

Dell™ 5100MP Projector User's Guide



Notes, Notices, and Cautions



NOTE: A NOTE indicates important information that helps you make better use of your projector.



NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



/!\ CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

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OPureGlare

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Your Dell Projector

Your projector comes with all the items shown below. Ensure that you have all the items, and contact Dell if anything is missing.

Package Contents

1.8 m power cord (3.0 m in Americas) 1.8 m M1 to D-sub/USB cable



2.0 m S-video cable

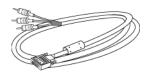




1.8 m RCA to Audio cable



1.8 m M1-A to HDTV cable





1.8 m Composite Video cable



1.8 m mini pin to mini pin cable



Remote control



Your Dell Projector



Package Contents (continued)

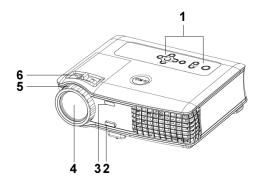
Documentation

Batteries (2)



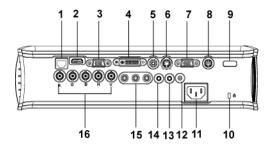


About Your Projector



1	Control panel
2	Elevator button
3	Remote control transceiver
4	Lens
5	Lens Cap
6	Focus ring
7	Zoom tab

Connecting Your Projector

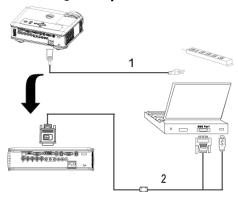


1	RJ45 network connector
2	HDMI connector
3	VGA input connector
4	M1 signal in connector
5	Video input connector
6	S-video input connector
7	VGA output connector
8	RS232 connector
9	IR receiver/ RF transceiver
10	Kensington lock hole
11	Power cord connector
12	12 Volt DC relay output
13	Audio output connector
14	Audio input connector
15	Component video input connector
16	BNC connector



Connecting to a Computer

Connecting a Computer with an M1 to D-sub/USB Cable

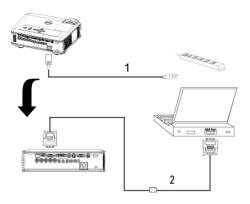


1	Power cord
2	M1A to D-sub/USB cable



NOTE: The USB cable can not be connected if the USB Dongle is used, for the USB dongle connection refer to page 35.

Connecting a Computer with a D-sub to D-sub Cable



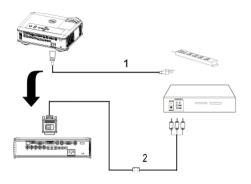
1	Power cord
2	D-sub to D-sub cable



NOTE: The USB cable can not be connected if the USB Dongle is used, for the USB dongle connection refer to page 35.

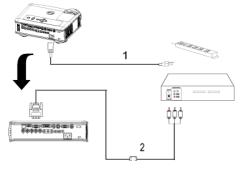
Connecting to a DVD Player

Connecting a DVD Player with an M1 to HDTV Cable



1	Power cord
2	M1 to HDTV cable

Connecting a DVD Player with a D-sub to YPbPr Cable

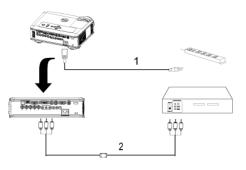


1	Power cord
2	D-sub to YPbPr cable



NOTE: The D-sub to YPbPr cable is not provided by Dell. Consult a professional installer for the cable.

Connecting a DVD Player with a RCA to RCA Cable

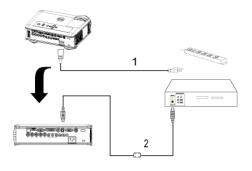


1	Power cord
2	RCA to RCA component cable



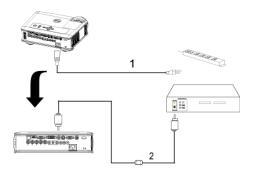
NOTE: The RCA to RCA cable is not provided by Dell. Consult a professional installer for the cable.

Connecting a DVD Player with an S-video Cable



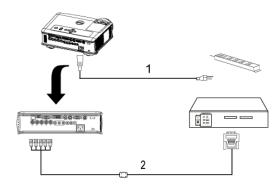
1	Power cord
2	S-video cable

Connecting a DVD Player with a Composite Cable



1	Power cord
2	Composite video cable

Connecting a DVD Player with a BNC to VGA cable

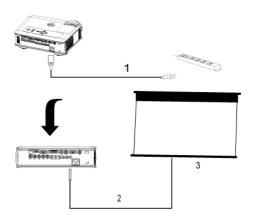


1	Power cord
2	BNC to VGA cable



NOTE: The BNC to VGA cable is not provided by Dell. Consult a professional installer for the cable.

Professional Installation Options: Installation for Driving Automatic Screen



1	Power cord	
2	12V DC Plug	
3	Automatic screen	

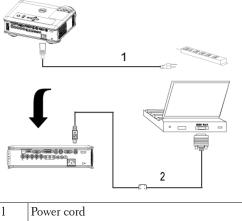
NOTE: Use the dimension of 12V DC plug in 1.7mm(ID) x 4.00mm(OD) x 9.5mm (shaft) to connect the automatic screen with the projector.

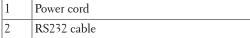
12V DC Plug





Installation for wired RS232 remote control: Connection with PC

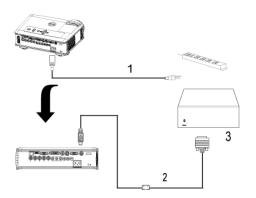






NOTE: The RS232 cable is not provided by Dell. Consult a professional installer for the cable.

Connection with Commercial RS232 Control Box:



1	Power cord
2	RS232 cable
3	Commercial RS232 control box



NOTE: The RS232 cable is not provided by Dell. Consult a professional installer for the cable.

Using Your Projector

Turning Your Projector On

NOTE: Turn on the projector before you turn on the source. The power button light blinks blue until pressed.

- **1** Remove the lens cap.
- 2 Connect the power cord and appropriate signal cables. For information about connecting the projector, see page 8.
- **3** Press the power button (see page 21 to locate the power button). The Dell logo displays for 30 seconds.
- **4** Turn on your source (computer, DVD player, etc.). The projector automatically detects your source.

If the "Searching for signal..." message appears on the screen, ensure that the appropriate cable(s) are securely connected.

