

P601Q & P721Q Installation Guide

Rev 1.0

Desktop and Ceiling Mount

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Product Description

Type:	1 chip DLP Projector 0.65" HSSI DMD	Dimensions: 19.1" (W) x 7.3" (H) x 17.0" (D)
Screen Resolution:	3840 x 2160	Weight: 32.0 lbs
Fan Noise:	36dB / 34dB @ 1 meter	Brightness: P601Q: 6,000 Lumens P721Q: 7,200 Lumens
Power Consumption:	530W (max)	BTU's: 1808 BTU/hour

Lens Specifications

Throw Ratio:	1.25 – 2.0:1 (for 100" diagonal)	Focal Length: 18.72mm ~ 29.59mm
Offset Angle:	8.8° - 13.9° (for 100" diagonal)	F/#: 2.0 ~ 2.4
Screen Sizes:	60" - 300" diagonal (16:9)	Motorized Focus / Motorized Zoom / Motorized Shift

Screen/Aspect Ratio

4:3, 16:10 and 21:9 screens are fully supported with proper aspect ratio control using Sharp developed scaling technology. Menu selections have settings for each screen type and aspect ratio control for each source type.

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Formulas for P601Q/P721Q

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 projection placement, determine the image width for the desired screen size. Use the Screen Formulas below to calculate all screen dimensions. Plug in the width for "W" in the Projection Formulas. Refer to the diagrams and charts for popular screen sizes below.

Projection Formulas:

$$C (\text{wide}) = 1.273W - 1.995$$

$$C (\text{tele}) = 2.017W - 0.767$$

$$\text{Vertical Lens Shift: Max} = 0.55H, \text{ Min} = -0.55H$$

$$\text{Horizontal Lens Shift: Max} = 0.25W, \text{ Min} = -0.25W$$

Definitions:

W = Image Width

H = Image Height (size)

C = Throw distance

16:10 Screen Formulas

$$W = H \times 16/9$$

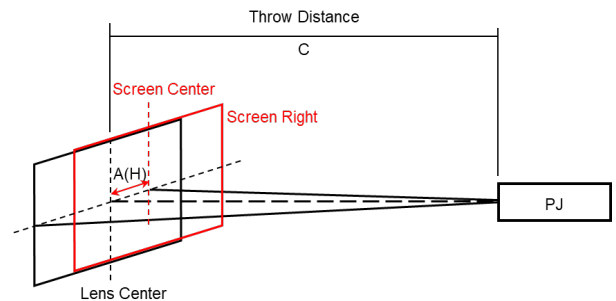
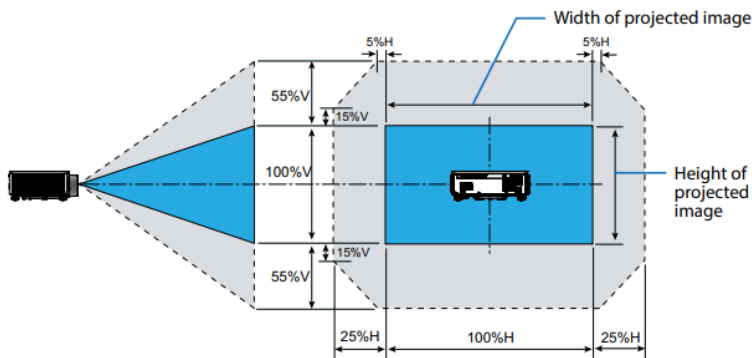
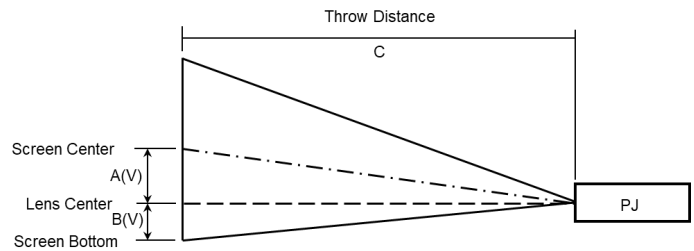
$$H = W \times 9/16$$

$$\text{Diagonal} = W \times 18.358/16$$

Diagrams and Distance Charts for P601Q/P721Q

The following shows the proper relative positions of the projector and screen. Refer to the table to determine the position of installation.

