

## 6752WU/6757W/6762 Installation Guide

### Ceiling Mounted and Desktop

Rev 1

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#### Product Description

<b>Type:</b>	3 panel LCD projector, 0.75 p-Si TFT w/MLA (6757W) 0.76 p-Si TFT w/MLA (6752WU) 0.79 p-Si TFT w/MLA (6762)	<b>Dimensions:</b> 19.7"(W) x 6.5"(H) x 14.4"(D)	
		<b>Weight:</b> 18.5 lbs	
<b>Resolution:</b>	1280 x 800 (16:10) 1920 x 1200 (16:10) 1024 x 768 (4:3)	<b>Brightness:</b> 6757W:	5700 Lumens
		6752WU:	5200 Lumens
		6762:	6200 Lumens
<b>Fan Noise:</b>	39 dB / 33dB @ 1 meter		
<b>Power Consumption:</b>	460W (max)	<b>BTU's:</b>	1571 BTU/hour

Network Ready, integrated wired and wireless adapter  
Manual: Lens Shift, Horizontal & Vertical /Zoom/ Focus

#### Lens Specifications

<b>NP11FL:</b> Throw Ratio: ~ 0.8:1 Screen Sizes: 60"-150"	Focal Length: 13.2mm F#:2.3	<b>NP14ZL:</b> Throw Ratio: 2.97 -4.79:1 Screen Sizes: 60" - 200"	Focal Length: 48.5 - 77.6mm F#:2.2 -2.64
<b>NP12ZL:</b> Throw Ratio: 1.19 - 1.56:1 Screen Sizes: 40" - 200"	Focal Length: 19.4 – 25.3mm F#:2.2 – 2.69	<b>NP15ZL:</b> Throw Ratio: 4.70 - 7.02:1 Screen Sizes: 80" - 200"	Focal Length: 76.6 - 116.5mm F#:2.2 - 2.7
<b>NP13ZL:</b> Throw Ratio: 1.50 - 3.02:1 Screen Sizes: 40" - 200"	Focal Length: 24.4 – 48.6mm F#:1.7 – 2.37	<b>NP30ZL:</b> Throw Ratio: 0.79 – 1.04:1 Screen Sizes: 40" - 200"	Focal Length: 13.2 – 17.2mm F#:1.9 - 2.1

#### 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 ±5%.

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#### Formulas: 4:3 Aspect Ratio (6762—XGA)

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 2 and 3:

#### Projection Formulas:

<b>NP11FL:</b>	<b>C</b> = 0.827W – 1.374	
<b>NP12ZL:</b>	<b>C</b> (Wide) = 1.214W – 1.794	<b>C</b> (Tele) = 1.578W – 1.794
<b>NP13ZL:</b>	<b>C</b> (Wide) = 1.525W – 1.974	<b>C</b> (Tele) = 3.043W – 1.972
<b>NP14ZL:</b>	<b>C</b> (Wide) = 3.034W – 4.844	<b>C</b> (Tele) = 4.855W – 4.844
<b>NP15ZL:</b>	<b>C</b> (Wide) = 4.797W – 7.630	<b>C</b> (Tele) = 7.291W – 7.660
<b>NP30ZL:</b>	<b>C</b> (Wide) = 0.827W – 1.587	<b>C</b> (Tele) = 1.078W – 1.587

#### Definitions:

W = Image Width
H = Image Height (size)
C = Throw distance

#### 4:3 Screen Formulas:

W = H x 4/3
H = W x 3/4
Diagonal = W x 5/4

**Note:** Tilting the front of the projector up or down by more than 45° from level could reduce lamp life by up to 20%.

#### Distance Chart for popular 4:3 screens

Screen Size (4:3)			Rear Lens	Zoom Lenses					
Diagonal	Width(W)	Height (H)	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP15ZL	
inches	inches	inches	0.8:1	0.79 - 1.04:1	1.19 - 1.56:1	1.50 - 3.02:1	2.97 - 4.79:1	4.70 - 7.20:1	
			inches	inches	inches	inches	inches	inches	
40	32	24	25.09	24.9 - 32.9	37.1 - 48.7	46.8 - 95.4	92.2 - 150.5	145.9 - 225.7	
60	48	36	25.09	38.1 - 50.2	56.5 - 74.0	71.2 - 144.1	140.8 - 228.2	222.6 - 342.3	
67	54	40	25.09	42.7 - 56.2	63.3 - 82.8	79.8 - 161.1	157.8 - 255.4	249.5 - 383.1	
72	58	43	25.09	46.0 - 60.5	68.1 - 89.1	85.9 - 173.3	169.9 - 274.8	268.7 - 412.3	
84	67	50	25.09	54.0 - 70.9	79.8 - 104.2	100.5 - 202.5	199.0 - 321.4	314.7 - 482.3	
90	72	54	25.09	58.0 - 76.0	85.6 - 111.8	107.8 - 217.1	213.6 - 344.7	337.8 - 517.3	
100	80	60	25.09	64.6 - 84.7	95.3 - 124.4	120.0 - 241.5	237.9 - 383.6	376.1 - 575.6	
120	96	72	25.09	77.8 - 101.9	114.8 - 149.7	144.4 - 290.2	286.4 - 461.2	452.9 - 692.3	
150	120	90	NA	97.7 - 127.8	143.9 - 187.6	181.0 - 363.2	359.2 - 577.8	568.0 - 867.3	
180	144	108	NA	117.5 - 153.6	173.0 - 225.4	217.6 - 436.2	432.1 - 694.3	683.1 - 1042.2	
210	168	126	NA	137.3 - 179.5	202.2 - 263.3	254.2 - 509.3	504.9 - 810.8	798.3 - 1217.2	
240	192	144	NA	157.2 - 205.4	231.3 - 301.2	290.8 - 582.3	577.7 - 927.3	913.4 - 1392.2	
270	216	162	NA	177.0 - 231.3	260.4 - 339.1	327.4 - 655.3	650.5 - 1043.8	1028.5 - 1567.2	
300	240	180	NA	196.9 - 257.1	289.6 - 376.9	364.0 - 728.3	723.3 - 1160.4	1143.7 - 1742.2	
400	320	240	NA	263.1 - 343.4	386.7 - 503.2	486.0 - 971.8	966.0 - 1548.8	1527.4 - 2325.5	
500	400	300	NA	329.2 - 429.6	483.8 - 629.4	608.0 - 1215.2	1208.8 - 1937.2	1911.2 - 2908.7	

**Note:** The Dukane models described in this document are manufactured by NEC and use the same firmware, software programs, control code, and accessory parts. The equivalent Dukane to NEC models are shown in the following table.

