Dell™ 1201MP Projector

Owner's Manual

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.**

Contents

4 Troubleshooting Your Projector

5 Specifications

Contacting Dell

Glossary

1

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. For more information see, "Contacting Dell".

Package Contents

Power cable (1.8m)   VGA cable (D-sub to D-sub) (1.8m)

Remote control   Batteries

Carrying Case   Documentation

About Your Projector

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

2

Connecting Your Projector
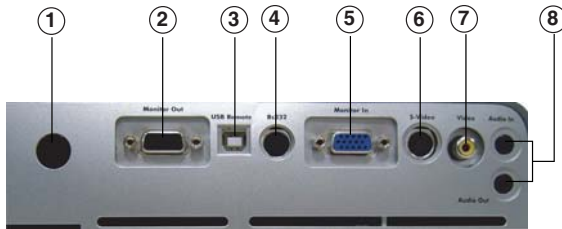
1	IR receiver
2	VGA out (monitor loop-through)
3	USB connector
4	RS232 connector
5	VGA in (D-sub) connector
6	S-video connector
7	Composite video connector
8	Audio input connector

Connecting to a Computer
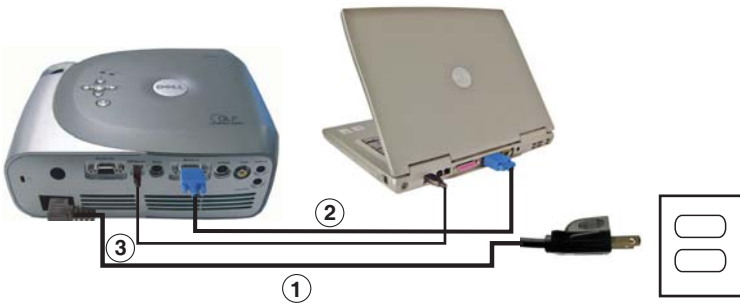
1	Power cord
2	VGA to VGA cable
3	USB to USB cable

Ø **NOTE:** The USB cable must be connected if you want to use the Next Page and Previous Page features on the remote control.

Connecting a DVD Player, Set Top Box, VCR, or TV

Connecting With a Component Cable
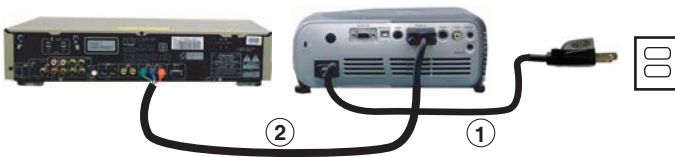
1	Power cord
2	D-sub to HDTV/Component cable

Connecting With an S-Video Cable

1	Power cord
2	S-video cable

Connecting With a Composite Cable
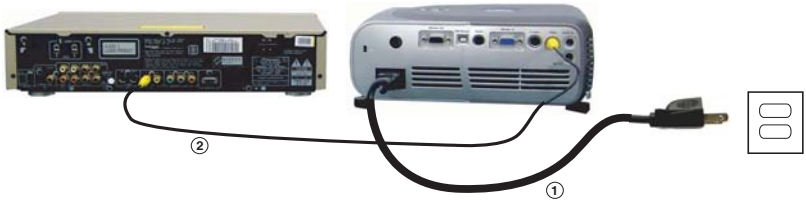
1	Power cord
2	Composite video cable

Connecting to a Wired RS232 Remote Control

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

Connecting to a Computer
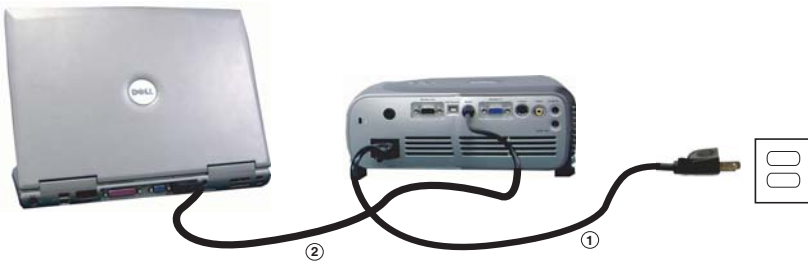
| 1 | Power cord |
| 2 | RS232 cable |

Connecting to a Commercial RS232 Control Box

1	Power cord
2	RS232 cable
3	Commercial RS232 control box

3

Using Your Projector

Turning Your Projector On

NOTE: Turn on the projector before you turn on the source (computer, notebook, DVD, etc.). The Power button light blinks green until pressed.

1 Remove the lens cap.

2 Connect the power cord and appropriate cables. For information about connecting the projector, see "Connecting Your Projector" on page 7.

3 Press the Power button (see "About Your Projector" on page 6 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.

NOTE: Allow the projector some time to search for the source.

If the "Searching..." message appears on the screen, ensure that the appropriate cables 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: Unplug the projector after properly shutting down as explained in the following procedure.

1 Press the Power button twice. The cooling fan continues to operate for 90 seconds.

2 Disconnect the power cord from the electrical outlet and the projector.

NOTE: If you press the Power button while the projector is running, the following message appears:
"⏻ Press Power button to Turn Off Projector. Projector must cool down for 90 seconds before unplugging or restarting." The message disappears in 5 seconds or you can press any button on the control panel to erase it.

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; if necessary, press the side elevator buttons to raise the rear side of the projector to the desired 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 Projection Image Size
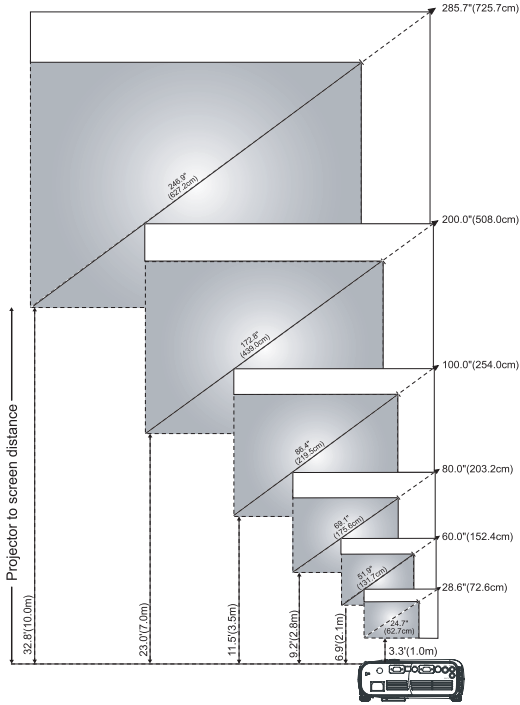
Screen (Diagonal)	Max.	28.6" (72.6cm)	60.0"(152.4cm)	80.0"(203.2cm)	100.0"(254.0cm)	200.0"(508.0cm)	285.7"(725.7cm)
	Min.	24.7"(62.7cm)	51.9"(131.7cm)	69.1"(175.6cm)	86.4"(219.5cm)	172.8"(439.0cm)	246.9"(627.0cm)
Screen size	Max. (WxH)	22.9"x17.1"	48.0"x36.0"	64.0"x48.0"	80.0"x60.0"	160.0"x120.0"	228.6"x171.4"
		58.1cmx43.5cm	121.9cmx91.4cm	162.6cmx121.9cm	203.2cmx152.4cm	406.4cmx304.8cm	580.6cmx435.4cm
	Min. (WxH)	19.8"x14.8"	41.5"x31.1"	55.3"x41.5"	69.1"x51.9"	138.3"x103.7"	197.5"x148.1"
		50.2cmx37.6cm	105.4cmx79.0cm	140.5cmx105.4cm	175.6cmx131.7cm	351.2cmx263.4cm	501.7cmx376.3cm
Distance		3.3ft(1.0m)	6.9ft(2.1m)	9.2ft(2.8m)	11.5ft(3.5m)	23ft(7.0m)	32.8ft(10.0m)

*This graph is for user reference only.