Screen Size (16:10)			C		Vertical Lens Shift		Horizontal Lens Shift	
Diagonal	Width(W)	Height (H)	wide - tele		inches		inches	
inches	inches	inches	inches	inches	inches	inches	inches	inches
80	70	39	87	- 140	-21.6	- 21.6	-17.4	- 17.4
90	78	44	98	- 157	-24.3	- 24.3	-19.6	- 19.6
100	87	49	109	- 175	-27.0	- 27.0	-21.8	- 21.8
110	96	54	120	- 193	-29.7	- 29.7	-24.0	- 24.0
120	105	59	131	- 210	-32.4	- 32.4	-26.1	- 26.1
130	113	64	142	- 228	-35.1	- 35.1	-28.3	- 28.3
140	122	69	153	- 245	-37.7	- 37.7	-30.5	- 30.5
150	131	74	164	- 263	-40.4	- 40.4	-32.7	- 32.7
160	139	78	176	- 281	-43.1	- 43.1	-34.9	- 34.9
180	157	88	198	- 316	-48.5	- 48.5	-39.2	- 39.2
200	174	98	220	- 351	-53.9	- 53.9	-43.6	- 43.6



Notes

- For screen sizes not indicated on the projection tables, use the formulas above. If the figures in the table 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 $\pm 5\%$.

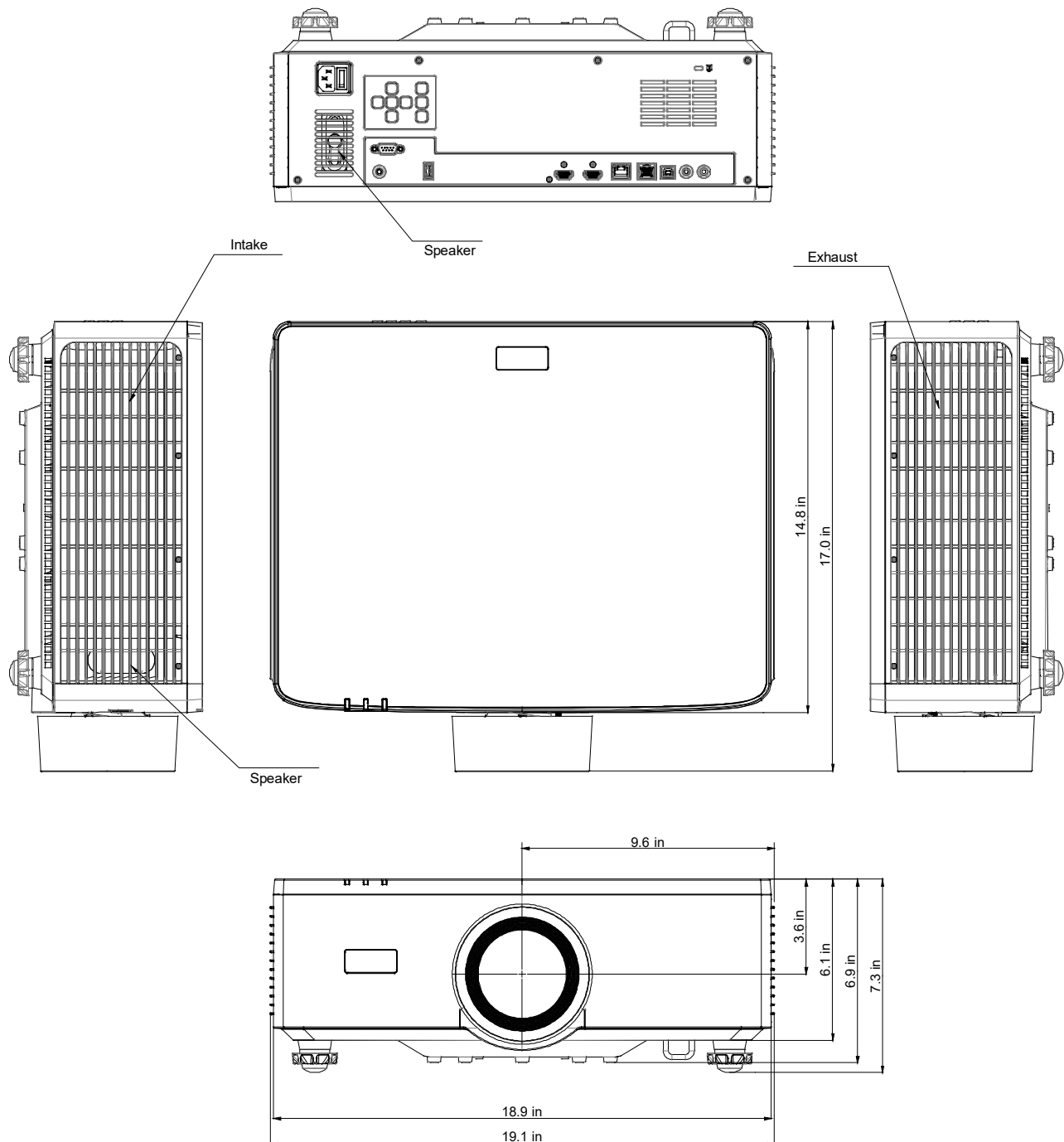
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Cabinet Dimensions (P601Q/P721Q)