If you have multiple sources connected to the projector, press the Source button on the remote control or control panel to select the desired source.

Turning Your Projector Off

- **NOTICE:** Do not unplug the projector before properly shutting down as explained in the following procedure.
- **1** Press the power button.
- **2** Press the power button again. The cooling fans continue to operate for 90 seconds and then go to standby mode.
- **3** To power off the projector quickly, press the Power button while the projectors cooling fans are still running.
- **NOTE:** Before you turn on the projector again, wait for 60 seconds to allow the internal temperature to stabilize.
- **4** Disconnect the power cord from the electrical outlet.

NOTE: If you press the power button while the projector is running, the "Power Off the Lamp?" message appears on the screen. To clear the message, press any button on the control panel or ignore the message; the message disappears after 5 seconds.

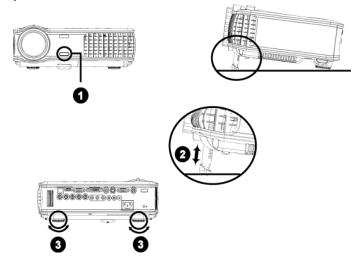
Adjusting the Projected Image

Raising the Projector Height

- **1** Press the elevator button.
- **2** Raise the projector to the desired display angle, and then release the button to lock the elevator foot into position.
- **3** Use the tilt adjustment wheel to fine-tune the display angle.

Lowering the Projector Height

- **1** Press the elevator button.
- **2** Lower the projector, and then release the button to lock the elevator foot into position.



1	Elevator button
2	Elevator foot
3	Tilt adjustment wheel

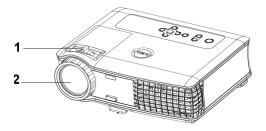


Adjusting the Projector Zoom and Focus



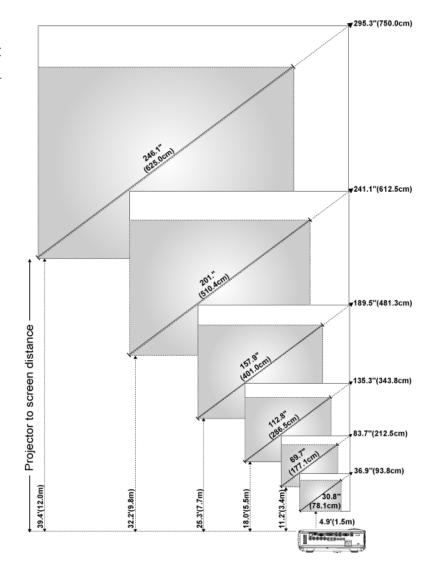
CAUTION: To avoid damaging the projector, ensure that the zoom lens and elevator foot are fully retracted before moving the projector or placing the projector in its carrying case.

- 1 Rotate the zoom tab to zoom in and out.
- 2 Rotate the focus ring until the image is clear. The projector focuses at distances from 4.9 ft to 39.4 ft (1.5 m to 12 m).



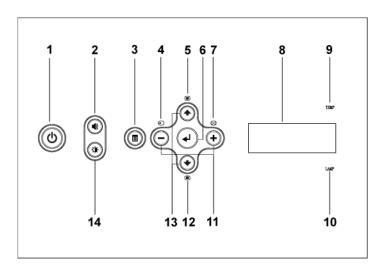
1		Zoom tab
2	<u>.</u>	Focus ring

Adjusting Projection Image Size



Screen (Diagonal)	Max.	36.9" (93.8cm)	83.7" (212.5cm)	135.3" (343.8cm)	189.5" (481.3cm)	241.1" (612.5cm)	295.3" (750.0cm)
	Min.	30.8" (78.1cm)	69.7" (177.1cm)	112.8" (286.5cm)	157.9" (401.0cm)	201.0" (510.4cm)	246.1" (625.0cm)
Screen	Max. (WxH)	29.5" X 22.1"	66.9" X 50.2"	108.3" X 81.2"	151.6"X113.7"	192.9" X 144.7"	236.2" X 177.2"
		(75.0cm X 56.3cm)	(170.0cm X 127.5cm)	(275.0cm X 206.3cm)	(385.0cm X 288.8cm)	(490.0cm X 367.5cm)	(600.0cm X 450.0cm)
Size	Min.	24.6" X 18.5"	55.8" X 41.8"	90.2" X 67.7"	126.3" X 94.7"	160.8" X 120.6"	196.9" X 147.6"
	(WxH)	(62.5cm X 46.9cm)	(141.7cm X 106.3cm)	(229.2cm X 171.9cm)	(320.8cm X 240.6cm)	(408.3cm X 306.3cm)	(500.0em X 375.0em)
Distance		4.9' (1.5m)	11.2' (3.4m)	18.0' (5.5m)	25.3' (7.7m)	32.2' (9.8m)	39.4' (12.0m)
* This graph	* This graph is for user reference only.						

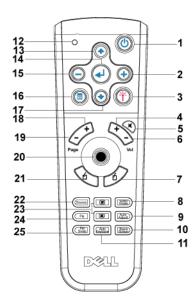
Using the Control Panel



1	Power	Turn the projector on and off. For more information, see page 17.
2	Volume Control	Press to control the volume, then press \bigcirc or \bigcirc buttons to decrease or increase the volume.
3	Menu	Press to activate the OSD. Use the directional keys and Menu button to navigate through the OSD.

4	Source	Press to toggle through S-video, Composite Video, M1-D, D-sub, BNC, Component, HDMI and M1 sources when multiple sources are connected to the projector.
5	Keystone adjustment	Press to adjust image distortion caused by tilting the projector. (±20 degrees)
6	Enter	Press to confirm the selection item.
7	Auto adjust	Press to synchronize the projector to the input source.
		Auto adjust does not operate if the on-screen display (OSD) is displayed.
8	LCD status display	LCD display is for real time projector status.
9	TEMP warning light	 If the TEMP light is solid orange, the projector has overheated. The display automatically shuts down. Turn the display on again after the projector cools down. If the problem persists, contact Dell. If the TEMP light is blinking orange, a projector fan has failed and the projector automatically shuts down. If the problem persists, contact Dell.
10	LAMP warning light	If the LAMP light is solid orange, replace the lamp.
11	— and → buttons	Press to adjust the OSD setting.
12	Keystone adjustment	Press to adjust image distortion caused by tilting the projector. $(\pm 20 \text{ degrees})$
1 3	Up ⊙ and ⊙ Down	Press to select the OSD items.
14	Brightness and contrast control	Press to control brightness and contrast, press ◆ or ◆ to adjust brightness or contrast, then press ← and ← buttons to adjust the value.

