

UM383WL Installation Guide

Wall Mounted

Rev 1.0

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Product Description

Type:	3 panel LCD projector, 0.76" p-Si TFT w/MLA	Dimensions: 17.7"(W) x 6.2"(H) x 16.7"(D)
		Weight: 23.6 lbs

Resolution: 1280 x 800 (16:10)

Brightness: 3800 Lumens

Fan Noise: 37dB / 33dB / 29dB @ 1 meter

Power Consumption: 460W (max)

BTU's: 569.6.0 BTU/hour (max)

Network Ready: Integrated wired (RJ45)
Manual: Horizontal & Vertical Lens Shift, Zoom, Focus

Lens Specifications

Throw Ratio:	0.27-0.29:1 (for 100" diagonal)	Focal Length:	4.92mm – 5.18mm
Offset Angle:	59° - 60° (wide) 58° - 59° (tele)	F/#:	1.78-1.83
Screen Sizes:	70" - 130" diagonal	Manual Focus/Manual Zoom/Manual Lens Shift	

Screen/Aspect Ratio

4:3, 16:9 and 16:10 screens are fully supported with proper aspect ratio control for both type sources using NEC developed scaling technology. Menu selections have settings for each screen type and aspect ratio control for each source type.

Notes

- For screen sizes not indicated on the projection tables, use the formulas below.
- If the figures on the tables do not match the results of formulas, use the figures in the table..
- Distances are in inches, for millimeters multiply by 25.4.
- Distances may vary $\pm 5\%$.

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Formulas: 16:10 Aspect Ratio (UM383WL - WXGA)

The Projection Formulas use the image width for calculation. Image width is the same for all aspect ratios, only vertical image size varies. For proper projector placement, determine the image width for a desired screen size. Use the Screen Formulas below to calculate all screen dimensions. Plug in the image width for "W" in the Projection Formulas.

Refer to the diagrams and charts for popular screen sizes on page 4:

16:10 Screen Formulas:

$$W = H \times 16/10$$

$$H = W \times 10/16$$

$$\text{Screen Diagonal} = W \times 18.868/16$$

Projection Formulas:

$$A (\text{wide}) = (0.2701W) - 12.88$$

$$A (\text{tele}) = (0.2842W) - 12.88$$

$$B (\text{max}) = (0.4663W) + 4.174$$

$$B (\text{min}) = (0.4283W) + 4.174$$

$$C (\text{wide}) = (0.2701W) + 0.1167$$

$$C (\text{tele}) = (0.2842W) + 0.1195$$

$$D (\text{max}) = 0.1617W$$

$$D (\text{min}) = 0.1242W$$

$$E (\text{max}) = (0.1617W) + 3.5$$

$$E (\text{min}) = (0.1242W) + 3.5$$

$$\text{Vertical Lens Shift Max (Up)} = 0.03H$$

$$\text{Vertical Lens Shift Max (Down)} = -0.03H$$

$$\text{Horizontal Lens Shift Max (Left)} = 0.02W$$

$$\text{Horizontal Lens Shift Max (Right)} = -0.02W$$

Note: For screen sizes not indicated on the projection tables, use the formulas above.

Distance Charts

The following shows the proper relative positions of the projector and screen. Refer to the table to determine the position of installation. Distances are in inches. For millimeters multiply by 25.4.