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 3.3ft to 32.8ft (1m to 10m).

1	Zoom tab
2	Focus ring

Password Security

Protect your projector and restrict access to it with the **Password Security** feature. This security utility enables you to impose a variety of access restrictions to protect your privacy and stop others from tampering with your projector. This means that the projector cannot be used if it is taken without authorization, and thus serves as a theft-prevention feature.

When Password Protect is enabled (On), a Password Protect screen requesting you to enter a password will be displayed when the power plug is inserted into the electrical outlet and the power for the projector is first turned on.

By default, this function is disabled. You can enable this feature using the Password menu. Refer to section in this manual titled "Management Menu-Password" for further details. This password security feature is activated the next time you turn on the projector.

If you enable this feature, you have to enter the projector's password after you turn on the projector:

1 First time password input request:

a Use the directional keys to enter the password.

b Press the Menu button to confirm.

c If the password verification is successful, you can resume with accessing the projector's functions and its utilities.
You are allowed three attempts to enter the correct password. After the three invalid attempts, the projector automatically turns off.

📝 **NOTE:** If you forget your password, contact Dell. For more information see, "Contacting Dell".

Using the Control Panel

1	Power	Turn the projector on and off. For more information, see "Turning Your Projector On" on page 11 and "Turning Your Projector Off" on page 11.
2	Source	Press to toggle through Analog RGB, Composite, Component-i, S-video, and Analog YPbPr sources when multiple sources are connected to the projector.
3	Four Directional Keys	The four directional keys ⊙ ⊙ ⊝ ⊕ can be used to toggle through the tabs in the OSD.
4	TEMP warning light	• A solid orange TEMP light indicates that 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. • A blinking orange Temp light indicates that a projector fan has failed and the projector automatically shuts down. If this problem persists, contact Dell.
5	LAMP warning light	If the Lamp light is solid orange, replace the lamp.
6	Keystone adjustment	If your image is not perpendicular to the screen, then it does not appear square. Press to adjust image distortion caused by tilting the projector. (±16 degrees)
7	Resync	Press to synchronize the projector to the input source. **Resync** does not operate if the on-screen display (OSD) is displayed.
8	Menu	Press to activate the OSD. Use the directional keys and the Menu button to navigate through the OSD.

Using the Remote Control
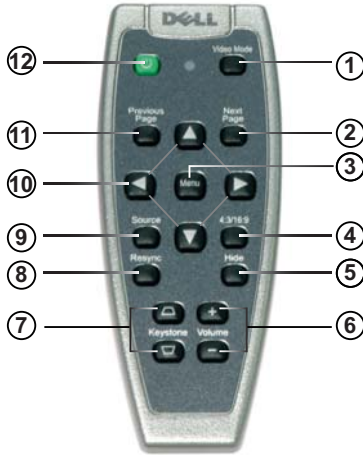
1	Video Mode	Press once to show the current display mode. Press the button again to toggle between **PC**, **Movie**, **sRGB**, or **User** mode.
2	Next Page	Press to move to the next page. 📝 **NOTE:** The USB cable must be connected to use this function.
3	Menu	Press to activate the on-screen display (OSD). Use the directional keys and the Menu button to navigate through the OSD.
4	4:3/16:9	Press to switch the aspect ratio: 1:1, 16:9, 4:3.
5	Hide button	Press to hide the image, press again to display the image.
6	Volume +/-	Press to increase (+) or decrease (-) the volume or toggle through the OSD tabs.
7	Keystone adjustment	If your image is not perpendicular to the screen, then it does not appear square. Press to adjust image distortion caused by tilting the projector (±16 degrees).

| 8	Resync	Press to synchronize the projector to the input source. **Resync** does not operate if the OSD is displayed.
9	Source	Press to toggle through Analog RGB, Composite, Component-i, S-video, and Analog YPbPr sources when multiple sources are connected to the projector.
10	Directional keys	Use the ▲ or ▼ button to select OSD items, use the ◄ or ► button to make adjustments.
11	Previous Page	Press to go to the previous page. **NOTE:** The USB cable must be connected to use this function.
12	Power	Turn the projector on and off. For more information, see "Turning Your Projector On" on page 11 and "Turning Your Projector Off" on page 11.

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 the ⊕ or ⊕ button on the control panel or the ▲ or ▼ button on the remote control navigate through the tabs. Press the ⊜ button on the control panel or the Menu button on the remote control to select a submenu.

In the submenus, press the ⊕ or ⊕ button on the control panel or the ▲ or ▼ button on the remote control to make a selection. When an item is selected, the color changes to dark gray. Use the ⊖ or ⊕ button on the control panel or the ◄ or ► button on the remote control to make adjustments to a setting.

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

Main Menu

All Images Menu

BRIGHTNESS—Use the ⊝ or ⊕ button on the control panel or the ◀ or ▶ button on the remote control to adjust the brightness of the image.

CONTRAST—Use the ⊝ or ⊕ button on the control panel or the ◀ or ▶ button on the remote control to adjust 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 screen appears bluer at higher temperatures. The screen appears redder at lower temperatures.

User mode activates the values in the color setting menu.

COLOR SETTING—Manually adjust red, green, and blue color.

KEYSTONE—Adjust the image distortion caused by tilting the projector (±16 degrees).

AUTO KEYSTONE—Select **Yes** to enable the auto correction for vertical image distortion caused by tilting the projector. To manually adjust the keystone, press the ⊜ button on the control panel or the Menu button on the remote control.

SEMI-AUTO KEYSTONE—Press the ⊚ button on the control panel or the Menu button on the remote control to activate the Semi-Auto Keystone correction for image distortion.

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 XGA (1024 x 768)

  – Component cable (576p/480i/480p)

  – 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 XGA

  – Component cable (1080i or 720p)

VIDEO MODE—Select a mode to optimize the display image based on how the projector is being used: **Movie, 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—Select 0 to maximize the color reproduction and 10 to maximize the brightness.

DEGAMMA—Adjust between 1 and 6 to change the color performance of the display. The default setting is 0.