DUKANE	NEC		
6752WU	PA521U	1920x1200 (WUXGA)	5,200 lumens
6757W	PA571W	1280x800 (WXGA)	5,700 lumens
6762	PA621X	1024x768 (XGA)	6,200 lumens

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#### Formulas: 16:10 Aspect Ratio (6757W—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 2 and 3:

#### Projection Formulas:

<b>NP11FL:</b>	$C = 0.812W - 1.346$	
<b>NP12ZL:</b>	$C(\text{Wide}) = 1.193W - 1.795$	$C(\text{Tele}) = 1.551W - 1.795$
<b>NP13ZL:</b>	$C(\text{Wide}) = 1.495W - 1.972$	$C(\text{Tele}) = 2.985W - 1.972$
<b>NP14ZL:</b>	$C(\text{Wide}) = 2.976W - 4.843$	$C(\text{Tele}) = 4.763W - 4.843$
<b>NP15ZL:</b>	$C(\text{Wide}) = 4.708W - 7.630$	$C(\text{Tele}) = 7.154W - 7.630$
<b>NP30ZL:</b>	$C(\text{Wide}) = 0.808W - 1.587$	$C(\text{Tele}) = 1.054W - 1.587$

#### Definitions:

W = Image Width
H = Image Height (size)
C = Throw distance

#### 16:10 Screen Formulas:

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

#### Distance Chart for popular 16:10 Screens (WXGA)

Screen Size (16:10)			Rear Lens	Zoom Lenses								
Diagonal	Width(W)	Height (H)	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP15ZL				
inches	inches	inches	0.8:1	0.79 - 1.04:1	1.19 - 1.56:1	1.50 - 3.02:1	2.97 - 4.79:1	4.70 - 7.20:1				
			inches	inches	inches	inches	inches	inches				
40	34	21	26.3	25.9 - 34.3	38.8 - 50.9	48.9 - 99.5	96.3 - 157.1	152.4 - 235.6				
60	51	32	40.1	39.7 - 52.2	59.0 - 77.3	74.3 - 150.3	146.9 - 238.1	232.5 - 357.2				
67	57	36	44.9	44.5 - 58.5	66.2 - 86.6	83.2 - 168.2	164.8 - 266.6	260.7 - 400.1				
72	61	38	48.2	47.8 - 62.8	71.0 - 92.8	89.2 - 180.1	176.7 - 285.7	279.6 - 428.8				
84	71	45	56.3	55.8 - 73.3	82.9 - 108.3	104.2 - 210.0	206.5 - 333.3	326.6 - 500.3				
90	76	48	60.4	59.9 - 78.6	88.9 - 116.1	111.6 - 224.9	221.3 - 357.1	350.2 - 536.1				
100	85	53	67.7	67.1 - 88.1	99.6 - 130.0	125.1 - 251.8	248.1 - 400.0	392.6 - 600.5				
120	102	64	81.5	80.9 - 106.0	119.9 - 156.4	150.5 - 302.5	298.7 - 481.0	472.6 - 722.1				
150	127	79	NA	101.1 - 132.3	149.7 - 195.2	187.9 - 377.1	373.1 - 600.1	590.3 - 900.9				
180	153	95	NA	122.1 - 159.7	180.7 - 235.5	226.8 - 454.7	450.5 - 723.9	712.7 - 1086.9				
210	178	111	NA	142.3 - 186.1	210.6 - 274.3	264.1 - 529.4	524.9 - 843.0	830.4 - 1265.8				
240	204	127	NA	163.3 - 213.5	241.6 - 314.6	303.0 - 607.0	602.3 - 966.8	952.8 - 1451.8				
270	229	143	NA	183.5 - 239.8	271.4 - 353.4	340.4 - 681.6	676.7 - 1085.9	1070.5 - 1630.6				
300	254	159	NA	203.7 - 266.2	301.2 - 392.2	377.8 - 756.2	751.1 - 1205.0	1188.2 - 1809.5				
400	339	212	NA	272.4 - 355.8	402.6 - 524.0	504.8 - 1009.9	1004.0 - 1609.8	1588.4 - 2417.6				
500	424	265	NA	341.1 - 445.4	504.0 - 655.8	631.9 - 1263.7	1257.0 - 2014.7	1988.6 - 3025.7				

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#### Formulas: 16:10 Aspect Ratio (6752WU—WUXGA)

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Refer to the diagrams and charts for popular screen sizes on page 2 and 3:

#### Projection Formulas:

<b>NP11FL:</b>	$C = 0.807W - 1.354$	
<b>NP12ZL:</b>	$C(\text{Wide}) = 1.185W - 1.794$	$C(\text{Tele}) = 1.541W - 1.794$
<b>NP13ZL:</b>	$C(\text{Wide}) = 1.488W - 1.974$	$C(\text{Tele}) = 2.970W - 1.972$
<b>NP14ZL:</b>	$C(\text{Wide}) = 2.961W - 4.844$	$C(\text{Tele}) = 4.737W - 4.844$
<b>NP15ZL:</b>	$C(\text{Wide}) = 4.681W - 7.630$	$C(\text{Tele}) = 7.115W - 7.630$
<b>NP30ZL:</b>	$C(\text{Wide}) = 0.808W - 1.537$	$C(\text{Tele}) = 1.054W - 1.537$

