

UM330X Installation Guide

Desktop and Ceiling Mount

v1.1

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Product Description

Type:	0.63 inch LCD with MLA	Dimensions:	14.9"(W) x 6.5"(H) x 16.9"(D)
Native Resolution:	1024 x 768	Weight:	12.6 lbs
Brightness:	3300 lumens	Screen Range:	61.5" – 116.6" Diagonal (4:3)
Power Consumption:	360W (max)	Fan Noise:	35 dB / 28dB @ 1 meter
		BTU's:	1228.37 BTU/hour

Screen/Aspect Ratio

Both 4:3 and 16:9 screens are fully supported with proper aspect ratio control for both type sources using NEC developed scaling technology. By selecting the screen type in the menus, Aspect Ratio control is reconfigured for that screen type.

Notes

- For screen sizes not indicated on the projection charts, use the formulas below. If the figures on the tables do not match the results of formulas, use the figures in the table.
- All calculations are based on 4:3 aspect ratio.
- Distances are in inches, for millimeters multiply by 25.4.
- Distances may vary $\pm 5\%$.

Formulas

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 the screen width in for "W" in the Projection Formulas. Refer to the diagrams and charts for popular screen sizes on page 2 and 3.

Definitions:

- W** = Screen width
- H** = Screen height
- A** = Distance between projector cabinet and screen
- B** = Vertical distance between projector foot and screen center
- C** = Throw distance
- D** = Vertical distance between projector foot and screen bottom (screen top for ceiling mounted application)

4:3 Screen Formulas:

- W** = $H \times 4/3$
- H** = $W \times 3/4$
- Screen Diagonal** = $W \times 5/4$

16:10 Screen Formulas:

- W** = $H \times 16/10$
- H** = $W \times 10/16$
- Screen Diagonal** = $W \times 18.868/16$

Projection Formulas:

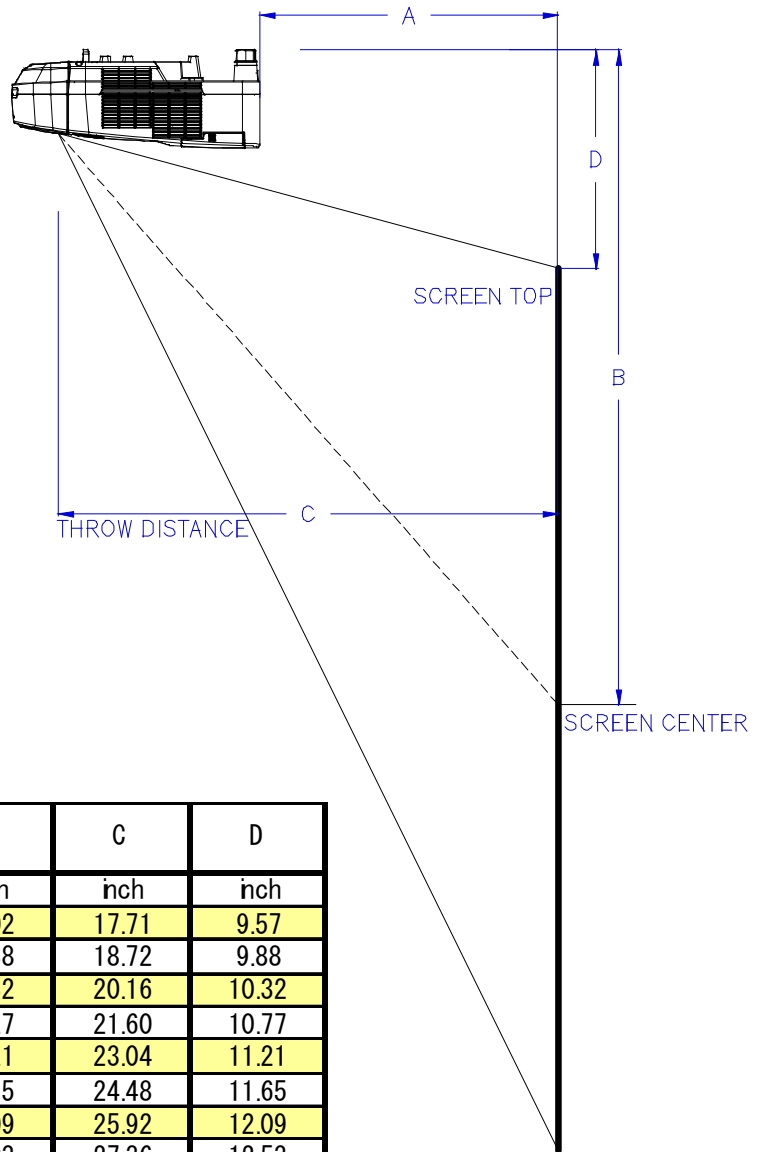
- A** = $C - 13.52$
- B** = $0.4854W + 4.142$
- C** = $0.360W$
- D** = $0.1104W + 4.142$