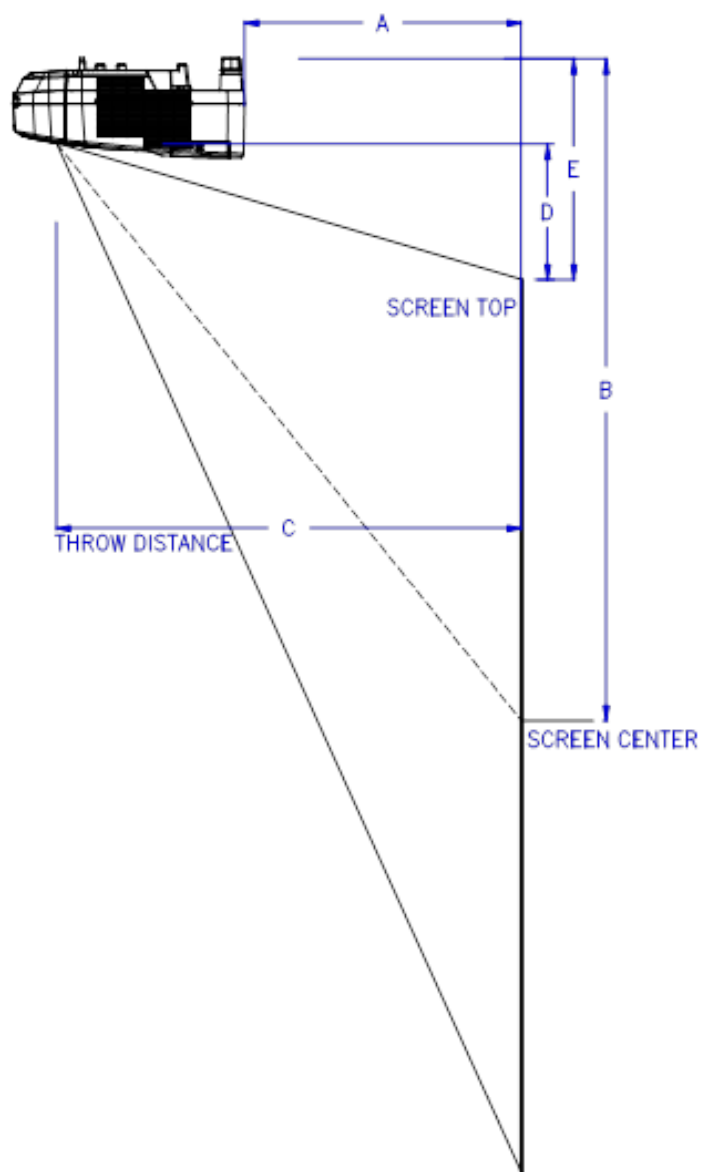
Screen Size (16:10)			A wide - tele	B max - min	C wide - tele	D max - min	E max - min	Vertical Lens Shift Range			Horizontal Lens Shift Range		
Diagonal	Width(W)	Height (H)						Max (Up)		Max (Down)	Max (Left)		Max (Right)
inches	inches	inches	inches	inches	inches	inches	inches	inches		inches	inches		inches
70	59	37	3.1 - 3.9	31.7 - 29.4	16.1 - 16.9	9.5 - 7.3	13.0 - 10.8	1.1 - -1.1		1.2 - -1.2			
80	68	42	5.5 - 6.4	35.9 - 33.3	18.5 - 19.4	11.0 - 8.4	14.5 - 11.9	1.3 - -1.3		1.4 - -1.4			
90	76	48	7.6 - 8.7	39.6 - 36.7	20.6 - 21.7	12.3 - 9.4	15.8 - 12.9	1.4 - -1.4		1.5 - -1.5			
100	85	53	10.1 - 11.3	43.8 - 40.6	23.1 - 24.3	13.7 - 10.6	17.2 - 14.1	1.6 - -1.6		1.7 - -1.7			
110	93	58	12.2 - 13.6	47.5 - 44.0	25.2 - 26.6	15.0 - 11.6	18.5 - 15.1	1.7 - -1.7		1.9 - -1.9			
120	102	64	14.7 - 16.1	51.7 - 47.9	27.7 - 29.1	16.5 - 12.7	20.0 - 16.2	1.9 - -1.9		2.0 - -2.0			
130	110	69	16.8 - 18.4	55.5 - 51.3	29.8 - 31.4	17.8 - 13.7	21.3 - 17.2	2.1 - -2.1		2.2 - -2.2			

