MS-10/MS-10S

Meeting System

User Manual - English

[Important]

To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens
https://www.MyLumens.com/support

Table of Contents

Chapter 1   Package Contents

MS-10/MS-10S	Quick Installation Guide	Remote Control

Quick Installation Guide

Power Cord	Power Adapter	3 PIN to 2 PIN Connector

Appearance may vary depending on country/region

(For Japan only)

USB 3.0 Cable (Type B-Type A)	L-shaped Sheet Metal x2	TV Mount Bracket x2
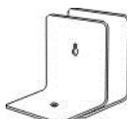
TV Mount Sheet Metal x4	Screw (1/4"-20UNC) x8	M6 Screw x4
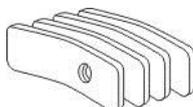
Lumens®
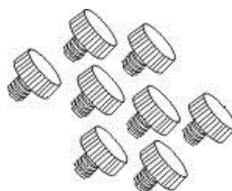
Chapter 2 Product Overview and Interface

2.1 I/O functions Introduction

2.1.1 Front Panel

Speaker   Lens   Built-in Microphone

LED Status Ring

2.1.2 Rear Panel

Tripod Mount Lock Hole   Power Supply   Network Port   Tripod Mount Lock Hole

MS-10S   MS-10

Engineering Button
(for the firmware
update)

External
Microphone

USB 3.0 Port
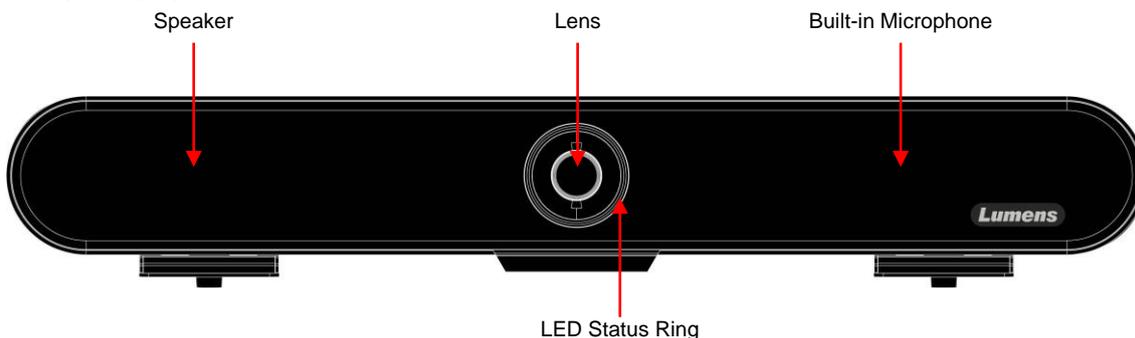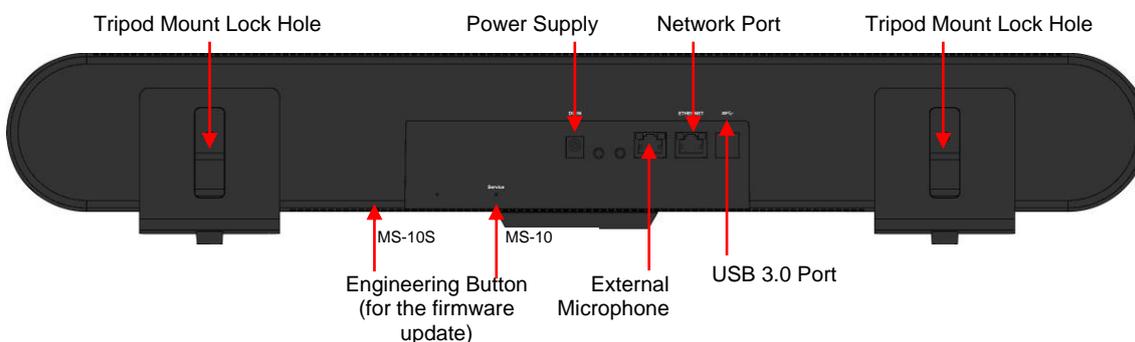
2.1.3 LED Status Ring Indicator Description

Indicator	Description
OFF	Unpowered/not connected to USB
Green	In standby mode
Red	Audio mute
Blue	In use
Green light increase/ decrease	Increase/decrease speaker volume

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Chapter 3 Connection and Instruction for Installation

3.1 How to connect

Tripod Mount Lock Hole   **Power Supply**   **Router**   **Tripod Mount Lock Hole**