The following drawings show the cabinet dimensions.
Dimensions are in inches unless noted. For millimeters multiply by 25.4.



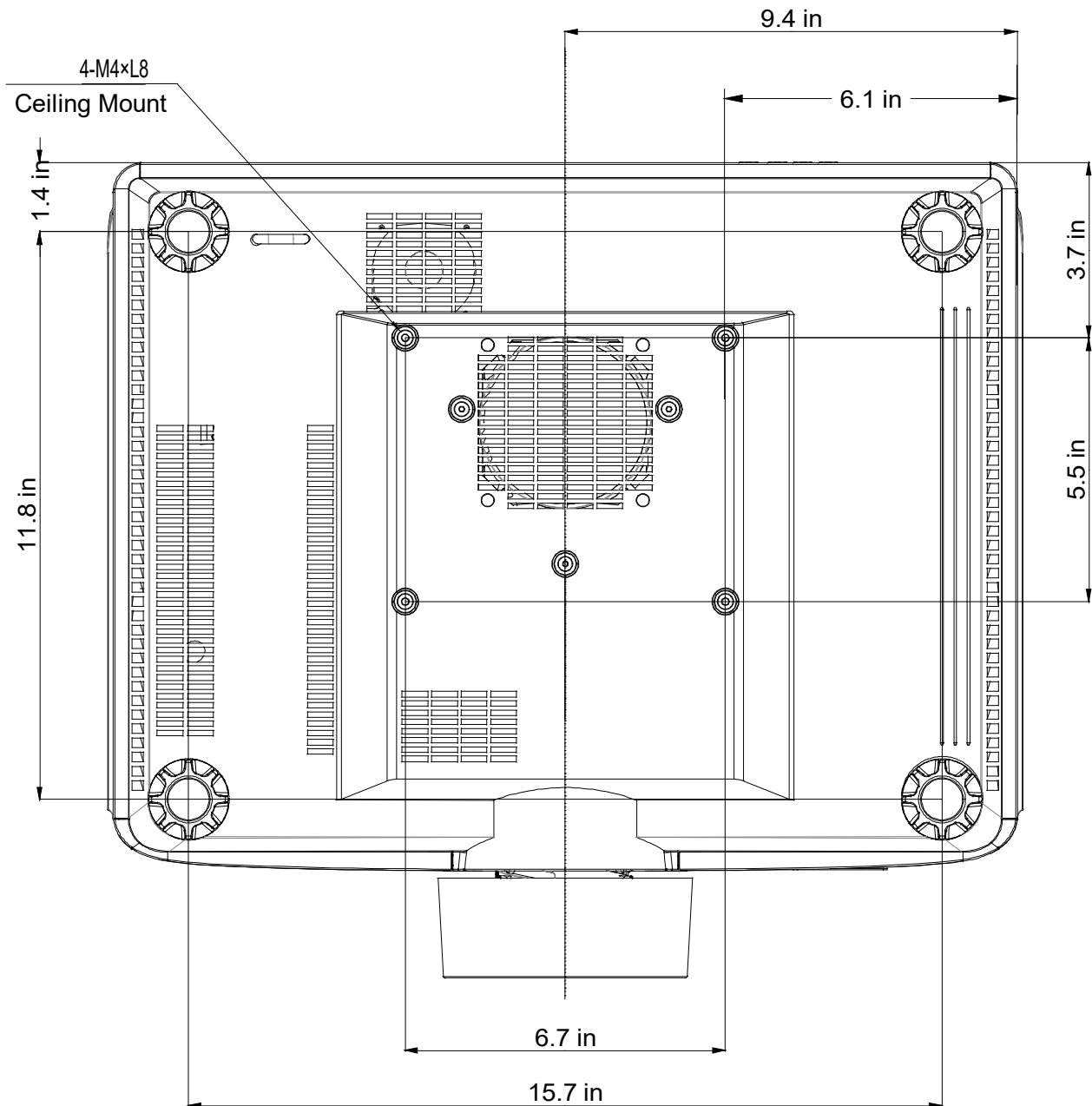
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Cabinet Dimensions (continued)

The following drawing shows the mounting hole locations with mount pattern dimensions.



