

Dell Projector 1850

User's Guide



Notes, Cautions, and Warnings



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



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Model: Dell Projector 1850

January 2016 Rev. A00

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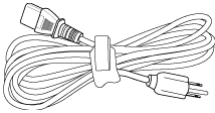
About Your Dell Projector

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

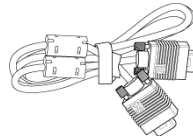
Projector Box Contents

Package Contents

Power cable



VGA cable (VGA to VGA)



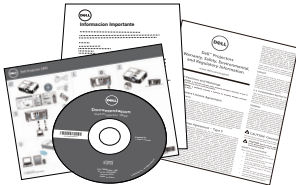
Remote control



AAA Batteries (2)

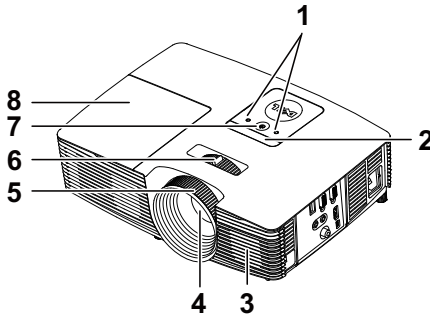


CD, User's Guide, and Documentation

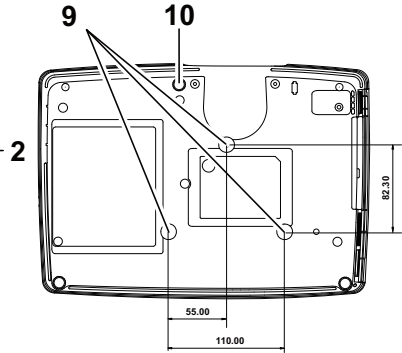


Projector Top and Bottom View

Top View



Bottom View



-
- 1 Status indicators

 - 2 IR receivers

 - 3 10W Speaker

 - 4 Lens

 - 5 Focus ring

 - 6 Zoom tab

 - 7 Power button

 - 8 Lamp cover

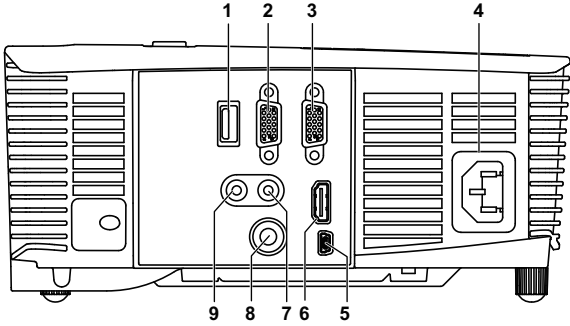
 - 9 Mounting holes for ceiling mount

 - 10 Tilt adjustment wheel



NOTE: Ceiling mount screw hole M3 x 6.5 mm depth.
Recommended torque < 15 kgf-cm.

Projector Connections



1 + 5V/1A DC out connector	6 HDMI connector
2 VGA output (monitor loop through) connector	7 Audio input connector
3 VGA input (D-sub) connector	8 Composite Video connector
4 Power cord connector	9 Audio output connector
5 Mini USB (mini type B) connector for remote mouse and firmware upgrade	

CAUTION: Before you begin any of the procedures in this section, follow the Safety Instructions as described on page 7.