#### Definitions:

W = Image Width
H = Image Height (size)
C = Throw distance

#### 16:10 Screen Formulas

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

#### Distance Chart for popular 16:10 Screens (WUXGA)

Screen Size (16:10)			Rear Lens	Zoom Lenses					
Diagonal	Width(W)	Height (H)	NP11FL	NP30ZL	NP12ZL	NP13ZL	NP14ZL	NP15ZL	
inches	inches	inches	0.8:1	0.79 - 1.04:1	1.19 - 1.56:1	1.50 - 3.02:1	2.97 - 4.79:1	4.70 - 7.20:1	
			inches	inches		inches		inches	
40	34	21	26.08	25.9 - 34.3	38.5 - 50.6	48.6 - 99.0	95.8 - 156.2	151.5 - 234.3	
60	51	32	39.80	39.7 - 52.2	58.6 - 76.8	73.9 - 149.5	146.2 - 236.7	231.1 - 355.2	
67	57	36	44.65	44.5 - 58.5	65.8 - 86.0	82.8 - 167.3	163.9 - 265.2	259.2 - 397.9	
72	61	38	47.87	47.8 - 62.8	70.5 - 92.2	88.8 - 179.2	175.8 - 284.1	277.9 - 426.4	
84	71	45	55.94	55.8 - 73.3	82.3 - 107.6	103.7 - 208.9	205.4 - 331.5	324.7 - 497.5	
90	76	48	59.98	59.9 - 78.6	88.3 - 115.3	111.1 - 223.7	220.2 - 355.2	348.1 - 533.1	
100	85	53	67.24	67.1 - 88.1	98.9 - 129.2	124.5 - 250.5	246.8 - 397.8	390.3 - 597.1	
120	102	64	80.96	80.9 - 106.0	119.1 - 155.4	149.8 - 301.0	297.2 - 478.3	469.8 - 718.1	
150	127	79	NA	101.1 - 132.3	148.7 - 193.9	187.0 - 375.2	371.2 - 596.8	586.9 - 896.0	
180	153	95	NA	122.1 - 159.7	179.5 - 234.0	225.7 - 452.4	448.2 - 719.9	708.6 - 1081.0	
210	178	111	NA	142.3 - 186.1	209.1 - 272.5	262.9 - 526.7	522.2 - 838.3	825.6 - 1258.8	
240	204	127	NA	163.3 - 213.5	239.9 - 312.6	301.6 - 603.9	599.2 - 961.5	947.3 - 1443.8	
270	229	143	NA	183.5 - 239.8	269.6 - 351.1	338.8 - 678.2	673.2 - 1079.9	1064.3 - 1621.7	
300	254	159	NA	203.7 - 266.2	299.2 - 389.6	376.0 - 752.4	747.3 - 1198.4	1181.3 - 1799.6	
400	339	212	NA	272.4 - 355.8	399.9 - 520.6	502.5 - 1004.9	998.9 - 1601.0	1579.2 - 2404.4	
500	424	265	NA	341.1 - 445.4	500.6 - 651.6	628.9 - 1257.3	1250.6 - 2003.6	1977.1 - 3009.1	

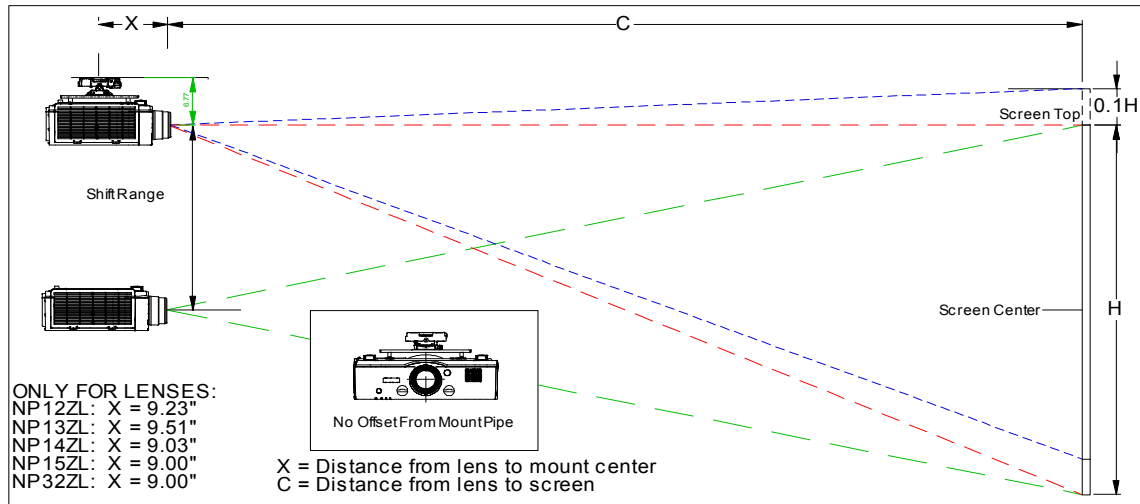
**Note:** For screen sizes not indicated in projection tables, refer to formulas above respective charts.

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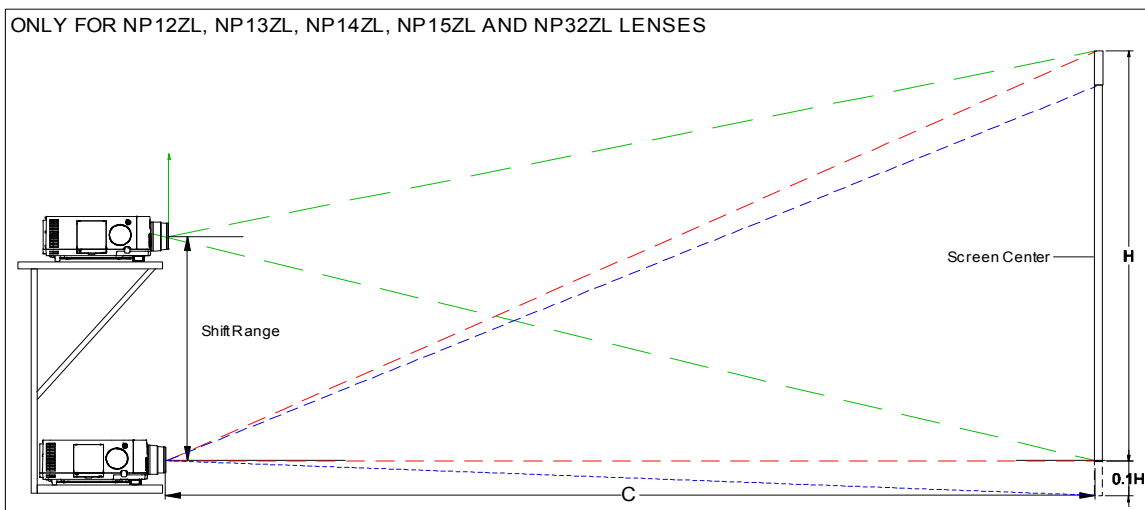
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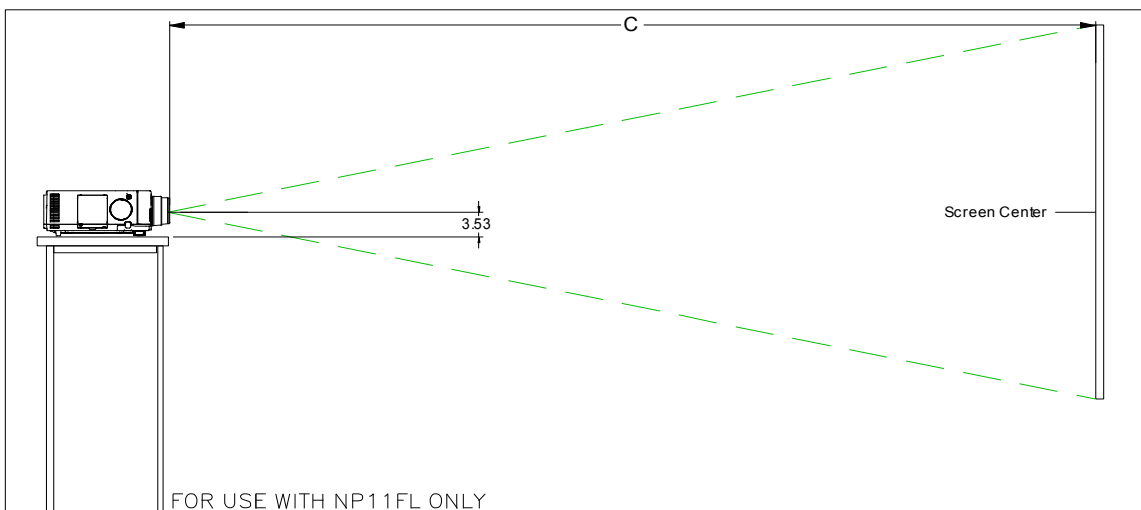
#### Ceiling Mount Installation