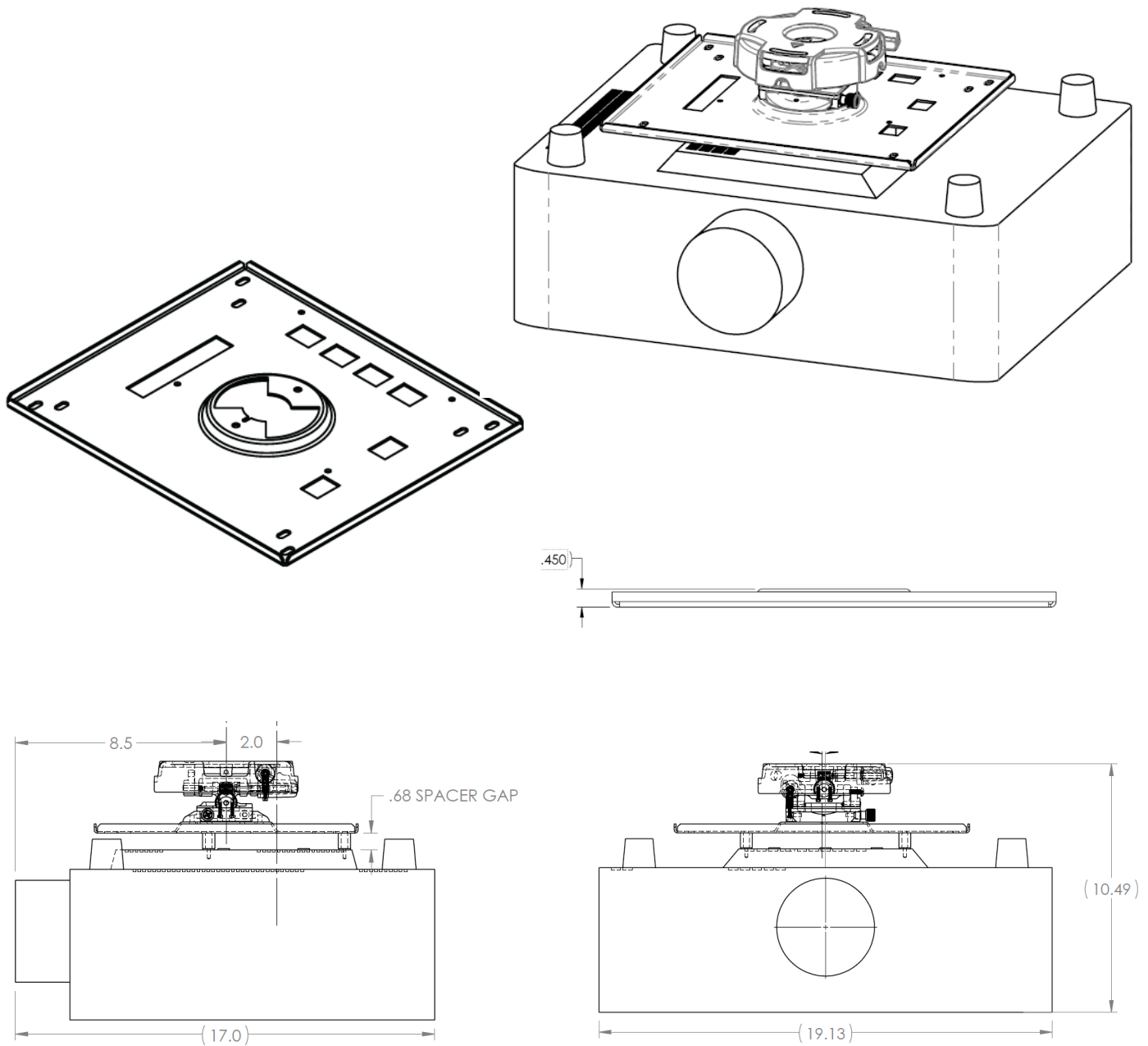
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Optional Ceiling Mount Dimensions (Model #: PA600CM)

