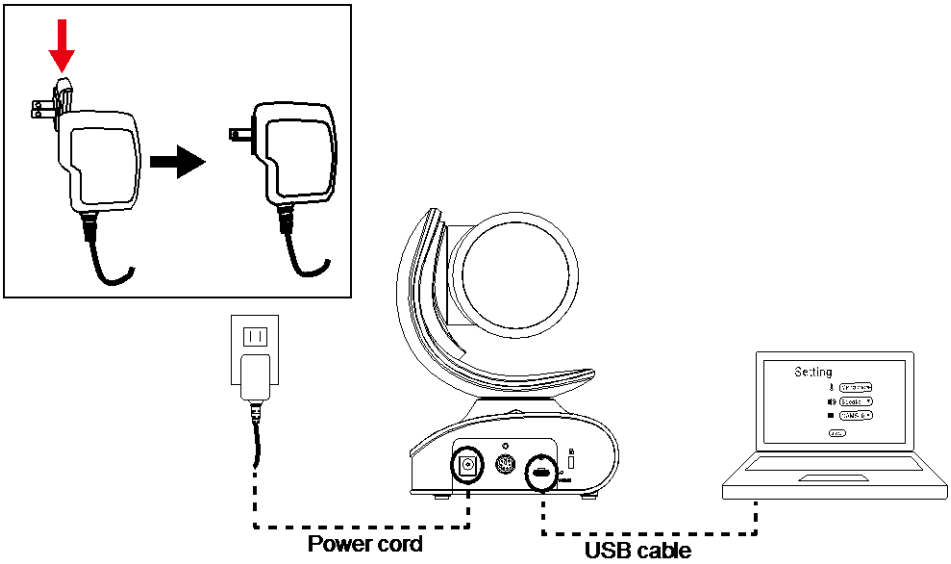
Name	Function
6. Preset	■ Press to get back to “home” position that user has set. ■ To save the camera at the desired position, press and hold the preset button until the "saved message" is displayed on the PTZApp video screen or other video apps. Select preset position button 0 to 9 to save. ■ Press “preset” + “preset position button” (0 ~ 9) will move the camera to the saved position.
7. Preset position	Preset position button is used in conjunction with the Preset button to save positions. There are a total of 0 to 9 saves. Press preset button and then press 0~9 to go to the saved position.
8. Call/answer*	Answer a call or start a call.
9. Enter**	To confirm selection in OSD menu.
10. Mute/Unmute Speakerphone**	Mute/Unmute the speakerphone.
11. Volume up/down**	Adjust volume up or down.
12. Far site camera control**	Press the Far/Near button to control the far site camera for pan, tilt, or zoom functions.
13. Hang up*	End the call.