USB 3.0 Cable

HDMI Cable   Monitor

External Microphone   Computer
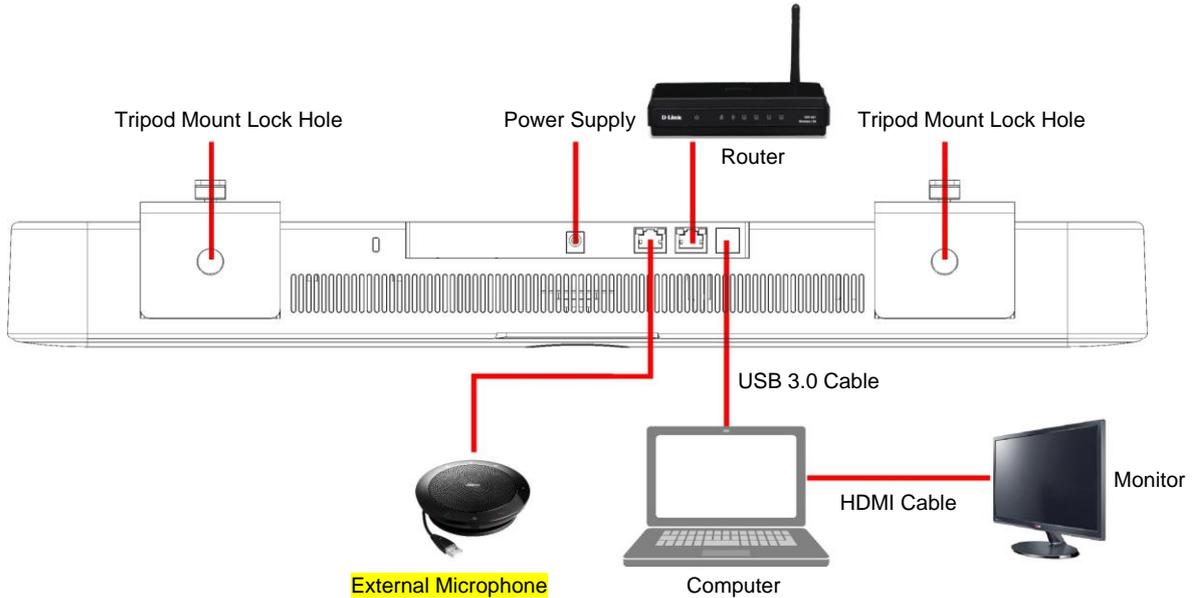
- **USB NIC Function**
  - MS-10/MS-10S USB 3.0 port supports network interface card function. Connecting the MS-10/MS-10S network port to the router allows you to access the Internet without connecting an network cable on the computer
  - Please download the driver from Lumens website

    https://www.MyLumens.com/support
  - Supported Operating System

OS	Supported Version
Windows	Windows XP/7/8: Manual installation
	Windows 10: Built-in drivers
MAC OS X	10.8 or above
Linux	USB NIC Linux driver for Kernel up to 5.6

3.2 Instruction for installation

The recommended installation height is the horizontal position of the human eyes after sitting down to get the best image
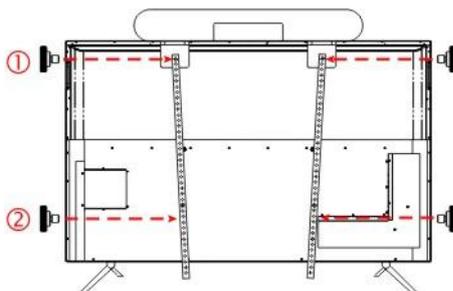
(A)   **(B)**
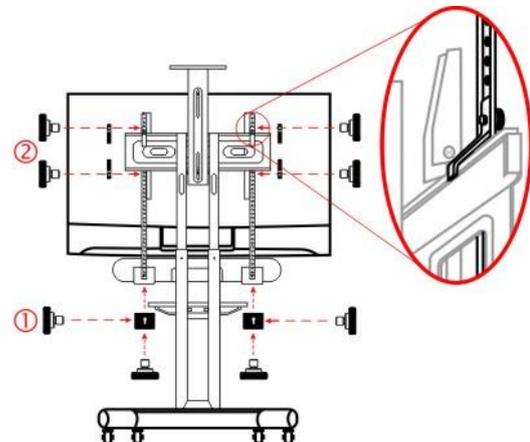
A. When the screen is placed on the platform

❶ Screw MS-10/MS-10S to the TV Mount brackets and place it onto the screen.

❷ Screw the TV Mount brackets to the back of the screen, and then tighten the screws that secure MS-10/MS-10S to the TV mount brackets.