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

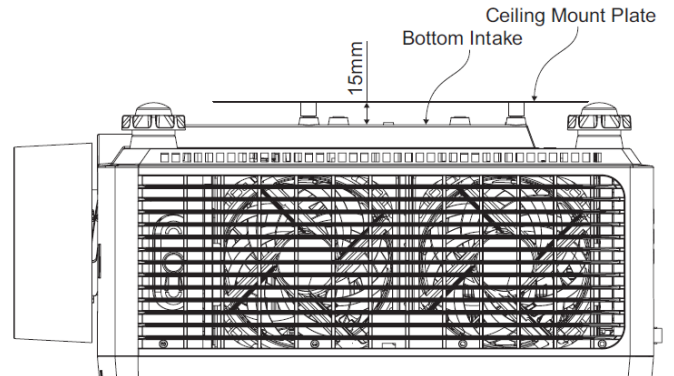
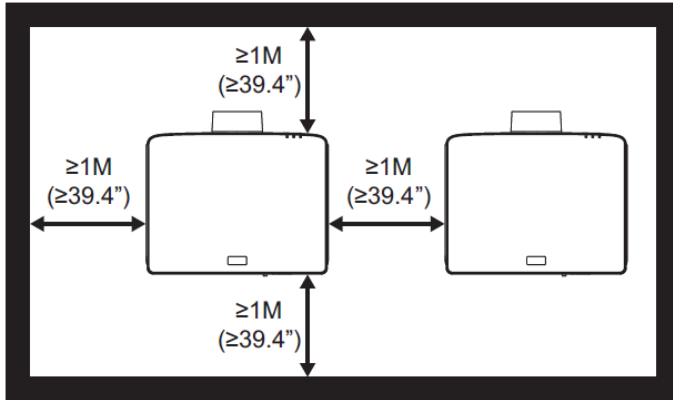


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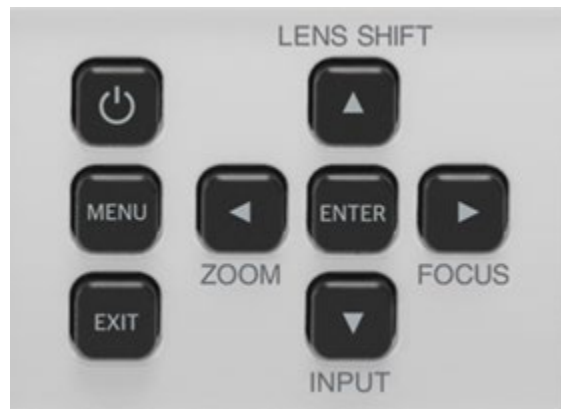
Ventilation Requirements



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 HDMI1	02H	03H	00H	00H	02H	01H	A1H	A9H
INPUT SELECT HDMI2	02H	03H	00H	00H	02H	01H	A2H	AAH
INPUT SELECT HDBaseT	02H	03H	00H	00H	02H	01H	BFH	C7H
ERROR STATUS REQUEST	00H	88H	00H	00H	00H	88H		
INFORMATION REQUEST	03H	8AH	00H	00H	00H	8DH		

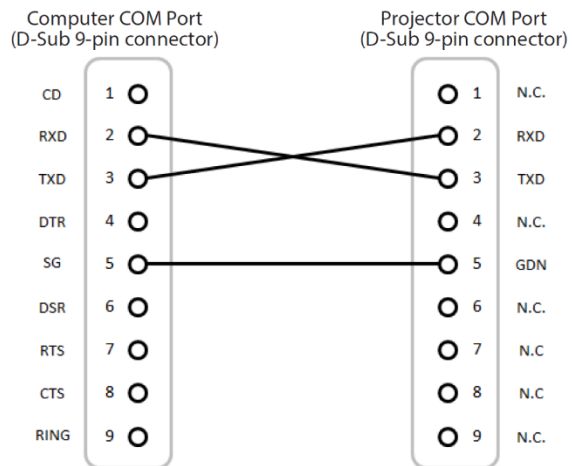
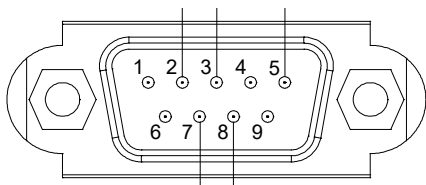
See User Manual for complete list of codes.

Cable Connection

Communication Protocol:

Baud Rate: 115200 bps
 Data Length: 8 bits
 Parity: No Parity
 Stop Bit: One bit
 X on/off: None
 Communications: Asynchronous

PC Control Connector (D-Sub 9P)



NOTE 1: Pins 1, 4, 6, and 9 are not 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.