

MT1065/1075 Installation Guide With Optional 1.0:1 Rear Lens (MT60-10RL)

v3.4

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Product Description

Type:	3 panel LCD projector; 1.0" p-Si TFT	Brightness:	MT1065 w/MT60-10RL: 2900 ANSI MT1075 w/MT60-10RL: 3500 ANSI
Resolution:	1024x768 (4:3) 1024 x 576 (16:9)	Dimensions:	13.14"(W) x 5.14"(H) x 13.22"(D)
		Weight:	13.9 lbs

Lens Specifications

Throw Ratio:	0.98:1 (for 100" diagonal 4:3 screen)	Focal Length:	20.2mm
Offset Angle:	0°	F/#:	1.9
Screen Sizes:	50"-100" diagonal (4:3)	Manual Focus	

Screen Type/Aspect Ratio Control

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.

- For a 4:3 screen; select "4:3" in the "Screen" menu for proper aspect ratio control of 4:3 and 16:9 sources.
- For a 16:9 screen; select "16:9" in the "Screen" menu for proper aspect ratio control of 4:3 and 16:9 sources.

Notes

- For screen sizes not indicated on the projection charts, use the formulas below.
- If a value in a chart does not match the results of the formulas, use the values in the chart.
- 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 in the image width for "W" in the Projection Formulas. Refer to the diagrams and charts for popular screen sizes on page 2.

Definitions:

W = Image Width
H = Image Height (Size)
C = Throw distance
 α = Projection angle

Projection Formulas:

C = 1.0039W – 1.575
 α = 0°

4:3 Screen Formulas:

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

16:9 Screen Formulas:

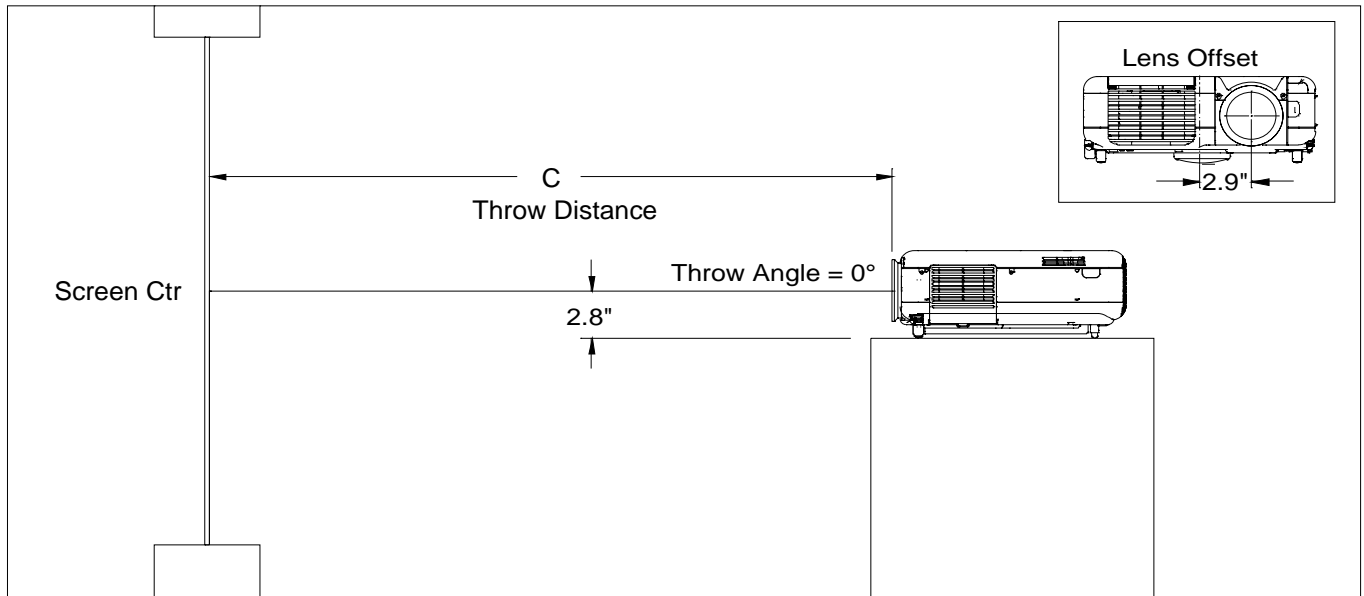
W = H x 16/9
H = W x 9/16
Screen Diagonal = W x 18.358/16