Using the Remote Control

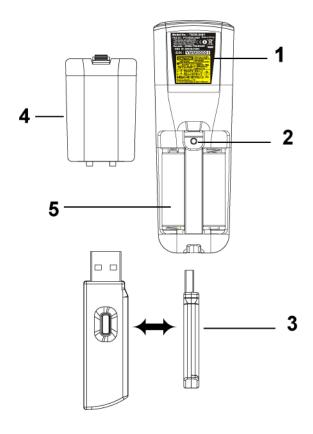


1	Power	Turn the projector on and off. For more information, see page 17.
2	+	Press to adjust the OSD setting.
3	Laser	Aim the remote control at the screen, press and hold the laser button to activate the laser light.
4	Volume 🕦	Press to increase the volume.
5	Mute	Press to mute or un-mute the projector speaker.
6	Volume 😑	Press to decrease the volume.
7	Right click	Mouse right click.

8	Video mode	The Dell 5100MP Micro-projector has preset configurations that are optimized for displaying data (PC Graphics) or video (movies, games, etc.). Press Video Mode button to toggle between PC mode, Movie mode, Game Mode, sRGB, or User mode (for user to setup and save preferred settings). Pressing the Video Mode button once will show the current display mode. Pressing the Video Mode button again will switch between modes.	
9	Auto Adjust	Press to synchronize the projector to the input source. Auto Adjust does not operate if the OSD (On-Screen Display) is displayed.	
10	Blank screen	Press to hide the image, press again to resume display of the image.	
11	Auto keystone	Press to enable the auto correction for image distortion due to tilting the projector.	
12	LED light LED indicator.		
13	Up button	Press to select OSD items.	
14	Enter button	Press to confirm the selection.	
15	Θ	Press to adjust the OSD setting.	
16	Menu	Press to activate the OSD.	
17	Down button	Press to select OSD items.	
18	Page 💿	Press to move to previous page.	
19	Page 💿	Press to move to next page.	
20	PC/Mouse control	The PC/Mouse control can be used to control mouse movement. The mouse function is enabled using the M1 cable to connect your computer and the projector.	
21	Left click	Mouse left click.	
22	Source	Press to switch between Analog RGB, Digital RGB, Composite, Component-i, S-video, and Analog YPbPr sources.	
23	Keystone correction	Press to correct the image distortion.	
24	PIP	Press the PIP button to turn on/off the PIP screen.	

25 PIP Swap

Press the PIP Swap button to swap between the foreground and background.



1	Laser Warning	The remote control is equipped with a Class II laser that emits laser radiation. To reduce the risk of injury, do not look directly into the laser light, and do not point the laser light into anyone's eyes.
2	Program button	Initiate the Learning Mode on the remote for switching the RF transmission channel by pressing Prgm button.

3	Wireless USB mouse dongle	The wireless USB device for controlling PC or Notebook mouse through the remote control.		
4	Remote cover	The back cover of the remote control.		
5	Battery chamber	The chamber of the battery.		

Using the On-Screen Display

The projector has a multi-language On-Screen Display (OSD) that can be displayed with or without an input source present.

In the Main Menu, press • or • to navigate through the tabs. Press Enter button on the control panel or the remote control to select a submenu.

In the submenu, press \odot or \odot to make a selection. When an item is selected, the color changes to dark blue. Use \bigcirc or \odot on the control panel or the remote control to make adjustments to a setting.

To back to the previous OSD, go to Back tab and press **Enter** button on the control panel or the remote control.

To exit the OSD, go to Exit tab and press Enter button on the control panel or the remote control.

Image Settings





Brightness—Use \bigcirc and \bigcirc to adjust the brightness of the image.

CONTRAST—Use (-) and (+) to control the degree of difference between the brightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

COLOR TEMP.—Adjust the color temperature. The higher the temperature, the screen appears more blue; the lower the temperature, the screen appears more red. User mode activates the values in the "color setting" menu.

USER COLOR—This mode allows manual adjustment of red, green, and blue color settings. Modifying these values will automatically change the color temperature

to "user". Press the User Color, then go into the Color Setting Menu.

V. KEYSTONE—Adjust image distortion caused by tilting the projector.

H. KEYSTONE—Adjust image distortion caused by horizontal shifting of the projector orientation.

AUTO KEYSTONE—Select On to enable the auto correction for vertical image distortion due to tilting the projector. Select Off to disable the auto correction.

SEMI-AUTO KEYSTONE—Select On and press Enter to activate the Semi-Auto keystone correction for image distortion. A specific image pattern will be present on the screen once it's been activated and then complete the settings by following below instructions.

- Adjust the projected image display to appropriate location on the screen.
- Use up, down, left or right button to choose one corner and press Enter key to enter keystone correction mode.
- Use up, down, left or right button to move the angle and press Enter to confirm.

ZOOM—Press (+) to (-) digitally magnify an image to 10 times on the projection screen and press (-) to reduce the zoomed image.

ASPECT RATIO—Select an aspect ratio to adjust how the image appears.

- 1:1 The input source displays without scaling. Use 1:1 aspect ratio if you are using one of the following:
 - VGA cable and the computer has a resolution less than SXGA+ (1400 x 1050)

- Component cable (720p, 576i/p, 480i/p)
- S-Video cable
- Composite cable
- 16:9 The input source scales to fit the width of the screen.
- 4:3 The input source scales to fit the screen.

Use 16:9 or 4:3 if you are using one of the following:

- Computer resolution greater than SXGA+
- Component cable (1080i/p)

VIDEO MODE—Select a mode to optimize the display image based on how the projector is being used: Movie, Game, PC, sRGB (provides more accurate color representation), and User (set your preferred settings). If you adjust the settings for White Intensity or Degamma, the projector automatically switches to User.

WHITE INTENSITY—Setting 0 to maximize the color reproduction and 10 to maximize the brightness.

DEGAMMA—Adjust between 1 and 4 to change the color performance of the display. The default setting is 3.