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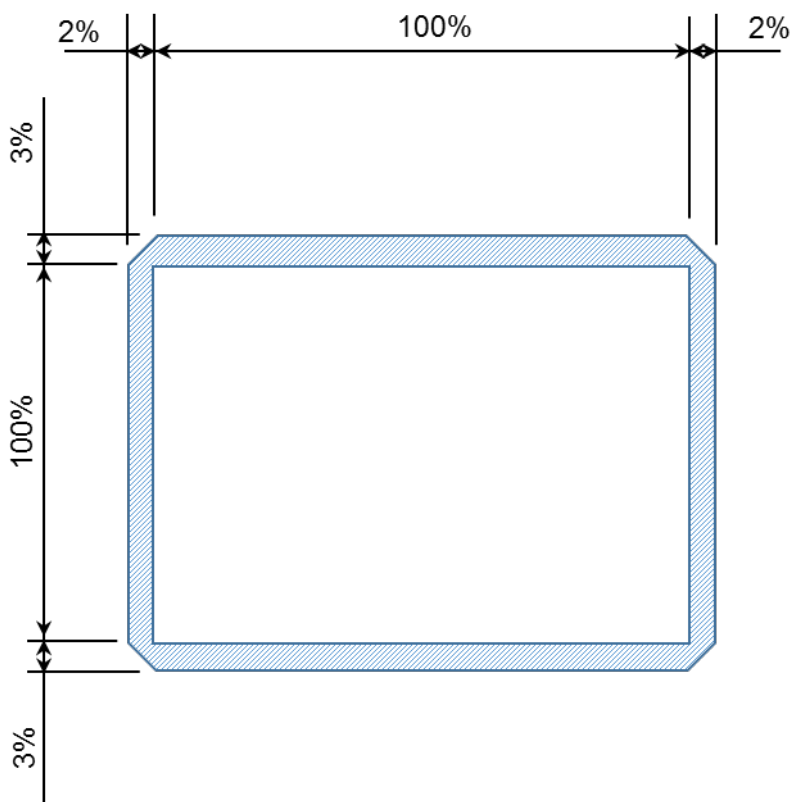
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Lens Shift Adjustable Range

Lens Shift Range for Desktop and Ceiling Mount Application

The diagram below shows the location of the image position in the lens for the UM383WL. The UM383WL has a maximum horizontal lens shift range of $\pm 2\%$ and a maximum vertical lens shift range of $\pm 3\%$. The lens can be shifted within the shaded area as shown using the normal projection position as a starting point.



Note: Projector is set out of the box at center position, which is how it is depicted above.

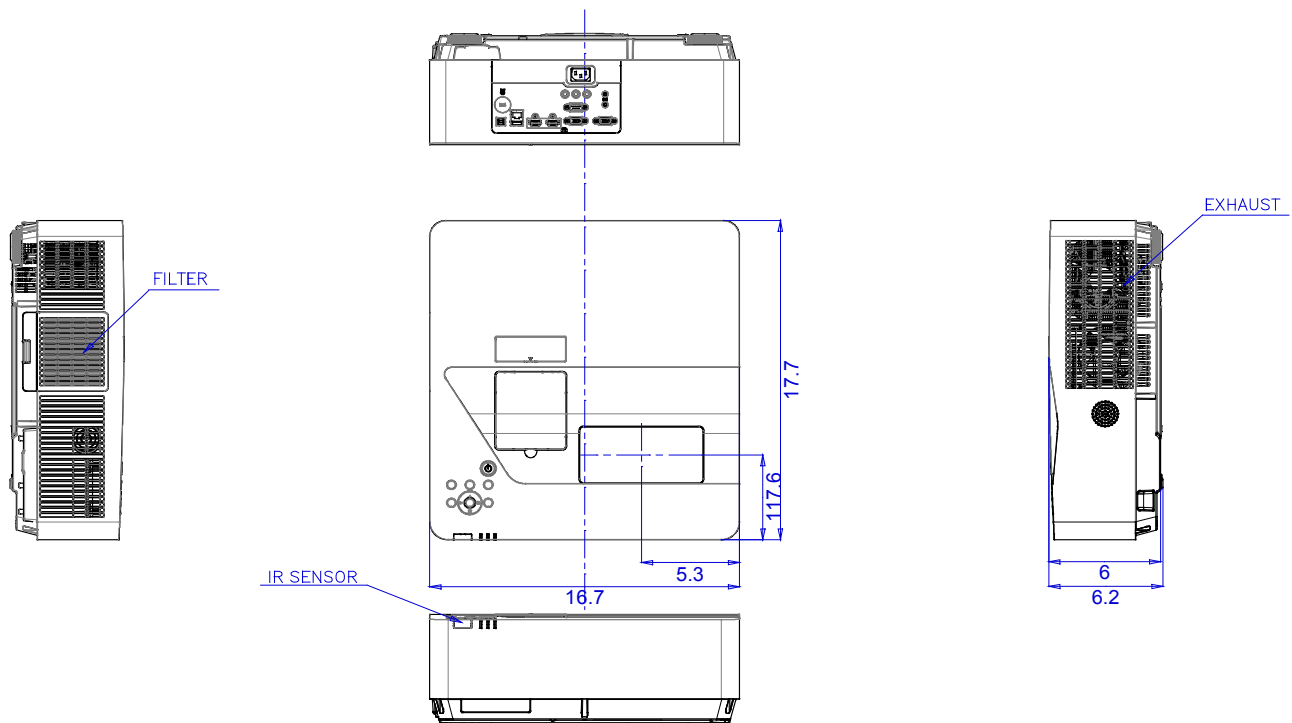
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Cabinet Dimensions