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Ceiling Mounted Installation

The following diagram shows the relationship between projector position and the screen. Refer to the charts below for data. Distances are in inches. For millimeters multiply by 25.4.



Distance Chart for Popular 4:3 Screen Sizes

Screen Size			A	B	C	D
Diagonal	Width	Height				
inch	inch	inch	inch	inch	inch	inch
61.5	49	37	4.19	28.02	17.71	9.57
65.0	52	39	5.20	29.38	18.72	9.88
70.0	56	42	6.64	31.32	20.16	10.32
75.0	60	45	8.08	33.27	21.60	10.77
80.0	64	48	9.52	35.21	23.04	11.21
85.0	68	51	10.96	37.15	24.48	11.65
90.0	72	54	12.40	39.09	25.92	12.09
95.0	76	57	13.84	41.03	27.36	12.53
100.0	80	60	15.28	42.97	28.80	12.97
105.0	84	63	16.72	44.92	30.24	13.42
110.0	88	66	18.16	46.86	31.68	13.86
115.0	92	69	19.60	48.80	33.12	14.30
116.6	93	70	20.06	49.42	33.58	14.44

Note: For screen sizes not indicated in the distance charts, use the formulas on page 1.

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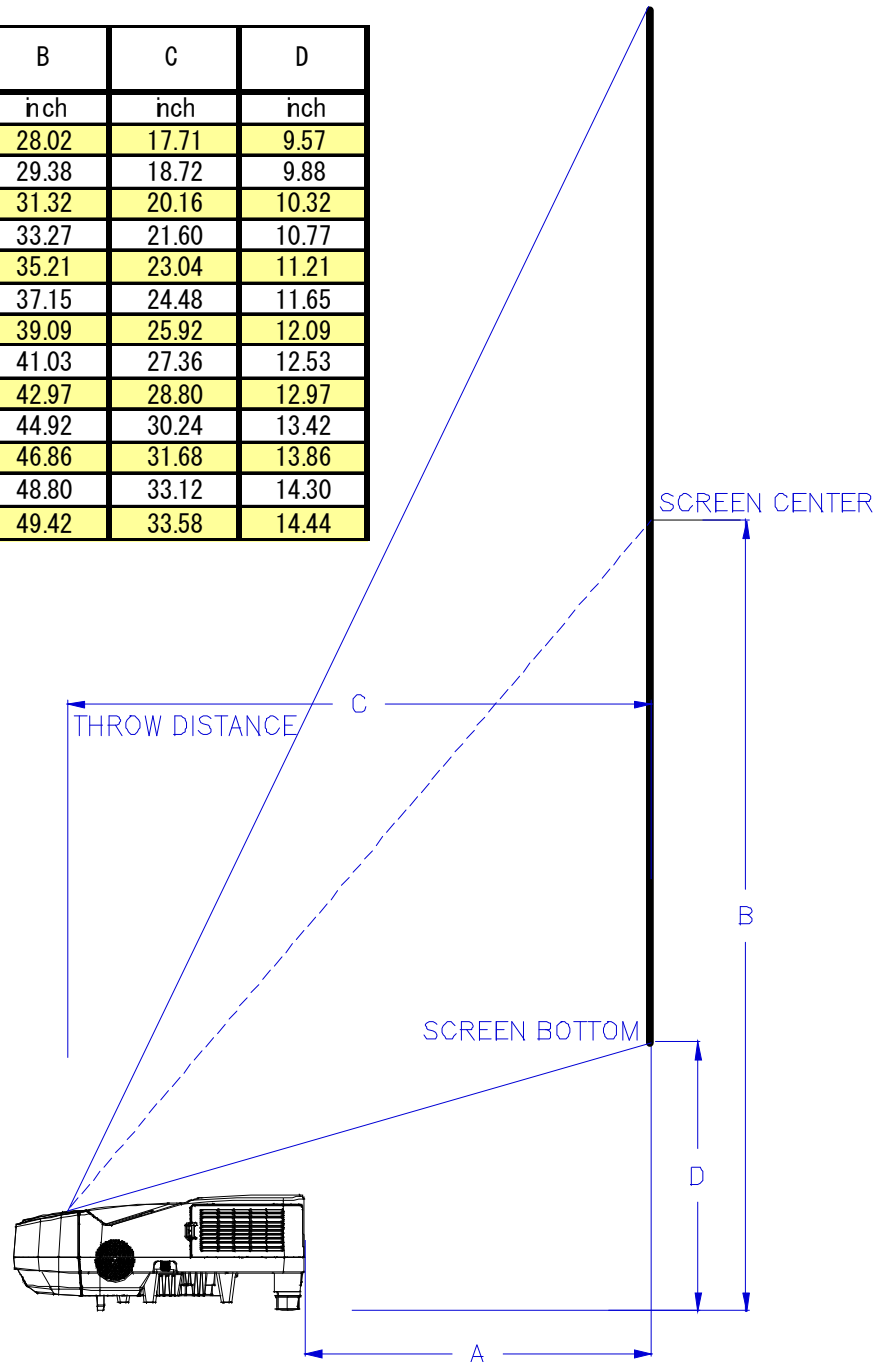
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Desktop Setup