#### Desktop Installation



**Note:** Lens Shift Feature is not available to NP11FL. This lens should only be used for "zero degree"/"no-offset" applications. See below

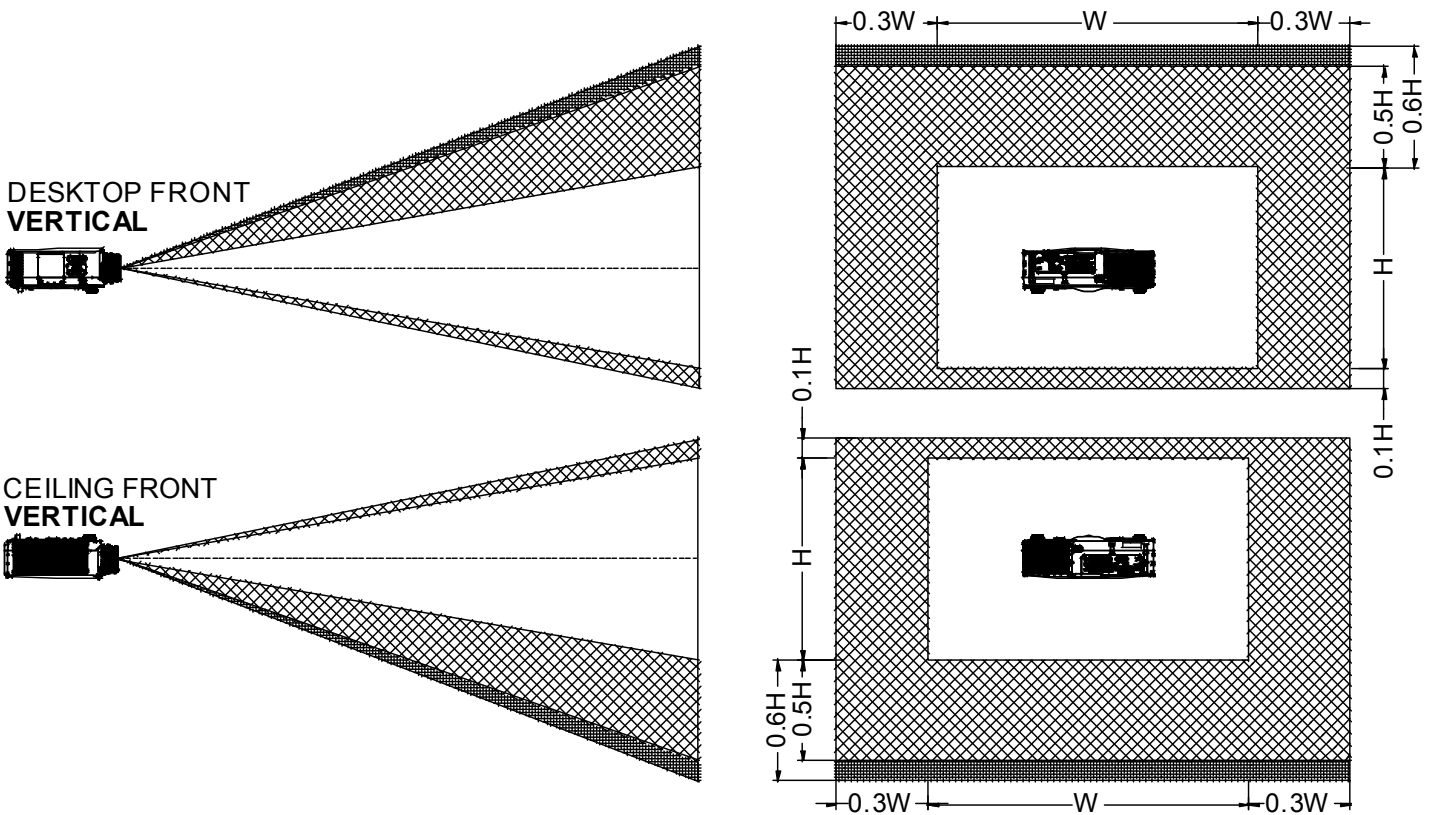


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### Lens Shift Adjustable Range



Dukane

#### Lens Shift Range for Desktop and Ceiling Mount Application

The diagram below shows the location of the image position in the lens. The lens can be shifted within the shaded area as shown using the normal projection position as a starting point.

**Note:** Lens shift feature is not available with NP11FL (rear lens). NP11FL should be used only for "zero degree" / "no-offset" applications.