CAUTION: Safety Instructions

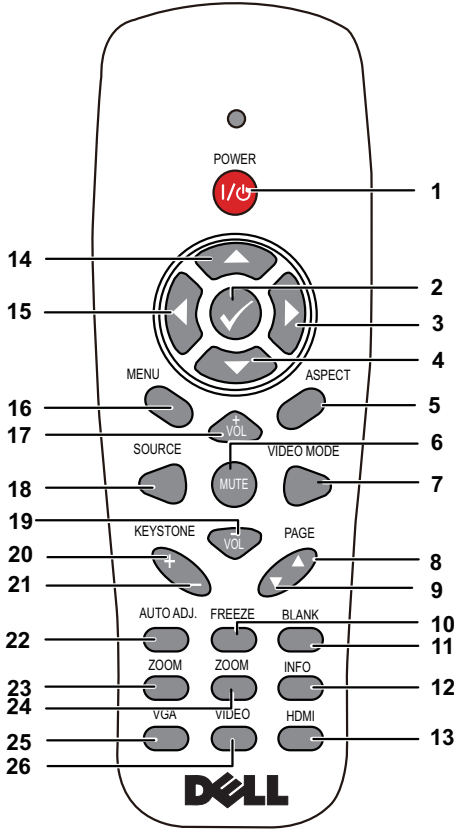
- 1 Do not use the projector near appliances that generate a lot of heat.
- 2 Do not use the projector in areas where there is an excessive amount of dust. The dust may cause the system to fail and the projector will automatically shutdown.
- 3 Ensure that the projector is mounted in a well-ventilated area.
- 4 Do not block the ventilation slots and openings on the projector.
- 5 Ensure the projector operates between ambient temperatures (5 °C to 40 °C).
- 6 Do not try to touch the ventilation outlet as it can become very hot after the projector has been turned on or immediately after it is turned off.
- 7 Do not look into the lens while the projector is on as it may cause injury to your eyes.
- 8 Do not place any objects near or in front of the projector or cover its lens while the projector is on as the heat may cause the object to melt or burn.
- 9 Do not use alcohol to wipe the lens.















NOTE:


- Do not attempt to ceiling mount the projector by yourself. It should be installed by a qualified technician.
- Recommended Projector Ceiling Mount Kit (P/N: C3505). For more information, see the Dell Support website at **dell.com/support**.
- For more information, see the Safety Information that shipped with your projector.
- The 1850 projector can only be used indoors.

Using Remote Control



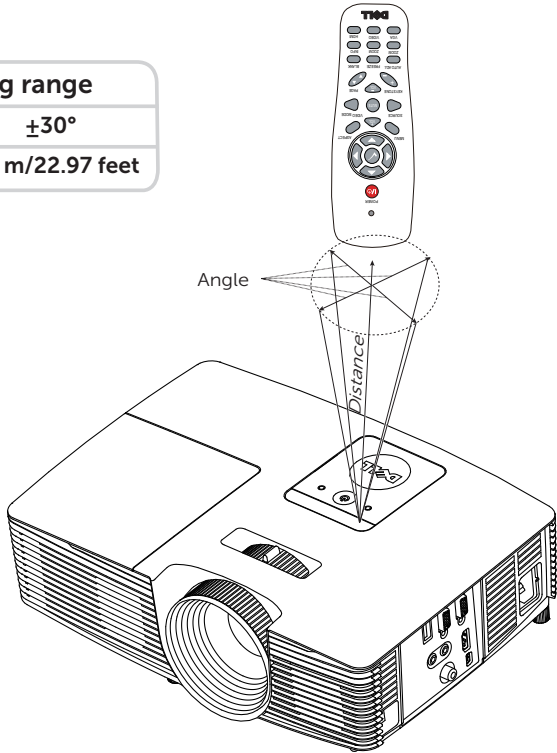
1	Power 	Turns the projector on or off.
2	Enter 	Press to confirm the selection.
3	Right 	Press to navigate through the On-Screen Display (OSD) Menu items.
4	Down 	Press to navigate through the On-Screen Display (OSD) Menu items.
5	Aspect Ratio	Press to change the aspect ratio of a displayed image.