* Function requires AVer PTZApp

** Not support for CAM540

Installation

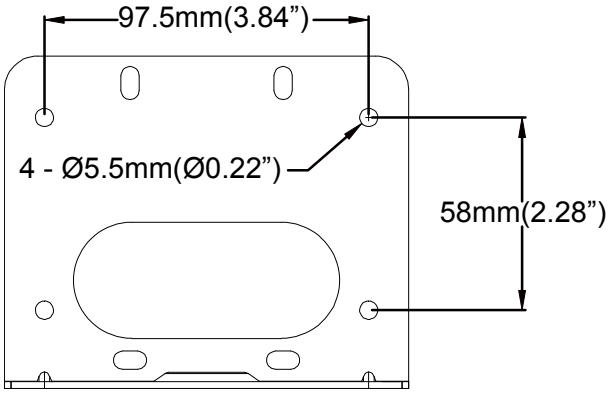
Device Connection



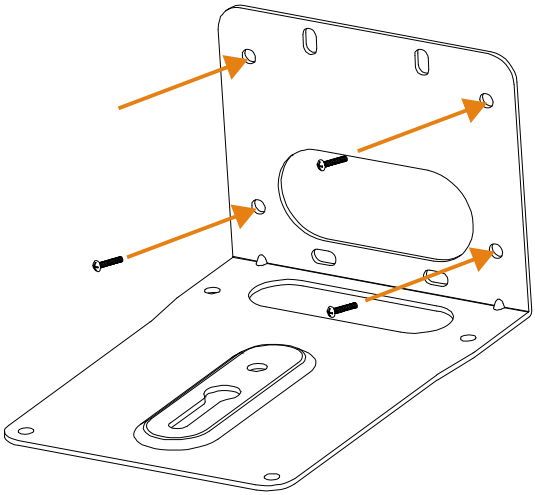
1. Use USB cable to connect the CAM540 to your PC/laptop (refer to diagram above).
2. Connect the power to the CAM540; power indicator will light up and camera head will rotate.
3. Install AVer PTZApp on laptop or PC that is connected with CAM540. The app can be used to adjust and setup the parameters of the camera (refer to the section of AVer PTZApp)
4. To make a call, run your video application (Skype™, Microsoft ®Lync™, Skype for Business, Google Hangouts™, Cisco WebEx®, GoToMeeting™, WebRTC, and etc.) select CAM540 as your video device.

Wall Mount Installation

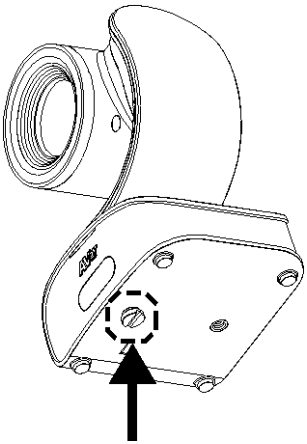
1. According to below figure to drill the hole on the wall where the user wants to mount the camera.



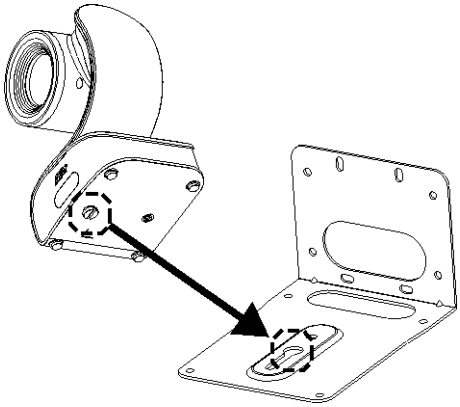
2. Secure the wall mount bracket on the wall within screws.



3. Secure the screw to the camera. Don’t screw tight, leave some space for later installation.

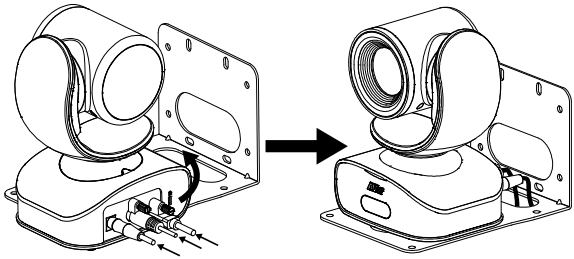


4. Install the camera to the wall mount bracket.

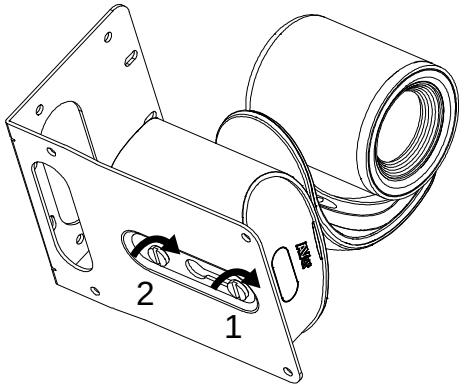


5. Connect the necessary cables to the camera.

[Note] You may use cable ties to organizer cables.



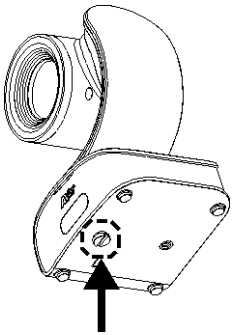
6. Secure the camera with screws; please follow the order as figure shown to secure the camera.



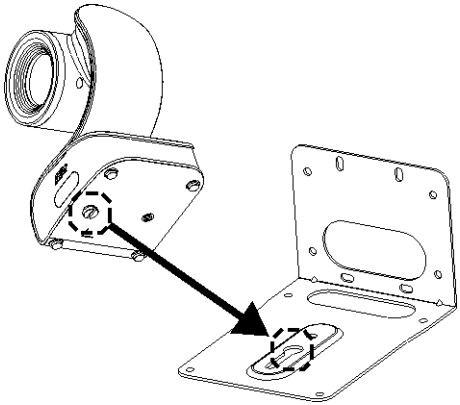
Celling Mount and Switch Box Installation

The camera can be mounted on the celling, please refer the following steps.