The following diagrams show the cabinet dimensions for the UM383WL. Dimensions are in inches. For millimeters multiply by 25.4.

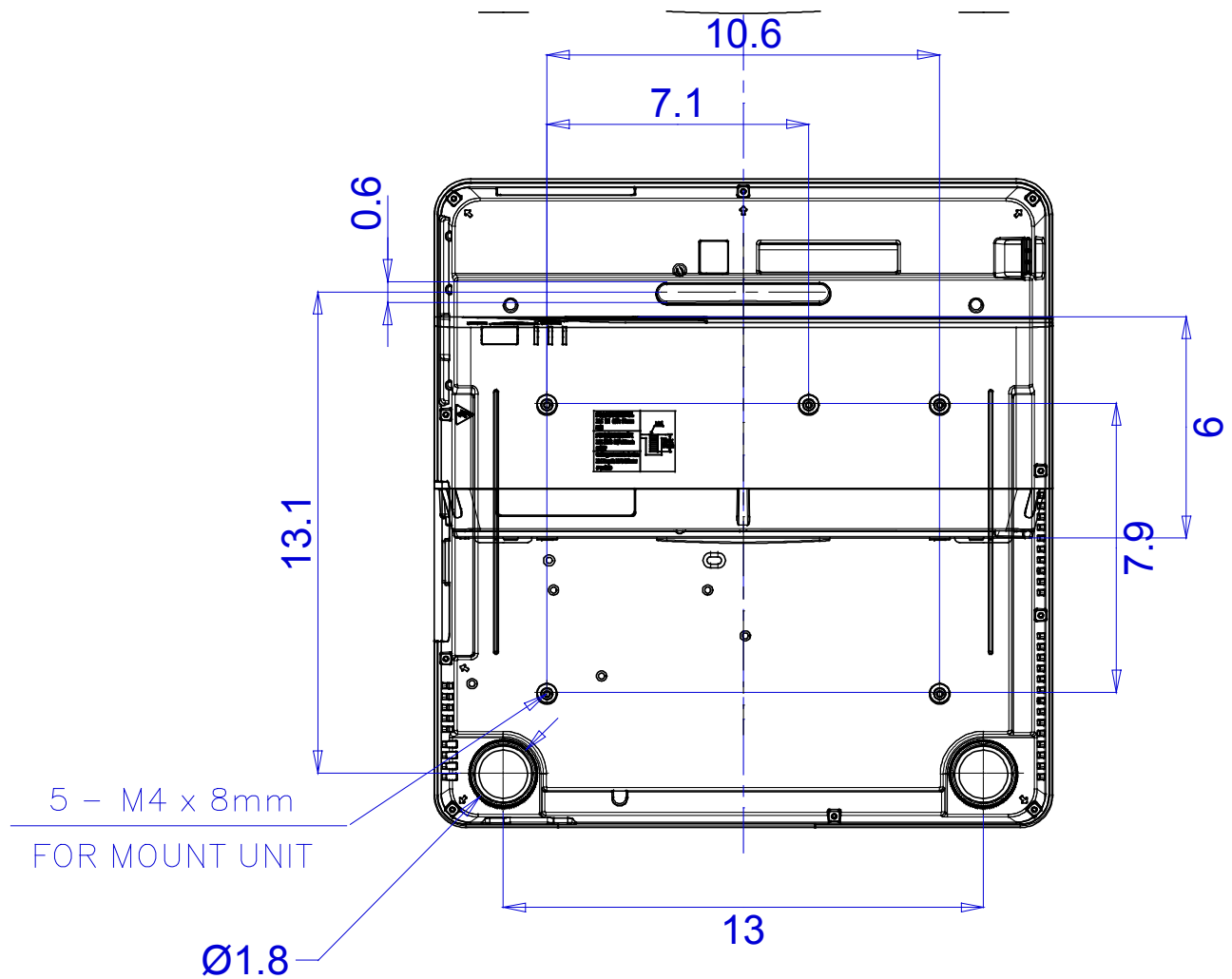


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Cabinet Dimensions

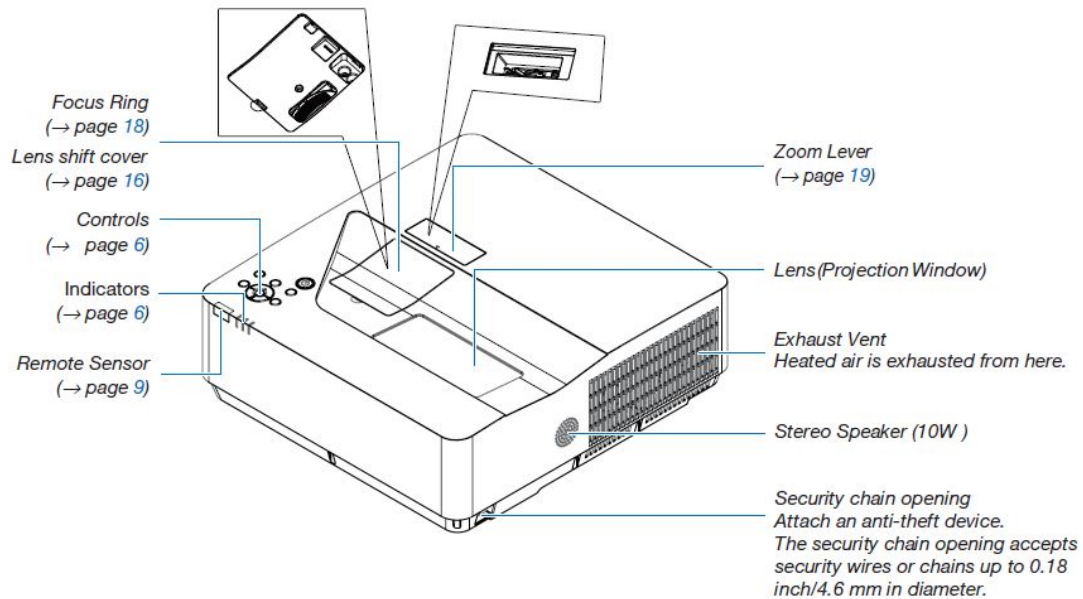


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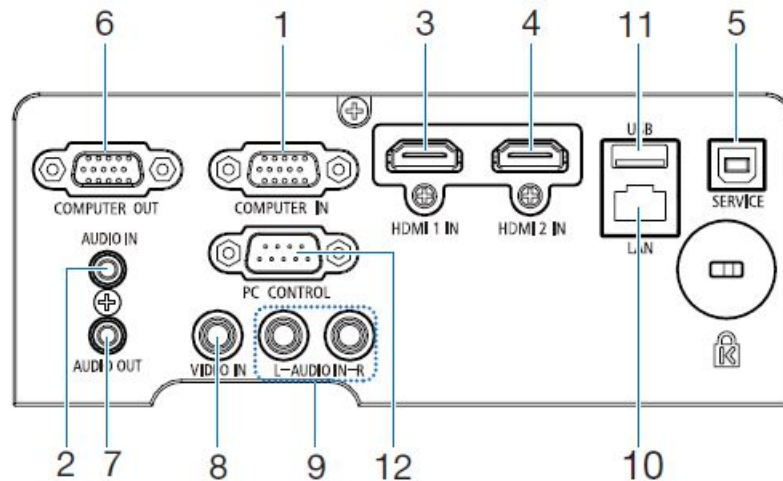
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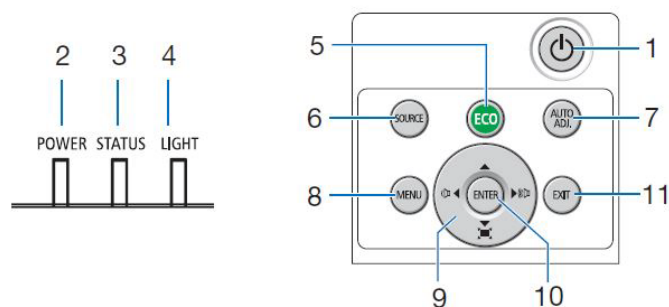
Ventilation



Input Panel



Control Panel



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PC Control Codes