Computer Image Menu

📝 **NOTE:** This menu is only available when a computer is connected.
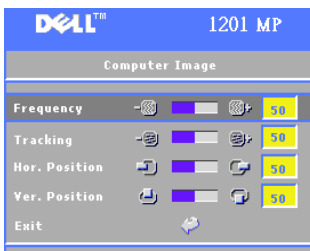
FREQUENCY—Change the display data clock frequency to match the frequency of your computer graphics card. If you see a vertical flickering bar, use Frequency control to minimize the bars. This is a coarse adjustment.

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

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

HOR. POSITION—Press the ⊖ button on the control panel or the ◄ button on the remote control to adjust the horizontal position of the image to the left and press the ⊕ button on the control panel or the ► button on the remote control to adjust the horizontal position of the image to the right.

VER. POSITION—Press the ⊖ button on the control panel or the ◄ button on the remote control to adjust the vertical position of the image downward and press the ⊕ button on the control panel or the ► button on the remote control to adjust the vertical position of the image upward.

Video Image Menu

NOTE: This menu is only available when an S-video or composite video source is connected.
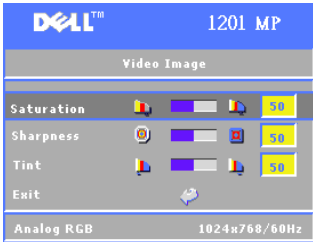
SATURATION—Press the ⊖ button on the control panel or the ◄ button on the remote control to decrease the amount of color in the image and press the ⊕ button on the control panel or the ► button on the remote control to increase the amount of color in the image.

SHARPNESS—Press the ⊖ button on the control panel or the ◄ button on the remote control to decrease the sharpness and press the ⊕ button on the control panel or the ► button on the remote control to increase the sharpness.

TINT—Press the ⊖ button on the control panel or the ◄ button on the remote control to increase the amount of green in the image and press the ⊕ button on the control panel or the ► button on the remote control to increase the amount of red in the image.

Audio Menu

VOLUME—Press the ⊖ button on the control panel or the - button on the remote control to decrease the volume and press the ⊕ button on the control panel or the + button on the remote control to increase the volume.

MUTE—Allows to mute the volume.

Management Menu
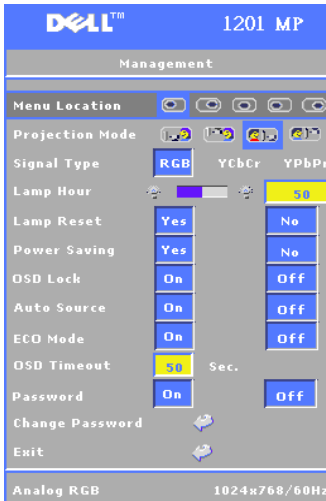
MENU LOCATION—Select the location of the OSD on the screen.

PROJECTION MODE—Select how the image appears:

• Front Projection-Desktop (the default).

• 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—Manually select the signal type (RGB, YCbCr, or YPbPr).

LAMP HOUR—Displays the operating hours since the last 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 **On** to enable the **OSD Lock** for hiding the OSD menu. To display OSD menu, press the ⊙ button on the control panel or the Menu button on the remote control for 15 seconds.

AUTO SOURCE—Select **On** (the default) to auto detect 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.

ECO MODE—Select **On** to use the projector at a lower power level (150 Watts), which may provide longer lamp life, quieter operating, and dimmer luminance output on the screen. Select **Off** to operate at normal power level (200 Watts).

OSD TIMEOUT—Use this function to set the duration OSD menu stay active (at idle state).

PASSWORD —Select **On** to enable you to impose a variety of access restrictions to protect your privacy and stop others from tampering with your projector.

a Press the ◀ button to select On.

• If this setting is set to **Off**, the **Change Password** feature will be disabled.

b Set your password with the directional keys and press the Menu button to confirm.

📝 **NOTE:** To disable the Password setting, you must enter the correct password. If the password verification is successful, the Password can be set to **Off**.

CHANGE PASSWORD—Use this function to modify the password to your preference.

a Enter your current password with the directional keys.

b Set your new password.

c Verify your new password.

d Press the Menu button to confirm.

📝 **NOTE:** The current Password can only be reset if the Password setting is set to **Off**.

Language Menu

Press the ⊙ or ⊙ button on the control panel or the ▲ or ▼ button on the remote control to select the preferred language for the OSD.

Press the ⊙ on the control panel or the Menu button on the remote control to confirm the language selection.

Test Pattern Menu

Press the ⊙ button on the control panel or the Menu button on the remote control to display the test pattern chart. Use this function to adjust the focus of the projected screen. Use the ⊖ or ⊕ button on the control panel or the ◄ or ► button on the remote control to exit from this mode.

Factory Reset Menu
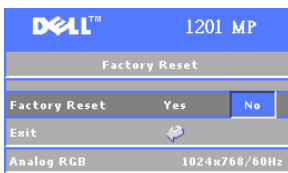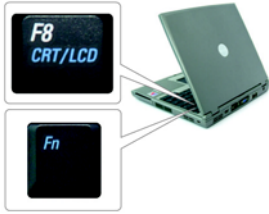
Select **Yes** to reset the projector to its factory default settings. Reset items include both computer image and video image settings.

4

Troubleshooting Your Projector

If you experience problems with your projector, see the following troubleshooting tips. If the problem persists, contact Dell. For more information see, "Contacting Dell."

Problem	Possible Solution
No image appears on the screen	• Ensure that the lens cap is removed and the projector is turned on.
	• Ensure that the external graphics port is enabled. If you are using a Dell portable computer, press ![Fn] ![F8 CRT/LCD]. For other computers, see respective documentation.
	![NOTE icon] **NOTE:** Allow the projector some time to search for the source.
	• Ensure that all the cables are securely connected. See "Connecting Your Projector" on page 7.
	• 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 28).

Problem *(continued)*	Possible Solution *(continued)*
Partial, scrolling, or incorrectly displayed image	**1** Press the **Resync** button on the remote control or the control panel.
	2 If you are using a Dell portable computer, set the resolution of the computer to XGA (1024 x 768):
	a Right-click 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 🔲 🔲 .
	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, see related documentation.
The screen does not display your presentation	If you are using a Dell portable computer, press 🔲 🔲 .
Image is unstable or flickering	Adjust the tracking in the OSD **Computer Image** tab.
Image has vertical flickering bar	Adjust the frequency in the OSD **Computer Image** tab.
Image color is not correct	• If your graphic card output signal appears green, and you would like to display VGA at 60Hz signal, please go into the OSD select Management, select Signal Type, and then select RGB.
Image is out of focus	**1** Adjust the focus ring on the projector lens.
	2 Ensure that the projection screen is within the required distance from the projector (3.3ft [1m] to 32.8ft [10m]).