Audio Menu



VOLUME—Press \bigcirc to decrease the volume and \bigcirc to increase the volume.

TREBLE—Control the higher frequencies of your audio source. Press ⊝ to decrease the treble and press ⊕ to increase the treble

Bass—Control the lower frequencies of your audio source. Press — to decrease the bass and press — to increase the bass.

MUTE—Allow to mute the volume

AUDIO SOURCE—Select HDMI to have the HDMI output source, and select Audio to have the audio output source.

Management Menu



MENU LOCATION—Select the location of the OSD on the screen

PROJECTION MODE—Select how the image appears:

- **1** Front Projection-Desktop (the default).
- **Q** Rear Projection-Desktop-- The projector reverses the image so you can project from behind a translucent screen.
- Front Projection-Ceiling Mount-- The projector turns the image upside down for ceiling-mounted projection.
- Rear Projection-Ceiling Mount-- The projector reverses and turns the image upside down. You can project from behind a translucent screen with a ceiling-mounted projection.

SIGNAL TYPE—Show signal type RGB, YCbCr, YPbPr

LAMP HOUR—Display the operating hours since the lamp timer reset.

LAMP RESET—After you install a new lamp,

select Yes to reset the lamp timer.

POWER SAVING—Select Yes to set the power saving delay period. The delay period is the amount of time you want the projector to wait without signal input. After that set time, the projector enters power saving mode and turns off the lamp. The projector turns back on when it detects an input signal or you press the power button. After two hours, the projector turns off and you need to press the power button to turn the projector on.

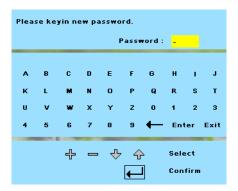
OSD Lock—Select Yes to enable OSD Lock for hiding the OSD menu. (Or pressing the Menu button on control for 15 seconds), and select No to disable the OSD Lock for hiding the OSD menu. (Or pressing the Menu button on control for 15 seconds again).

RF_CH LEARNING—Refer to page 34.

Eco Mode—Select On to use the projector at a lower power level (250 Watts), which may provide longer lamp life, quieter operating and dimmer luminance output on the screen. Select Off to operate at normal power level (300 Watts). **AUTO SOURCE**—Select **On** (the default) to autodetect the available input signals. When the projector is on and you press **SOURCE**, it automatically finds the next available input signal. Select **Off** to lock the current input signal. When **Off** is selected and you press **SOURCE**, you select which input signal you want to use.

OSD Timeout.—Adjust the time delay of the **OSD Timeout**. The Default setting is 30 seconds.

TEST PATTERN—Select **On** to come up the built-in **Test Pattern** for self-testing on focus and resolution.



PASSWORD ENABLE—Select On to set one password for individual. Select Off to disable the password function.

CHANGE PASSWORD—Press to change the password to your preference.

Language Menu



Press (or (to select the preferred language for the OSD.

PIP Setting Menu



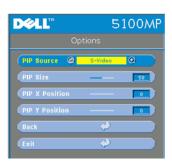
NOTE 1: PIP Image is enabled only when both the following types of signals are connected to the projector.

Type 1: S-Video, Composite Video, M1-D, and

Type 2: D-sub, BNC, Component, HDMI, M1 signals.

NOTE 2: When swapping the

foreground and background displays, the smallest screen size of foreground display will vary depending on different combinations of signal sources for PIP.



PIP IMAGE —Select **On** to enter **Options** to select following settings. Select **Off** to disable the picture-in-picture display function.

PIP Source —Use PIP Source to step through the display source one by one for the foreground display. The possible PIP source is available in the OSD selection depending on the current primary input source. The possible combination of the sources refer to page 51.

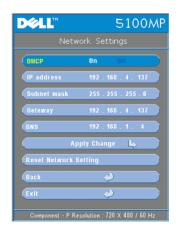
PIP SIZE —Adjust the image size of the foreground display.

PIP X Position —Horizontally adjust the image position of the PIP display.

PIP Y Position —Vertically adjust the image position of the PIP display.

PBP IMAGE —Select On to enable the picture-by-picture display. Select Off to disable the picture-by-picture function.

Network Settings Menu



DHCP —Select **On** to assign an IP address to the projector from a **DHCP** server automatically. Select **Off** to assign an IP address manually.

IP ADDRESS—Press Enter to set up an IP address. Press left or right button to select the number position, up or down button to change the number.

SUBNET MASK—Press Enter to set up an subnet mask number. Press left or right button to select the number position, up or down button to change the number.

GATEWAY—Select to set the default gateway of the network connected to the projector. Press left or right button to select the number

position, up or down button to change the number.

DNS—Type in the IP address of DNS server on the network connected to the projector. 12 numeric characters are used.

APPLY CHANGE—Press to confirm the settings.

RESET NETWORK SETTING—Press to the default setting.



Factory Reset Menu



FACTORY RESET—Select Yes to reset the projector to its factory default settings. Reset items include both computer image and video image settings

Computer Source Menu



NOTE: This menu is only available connected to a computer.



FREQUENCY—Change the display data clock frequency to match the frequency of your computer graphics card. If you see a vertical flickering bar, use Frequency control to minimize the bars. This is a coarse adjustment.

TRACKING—Synchronize the phase of the display signal with the graphic card. If you experience an unstable or flickering image, use the **Tracking** to correct it. This is a fine adjustment.



NOTE: Adjust the **Frequency** first and then the **Tracking**.

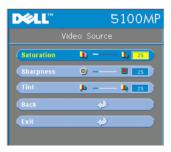
HOR. POSITION—Press (-) to adjust the horizontal position of the image to the left and (+) to adjust the horizontal position of the image to the right.

VER. POSITION—Press (-) to adjust the vertical position of the image down and (+) to adjust the vertical position of the image up.

Video Source Menu



NOTE: This menu is only available with S-video, Video (composite) signal

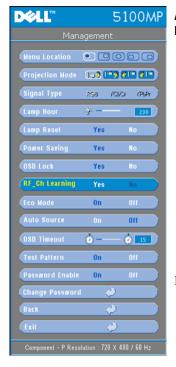


SATURATION—Adjust a video source from black and white to fully saturated color. Press (-) to decrease the amount of color in the image and (+) to increase the amount of color in the image.

SHARPNESS—Press (-) to decrease the sharpness and (+) to increase the sharpness.