<Remark> Please adjust the locking position of the TV Mount brackets according to hole position on the screen.

B. When the screen is mounted on the TV Mount brackets

❶ Fasten MS-10/MS-10S to the TV Mount brackets with screws.

❷ Place the TV Mount sheet metals on the top/bottom of the TV Mount brackets, and fasten the TV Mount brackets and the TV Mount sheet metals with screws from inside out.

<Remark> If MS-10/MS-10S is installed under the screen, use the L-shaped sheet metals to lock it to MS-10/MS-10S before starting the installation.

<Remark> Depending on the screw lock points of different TVs, the stainless steel bracket after installation is as shown in Figure (C) or (D)

(C)   **(D)**
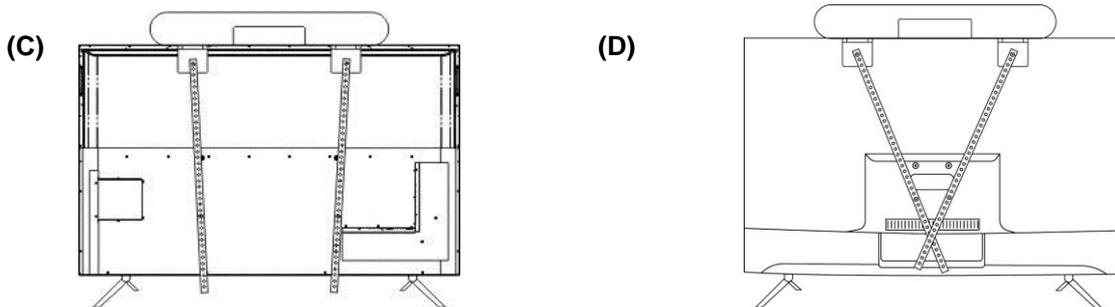
3.3 Device Size

- Length x Width x Height: 602.25mm × 73.7mm × 94.01mm
- Weight: 1.5 kg
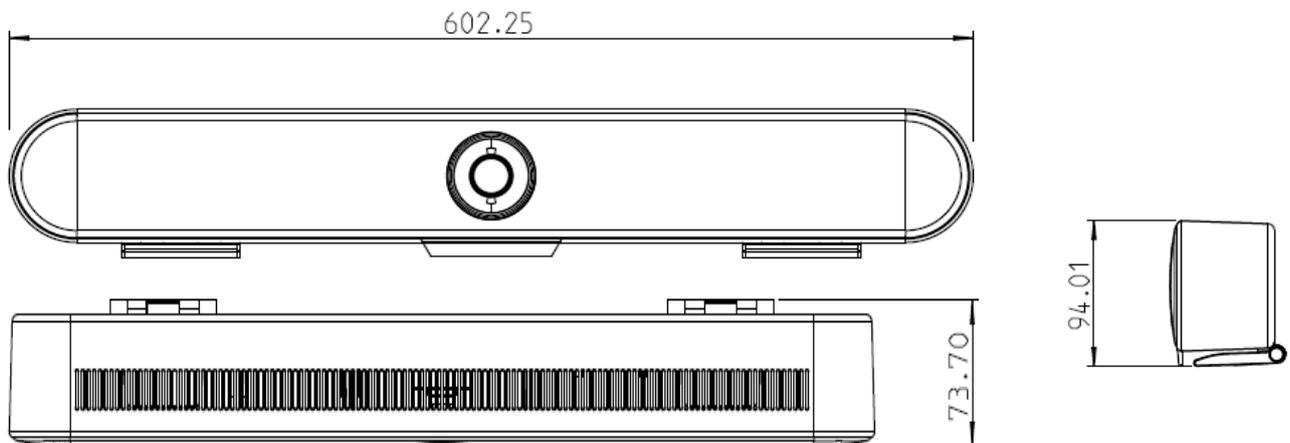
3.4 Relative Operation Position