#### Maximum Possible Range for NP12ZL, NP13ZL, NP14ZL, NP15ZL, NP32ZL:

Towards ceiling/floor: 0.5H (0.6H for PA571W)

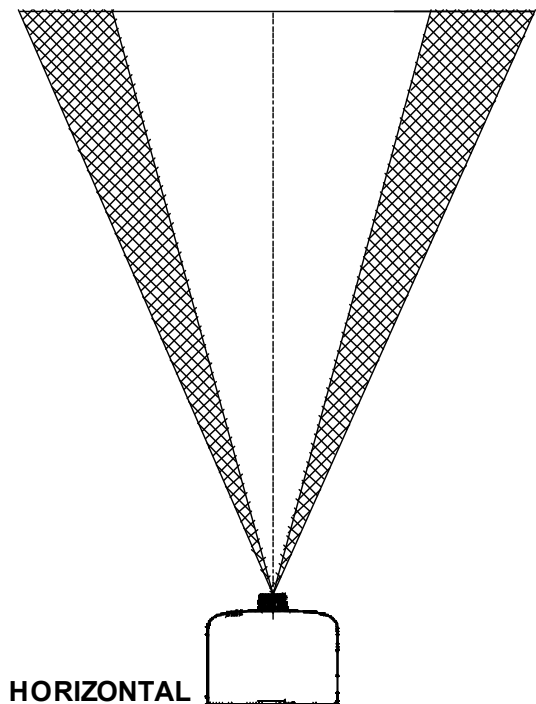
Away from ceiling/floor: 0.1H

Right: 0.3W

Left: 0.3W

(W: width of projected image, H: height of projected image)

**Note:** Horizontal lens shift range for the PA521U is 0.15W at a 200" projected image with NP13ZL



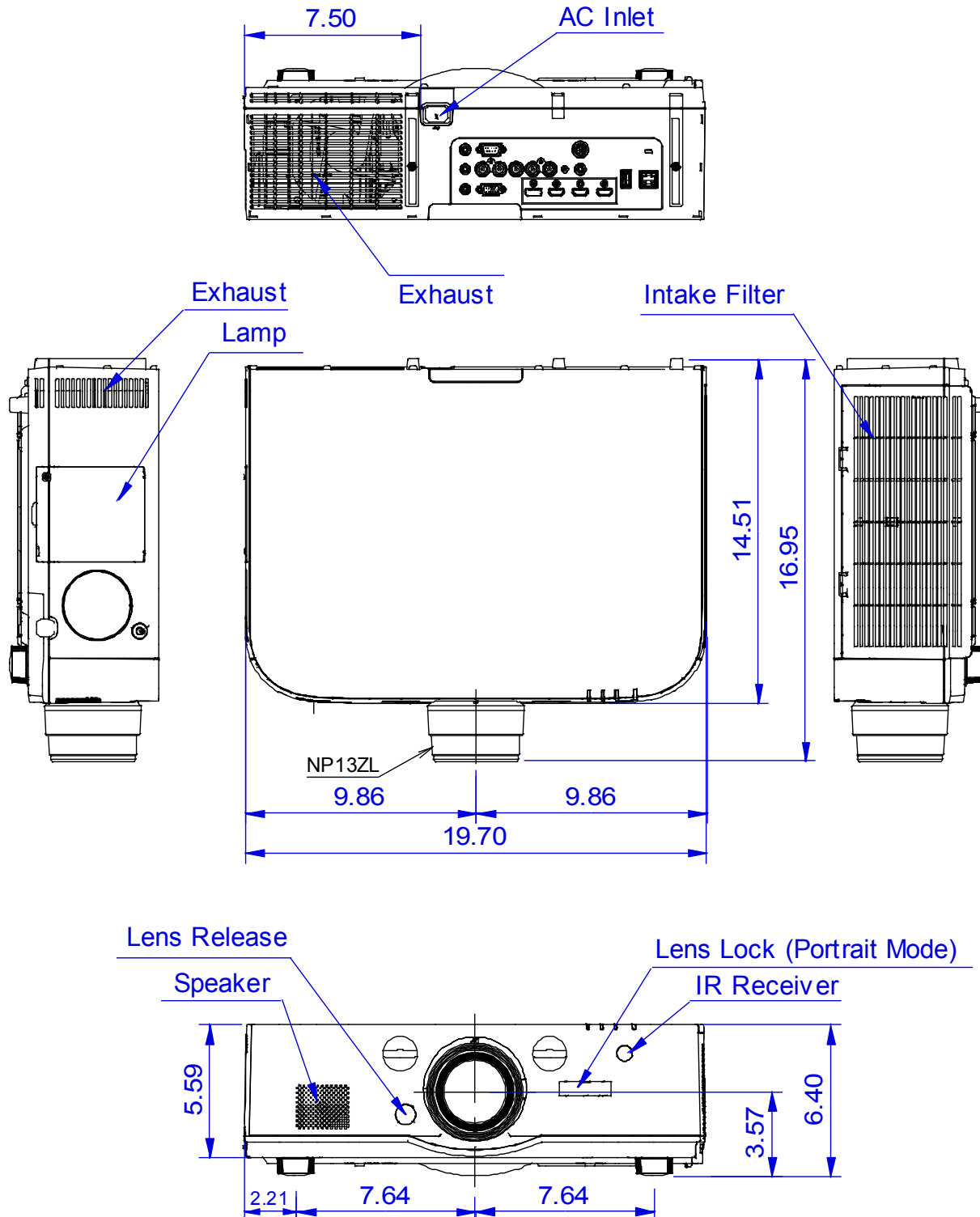
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### Cabinet Dimensions

The following diagrams show the cabinet dimensions for the 6752WU/6757W/6762. Dimensions are in inches. For millimeters multiply by 25.4.  
Note: Dimensions below shown with the NP13ZL lens