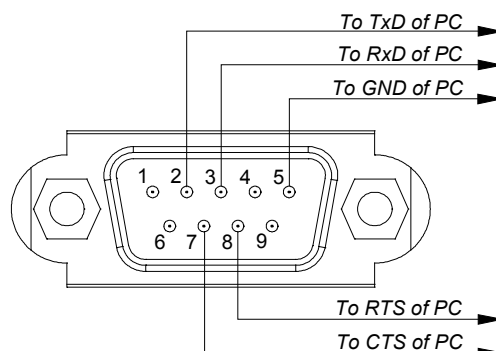
Function	Code Data					
POWER ON	02H	00H	00H	00H	00H	02H
POWER OFF	02H	01H	00H	00H	00H	03H
INPUT SELECT Computer	02H	03H	00H	00H	02H	01H 09H
INPUT SELECT HDMI1	02H	03H	00H	00H	02H	01H A1H A9H
INPUT SELECT HDMI2	02H	03H	00H	00H	02H	01H A2H AAH
INPUT SELECT VIDEO	02H	03H	00H	00H	02H	01H 06H 0EH
INPUT SELECT USB-A	02H	03H	00H	00H	02H	01H 1FH 27H
INPUT SELECT LAN	02H	03H	00H	00H	02H	01H 20H 28H
PICTURE MUTE ON	02H	10H	00H	00H	00H	12H
PICTURE MUTE OFF	02H	11H	00H	00H	00H	13H
SOUND MUTE ON	02H	12H	00H	00H	00H	14H
SOUND MUTE OFF	02H	13H	00H	00H	00H	15H

Cable Connection

Communication Protocol:

Baud Rate: 38400 bps
 Data Length: 8 bits
 Parity: No Parity
 Stop Bit: One bit
 X on/off: None
 Communications: Full duplex

PC Control Connector (D-Sub 9P)



NOTE 1 : Pins 1, 4, 6, and 9 are used inside the projector.

NOTE 2: For long cable runs it is recommended to set communication speed within the projector to 9600 bps.

NOTE 3: Jumper "Request to Send" and "Clear to Send" together on both ends of the cable to simplify cable connection.