The following diagram shows the relationship between projector position and the screen. Refer to the charts below for data. Distances are in inches. For millimeters multiply by 25.4.

Distance Chart for Popular 4:3 Screen Sizes

Screen Size			A	B	C	D
Diagonal	Width	Height				
inch	inch	inch	inch	inch	inch	inch
61.5	49	37	4.19	28.02	17.71	9.57
65.0	52	39	5.20	29.38	18.72	9.88
70.0	56	42	6.64	31.32	20.16	10.32
75.0	60	45	8.08	33.27	21.60	10.77
80.0	64	48	9.52	35.21	23.04	11.21
85.0	68	51	10.96	37.15	24.48	11.65
90.0	72	54	12.40	39.09	25.92	12.09
95.0	76	57	13.84	41.03	27.36	12.53
100.0	80	60	15.28	42.97	28.80	12.97
105.0	84	63	16.72	44.92	30.24	13.42
110.0	88	66	18.16	46.86	31.68	13.86
115.0	92	69	19.60	48.80	33.12	14.30
116.6	93	70	20.06	49.42	33.58	14.44



Note: For screen sizes not indicated in the distance charts, use the formulas on page 1.

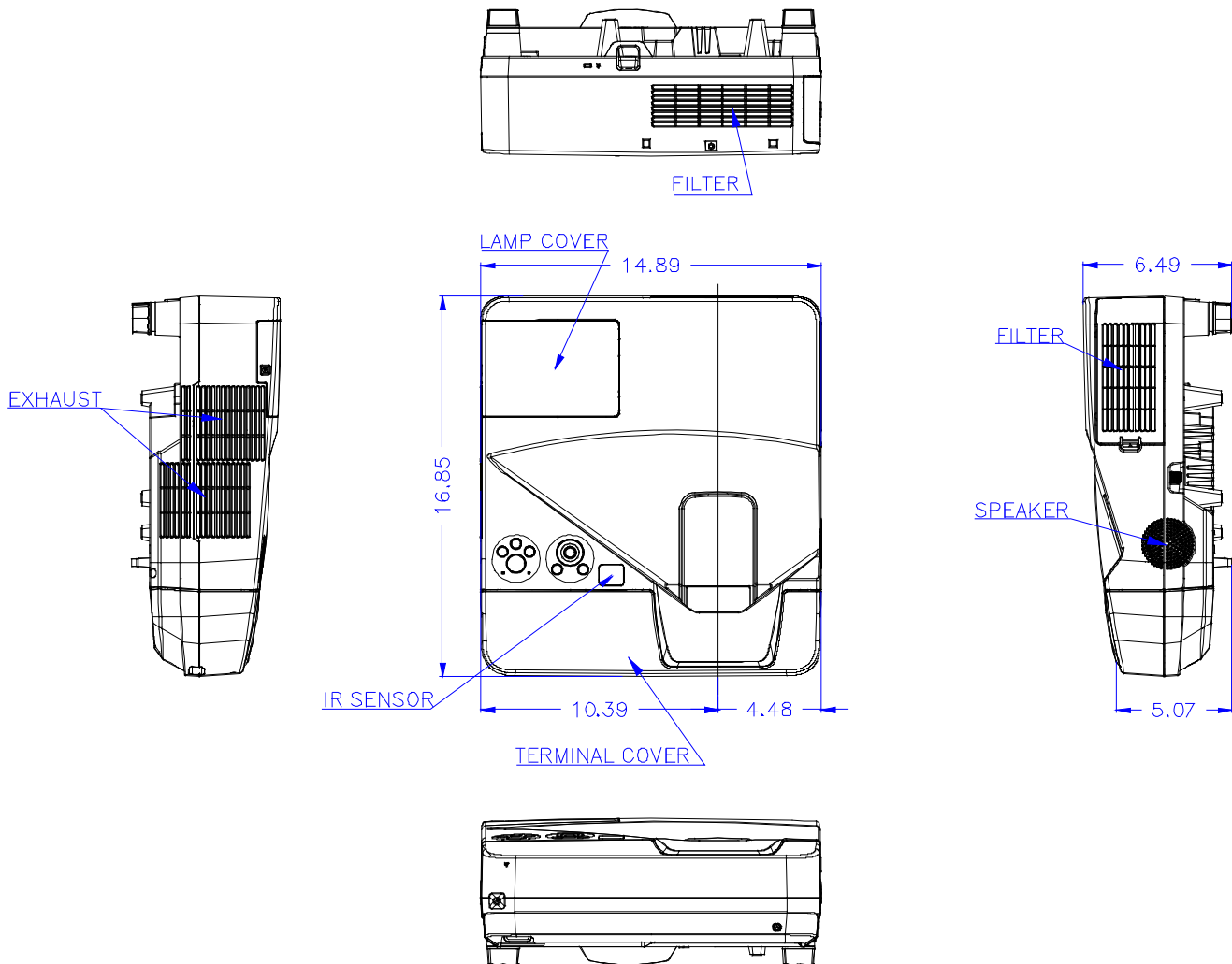
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Cabinet Dimensions

The following drawings show the cabinet dimensions for the UM330X and UM330W. Dimensions are in inches. For millimeters multiply by 25.4.