Chapter 4 Introduction of Remote Control and Setting Menu

4.1 Remote Control

| No.	Function Descriptions
1	Enable/Mask Images
2	Enable/Disable Auto Frame ■ Enable: Displayed in the upper right corner of the screen ![ON] ■ Disable: Displayed in the upper right corner of the screen ![OFF] ※ 4K resolution does not support Auto Frame
3	↑↓←→ ■ ePTZ: Screen moving direction ■ Setting Menu On: Select function
4	HOME/OK Button ■ ePTZ: Back to the wide angle ■ Setting Menu On: Confirm button
5	Increase/decrease speaker volume ■ Increase volume: Increment of green light on the LED status ring ■ Decrease volume: Decrease of green light on the LED status ring
6	Turn on/off the setting menu
7	Call/Set the preset ■ Short press: Call the preset 1~3 ■ Press and hold: Save the preset 1~3
8	Mute/Unmute ■ Mute: LED status indicator shows red ■ Unmute: LED status indicator shows blue Press and hold for 3 seconds to switch to: Enable/disable noise reduction ■ Enable noise reduction: Displayed in the upper right corner of the screen ![ON] ■ Disable noise reduction: Displayed in the upper right corner of the screen ![OFF]
9	Turn on/off Speaker Tracking
10	Zooming in/out the image
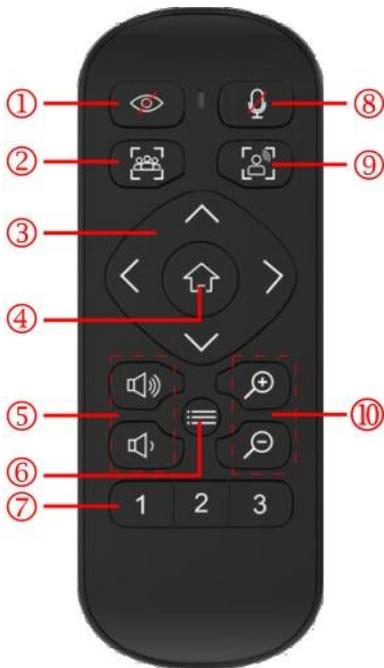
4.2 Setting Menu

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Image	Auto Frame	On/**Off**	The camera can automatically detect the position of the human body and adjust the person to the center of the screen according to the number of people in the meeting scene to present the best image
	Brightness	0~**A**~14	
	Contrast	0~**A**~14	**<Remark>** For MS-10 only
	Hue	0~**A**~14	**<Remark>** For MS-10 only
	Saturation	0~**A**~14	
	Sharpness	0~**A**~15	
	Gamma	0~**A**~4	
	Gain	0~**A**~14	
	Anti Flicker	**50Hz**/60Hz	
	Backlight Comp	On/**Off**	
Audio	NR Function	**On**/Off	**<Remark>** For MS-10S only
	NR Level	3~**A**~30db	**<Remark>** For MS-10S only
	Echo Cancellation	**On**/Off	**<Remark>** For MS-10S only
	EQ Parameters	On/**Off**	**<Remark>** For MS-10S only
	High Pitch	-18~**A**~12db	**<Remark>** For MS-10S only
	Low Pitch	-18~**A**~12db	**<Remark>** For MS-10S only
System	Prompt	**On**/Off	**<Remark>** For MS-10S only
	Language	Chinese/**English**	
	Mirror	On/**Off**	
	Flip	On/**Off**	
	Zoom-in Number Limit	×2/**×3**/×4	**<Remark>** For MS-10S only
	USB NIC Function	On/**Off**	**<Remark>** For MS-10S only

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	Expert Mode	On/**Off**	The identifier frame will appear after enabling Auto Frame. It helps users to know the current detection precision and if there is any on-site tracking issue caused by environment interference
	Detection Sens.	Low/Mid/**High**	Adjust the detection sensitivity of Auto Frame
	Factory Reset		
Device Info.	Firmware Version		

Chapter 5　Descriptions of Major Functions

5.1　Control the Camera

1. Use the remote control to control MS-10/MS-10S.
2. It can be controlled using **"USB PTZ Camera Controller"** software.
Please download software from the Lumens website and USB PTZ Camera Controller Manual.

5.2　Use Skype for Video Conference

Please refer to **Chapter 3 Installation and Connections** to finish connecting the

MS-10/MS-10S and computer. Start Skype, select a contact, and press 🎥 to start the

video conference.

If it doesn't work, please refer to the following steps to setup the camera:

1. Start Skype -> [Setting] -> [Audio & Video]
2. Select **[Lumens MS-10 Camera]/ [Lumens　MS-10S Camera]**
3. Select Speaker/Microphone **[Lumens MS-10 Speakphone]**/ [**Lumens MS-10S Speakphone]**

After the setting is completed, the video conference is ready to begin.

<Remark> It can also be used with Zoom, Teams, Google Meet and other video software

5.3　Save the current screen position data

Press and hold the remote control number keys [1 ~ 3] to save the preset, and **[Save OK]** will display in the upper right corner of the screen.

After saving, short press the number keys to call the preset.

5.4　Adjust the direction and position of the screen (ePTZ)

1. Confirm that the screen is Zoom+
2. Press [▲] or [▼] on the **remote control** to adjust the angle upward or downward.
3. Press [►] or [◄] on the **remote control** to adjust the angle to the right or left.