Problem *(continued)*	Possible Solution *(continued)*
The image is stretched when displaying a 16:9 DVD	The projector automatically detects 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 **All Images** 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 28.
The remote control is not operating smoothly or in very limited range	The battery may be low. If so, replace it with 2 new AAA batteries.
OSD display window does not appear on the screen after pressing the **Menu** button on the remote control or on the control panel	Try the following procedures: 1 Press the **Menu** button on the remote control or on the control panel for 15 seconds until OSD pops up. 2 Select **Management** from the OSD. 3 Set **OSD Lock** to "**Off**".

LAMP & TEMP indicator information

LAMP light is solid orange	If the Lamp light is solid orange, replace the lamp.
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.
TEMP light is blinking orange	A projector fan has failed and the projector automatically shuts down. If this problem persists, contact Dell.

Changing the Lamp

Replace the lamp when the message "Lamp is approaching the end of its useful life in full power operation. Replacement suggested!" appears on the screen. If this problem persists after replacing the lamp, contact Dell. For more information see, "Contacting 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.**

1 Turn off the projector and disconnect the power cord.

2 Let the projector cool for at least 30 minutes.

3 Loosen the two screws that secure the lamp cover and remove the cover.

⚠ **CAUTION: If the lamp has shattered, be careful as the broken pieces are sharp and can cause injury. Remove all broken pieces from the projector and dispose or recycle according to state, local or federal law. Go to www.dell.com/hg for addtitional information.**

4 Loosen the two screws that secure the lamp.

⚠ **CAUTION: Do not touch the bulb or the lamp glass at any time. Projector lamps are very fragile and may shatter if touched.**

5 Pull up the lamp by its metal handle.

✎ **NOTE:** Dell may require that lamps replaced under warranty be returned to Dell.

6 Replace with the new lamp.

7 Tighten the two screws that secure the lamp.

8 Place the lamp cover and tighten the two screws.

9 Reset the lamp usage time by selecting Yes for **Lamp Reset** icon in the OSD Management tab (refer to Management Menu in *Owner's Manual*).
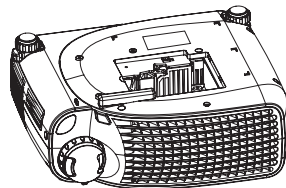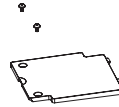
⚠ **CAUTION: ⒣ LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. FOR MORE INFORMATION, CONTACT THE ELECTRONIC INDUSTRIES ALLIANCE AT WWW.EIAE.ORG. FOR LAMP SPECIFIC DISPOSAL INFORMATION, CHECK WWW.LAMPRECYCLE.ORG.**

5

Specifications

Light Valve	Single-chip DLP™ DDR (double data rate) technology
Brightness	2000 ANSI Lumens (Max)
Contrast Ratio	2100:1 Typical (Full On/Full Off)
Uniformity	80% Typical (Japan Standard - JBMA)
Lamp	200-watt user-replaceable UHP 2500-hour lamp(up to 3000 hours in eco mode)
Number of Pixels	800 x 600 (SVGA)
Displayable Color	16.7M colors
Color Wheel Speed	100~127.5Hz (2X)
Projection Lens	F/2.4-2.58, f=19~21.9mm with 1.15x manual zoom lens
Projection Screen Size	28.57-285.7 inches (diagonal)
Projection Distance	3.3~32.8 ft (1m~10m)
Video Compatibility	NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, SECAM, and HDTV (1080i, 720P, 576i/P, 480i/P) compatibility Composite video, Component video and S-video capability
H. Frequency	31kHz-79kHz (Analog)
V. Frequency	50Hz-85Hz (Analog)
Power Supply	Universal 100-240V AC 50-60Hz with PFC input
Power Consumption	250 Watts full power (typical), 200 Watts in eco mode

Audio	1 speaker, 2 Watts RMS
Noise Level	36dB(A) Full-on mode, 33dB(A) Eco-mode
Weight	2.24kg (4.94 lbs)
Dimensions (W x H x D)	External 9.9 x 3.96 x 8.4 ± 0.04 inches (251 x 101 x 213 ± 1mm)
Environmental	Operating temperature: 5ºC–35ºC (41ºF–95ºF)
	Humidity: 80% maximum
	Storage temperature: –20ºC to 60ºC (–4ºF to 140ºF)
	Humidity: 80% maximum
Regulatory	FCC, CE, VCCI, UL, cUL, Nemko-GS, ICES-003, MIC, C-Tick, GOST, CCC, Safety Mark, NOM, SABS, PSE-Circle, EK
I/O Connectors	Power: AC power input socket
	Computer input: one D-sub for analog/component, HDTV input signals
	Computer output: one 15-pin D-sub
	Video input: one composite video RCA and one S-video
	USB input: one USB connector
	Audio input: one phone jack (diameter 3.5mm)
	One mini-DIN RS232 for wired remote projector control from PC

RS232 Pin Assignment
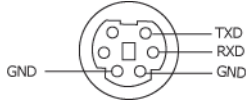
RS232 Protocol

• Communication Settings

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

• Control command Syntax (From PC to Projector)

[H][AC][SoP][CRC][ID][SoM][COMMAND]

• Example: power on the projector

Enter the following code: 0xBE 0xEF 0x10 0x05 0x00 0xC6 0xFF 0x11 0x11 0x01 0x00 0x01

📝 **NOTE:** Send least significant bytes first.

- Control Commands List

Control Commands List	Address Code (BYTE)	Size of the Payload (WORD)	CRC16 for the entire packet (WORD)	MsG ID (WORD)	MsG size (WORD)	Command code (BYTE)	Command Description
0xefbe	0x10	0x0005	0xffc6	0x1111	0x0001	0x01	Power on
			0xbfc7			0x02	Menu
			0x7e07			0x03	Up
			0x3fc5			0x04	Down
			0xfe05			0x05	Left
			0xbe04			0x06	Right
			0x7fc4			0x07	Resync
			0x3fc0			0x08	Source
			0xfe00			0x09	Volume+
			0xbe01			0x0a	Volume-
			0xffc3			0x0d	Mute
			0x7e02			0x0f	Hide
			0x3fca			0x10	Video Mode
			0x7fcb			0x13	V. Keystone Up
			0x3e09			0x14	V. Keystone Down
			0x7e08			0x17	Aspect ratio (4:3/16:9)
			0x3e0c			0x18	Power OFF
			0xffcc			0x19	Source-VGA
			0xbfcd			0x1a	Source-VGA YPbPr (480p/576p/720p/ 1080i)
			0x7e0d			0x1b	Source-VGA YCbCr (480i/576i)
			0xbe1f			0x22	Source-S-Video
			0x7fdf			0x23	Source-Composite
			0xbfd9			0x2a	ECO Mode ON
			0x7e19			0x2b	ECO Mode OFF
			0x3fdb			0x2c	Auto Source ON
			0xfe1b			0x2d	Auto Source OFF
			0xbe1a			0x2e	Factory Reset
			0x7fda			0x2f	Lamp Hour
			0x3e12			0x30	Firmware Version
			0x7e46			0xff	System Status