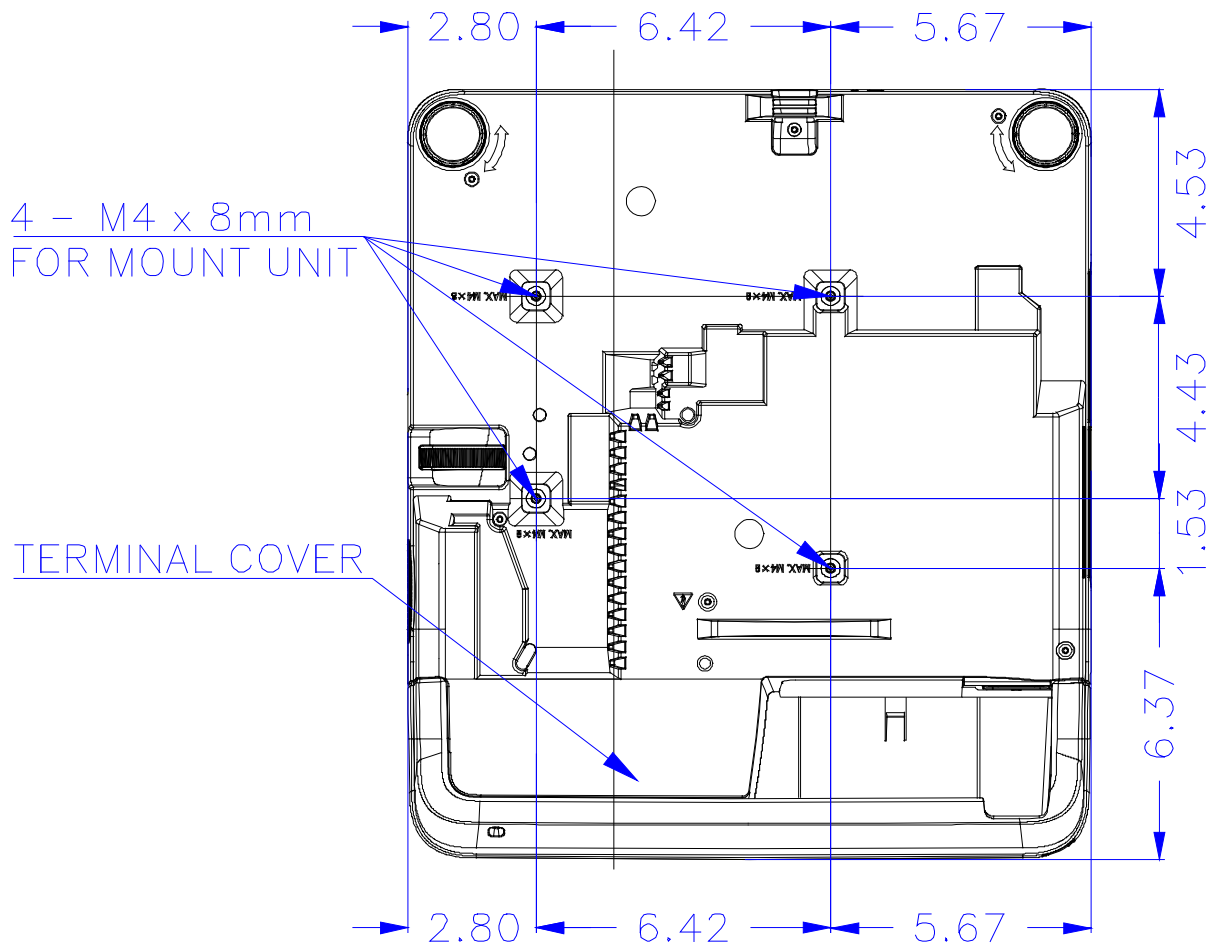
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Cabinet Dimensions (continued)

The following drawings show the cabinet dimensions for the UM330X and UM330W. Dimensions are in inches. For millimeters multiply by 25.4.