1. Secure the screw on to the camera. Don't screw tight, leave some space for later installation.

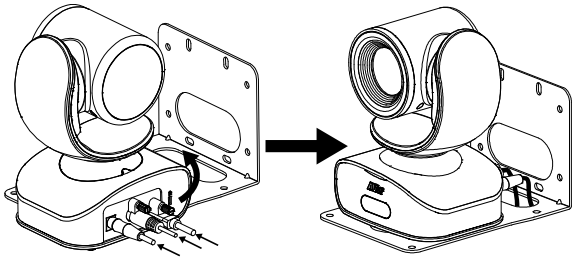


2. Place the camera to the wall mount bracket.

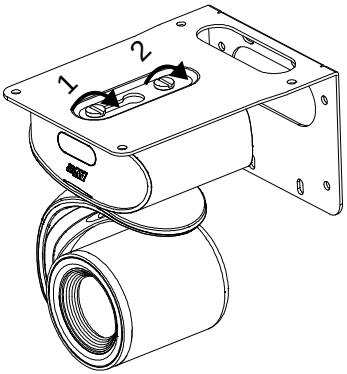


3. Connect the necessary cables to the camera.

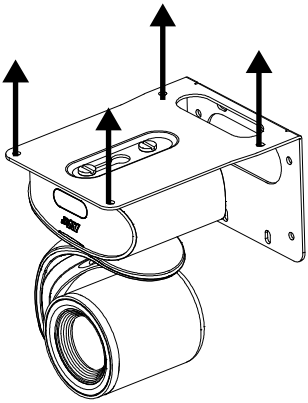
[Note] You may use cable ties to organizer cables.



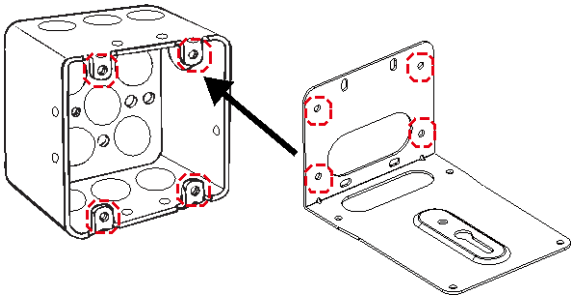
4. Secure the camera with screws; please follow the order as figure shown to secure the camera.



5. Refer to the figure shown which the holes to secure the wall mount bracket with camera to the celling.



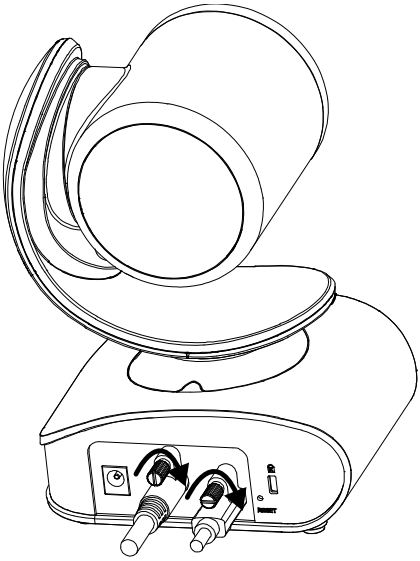
For the switch box installation, refer to the figure shown to secure the wall mount bracket to the switch box. Then, refer to wall mount installation steps.