Compatibility Modes

Mode	Resolution	(ANALOG)	
		V. Frequency (Hz)	H. Frequency (KHz)
VGA	640x350	70	31.5
VGA	640x350	85	37.9
VGA	640x400	85	37.9
VGA	640x480	60	31.5
VGA	640x480	72	37.9
VGA	640x480	75	37.5
VGA	640x480	85	43.3
VGA	720x400	70	31.5
VGA	720x400	85	37.9
SVGA	800x600	56	35.2
SVGA	800x600	60	37.9
SVGA	800x600	72	48.1
SVGA	800x600	75	46.9
SVGA	800x600	85	53.7
XGA	1024x768	43.4	35.5
XGA	1024x768	60	48.4
XGA	1024x768	70	56.5
XGA	1024x768	75	60.0
XGA	1024x768	85	68.7
SXGA	1280x1024	60	63.98
SXGA+	1400x1050	60	63.98
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
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

Contacting Dell

You can contact Dell through the Internet and by phone:

- For support through the web, go to **support.dell.com**.

- For worldwide support through the web, use the **Choose A Country/Region** menu near the bottom of the page, or see the web addresses listed in the following table.

- For support by e-mail, see the e-mail addresses listed in the following table.

📝 **NOTE:** Toll-free numbers are for use within the country for which they are listed.

📝 **NOTE:** In certain countries, support specific to Dell™ XPS™ computers is available at a separate telephone number listed for participating countries. If you do not see a telephone number listed that is specific for XPS computers, you may contact Dell through the support number listed and your call will be routed appropriately.

- For support by phone, use the phone numbers and codes provided in the following table. If you need assistance in determining which codes to use, contact a local or an international operator.

📝 **NOTE:** The contact information provided was deemed correct at the time that this document went to print and is subject to change.

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Anguilla	Online Support	www.dell.com/ai
	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 800-335-0031
Antigua and Barbuda	Online Support	www.dell.com.ag
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-800-805-5924

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Aomen	Technical Support	toll-free: 0800-105
Country Code: **853**	Customer Service (Xiamen, China)	34 160 910
	Transaction Sales (Xiamen, China)	29 693 115
Argentina (Buenos Aires)	Online Support	www.dell.com.ar
International Access Code: **00**	E-mail for Desktops and Portables	la-techsupport@dell.com
Country Code: **54**	E-mail for Servers and EMC® Storage Products	la_enterprise@dell.com
City Code: **11**	Customer Service	toll-free: 0-800-444-0730
	Technical Support – Dell PowerApp™, Dell PowerEdge™, Dell PowerConnect™, and Dell PowerVault™	toll-free: 0-800-222-0154
	Technical Support Services	toll-free: 0-800-444-0724
	Sales	0-810-444-3355
Aruba	Online Support	www.dell.com.aw
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 800-1578

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Australia (Sydney)	Online Support	support.ap.dell.com
International Access Code: 0011		support.ap.dell.com/contactus
	Technical Support	
Country Code: 61 City Code: 2	Technical Support for XPS computers only	toll-free: 1300 790 877
	Home and Home Office	toll-free: 1300-655-533
	Medium and Large Business	toll-free: 1800-633-559
	Small Business, Education, Local Government	toll-free: 1800-060-889
	Customer Service	toll-free: 1300-662-196

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Austria (Vienna)	Online Support	support.euro.dell.com
International Access Code: **900**		tech_support_central_europe @dell.com
Country Code: **43** City Code: **1**	Technical Support for XPS computers only	08 20 24 05 30 81
	Home/Small Business Sales	08 20 24 05 30 00
	Home/Small Business Fax	08 20 24 05 30 49
	Home/Small Business Customer Service	08 20 24 05 30 14
	Home/Small Business Support	08 20 24 05 30 17
	Preferred Accounts/Corporate Customer Service	08 20 24 05 30 16
	Preferred Accounts/Corporate Support	08 20 24 05 30 17
	Switchboard	08 20 24 05 30 00
Bahamas	Online Support	www.dell.com/bs
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-874-3038
Barbados	Online Support	www.dell.com/bb
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-800-534-3142

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Belgium (Brussels)	Online Support	support.euro.dell.com
International Access Code: **00**	Technical Support for XPS computers only	02 481 92 96
Country Code: **32**	General Support	02 481 92 88
City Code: **2**	General Support Fax	02 481 92 95
	Customer Service	02 713 15 65
	Corporate Sales	02 481 91 00
	Fax	02 481 92 99
	Switchboard	02 481 91 00
Bermuda	Online Support	www.dell.com/bm
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-877-890-0751
Bolivia	Online Support	www.dell.com/bo
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 800-10-0238
Brazil	Online Support	www.dell.com/br
International Access Code: **00**		BR_TechSupport@dell.com
	Customer Service and Tech Support	0800 970 3355
Country Code: **55**		
City Code: **51**	Technical Support Fax	51 2104 5470
	Customer Service Fax	51 2104 5480
	Sales	0800 970 3390
British Virgin Islands	Technical Support, Customer Service, Sales	toll-free: 1-866-278-6820

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Brunei Country Code: **673**	Technical Support (Penang, Malaysia)	604 633 4966
	Customer Service (Penang, Malaysia)	604 633 3101 or toll-free: 801 1012
	Transaction Sales (Penang, Malaysia)	604 633 3101 or toll-free: 801 1012

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Canada (North York, Ontario) International Access Code: 011	Online Order Status	www.dell.ca/ostatus
	Online Support	support.ca.dell.com
	AutoTech (automated Hardware and Warranty Support)	toll-free: 1-800-247-9362
	Customer Service	
	Home/Home Office	toll-free: 1-800-847-4096
	Small Business	toll-free: 1-800-906-3355
	Medium/Large Business, Government, Education	toll-free: 1-800-387-5757
	Hardware Warranty Phone Support	
	XPS Computers Only	toll-free: 1-866-398-8977
	Computers for Home/Home Office	toll-free: 1-800-847-4096
	Computers for Small/Medium/Large Business, Government	toll-free: 1-800-387-5757
	Printers, Projectors, Televisions, Handheld, Digital Jukebox, and Wireless	1-877-335-5767
	Sales	
	Home and Home Office Sales	toll-free: 1-800-999-3355
	Small Business	toll-free: 1-800-387-5752
	Medium/Large Business, Government	toll-free: 1-800-387-5755
	Spare Parts and Extended Service	1 866 440 3355

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Cayman Islands	Online Support	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-877-262-5415
Chile (Santiago)	Online Support	www.dell.com/cl
Country Code: **56**		la-techsupport@dell.com
City Code: **2**	Sales and Customer Support	toll-free: 1230-020-3397 or 800-20-1385