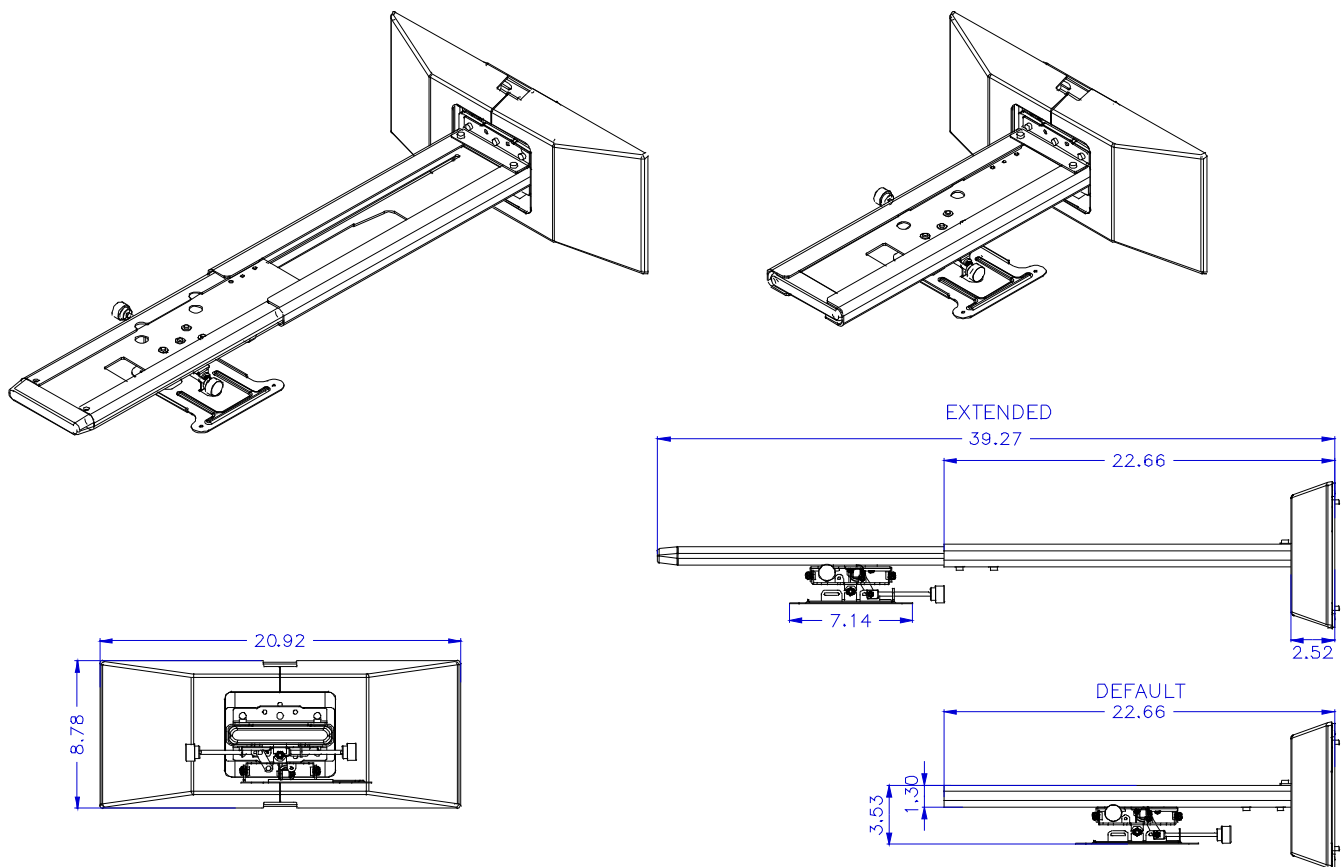
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Optional Wall Mount Dimensions (Model #: NP04WK)

The following drawings show the ceiling mount dimensions for the UM330X and UM330W. Dimensions are in inches. For millimeters multiply by 25.4.