TINT—Press (-) to increase the amount of green in the image and (+) to increase the amount of red in the image.

RF Learning Connections



Auto Learning to Change RF Channel Between Remote Controller and Projector

- Power on the projector.
- Press the "Menu" button on control panel, then enter to "Management -->RF Ch Learning " menu.
- Select **Yes** with the control buttons to enter the Learning Standby mode. The projector will switch to standby mode for RF Learning and display the RF Learning menu.
- Open the battery cover on the remote control and press the Prgm button to initiate the RF Learning process for the remote control and projector.

Back to Factory Default for the RF Channel

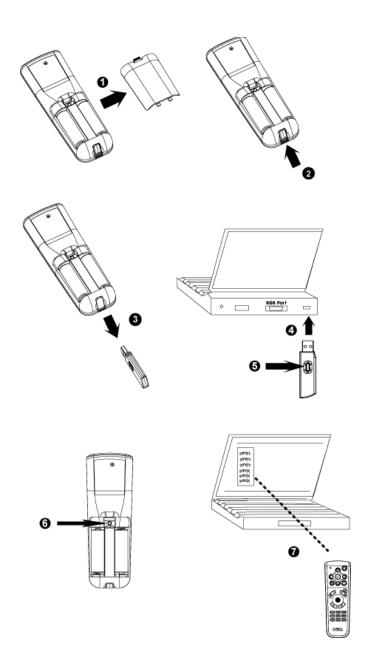
Select Yes on RF Learning Setting menu and then enter the RF Reset to Default menu. Select Reset to Default Channel, the projector will back to the factory default channel.



- Press the Prgm button on the remote control for 5 seconds to reset the transmitter to the factory default channel.
- The successful reset back to the default channel on both ends can be confirmed when the remote control transmitter controls the projector.

Auto Learning to Change RF Channel Between Remote Controller and USB **Wireless Dongle**

Step 1	Open the cover of the remote control.
Step 2	Push the dongle.
Step 3	Take out the dongle from the remote control.
Step 4	Plug the dongle in the USB port on your desktop or notebook computer, the dongle will show red .
Step 5	Press the LED button on the dongle and it will flash "red" for 13 seconds.
Step 6	Press the Prgm button in the rear of the remote control, within 13 seconds to initate the RF Learning process.
	 If the processes are successful, the dongle LED will remain "red" and stop flashing.
	 Checking the mouse function are enable by using the remote control, if it has done, the dongle LED will show a "green" signal.
Step 7	Using the remote control to manage your desktop or notebook computer.



36 | Using Your Projector



To Manage the Projector from Web Management

Configuring the Network Setting

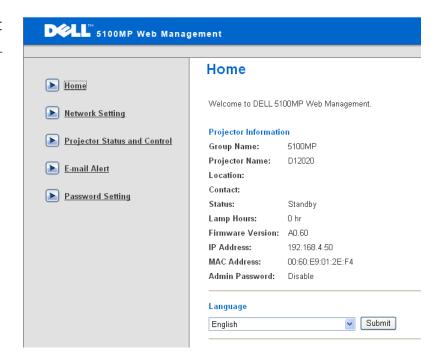
If the projector is connected to a network, you can access the projector using a web browser by configuring the network setting (TCP/IP). When using the network function, the IP address should be unique. For configuring the network setting, refer to Network Setting Menu in page 32.

Accessing Web Management

Use Internet Explorer 5.0 and above or Netscape Navigator 7.0 and above and enter the IP address. You can now access Web Management and manage the projector from a remote location.

Managing Properties

Home

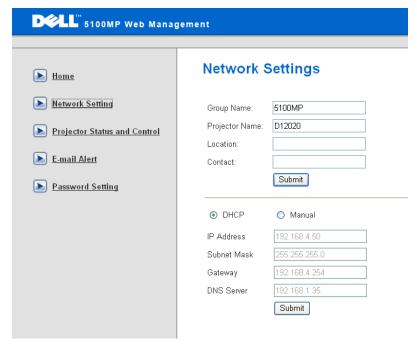


Displays Group name, Projector name, Location, Contact, Lamp hours, Firmware version, IP address, MAC address and Admin password information.



Network Setting

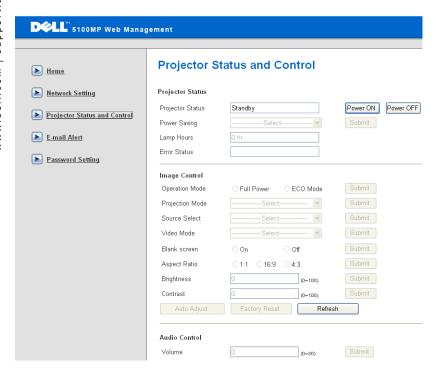
See OSD section on page 32.



- Set up the Group Name, Projector Name, Location and Contact information in this tab, press Submit to confirm the settings.
- Choose DHCP to assign an IP address to the projector from a DHCP server automatically, or Manual to assign an IP address manually.

Projector Status and Control

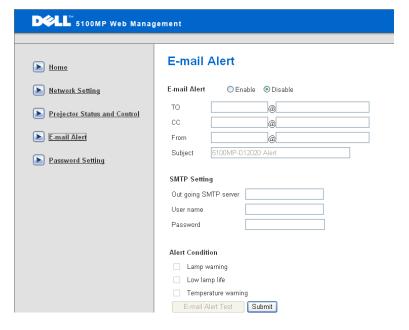
The function is same as On Screen Display.



Manage the projector status, image control and audio control using Projector Status and Control.

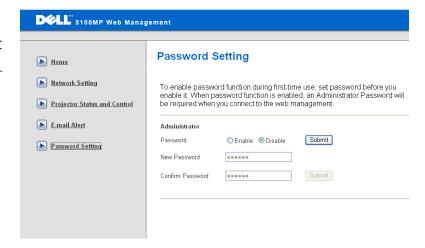


E-mail Alert



Set E-mail address, Owner, Subject and Alert Condition to send automatic e-mail alerts to the preset administrator.

Password Setting



Use Password Setting to set up an administrator password to access the Web Management . When enabling password for the first time, set the password before enabling it. When the password function is enabled, the administrator password will be required for accessing the Web Management.

Troubleshooting Your Projector

If you experience problems with your projector, see the following troubleshooting tips. If the problem persists, contact Dell.