Vertical Position for a 16:9 screen: The Vertical Position adjustment moves the 16:9 image up and down in the unused portion of the 4:3 panel. This adjustment is only available when the projector is set for '16:9' in the 'Screen' menu. The range of Vertical Position is dependent on aspect ratio and 3D Reform used. If 3D Reform is not used, the approximate range of Vertical Position is $\pm 0.167H$ (H=Screen Height) when using a 16:9 screen.

Note: To avoid premature lamp failure, do not tilt the front of the projector up or down by more than 75° from level. Tilting the front of the projector up or down from 15° to 75° might reduce lamp life by up to 25%.

4:3 and 16:9 Screens

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



Note: To avoid premature lamp failure, do not tilt the front of the projector up or down by more than 75° from level. Tilting the front of the projector up or down from 15° to 75° might reduce lamp life by up to 25%. Take this into account if considering this product for use in a rear projection system with mirrors.

Distance Charts for popular screens

4:3 Screens

Screen Size (4:3)			C
Diag	W	H	
inches	inches	inches	inches
50	40	30	38.6
60	48	36	46.6
67	53.6	40.2	52.2
72	57.6	43.2	56.3
84	67.2	50.4	65.9
90	72	54	70.7
100	80	60	78.7

4:3 screen size range is 50" – 100" diagonal

16:9 Screens

Screen Size (16:9)			C
Diag	W	H	
inches	inches	inches	inches
46	40	22.5	38.6
55	48	27	46.6
60	52.5	29.5	51.1
65	56.5	32	55.1
75	65.5	37	64.2
82	72	40.5	70.7
92	80	45	78.7

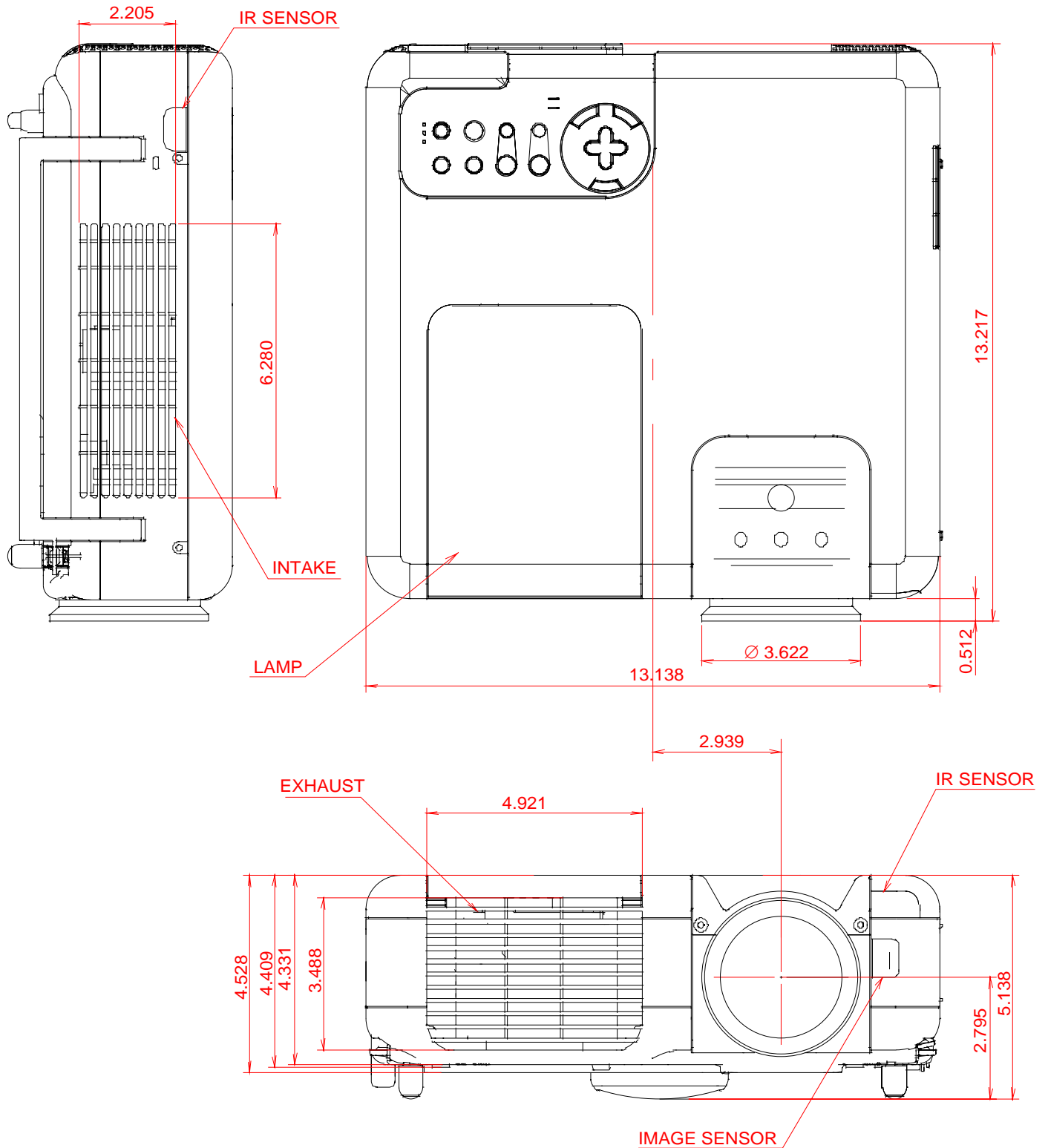
16:9 screen size range is 46" – 92" diagonal.