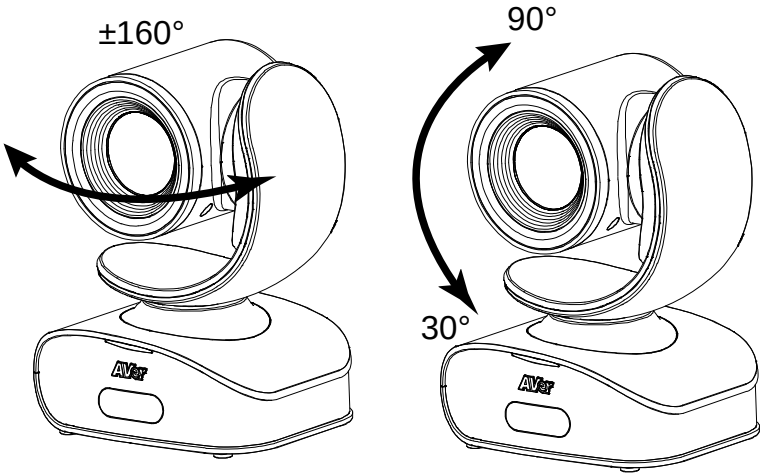
Secure USB Cable

Install the cable first and secure the cable.

[Note] Make sure the cable is well connect to the connector on the camera before secure the cable

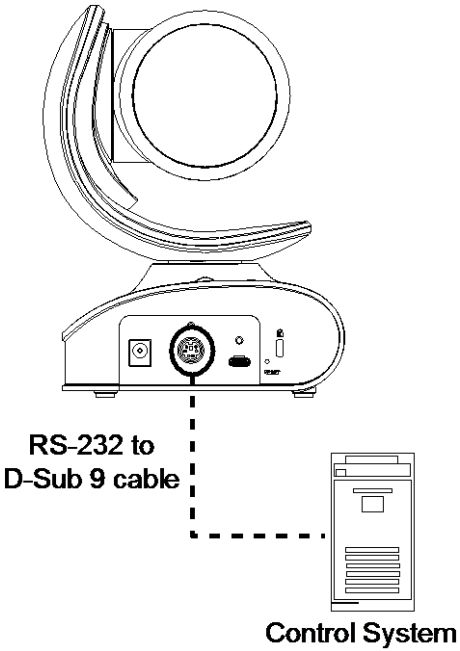


Pan and Tilt Angle



RS232 Connection

Through the RS232 connection, the user can control the camera unit.



Make a Video Call

1. Make sure CAM540 and PC/laptop are well connected and power is on.
2. Run your video application (Skype™, Microsoft ®Lync™, Google Hangouts™, Cisco WebEx®, GoToMeeting™, WebRTC, TrueConf, V-Cube, U-meeting and etc.) on your PC or laptop.
3. Set the CAM540 camera as the primary camera for your video application (refer to your video application user guide). You can now make your call.
4. The CAM540 is a plug-and-play conference camera. The system requires no special drivers, but we do recommend installing the AVer PTZApp for a better user experience. For information on how to install and use the AVer PTZApp, refer to the AVer PTZApp section in this user manual.

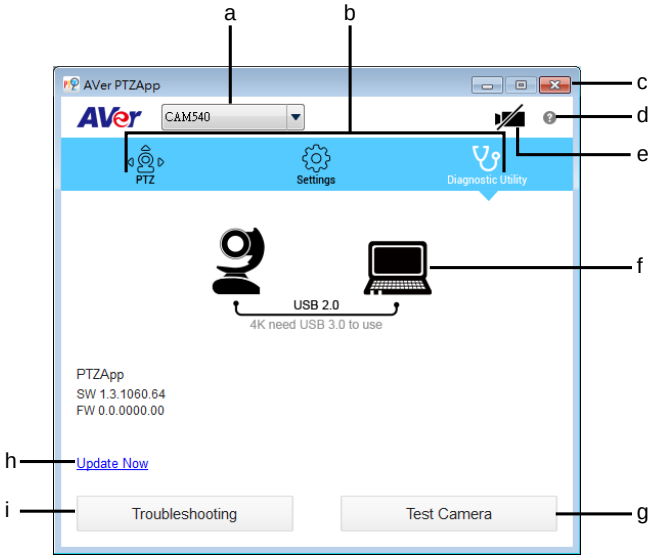
AVer PTZApp

Install AVer PTZApp

Please go to http://www.aver.com/download-center to download the AVer PTZApp. After downloading, double-click on the file and follow the on-screen instructions to complete the installation.