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М	rn	nı	lem	

No image appears on the screen

Possible Solution

- Ensure that the lens cap is removed and the projector turned on.
- Ensure the external graphics port is enabled. If you are using a Dell portable computer, press For other computers, see your documentation.
- Ensure that all the cables are securely connected. See "Connecting Your Projector" on page 8."
- Ensure that the pins of the connectors are not bent or broken.
- Ensure that the lamp is securely installed (see "Changing the Lamp" on page 46").
- Run Self-diagnostic test. See "Self-diagnostic for Video" on page 46. Ensure that the colors of the test pattern are correct.

Possible Solution <i>(continued)</i>
• Press the Resync button on the remote control or the control panel.
 If you are using a Dell portable computer, se the resolution of the computer to XGA (1024 x 768):
a Right-lick the unused portion of your Windows desktop, click Properties and then select Settings tab.
 b Verify the setting is 1024 x 768 pixels for the external monitor port. c Press [76] [76]
If you experience difficulty in changing resolutions or your monitor freezes, restart all the equipment and the projector.
If you are not using a Dell portable computer see your documentation.
If you are using a portable computer, press
Adjust the tracking in the OSD Computer Source tab.
Adjust the frequency in the OSD Computer Source tab.
 If your graphic card output signal is sync or Green, and you would like to display VGA a 60Hz signal, please go into OSD select Management, select Signal Type and then select RGB.
Run the Self-diagnostic test (see " Self-diagnostic for video ") for preliminary diagnostic on image color problem. Ensure that the colors of the test pattern are correct
1 Adjust the focus ring on the projector lens.
2 Ensure that the projection screen is within the required distance from the projector

Problem <i>(continued)</i>	Possible Solution <i>(continued)</i>
The image is stretched when displaying a 16:9 DVD	The projector automatically detects a 16:9 DVD and adjusts the aspect ratio to full screen with a 4:3 (letter-box) default setting.
	If the image is still stretched, adjust the aspect ratio as follows:
	• If you are playing a 16:9 DVD, select 4:3 aspect ratio type on your DVD player (if capable).
	• If you cannot select 4:3 aspect ratio type on your DVD player, select 4:3 aspect ratio in the Image Settings menu in the OSD.
Image is reversed	Select Management from the OSD and adjust the projection mode.
Lamp is burned out or makes a popping sound	When the lamp reaches its end of life, it may burn out and may make a loud popping sound If this occurs, the projector does not turn back on, and displays Lamp Defective in the LCD display until the lamp is replaced. To replace the lamp, see "Changing the Lamp" on page 46.
LAMP light is solid orange	If LAMP light is solid orange, replace the lamp.
Interlock failed	If the LAMP light is blinking orange, the lamp cover is not closed properly. Close the lamp cover properly. If the problem persists, contact Dell.
TEMP light is solid orange	The projector has overheated. The display automatically shuts down. Turn the display or again after the projector cools down. If the problem persists, contact Dell.
TEMP light is blinking orange	A projector fan has failed and the projector will automatically shut down. If the problem persists, contact Dell.
The remote control is not operating smoothly or in very	The battery may be low. Check if the laser beam transmitted from the remote is too dim

Self-diagnostic for Video

Dell 5100MP Projector provides self-diagnostic test of the projector video display (for Video, S-video, Component-i). Use this advanced feature for preliminary selfdiagnostic on your projector when encountering a display problem for video.

- 1 After turning on the projector, press "+" and "-" buttons on the control panel simultaneously for 3 seconds and release the buttons when screen goes blank.
- 2 Press "+" and "-" buttons again to exit the diagnostic mode.
- **3** While in Self-diagnostic mode, the screen will run a seven-color-cycle test as following:
 - Red--> Green--> Blue--> White--> Watchet Blue--> Dark Green--> Yellow. Ensure that the colors of the test pattern are correct. Contact Dell if the colors are not displayed correctly.

Changing the Lamp

Replace the lamp when you see "Lamp is approaching the end of its useful life in full power operation. Replacement suggested! www.dell.com/lamps" appears on the screen. If this problem persists after replacing the lamp, contact Dell.



CAUTION: The lamp becomes very hot when in use. Do not attempt to replace the lamp until the projector has been allowed to cool down for at least 30 minutes.



 $\langle ! \setminus CAUTION : Do not touch the bulb or the lamp glass at any time. The bulb may$ explode due to improper handling, including the touching of the bulb or the lamp glass.

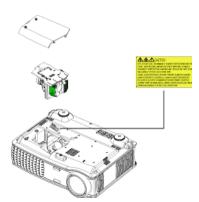
- **1** Turn off the projector and disconnect the power cord.
- **2** Let the projector cool for at least 30 minutes.
- **3** Loosen the 2 screws that secure the lamp cover, and remove the cover.
- **4** Loosen the 2 screws that secure the lamp.



- **5** Pull up the lamp by its metal handle.
- **6** Reverse steps 1 through 5 to install the new lamp.
- 7 Reset the lamp by usage time selecting the left Lamp Reset icon in the OSD Management tab.



NOTE: Dell may require that lamps replaced under warranty be returned to Dell. Otherwise, contact your local waste disposal agency for the address of the nearest deposit site.





CAUTION: Lamp Disposal (for the US only)

(III) LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. FOR MORE INFORMATION. GO TO WWW.DELL.COM/HG OR CONTACT THE ELECTRONIC INDUSTRIES ALLIANCE AT WWW.EIAE.ORG. FOR LAMP SPECIFIC DISPOSAL INFORMATION CHECK WWW.LAMPRECYCLE.ORG.

Specifications

Light Valve Single-chip 0.95" SXGA+ DLP™

LVDS (low-voltage differential

signaling) technology

Brightness 3300 ANSI Lumens (Max.)