Note: For screen sizes not indicated on the chart, use the formulas on page 1.

Vertical Position for a 16:9 screen: The Vertical Position adjustment moves the 16:9 image up and down in the unused portion of the 4:3 panel. This adjustment is only available when the projector is set for '16:9' in the 'Screen' menu. The range of Vertical Position is dependent on aspect ratio and 3D Reform used. If 3D Reform is not used, the approximate range of Vertical Position is +/-0.167H (H=Screen Height) when using a 16:9 screen.

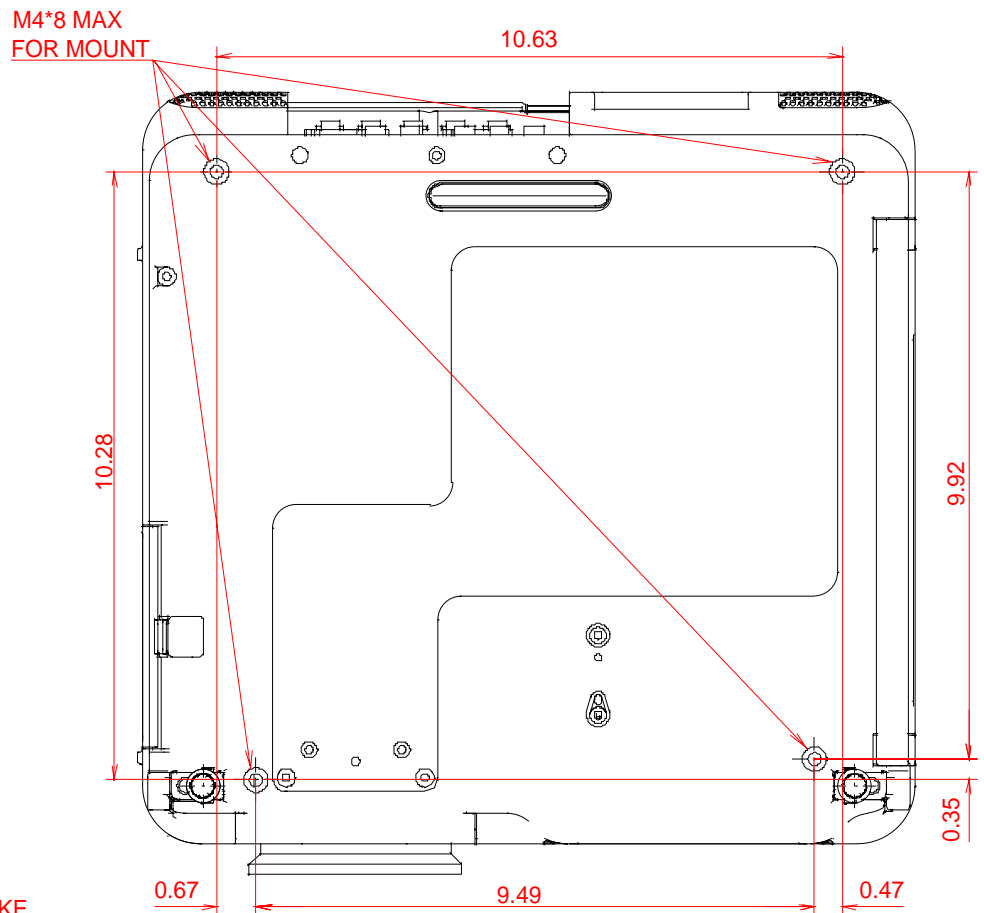
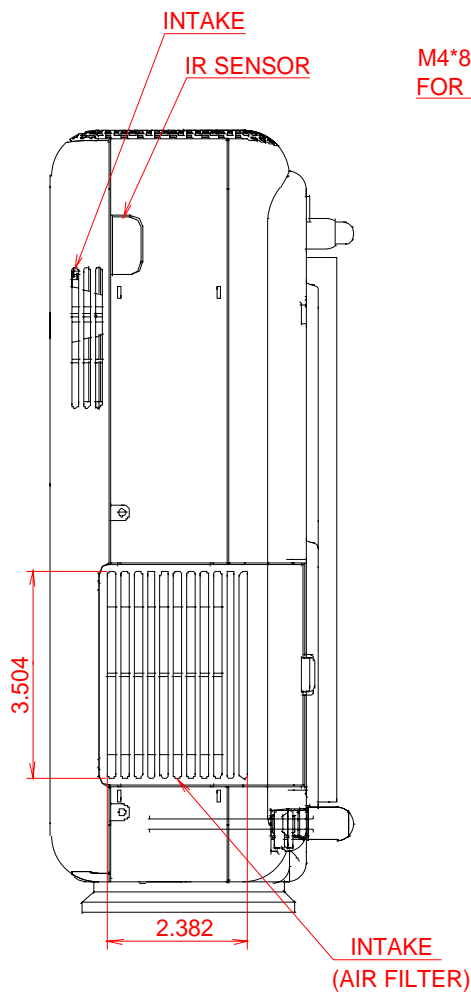
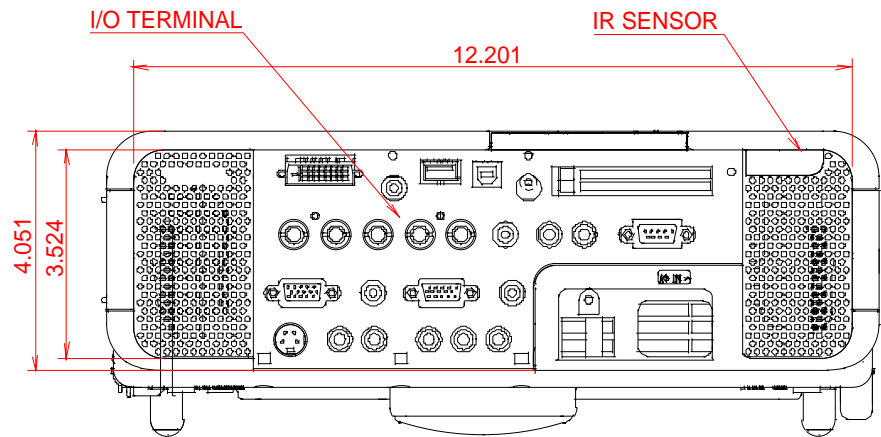
Cabinet Dimensions