Use AVer PTZApp

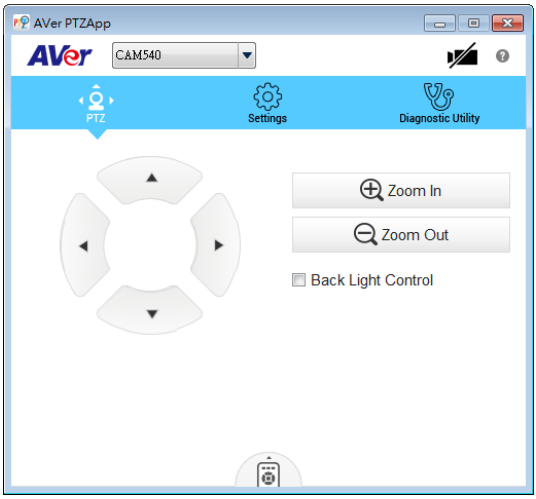
1. To run your video application, a plug-in request will be displayed on your video application interface. Click on it to accept the plug-in; your video application can now be control by AVer PTZApp and remote control.
2. During your video call, you can use the AVer PTZApp to pan, tilt and zoom the camera in/out and enable/disable the backlight feature.
3. For the first time use, you can check the connection, camera, and setup the camera's parameters. Each function will be described below:



a. **Currently selected device:** This field displays currently selected VC or CAM device controlled by PTZApp. If you have more than one AVer VC or CAM devices connected to this PC/Mac PTZApp is running, you can click on the drop-down list to select other AVer VC or CAM device.

b. **Function icon:** Click it to switch to the function's page.

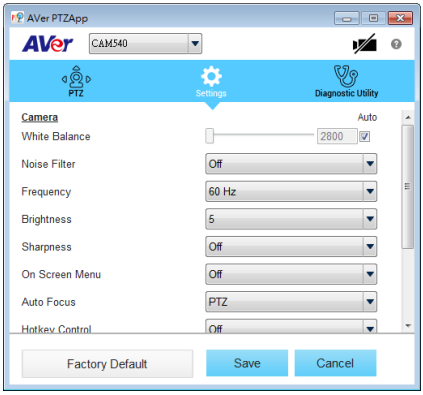
- **PTZ:** To control the camera direction, zoom in and out, and to enable/disable the backlight compensation during your video call.

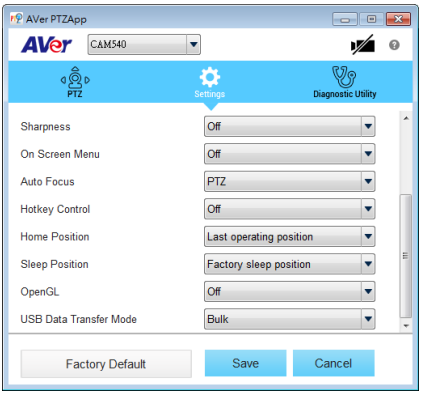


- **Settings:** To setup parameters of the camera. Click the **Save** button to save all settings. To change all the settings, back to the default values, click the **Factory Default** button.

  [Note] For USB Data Transfer Mode, please select mode in Mac OS and Windows as:

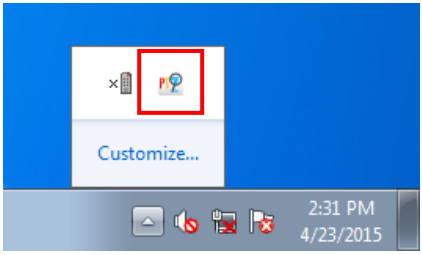
  - ✓ For Mac OS: **isochronous mode**
  - ✓ For Windows: **Bulk mode**





- **Diagnostic Utility:** To display the S/W and F/W version and the devices connection status. You can also update the firmware of the camera.

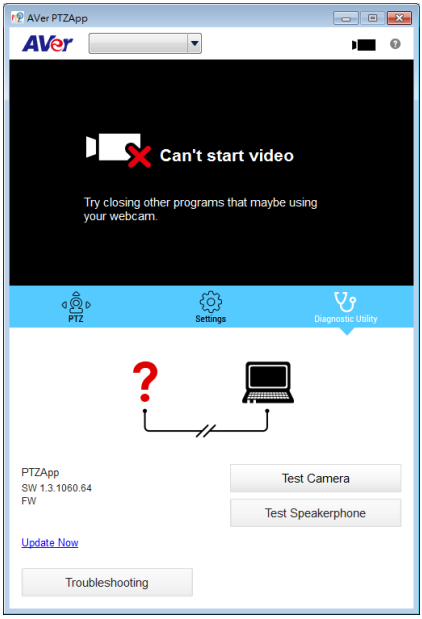
c. **Minimize:** Minimize the app to system tray. To quit the application, right-click the icon on the system tray and select "**Quit**".



d. : Click icon will launch the browser and connect to the AVer PTZApp web page.