Contrast Ratio 2500:1 Typical (Full On/Full Off)
Uniformity 80% Typical (Japan Standard - JBMA)

Number of Pixels 1400 x 1050 (SXGA+)

Displayable Color 16.7M colors

Color Wheel Speed 100~127.5Hz (2X)

Projection Lens $F/2.6\sim2.87$, $f=39.1\sim46.92$ mm with

1.2x manual zoom lens

Projection Screen Size 30.8-295.3 inches (diagonal)
Projection Distance 4.9~39.4 ft (1.5 m~12 m)

Video Compatibility NTSC, NTSC 4.43, PAL, PAL-M, PAL-

N, SECAM, and HDTV (1080i/p, 720p,

576i/p, 480i/p) compatibility

Composite video, Component video

and S-video capability

H. Frequency 15 kHz- 100 kHz (Analog)

30 kHz- 64 kHz (Digital)

V. Frequency 43 Hz- 120 Hz (Analog)

43 Hz-85 Hz (Digital)

Power Supply Universal 90-240V AC 50-60Hz with

PFC input

Power Consumption 400 watts typical, 335 watts in eco

mode

OPure Glama

Audio 2 speakers, 2 watts RMS

Noise Level 37dB(A) Full-on mode, 31dB(A) Eco-

mode

Weight 8.2 lbs (3.73 kgs)

Dimensions (W x H x D) External 13 x 10.3 x 4.5 \pm 0.04 inches

 $(329.8 \times 261.4 \times 115.2 \pm 1 \text{ mm})$

Environmental Operating temperature: 5°C - 35°C

 $(41^{\circ}F - 95^{\circ}F)$

Humidity: 80% maximum

Storage temperature: -20°C to 60°C

 $(-4^{\circ} \text{F to } 140^{\circ} \text{F})$

Humidity: 80% maximum

FCC, CE, VCCI, UL, cUL, TüV-GS, Regulatory

ICES-003, C-Tick, GOST, PCBC,

CCC, PSB, EZU, NOM, S-

TuV/Argentina

Networking Protocol 10/100 Base-T

> TCP/IP **ICMP** ARP

SNMP V1 0 **SMTP**

DHCP HTTP

I/O Connectors Power: AC power input socket

> Computer input: one M1-DA for analog/digital/component, HDTV input signals, one 15-pin D-sub for analog input/component, HDTV input signals, one BNC R/G/B/H/V for analog

RGB input signals.

Computer output: one 15-pin D-sub

Video input: 3 RCA connectors for component video/ HDTV input, one mini-DIN 4-pin S-video input, one RCA jack for composite video input

Audio input: one phone jack (diameter 3.5mm)

DC jack 12 volt @ 200mA output, relay control for automatic projection screen control

One RJ45 connector for networking

One HDMI input

One mini-DIN RS232 for wired remote projector control from PC

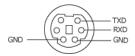
300-watt user-replaceable 1700-hour lamp (up to 2200 hours in eco mode)

Lamp

NOTE: The actual operating life span of a projector lamp will vary according to operating conditions and usage patterns. Usage of a projector in stressful conditions which may include dusty environments, under high temperatures and abrupt powering-off may result in a lamp's shortened operating life span or possibly lamp failure. The lamp life specified for Dell's projectors refers to the typical time under non-stressful operating conditions for more than 50% of a sampling population to reduce to approximately 50% of the lamp's rated brightness level. It is not the measure of time a lamp will cease light output.



RS232 Pin Assignment



RS232 Protocol

Communication Settings

Connection settings	Value
Baud Rate:	19200
Data Bits:	8
Parity	None
Stop Bits	1

Command types

To pop up the OSD menu and adjust the settings.

- Control command Syntax (From PC to Projector) [H][AC][SoP][CRC][ID][SoM][COMMAND]
- Example: Power ON Command (Send low byte firstly) --> 0xBE, 0xEF, 0x10, 0x05, 0x00, 0xC6, 0xFF, 0x11, 0x11, 0x01, 0x00, 0x01
- Control Commands List

Go to support.dell.com to view the latest RS232 code.

PIP combination sources

Source	M1 RGB	M1 Component	VGA Computer	VGA Component	BNC RGB	BNC Component	RCA Component	HDMI
S-Video	PIP	PIP	PIP	PIP	PIP	PIP	PIP	PIP
Composite	PIP	PIP	PIP	PIP	PIP	PIP	PIP	PIP
Ml Digital	X	X	PIP	PIP	PIP	PIP	PIP	PIP



NOTE: If two sources combination overpass the bandwidth of the scaler, the projector will show the black image.

Compatibility Modes

Mode	Resolution	(ANALOG)		(DIGITAL)	
	-	V. Frequency (Hz)	H. Frequency (KHz)	V. Frequency (Hz)	H. Frequency (KHz)
VGA	640X350	70	31.5	70	31.5
VGA	640X350	85	37.9	85	37.9
VGA	640X400	85	37.9	85	37.9
VGA	640X480	60	31.5	60	31.5
VGA	640X480	72	37.9	72	37.9
VGA	640X480	75	37.5	75	37.5
VGA	640X480	85	43.3	85	43.3
VGA	720X400	70	31.5	70	31.5
VGA	720X400	85	37.9	85	37.9
SVGA	800X600	56	35.2	56	35.2
SVGA	800X600	60	37.9	60	37.9
SVGA	800X600	72	48.1	72	48.1
SVGA	800X600	75	46.9	75	46.9
SVGA	800X600	85	53.7	85	53.7
XGA	1024X768	43.4	35.5	-	-
XGA	1024X768	60	48.4	60	48.4
XGA	1024X768	70	56.5	70	56.5
XGA	1024X768	75	60	75	60
XGA	1024X768	85	68.7	-	-
SXGA	1280X1024	60	63.98	60	63.98
SXGA	1280X1024	75	79.98	-	-
SXGA	1280x1024	85	91.1	-	-
*SXGA+	1400x1050	60	63.98	-	-
*UXGA	1600x1200	60	75	-	-
MAC LC13*	640X480	66.66	34.98	-	-
MAC II 13*	640X480	66.68	35	-	=
MAC 16*	832X624	74.55	49.725	-	-
MAC 19*	1024X768	75	60.24	=	-
*MAC	1152X870	75.06	68.68	-	-
MAC G4	640X480	60	31.35	-	-



MAC G4	640X480	120	68.03	-	-
MAC G4	640X480	120	97.09	-	-
IMAC DV	640X480	117	60	-	-
IMAC DV	800X600	95	60	-	-
IMAC DV	1024X768	75	60	-	-
IMAC DV	1152X870	75	68.49	-	-
IMAC DV	1280X960	75	75	-	-
IMAC DV	1280X1024	85	91.1	-	-
* Compressed computer image.					



NOTE: UXGA is not supported in the DVI (M1-to-DVI).



Contacting Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).



NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

- Visit **support.dell.com**.
- Verify your country or region in the Choose A Country/Region drop-down menu at the bottom of the page.
- Click Contact Us on the left side of the page.
- Select the appropriate service or support link based on your need.
- Choose the method of contacting Dell that is convenient for you.

Appendix: Glossary

ANSI Lumens— A standard for measuring light output, used for comparing projectors.

Aspect Ratio—The most popular aspect ratio is 4:3 (4 by 3). Early television and computer video formats are in a 4:3 aspect ratio, which means that the width of the image is 4/3 times the height.

Backlit (Backlight)—Refers to a remote control, or a projector control panel, that has buttons and controls that are illuminated.

Bandwidth— The number of cycles per second (Hertz) expressing the difference between the lower and upper limiting frequencies of a frequency band; also, the width of a band of frequencies.

Brightness— The amount of light emitting from a display or projection display or projection device. The brightness of projector is measured by ANSI lumens.

Color Temperature— A method of measuring the whiteness of a light source. Metal halide lamps have a higher temperature compared to halogen or incandescent lights.

Component Video—A method of delivering quality video in a format that contains all the components of the original image. These components are referred to as luma and chroma and are defined as Y'Pb'Pr' for analog component and Y'Cb'Cr' for digital component. Component video is available on DVD players and projectors.

Composite Video — The combined picture signal, including vertical and horizontal blanking and synchronizing signals.

Compression— A function that deletes resolution lines from the image to fit in the display area.

Compressed SVGA— To project an 800x600 image to a VGA projector, the original 800x600 signal must be compressed down. The data displays all the information with only two thirds of the pixels (307,000 vs 480,000). The resulting image is SVGA page size but sacrifices some of the image quality. If you are using an SVGA computers, connecting VGA to a VGA projector, provide better results.

Compressed SXGA— Found on XGA projectors, compressed SXGA handling allows these projectors to handle up to 1280x1024 SXGA resolution.

Compressed XGA— Found on SVGA projectors, compressed XGA handling allows these projectors to handle 1024x768 XGA resolution.

Contrast Ratio— Range of light and dark values in a picture, or the ratio between their maximum and minimum values. There are two methods used by the projection industry to measure the ratio:

- **1** Full On/Off measures the ratio of the light output of an all white image (full on) and the light output of an all black (full off) image.
- **2** ANSI measures a pattern of 16 alternating black and white rectangles. The average light output from the white rectangles is divided by the average light output of the black rectangles to determine the ANSI contrast ratio.

Full On/Off contrast is always a larger number than ANSI contrast for the same projector.

dB— decibel—A unit used to express relative difference in power or intensity, usually between two acoustic or electric signals, equal to ten times the common logarithm of the ratio of the two levels.

Diagonal Screen— A method of measuring the size of a screen or a projected image. It measures from one corner to the opposite corner. A 9FT high, 12FT wide, screen has a diagonal of 15FT. This document assumes that the diagonal dimensions are for the traditional 4:3 ratio of a computer image as per the example above.

DLP— Digital Light Processing—Reflective display technology developed by Texas Instruments, using small manipulated mirrors. Light passes through a color filter is sent to the DLP mirrors which arrange the RGB colors into a picture projected onto screen, also known as DMD.

DMD— digital Micro- Mirror Device— Each DMD consists of thousands of tilting, microscopic aluminum alloy mirrors mounted on a hidden yoke.

DVI— Digital Visual Interface— Defines the digital interface between digital devices such as projectors and personal computers. For devices that support DVI, a digital to digital connection can be made that eliminates the conversion to analog and thereby delivers an unblemished image.

Focal Length— The distance from the surface of a lens to its focal point.

Frequency— It is the rate of repetition in cycles per seconds of electrical signals. Measured in Hz.

Hz — Frequency of an alternating signal. See Frequency.

Keystone Correction— Device that will correct an image of the distortion (usually a wide-top narrow-bottom effect) of a projected image caused by improper projector to screen angle.

Laser Pointer— A small pen or cigar sized pointer that contains a small battery powered laser, which can project a small, red (typically), high intensity beam of light that is immediately very visible on the screen.



Maximum Distance— The distance from a screen the projector can be to cast an image that is useable (bright enough) in a fully darkened room.

Maximum Image Size— The largest image a projector can throw in a darkened room. This is usually limited by focal range of the optics.

Metal Halide Lamp— The type of lamp used in many medium and all high end portable projectors. These lamps typically have a "half-life" of 1000-2000 hours. That is they slowly lose intensity (brightness) as they are used, and at the "half-life" point, they are half as bright as when new. These lamps output a very "hot" temperature light, similar to mercury vapor lamps used in streetlights.. Their whites are "extremely" white (with slight bluish cast.) and make Halogen lamp's whites look very yellowish by comparison.

Minimum Distance— The closest position that a projector can focus an image onto a screen.

NTSC— The United States broadcast standard for video and broadcasting.

PAL— A European and international broadcast standard for video and broadcasting. Higher resolution than NTSC.

Power Zoom— A zoom lens with the zoom in and out controlled by a motor, usually adjusted from the projector's control panel and also the remote control.

Reverse Image— Feature that allows you to flip the image horizontally. When used in a normal forward projection environment text, graphics, etc, are backwards. Reverse image is used for rear projection.

RGB— Red, Green, Blue— typically used to describe a monitor that requires separate signals for each of the three colors.

S-Video—A video transmission standard that uses a 4-pin mini-DIN connector to send video information on two signal wires called luminance (brightness, Y) and chrominance (color, C). S-Video is also referred to as Y/C.

SECAM— A French and international broadcast standard for video and broadcasting. Higher resolution than NTSC.

SVGA— Super Video Graphics Array— 800 x 600 pixels count.

SXGA— Super Ultra Graphics Array,—1280 x 1024 pixels count.

UXGA— Ultra Extended Graphics Array—1600 x 1200 pixels count.

VGA— Video Graphics Array—640 x 480 pixels count.

XGA— Extra Video Graphics Array— 1024 x 768 pixels count.

Zoom Lens— Lens with a variable focal length that allows operator to move the view in or out making the image smaller or larger.

Zoom Lens Ratio— Is the ratio between the smallest and largest image a lens can projector from a fixed distance. For example, a 1.4:1 zoom lens ratio means that a 10 foot image without zoom would be a 14 foot image with full zoom.

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