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
China (Xiamen)	Online Support	support.dell.com.cn
Country Code: 86 City Code: 592	Technical Support E-mail	support.dell.com.cn/email
	Customer Service E-mail	customer_cn@dell.com
	Technical Support Fax	592 818 1350
	Technical Support – XPS computers only	toll-free: 800 858 0540
	Technical Support – Dell™ Dimension™ and Dell Inspiron™	toll-free: 800 858 2969
	Technical Support – Dell OptiPlex™, Dell Latitude™, and Dell Precision™	toll-free: 800 858 0950
	Technical Support – Servers and Storage	toll-free: 800 858 0960
	Technical Support – Projectors, PDAs, Switches, Routers, etc.	toll-free: 800 858 2920
	Technical Support – Printers	toll-free: 800 858 2311
	Customer Service	toll-free: 800 858 2060
	Customer Service Fax	592 818 1308
	Home and Small Business	toll-free: 800 858 2222
	Preferred Accounts Division	toll-free: 800 858 2557
	Large Corporate Accounts GCP	toll-free: 800 858 2055
	Large Corporate Accounts Key Accounts	toll-free: 800 858 2628
	Large Corporate Accounts North	toll-free: 800 858 2999

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Colombia	Online Support	www.dell.com/co
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	01-800-915-4755
Costa Rica	Online Support	www.dell.com/cr
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	0800-012-0231
Czech Republic (Prague) International Access Code: 00 Country Code: 420	Online Support	support.euro.dell.com
		czech_dell@dell.com
	Technical Support	22537 2727
	Customer Service	22537 2707
	Fax	22537 2714
	Technical Fax	22537 2728
	Switchboard	22537 2711
Denmark (Copenhagen) International Access Code: 00 Country Code: 45	Online Support	support.euro.dell.com
	Technical Support for XPS computers only	7010 0074
	Technical Support	7023 0182
	Customer Service – Relational	7023 0184
	Home/Small Business Customer Service	3287 5505
	Switchboard – Relational	3287 1200
	Switchboard Fax – Relational	3287 1201
	Switchboard – Home/Small Business	3287 5000
	Switchboard Fax – Home/Small Business	3287 5001

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Dominica	Online Support	www.dell.com/dm
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-278-6821
Dominican Republic	Online Support	www.dell.com/do
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-800-156-1588
Ecuador	Online Support	www.dell.com/ec
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales (calling from Quito)	toll-free: 999-119-877-655-3355
	Technical Support, Customer Service, Sales (calling from Guayaquil)	toll-free: 1800-999-119-877-655-3355
El Salvador	Online Support	www.dell.com/sv
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	800-6132
Finland (Helsinki) International Access Code: **990** Country Code: **358** City Code: **9**	Online Support	support.euro.dell.com
		fi_support@dell.com
	Technical Support	0207 533 555
	Customer Service	0207 533 538
	Switchboard	0207 533 533
	Fax	0207 533 530
	Sales under 500 employees	0207 533 540
	Sales over 500 employees	0207 533 533

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
France (Paris) (Montpellier) International Access Code: **00** Country Code: **33** City Codes: **(1) (4)**	Online Support	support.euro.dell.com
	Technical Support for XPS computers only	0825 387 129
	Home and Small Business	
	Technical Support	0825 387 270
	Customer Service	0825 823 833
	Switchboard	0825 004 700
	Switchboard (calls from outside of France)	04 99 75 40 00
	Sales	0825 004 700
	Fax	0825 004 701
	Fax (calls from outside of France)	04 99 75 40 01
	Corporate	
	Technical Support	0825 004 719
	Customer Service	0825 338 339
	Switchboard	01 55 94 71 00
	Sales	01 55 94 71 00
	Fax	01 55 94 71 01

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Germany (Frankfurt)	Online Support	support.euro.dell.com
International Access Code: **00**		tech_support_central_europe @dell.com
Country Code: **49** City Code: **69**	Technical Support for XPS computers only	069 9792 7222
	Technical Support	069 9792-7200
	Home/Small Business Customer Service	0180-5-224400
	Global Segment Customer Service	069 9792-7320
	Preferred Accounts Customer Service	069 9792-7320
	Large Accounts Customer Service	069 9792-7320
	Public Accounts Customer Service	069 9792-7320
	Switchboard	069 9792-7000
Greece	Online Support	support.euro.dell.com
International Access Code: **00**	Technical Support	00800-44 14 95 18
Country Code: **30**	Gold Service Technical Support	00800-44 14 00 83
	Switchboard	2108129810
	Gold Service Switchboard	2108129811
	Sales	2108129800
	Fax	2108129812
Grenada	Online Support	www.dell.com/gd
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-540-3355

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Guatemala	Online Support	www.dell.com/gt
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-800-999-0136
Guyana	Online Support	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-877-270-4609
Hong Kong	Online Support	support.ap.dell.com
International Access Code: **001**		support.dell.com.cn/email
Country Code: **852**	Technical Support – XPS computers only	00852-3416 6923
	Technical Support – Dimension and Inspiron	00852-2969 3188
	Technical Support – OptiPlex, Latitude, and Dell Precision	00852-2969 3191
	Technical Support – Servers and Storage	00852-2969 3196
	Technical Support – Projectors, PDAs, Switches, Routers, etc.	00852-3416 0906
	Customer Service	00852-3416 0910
	Large Corporate Accounts	00852-3416 0907
	Global Customer Programs	00852-3416 0908
	Medium Business Division	00852-3416 0912
	Home and Small Business Division	00852-2969 3105

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
India	Online Support	support.ap.dell.com
	Portable and Desktop Support	
	Desktop Support E-mail	india_support_desktop@dell.com
	Portable Support E-mail	india_support_notebook@dell.com
	Phone Numbers	080-25068032 or 080-25068034 or your city STD code + 60003355 or toll-free: 1-800-425-8045
	Server Support	
	E-mail	india_support_Server@dell.com
	Phone Numbers	080-25068032 or 080-25068034 or your city STD code + 60003355 or toll-free: 1800 425 8045
	Gold Support Only	
	E-mail	eec_ap@dell.com
	Phone Numbers	080-25068033 or your city STD code + 60003355 or toll-free: 1-800-425-9045
	XPS Support Only	
	E-mail	Indiaxps_AP@dell.com
	Phone Numbers	080-25068066 or toll-free: 1-800-425-2066
	Customer Service	
	Home and Small Business	India_care_HSB@dell.com toll-free: 1800-4254051

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Ireland (Cherrywood) International Access Code: 00 Country Code: 353 City Code: 1	Online Support	support.euro.dell.com dell_direct_support@dell.com
	Technical Support	
	XPS computers only	1850 200 722
	Business computers	1850 543 543
	Home computers	1850 543 543
	At Home Support	1850 200 889
	Sales	
	Home	1850 333 200
	Small Business	1850 664 656
	Medium Business	1850 200 646
	Large Business	1850 200 646
	Sales E-mail	Dell_IRL_Outlet@dell.com
	Customer Service	
	Home and Small Business	01 204 4014
	Business (greater than 200 employees)	1850 200 982
	General	
	Fax/Sales Fax	01 204 0103
	Switchboard	01 204 4444
	U.K. Customer Service (dial within U.K. only)	0870 906 0010
	Corporate Customer Service (dial within U.K. only)	0870 907 4499
	U.K. Sales (dial within U.K. only)	0870 907 4000