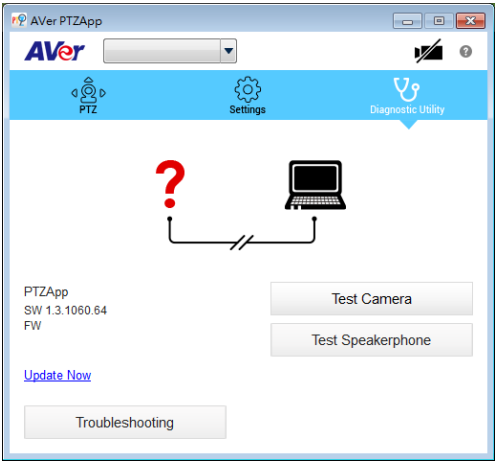
e. **(Camera):** Click it to view the camera live view. Click the camera icon again to close the camera live view. If the live video did not appear, please check the camera and the laptop/PC connection to make sure all are corrected and well connected.

Normal

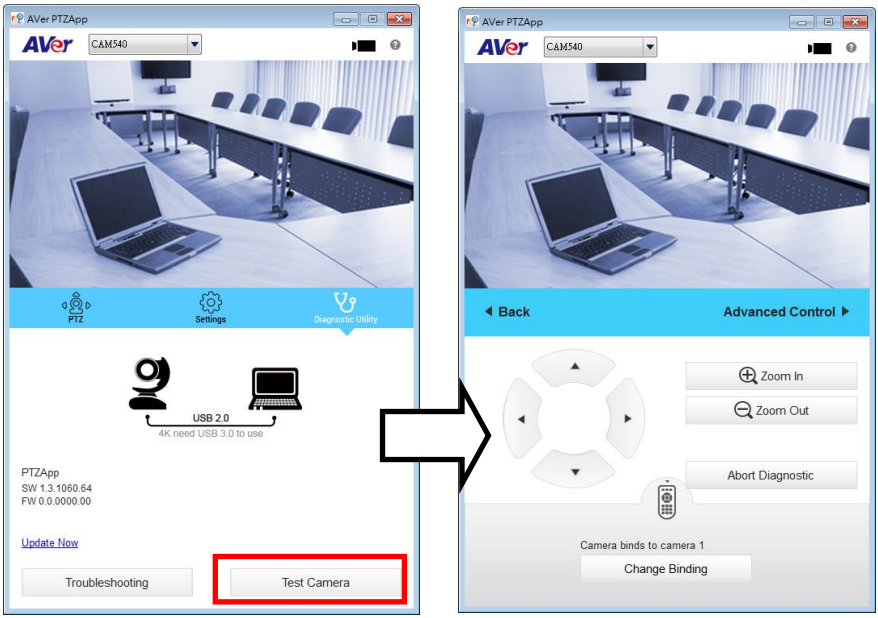


Un-normal

f. **Connection diagnostic:** Display devices connection status. If the AVer PTZApp has detected that camera and laptop/PC are not connected well, the diagram will display an "**?**" on the camera to indicate the connection has a problem. If the camera is in use by another application, it will display "Can't start video" warning.

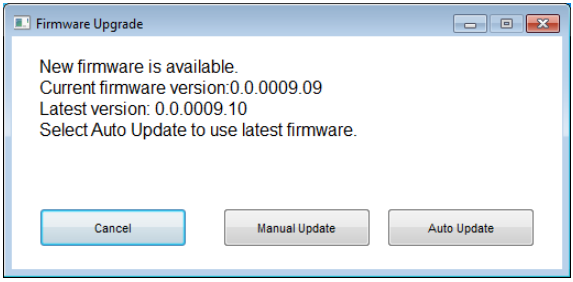


g. Test Camera: Click the "**Test Camera**" to check the camera video display status. You can adjust the camera direction and view of the zoom in/out. To leave the page, click the **Abort Diagnostic** button.



h. Update Now: Allows the user to update the CAM540 camera's firmware.