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

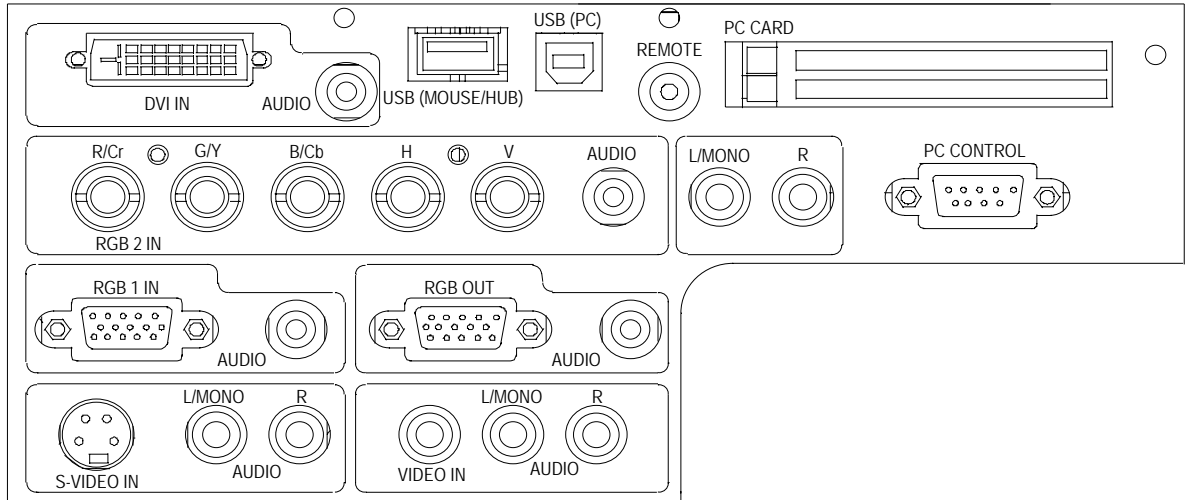


Cabinet Dimensions (continued)

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



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 RGB 1	02H 03H 00H 00H 02H 01H 01H 09H
INPUT SELECT RGB 2	02H 03H 00H 00H 02H 01H 02H 0AH
INPUT SELECT VIDEO	02H 03H 00H 00H 02H 01H 06H 0EH
INPUT SELECT S-VIDEO	02H 03H 00H 00H 02H 01H 0BH 13H
INPUT SELECT DVI (DIGITAL)	02H 03H 00H 00H 02H 01H 1AH 22H
INPUT SELECT VIEWER	02H 03H 00H 00H 02H 01H 1FH 27H
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
	Crop 03H 10H 00H 00H 05H 18H 00H 00H 03H 00H 33H
ASPECT RATIO (16:9 Screen)	4:3 Window 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
	4:3 Fill 03H 10H 00H 00H 05H 18H 00H 00H 04H 00H 34H
AUTO ADJUST	02H 0FH 00H 00H 02H DDH 00H F0H

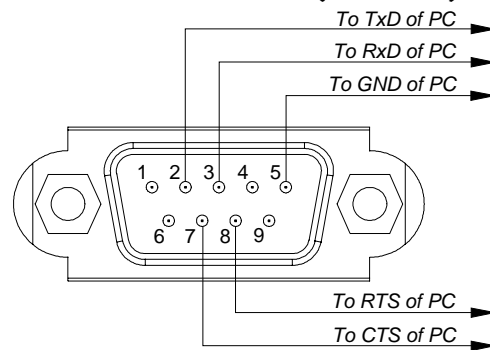
NOTE: Contact your NEC rep for codes not listed.

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

PC Control Connector (D-Sub 9P)



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

NOTE 2: Pins 1, 4, 6, and 9 are used inside the projector.

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

NOTE 4: For long cable runs it is recommended to set communication speed within projector menus to 9600 bps.