5.5　Use the Auto Frame

Press [**Auto Frame**] 🖼 on the remote control. The camera will automatically detect the locations of people, and automatically adjust the zoom to the most appropriate size to accommodate all the participants according to change of the conference venues and the number of people.

5.6　Use the Speaker Tracking

Press [**Speaker Tracking**] 🖼 on the remote control. The camera will detect the locations of human sound, and adjust the person to the center of the screen.

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Chapter 6 Output Resolution

The default output resolution of MS-10/MS-10S is 1920x1080. Please go to the connected video conference software setting to adjust the video conference output resolution.

<Remark> Some video conference software do not have the option of adjusting the resolution, such as Skype

Format	Resolution	FPS Setting		Note
		30	**25**	
MJPEG	3840 x 2160	**V**	**V**	Zoom in/out is not supported.
	1920 x 1080	**V**	**V**	Default resolution
	1280 x 720	**V**	**V**	
	640 x 360	**V**	**V**	
YUV	640 x 360	**V**	**V**	**<Remark>** For MS-10S only

Chapter 7 Troubleshooting

This chapter describes problems you may encounter while using MS-10/MS-10S. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact our distributors or service center.

No.	Problems	Solutions
1.	**There is no image output from MS-10/MS-10S**	1. Replace the USB cables and make sure they are not faulty. 2. Verify whether the computer or equipment has detected the MS-10/MS-10S camera and is connected correctly.
2.	**MS-10/MS-10S cannot be operated by remote control**	1. Try to replace the batteries of the remote control. 2. Please confirm that equipment has been connected to the computer, and launch video software. 3. Please verify the equipment LED indicator. When the signal from the remote control received by the device is normal, the LED indicator will flash.
3.	**MS-10/MS-10S output resolution is low**	The default output resolution of MS-10/MS-10S is 1920x1080. Please go to the connected video conference software setting to adjust the video conference output resolution. **<Remark>** Some video conference software do not have the option of adjusting the resolution, such as Skype.
4.	**↑↓←→ directional keys on the remote control cannot adjust the screen position**	Please make sure the screen is Zoom+. MS-10/MS-10S supports ePTZ. The direction can be adjusted only under the Zoom+ screen.
5.	**Cannot use the Auto Frame function**	Please check the resolution. 4K resolution does not support Auto Frame.
6.	**MS-10/MS-10S is not compatible with Line**	MS-10/MS-10S currently does not support YUY2 format, so it cannot be used with it.

Chapter 8 Safety Instructions

Always follow these safety instructions when setting up and using the MS-10/MS-10S Meeting System:

1 Operation

1.1 Please use the product in the recommended operating environment, away from water or source of heat.

1.2 Do not place the product on a tilted or unstable trolley, stand or table.

1.3 Please clean the dust on the power plug prior to usage. Do not insert the product's power plug into a multiplug to prevent sparks or a fire.

1.4 Do not block the slots and openings in the case of the product. They provide ventilation and prevent the product from overheating.

1.5 Do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.

1.6 Unplug the product from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
- If the USB port becomes damaged or frayed.
- If liquid is spilled into the product or the product has been exposed to rain or water.

2 Installation

2.1 For security considerations, please make sure the standard hanging rack you bought is in line with UL or CE safety approbations and installed by technician personnel approved by agents.

3 Storage

3.1 Do not place the product where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.

3.2 Unplug this product during thunderstorms or if it is not going to be used for an extended period.

3.3 Do not place this product or accessories on top of vibrating equipment or heated objects.

4 Cleaning

4.1 Disconnect all the cables prior to cleaning and wipe the surface with a dry cloth. Do not use alcohol or volatile solvents for cleaning.

5 Batteries (for products or accessories with batteries)

5.1 When replacing batteries, please only use similar or the same type of batteries.

5.2 When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products.

■ **Precautions**

	This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock. Do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel.		This symbol indicates that there are important operating and maintenance instructions in this User Manual with this unit.

■ **FCC Warning**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

Notice :
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

■ **IC Warning**

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe A prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

■ **EN55032 CE Warning**

Warning: Operation of this equipment in a residential environment could cause radio interference.

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Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Manufacturer：**Lumens Digital Optics Inc.**

Product Name：**MS-10/MS-10S**

Model Number：**Meeting System**

Responsible Party – U.S. Contact Information

Supplier：**Lumens Integration, Inc.**

　　　　　4116 Clipper Court, Fremont, CA 94538, United States

e-mail ： support@mylumens.com

FCC Compliance 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.