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Italy (Milan)	Online Support	support.euro.dell.com
International Access Code: 00	**Home and Small Business**	
Country Code: 39	Technical Support	02 577 826 90
City Code: 02	Customer Service	02 696 821 14
	Fax	02 696 821 13
	Switchboard	02 696 821 12
	Corporate	
	Technical Support	02 577 826 90
	Customer Service	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
Jamaica	Online Support	la-techsupport@dell.com
	Technical Support, Customer Service, Sales (dial from within Jamaica only)	1-800-440-9205

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Japan (Kawasaki)	Online Support	support.jp.dell.com
International Access Code: **001**	Technical Support – XPS computers only	toll-free: 0120-937-786
Country Code: **81** City Code: **44**	Technical Support outside of Japan – XPS computers only	81-44-520-1235
	Technical Support – Dimension and Inspiron	toll-free: 0120-198-226
	Technical Support outside of Japan – Dimension and Inspiron	81-44-520-1435
	Technical Support – Dell Precision, OptiPlex, and Latitude	toll-free: 0120-198-433
	Technical Support outside of Japan – Dell Precision, OptiPlex, and Latitude	81-44-556-3894
	Technical Support – Dell PowerApp, Dell PowerEdge, Dell PowerConnect, and Dell PowerVault	toll-free: 0120-198-498
	Technical Support outside of Japan – PowerApp, PowerEdge, PowerConnect, and PowerVault	81-44-556-4162
	Technical Support – Projectors, PDAs, Printers, Routers	toll-free: 0120-981-690
	Technical Support outside of Japan – Projectors, PDAs, Printers, Routers	81-44-556-3468

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Korea (Seoul)	Online Support	support.ap.dell.com
International Access Code: **001**	Technical Support for XPS computers only	toll-free: 080-999-0283
Country Code: **82** City Code: **2**	Technical Support, Customer Service	toll-free: 080-200-3800
	Technical Support – Dimension, PDA, Electronics, and Accessories	toll-free: 080-200-3801
	Sales	toll-free: 080-200-3600
	Fax	2194-6202
	Switchboard	2194-6000
Latin America	Customer Technical Support (Austin, Texas, U.S.A.)	512 728-4093
	Customer Service (Austin, Texas, U.S.A.)	512 728-3619
	Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.)	512 728-3883
	Sales (Austin, Texas, U.S.A.)	512 728-4397
	Sales Fax (Austin, Texas, U.S.A.)	512 728-4600 or 512 728-3772
Luxembourg	Online Support	support.euro.dell.com
International Access Code: **00**	Support	342 08 08 075
Country Code: **352**	Home/Small Business Sales	+32 (0)2 713 15 96
	Corporate Sales	26 25 77 81
	Customer Service	+32 (0)2 481 91 19
	Fax	26 25 77 82

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Malaysia (Penang)	Online Support	support.ap.dell.com
International Access Code: 00	Technical Support – XPS computers only	toll-free: 1 800 885 784
Country Code: 60 City Code: 4	Technical Support – Dell Precision, OptiPlex, and Latitude	toll-free: 1 800 880 193
	Technical Support – Dimension, Inspiron, and Electronics and Accessories	toll-free: 1 800 881 306
	Technical Support – PowerApp, PowerEdge, PowerConnect, and PowerVault	toll-free: 1800 881 386
	Customer Service	toll-free: 1800 881 306 (option 6)
	Transaction Sales	toll-free: 1 800 888 202
	Corporate Sales	toll-free: 1 800 888 213
Mexico	Online Support	www.dell.com/mx
International Access Code: 00		la-techsupport@dell.com
	Technical Support	001-866-563-4425
Country Code: 52	Sales	50-81-8800
		or 001-800-888-3355
	Customer Service	001-877-384-8979
		or 001-877-269-3383
	Main	50-81-8800
		or 001-800-888-3355
		or 001-866-851-1754

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Montserrat	Online Support	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-278-6822
Netherlands Antilles	Online Support	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	001-800-882-1519
Netherlands (Amsterdam) International Access Code: 00 Country Code: 31 City Code: 20	Online Support	support.euro.dell.com
	Technical Support for XPS computers only	020 674 45 94
	Technical Support	020 674 45 00
	Technical Support Fax	020 674 47 66
	Home/Small Business Customer Service	020 674 42 00
	Relational Customer Service	020 674 4325
	Home/Small Business Sales	020 674 55 00
	Relational Sales	020 674 50 00
	Home/Small Business Sales Fax	020 674 47 75
	Relational Sales Fax	020 674 47 50
	Switchboard	020 674 50 00
	Switchboard Fax	020 674 47 50
New Zealand International Access Code: 00 Country Code: 64	Online Support	support.ap.dell.com
		support.ap.dell.com/contactus
	Technical Support for XPS computers only	toll-free: 0800 335 540
	Technical Support, Customer Service, Sales	0800 441 567

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Nicaragua	Online Support	www.dell.com/ni
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	001-800-220-1377
Norway (Lysaker)	Online Support	support.euro.dell.com
International Access Code: 00	Technical Support for XPS computers only	815 35 043
Country Code: 47	Technical Support	671 16882
	Relational Customer Service	671 17575
	Home/Small Business Customer Service	23162298
	Switchboard	671 16800
	Fax Switchboard	671 16865
Panama	Online Support	www.dell.com/pa
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	011-800-507-1264
Peru	Online Support	www.dell.com/pe
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	0800-50-669

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Poland (Warsaw)	Online Support	support.euro.dell.com
International Access Code: **011**		pl_support_tech@dell.com
	Customer Service Phone	57 95 700
Country Code: **48**	Customer Service	57 95 999
City Code: **22**	Sales	57 95 999
	Customer Service Fax	57 95 806
	Reception Desk Fax	57 95 998
	Switchboard	57 95 999
Portugal	Online Support	support.euro.dell.com
International Access Code: **00**	Technical Support	707200149
	Customer Service	800 300 413
Country Code: **351**	Sales	800 300 410 or 800 300 411 or 800 300 412 or 21 422 07 10
	Fax	21 424 01 12
Puerto Rico	Online Support	www.dell.com/pr
		la-techsupport@dell.com
	Technical Support	toll-free: 1-866-390-4695
		or 1-866-851-1760
	Customer Service and Sales	1-877-537-3355
St. Kitts and Nevis	Online Support	www.dell.com/kn
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-540-3355
St. Lucia	Online Support	www.dell.com/lc
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-464-4352