1. Click" **Update Now**".
2. A dialog will display the current firmware version and available new firmware version (internet connection is required).



3. To auto update, click "**Auto Update**" and update process will start. The new firmware will be downloaded first; then, the new firmware will be uploaded to the camera.

[Note] Please make sure camera, power, and laptop/PC are all well connected and stay connected during the entire process.

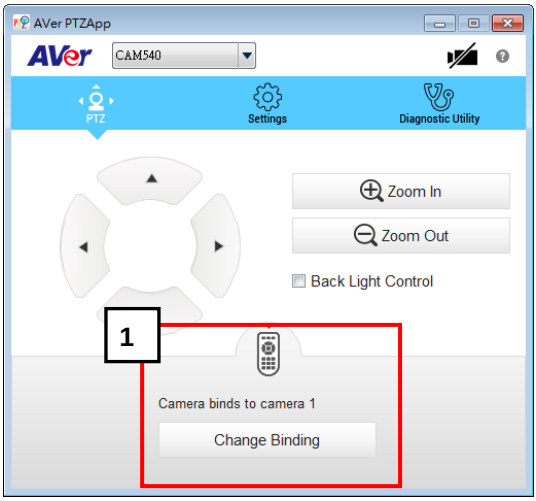
4. To update the firmware manually, click "**Manual Update**" and locate the new firmware to start the process.

i. **Troubleshooting:** collect more system information for troubleshooting before you contact AVer technical support.

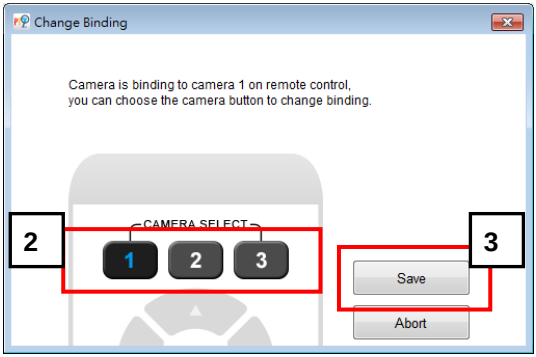
Set the Camera Number

With multiple cameras connection, users can set each camera to buttons 1 to 3 on the remote control.

1. If PTZApp detects computer connects to multiple VC/CAM, you can select which camera you like to control through the dropdown list.
2. Next, Click **Change Binding** button.



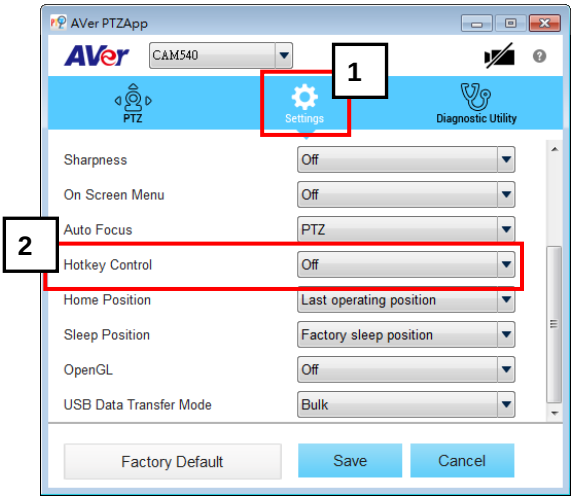
3. Select which camera number of remote control it maps to.
4. Click **Save** to save settings. To un-save the settings, click **Abort**.



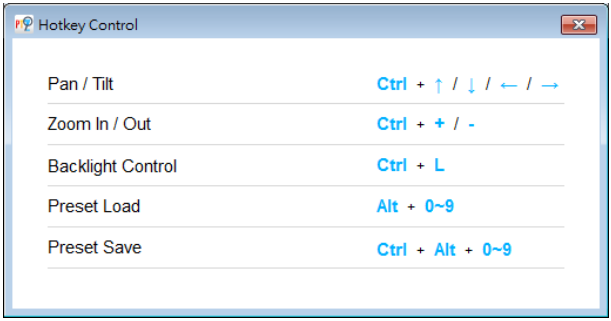
Hotkey Control

Enable hotkey control to use keyboard control camera's movement and backlight.