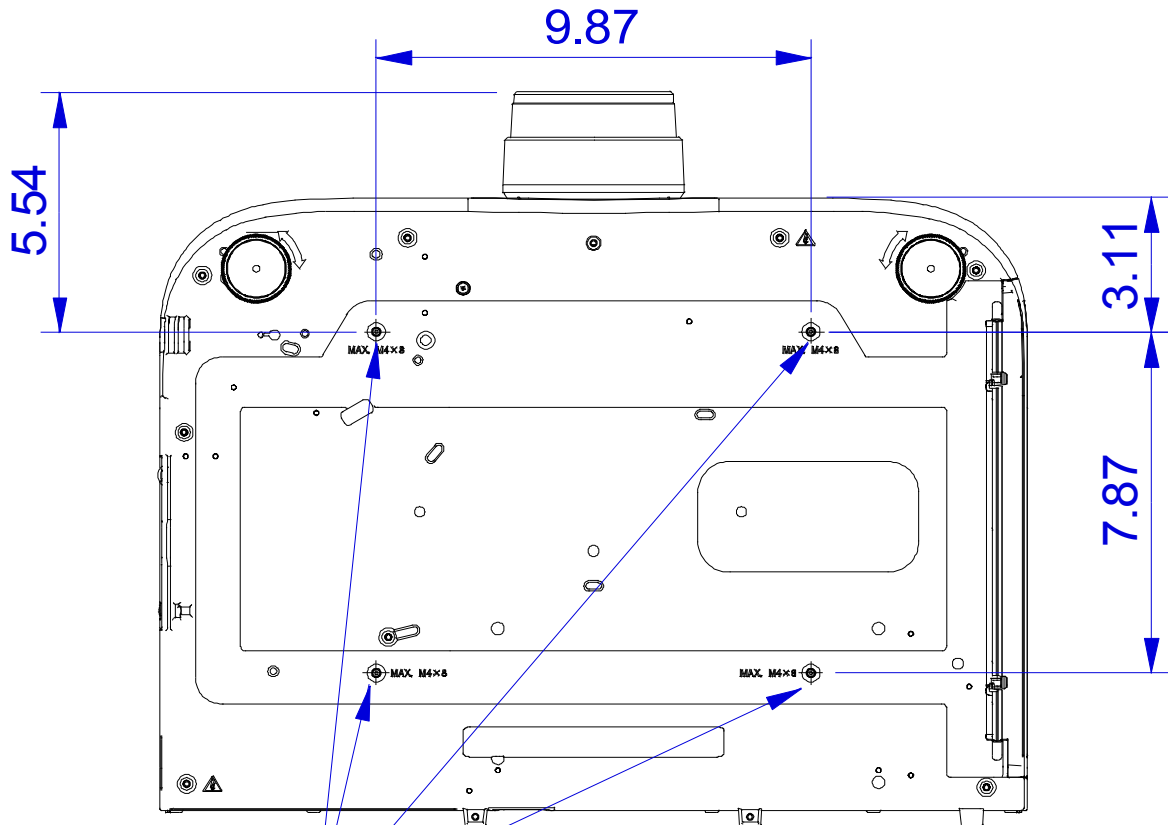


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### Cabinet Dimensions



4 - M4x8mm

FOR CEILING MOUNT

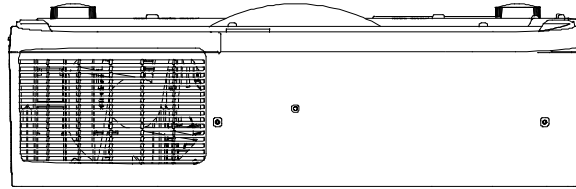


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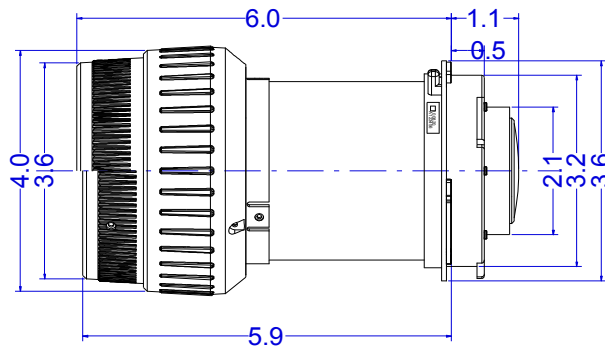
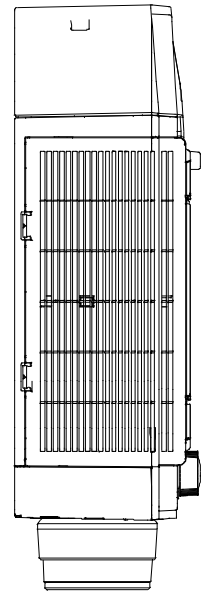
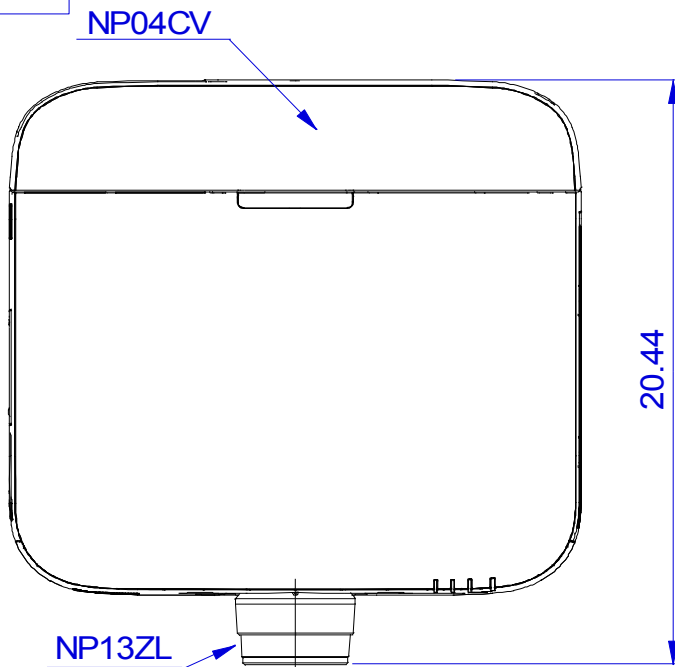
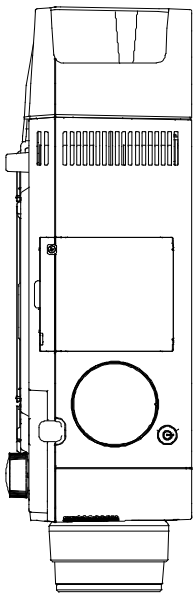
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### Optional Terminal Cover (Part #: NP04CV)