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
St. Vincent and the Grenadines	Online Support	www.dell.com/vc
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-464-4353
Singapore (Singapore) International Access Code: **005** Country Code: **65**	**NOTE:** The phone numbers in this section should be called from within Singapore or Malaysia only.	
	Online Support	support.ap.dell.com
	Technical Support – XPS computers only	toll-free: 1800 394 7464
	Technical Support – Dimension, Inspiron, and Electronics and Accessories	toll-free: 1 800 394 7430
	Technical Support – OptiPlex, Latitude, and Dell Precision	toll-free: 1 800 394 7488
	Technical Support – PowerApp, PowerEdge, PowerConnect, and PowerVault	toll-free: 1 800 394 7478
	Customer Service	toll-free: 1 800 394 7430 (option 6)
	Transaction Sales	toll-free: 1 800 394 7412
	Corporate Sales	toll-free: 1 800 394 7419

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Slovakia (Prague)	Online Support	support.euro.dell.com
International Access Code: **00**		czech_dell@dell.com
	Technical Support	02 5441 5727
Country Code: **421**	Customer Service	420 22537 2707
	Fax	02 5441 8328
	Tech Fax	02 5441 8328
	Switchboard (Sales)	02 5441 7585
South Africa (Johannesburg)	Online Support	support.euro.dell.com
		dell_za_support@dell.com
International Access Code:	Gold Queue	011 709 7713
09/091	Technical Support	011 709 7710
Country Code: **27**	Customer Service	011 709 7707
	Sales	011 709 7700
City Code: **11**	Fax	011 706 0495
	Switchboard	011 709 7700
Southeast Asian and Pacific Countries	Technical Support, Customer Service, and Sales (Penang, Malaysia)	604 633 4810

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Spain (Madrid)	Online Support	support.euro.dell.com
International Access Code: **00**	**Home and Small Business**	
Country Code: **34**	Technical Support	902 100 130
City Code: **91**	Customer Service	902 118 540
	Sales	902 118 541
	Switchboard	902 118 541
	Fax	902 118 539
	Corporate	
	Technical Support	902 100 130
	Customer Service	902 115 236
	Switchboard	91 722 92 00
	Fax	91 722 95 83
Sweden (Upplands Vasby)	Online Support	support.euro.dell.com
	Technical Support for XPS computers only	77 134 03 40
International Access Code: **00**	Technical Support	08 590 05 199
Country Code: **46**	Relational Customer Service	08 590 05 642
City Code: **8**	Home/Small Business Customer Service	08 587 70 527
	Employee Purchase Program (EPP) Support	020 140 14 44
	Technical Support Fax	08 590 05 594
	Sales	08 587 705 81

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Switzerland (Geneva) International Access Code: **00** Country Code: **41** City Code: **22**	Online Support	support.euro.dell.com Tech_support_central_Europe @dell.com
	Technical Support for XPS computers only	0848 338 857
	Technical Support – Home and Small Business	0844 811 411
	Technical Support – Corporate	0844 822 844
	Customer Service – Home and Small Business	0848 802 202
	Customer Service – Corporate	0848 821 721
	Main	0848 335 599
	Fax	022 799 01 90
	Sales	022 799 01 01

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Taiwan International Access Code: **002** Country Code: **886**	Online Support	support.ap.dell.com
		support.dell.com.cn/email
	Technical Support – XPS computers only	toll-free: 0080 186 3085
	Technical Support – OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories	toll-free: 0080 186 1011
	Technical Support – Servers and Storage	toll-free: 0080 160 1256
	Customer Service	toll-free: 0080 160 1250 (option 5)
	Transaction Sales	toll-free: 0080 165 1228
	Corporate Sales	toll-free: 0080 165 1227
Thailand International Access Code: **001** Country Code: **66**	Online Support	support.ap.dell.com
	Technical Support (OptiPlex, Latitude, and Dell Precision)	toll-free: 1800 0060 07
	Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)	toll-free: 1800 0600 09
	Customer Service	toll-free: 1800 006 007 (option 7)
	Corporate Sales	toll-free: 1800 006 009
	Transaction Sales	toll-free: 1800 006 006
Trinidad/Tobago	Online Support	www.dell.com/tt
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-888-799-5908

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Turks and Caicos Islands	Online Support	www.dell.com/tc la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-877-441-4735

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
U.K. (Bracknell)	Online Support	support.euro.dell.com
International Access Code: **00**		dell_direct_support@dell.com
Country Code: **44**	Customer Service Online support.euro.dell.com/uk/en/ECare/form/home.asp	
City Code: **1344**	**Sales**	
	Home and Small Business Sales	0870 907 4000
	Corporate/Public Sector Sales	01344 860 456
	Customer Service	
	Home and Small Business	0870 906 0010
	Corporate	01344 373 185
	Preferred Accounts (500–5000 employees)	0870 906 0010
	Global Accounts	01344 373 186
	Central Government	01344 373 193
	Local Government & Education	01344 373 199
	Health	01344 373 194
	Technical Support	
	XPS Computers Only	0870 366 4180
	Corporate/Preferred Accounts/PCA (1000+ employees)	0870 908 0500
	Other Dell Products	0870 353 0800
	General	
	Home and Small Business Fax	0870 907 4006

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
Uruguay	Online Support	www.dell.com/uy
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 000-413-598-2521

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
U.S.A. (Austin, Texas) International Access Code: 011 Country Code: 1	Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	toll-free: 1-877-DELLTTY (1-877-335-5889)
	Fax	toll-free: 1-800-727-8320
	Technical Support	support.dell.com
	XPS	toll-free: 1-800-232-8544
	Home and Home Office	toll-free: 1-800-624-9896
	Portable and Desktop AutoTech	toll-free: 1-800-247-9362
	Small Business	toll-free: 1-800-456-3355
	Medium and Large Business	toll-free: 1-877-671-3355
	State and Local Government	toll-free: 1-800-981-3355
	Federal Government	toll-free: 1-800-727-1100
	Healthcare	toll-free: 1-800-274-1550
	K-12 Education	toll-free: 1-888-977-3355
	Higher Education	toll-free: 1-800-274-7799
	Printers, Projectors, PDAs, and MP3 Players	toll-free: 1-877-459-7298
	Customer Service	toll-free: 1-800-624-9897
	Automated Order Status	toll-free: 1-800-433-9014
	Small Business	toll-free: 1-800-456-3355
	Medium and Large Business	toll-free: 1-877-671-3355
	State and Local Government	toll-free: 1-800-981-3355
	Federal Government	toll-free: 1-800-727-1100
	Healthcare	toll-free: 1-800-274-1550
	K-12 Education	toll-free: 1-888-977-3355
	Higher Education	toll-free: 1-800-274-7799

Country (City) International Access Code Country Code City Code	Service Type	Area Codes, Local Numbers, and Toll-Free Numbers Web and E-mail Address
U.S. Virgin Islands	Online Support	www.dell.com/vi
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-877-702-4360
Venezuela	Online Support	www.dell.com/ve
		la-techsupport@dell.com
	Technical Support, Customer Service, Sales	0800-100-4752

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—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 street lights. Their whites are extremely white (with a slight bluish cast) and make a 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.

Index

T

Troubleshooting, 25
    contact Dell, 25
    remote control, 27