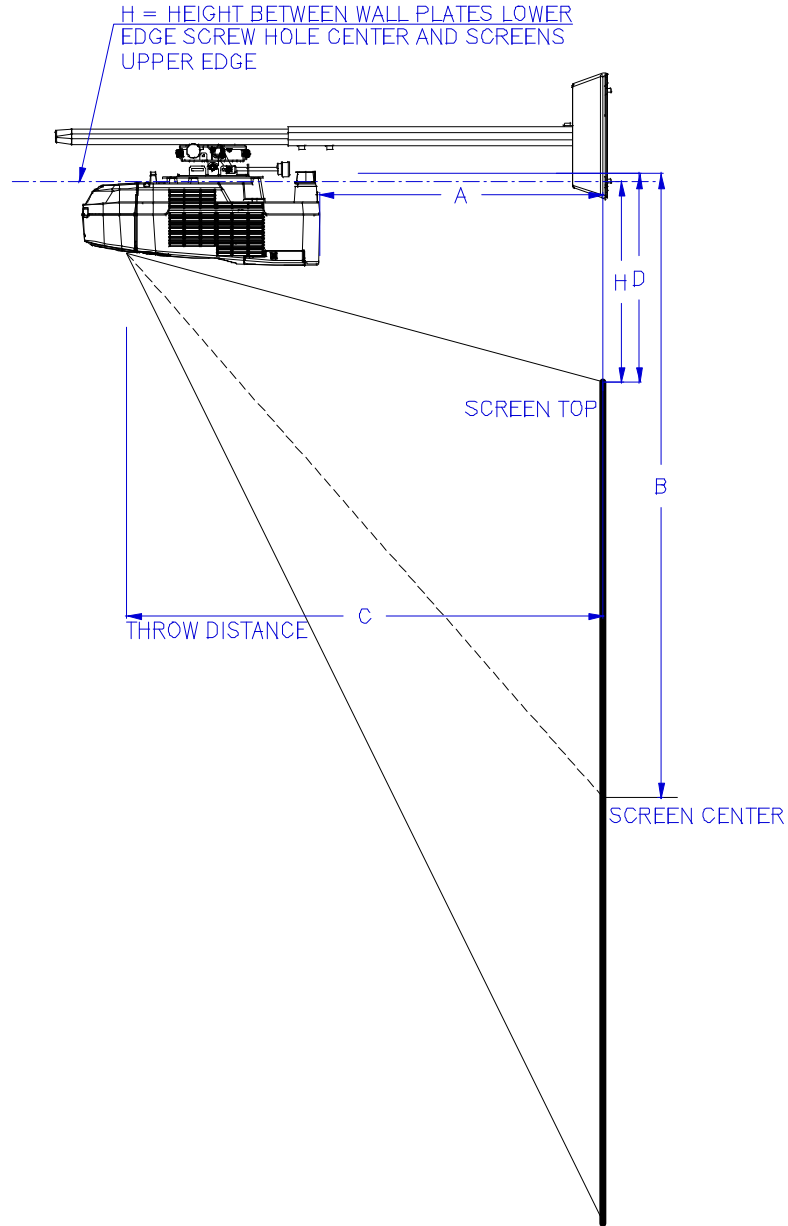


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Optional Wall Mount Dimensions (Model #: NP04WK)



Screen Size			A	B	C	D	H
Diagonal	Width	Height					
inch	inch	inch	inch	inch	inch	inch	inch
61.5	49	37	4.19	28.02	17.71	9.57	8.34
70.0	56	42	6.64	31.32	20.16	10.32	9.09
80.0	64	48	9.52	35.21	23.04	11.21	10
90.0	72	54	12.40	39.09	25.92	12.09	10.87
100.0	80	60	15.28	42.97	28.80	12.97	11.38

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Input Panel



Control Codes

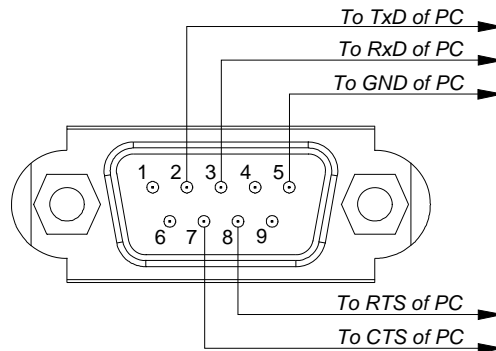
Function	Code Data					
POWER ON	02H	00H	00H	00H	00H	02H
POWER OFF	02H	01H	00H	00H	00H	03H
INPUT SELECT COMPUTER	02H	03H	00H	00H	02H	01H 01H 09H
INPUT SELECT HDMI1	02H	03H	00H	00H	02H	01H 1AH 22H
INPUT SELECT HDMI2	02H	03H	00H	00H	02H	01H 1BH 23H
INPUT SELECT VIDEO	02H	03H	00H	00H	02H	01H 06H 0EH
INPUT SELECT S-VIDEO	02H	03H	00H	00H	02H	01H 08H 13H
INPUT SELECT VIEWER	02H	03H	00H	00H	02H	01H 1FH 27H
INPUT SELECT NETWORK	02H	03H	00H	00H	02H	01H 20H 28H
INPUT SELECT USB DISPLAY	02H	03H	00H	00H	02H	01H 22H 2AH
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

Note: Contact your NEC rep for codes not listed.

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



NOTE 1: It is recommended to set the projector to "Idle Mode" in the Setup menu for best Power ON response.

NOTE 2: Pins 2, 3, 5, 6 and 8 are used inside the projector.

NOTE 3: For long cable runs it is recommended to set communication speed in the Setup menu to 9600 bps.