1. Select "**Settings**"
2. Set Hotkey Control to "**On**".

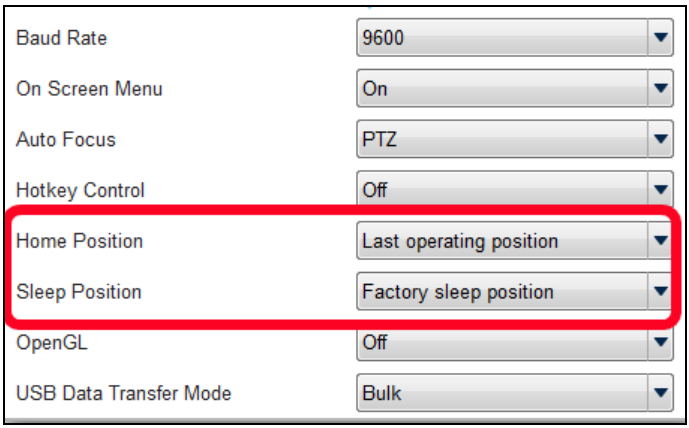


3. A hotkey description as below figure shown:



Home / Sleep Position

Home Position: There are three options: Last operating position/Factory central position/ Preset 0
Sleep Position: There are two options -- Factory sleep position/ Preset 9
If the camera idles for more than 3 minutes, it will enter sleep mode.



ADDR / Protocol/Baud Rate

These settings are related to RS232 functions. Please choose the corresponding value while connecting with external control panels.

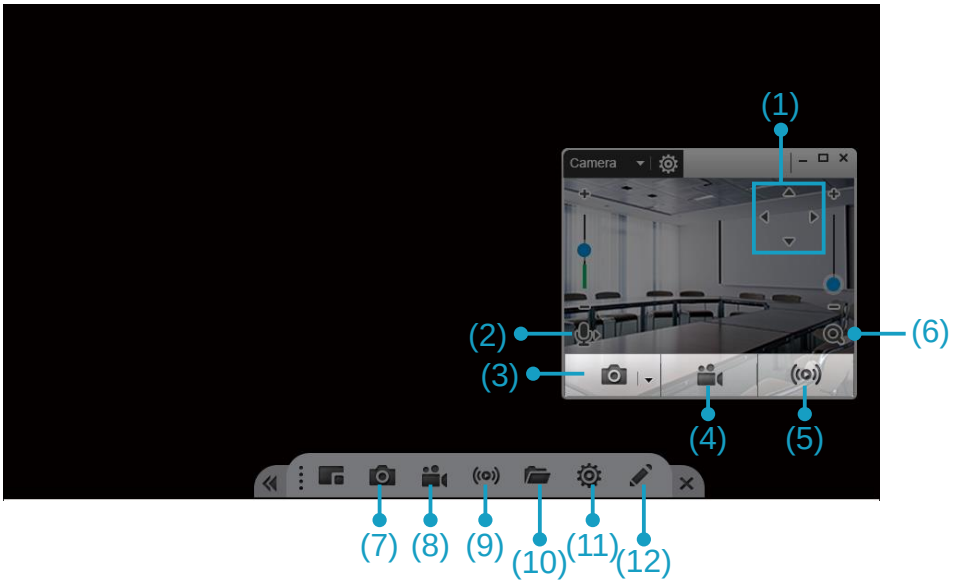
OpenGL

The default setting is Off. If your PC has installed OpenGL, you can get better frame rate and smoother video quality by turn on it. If your PC is without OpenGL, it will cause video display problem after enable it.

Install EZLive

Please go to http://www.aver.com/download-center to download the AVer EZLive software. After downloading, double-click on the file and follow the on-screen instructions to complete the installation.

Use AVer EZLive

During a video call, EZLive can help user to do:

(1) Camera ePTZ
(2) Volume control for the speaker connected
(3) Capture camera's still images
(4) Record video
(5) Live stream to Youtube, Livehouse.in, USTREAM…etc.
(6) Camera Zoom in/out
(7) Capture PC screen shot
(8) Record PC screen video
(9) Set up livestream
(10) Open file management to retrieve photos and video files
(11) Livestream setting
(12) Drawing tool.