NP13ZL & NP04CV



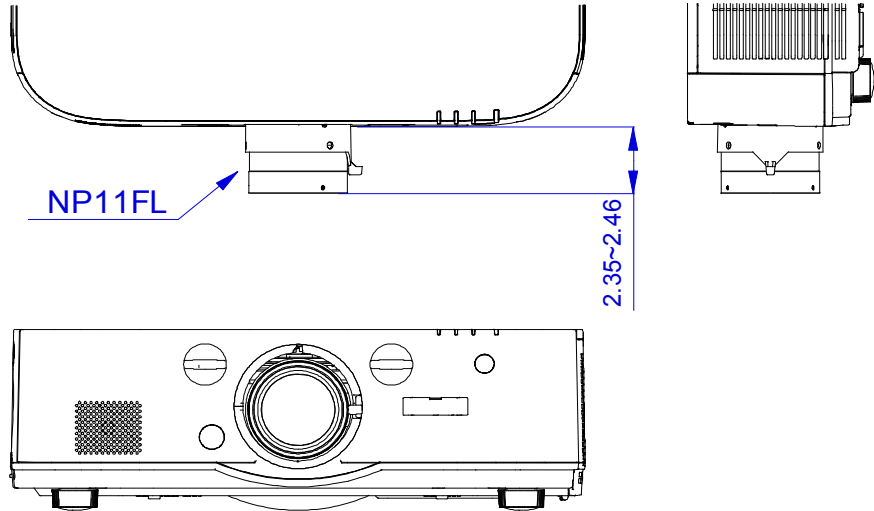
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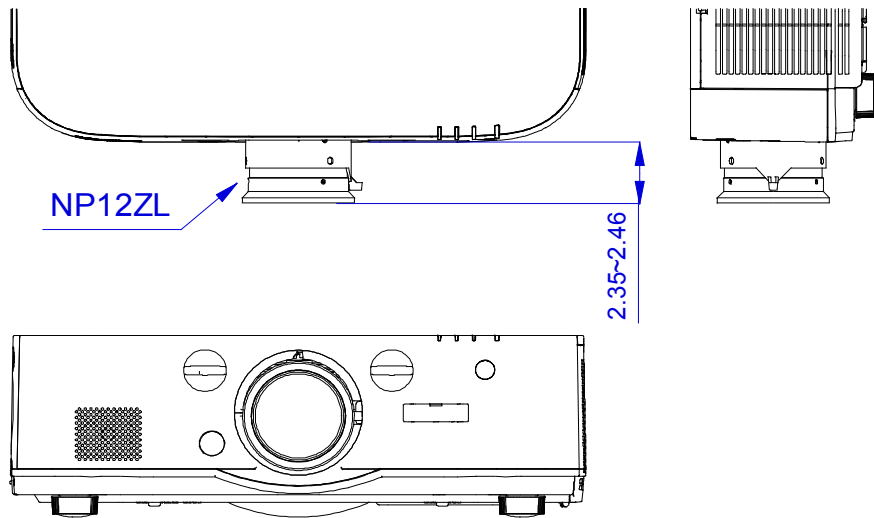
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### Optional Lens Dimensions (NP11FL and NP12ZL)

NP11FL



NP12ZL



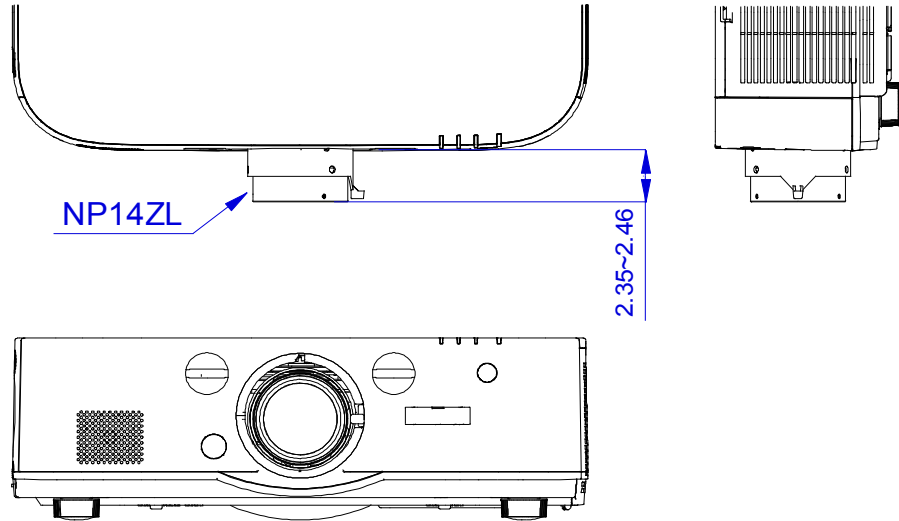
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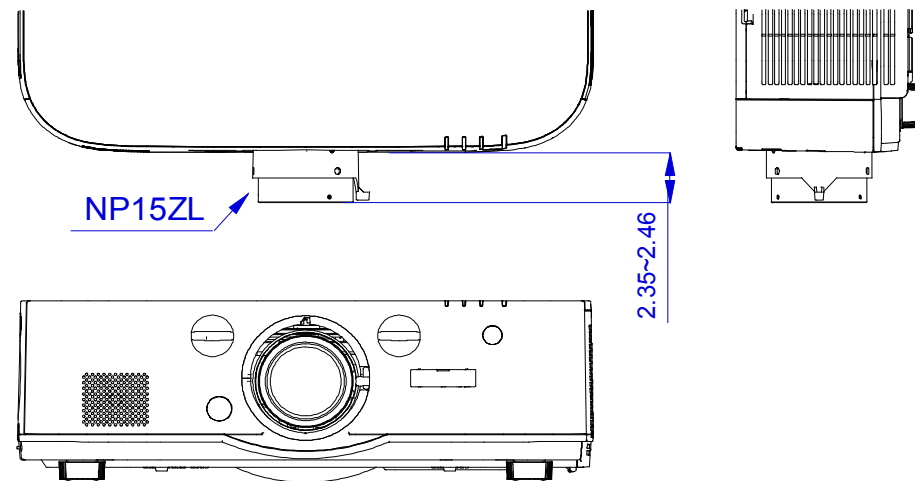
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### Optional Lens Dimensions (NP14ZL and NP15ZL)

NP14ZL



NP15ZL



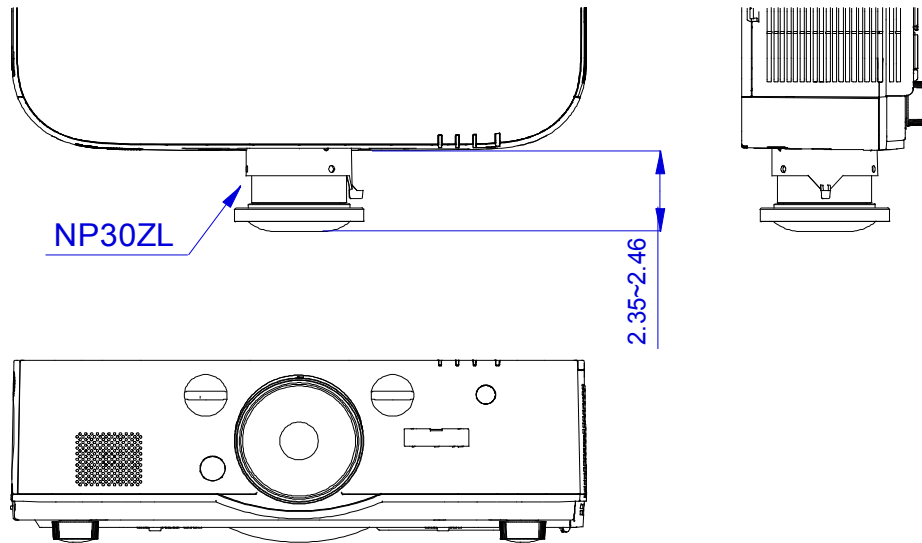
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### Optional Lens Dimensions (NP30ZL)

NP30ZL



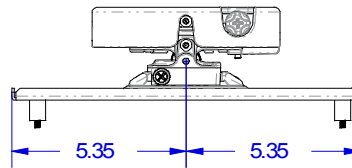
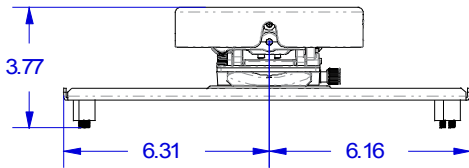
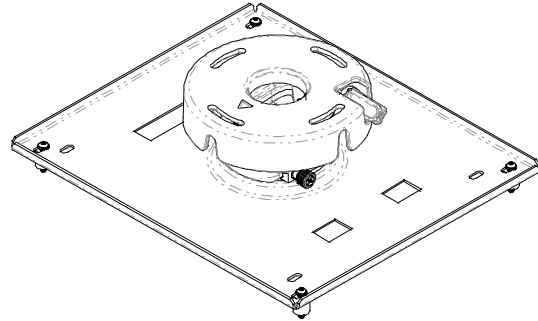
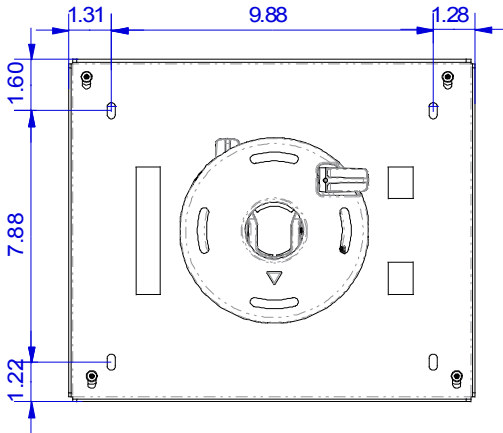
## 6752WU/6757W/6762 Installation Guide

### Ceiling Mounted and Desktop

Rev 1

#### Optional Ceiling Mount Dimensions (Part #: NP3250CM) or use universal mount PRG-UNV.

The following diagrams show ceiling mount dimensions for the NP3250CM. Dimensions are in inches. For millimeters multiply by 25.4.



#### Input Panel



## 6752WU/6757W/6762 Installation Guide

Ceiling Mounted and Desktop

Rev 1

### PC Control Codes

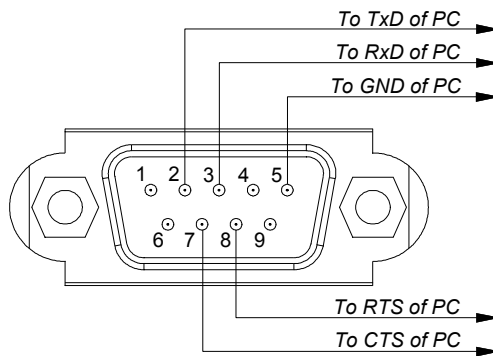
Function	Code Data										
POWER ON	02H	00H	00H	00H	00H	02H					
POWER OFF	02H	01H	00H	00H	00H	03H					
INPUT SELECT VGA	02H	03H	00H	00H	02H	01H	01H	09H			
INPUT SELECT BNC	02H	03H	00H	00H	02H	01H	02H	0AH			
INPUT SELECT HDMI	02H	03H	00H	00H	02H	01H	1AH	22H			
INPUT SELECT DisplayPort	02H	03H	00H	00H	02H	01H	1BH	23H			
INPUT SELECT BNC (CV)	02H	03H	00H	00H	02H	01H	06H	0EH			
INPUT SELECT BNC (Y/C)	02H	03H	00H	00H	02H	01H	0BH	13H			
INPUT SELECT NETWORK	02H	03H	00H	00H	02H	01H	1FH	27H			
INPUT SELECT HDBaseT	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					
ON SCREEN MUTE ON	02H	14H	00H	00H	00H	16H					
ON SCREEN MUTE OFF	02H	15H	00H	00H	00H	17H					
ASPECT RATIO (4:3 Screen)											
4:3	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
LETTERBOX	03H	10H	00H	00H	05H	18H	00H	00H	01H	00H	31H
WIDESCREEN	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
ZOOM	03H	10H	00H	00H	05H	18H	00H	00H	03H	00H	33H
ASPECT RATIO (RGB)											
4:3 WINDOW	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
16:9	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
5:4	03H	10H	00H	00H	05H	18H	00H	00H	0BH	00H	3BH
16:10	03H	10H	00H	00H	05H	18H	00H	00H	0CH	00H	3CH
15:9	03H	10H	00H	00H	05H	18H	00H	00H	0DH	00H	3DH
AUTO ADJUST	02H	0FH	00H	00H	02H	05H	00H	18H			

### Cable Connection

#### Communication Protocol:

Baud Rate: 38400 bps (for cable lengths longer than 20', it is recommended changing to 9600 bps in setup menu)  
 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.