6	Mute 	Press to mute or un-mute the projector speaker.
7	Video mode	<p>The projector has preset configurations that are optimized for displaying data (presentation slides) or video (movies, games, etc.).</p> <p>Press the Video Mode button to toggle between Presentation mode, Bright mode, Movie mode, sRGB, or Custom mode.</p> <p>Pressing the Video Mode button once will show the current display mode. Pressing the Video Mode button again will switch between modes.</p>
8	Page up 	<p>Press to move to the previous page.</p> <p> NOTE: The Mini USB cable must be connected if you want to use the Page Up feature.</p>
9	Page down 	<p>Press to move to the next page.</p> <p> NOTE: The Mini USB cable must be connected if you want to use the Page Down feature.</p>
10	Freeze	Press to pause the screen image, then press "Freeze" again to unfreeze the image.
11	Blank screen	Press to hide/unhide the image.
12	Information	Press to provide projector native resolution information.
13	HDMI	Press to choose HDMI source.
14	Up 	Press to navigate through the On-Screen Display (OSD) Menu items.
15	Left 	Press to navigate through the On-Screen Display (OSD) Menu items.
16	Menu	Press to activate the OSD.
17	Volume up 	Press to increase the volume.
18	Source	Press to switch between Analog RGB, Composite, Component (YPbPr, via VGA), and HDMI source.

19	Volume down 	Press to decrease the volume.
20	Keystone adjustment +	Press to adjust image distortion caused by tilting the projector (+/-40 degrees).
21	Keystone adjustment -	Press to adjust image distortion caused by tilting the projector (+/-40 degrees).
22	Auto Adjust	Press to synchronize the projector with the input source. Auto adjust does not operate if the OSD is displayed.
23	Zoom +	Press to increase the image.
24	Zoom -	Press to decrease the image.
25	VGA	Press to choose VGA source.
26	Video	Press to choose Composite Video source.

Remote Control Operating Range

Operating range	
Angle	$\pm 30^\circ$
Distance	7 m/22.97 feet



NOTE: Actual operating range may slightly differ from the diagram. Weak batteries will also prevent the remote control from properly operating the projector.

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Adjusting Projector Image

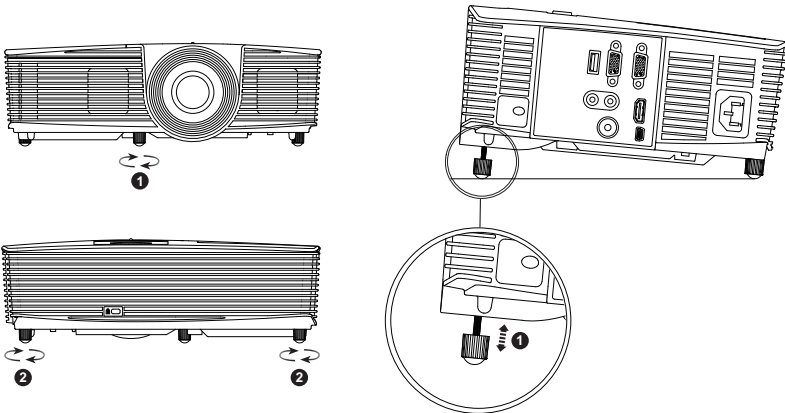
Adjusting Projected Zoom

Raising the Projector Height

- 1 Raise the projector to the desired display angle, and use the front tilt adjustment wheel to fine-tune the display angle.
- 2 Use the tilt adjustment wheels to fine-tune the display angle.

Lowering the Projector Height

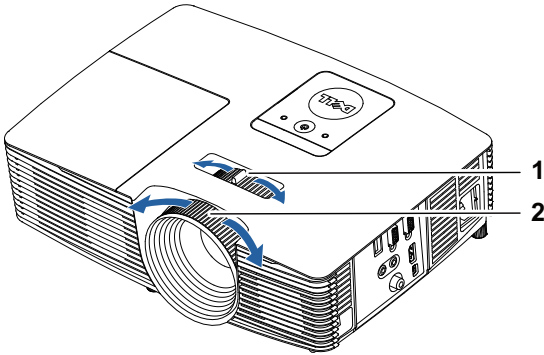
- 1 Lower the projector, and use the front tilt adjustment wheel to fine-tune the display angle.



-
- 1 Front tilt adjustment wheel
(Angle of tilt: -5 to 5 degrees)
 - 2 Fixed rubber foot
-

Adjusting Projector Focus

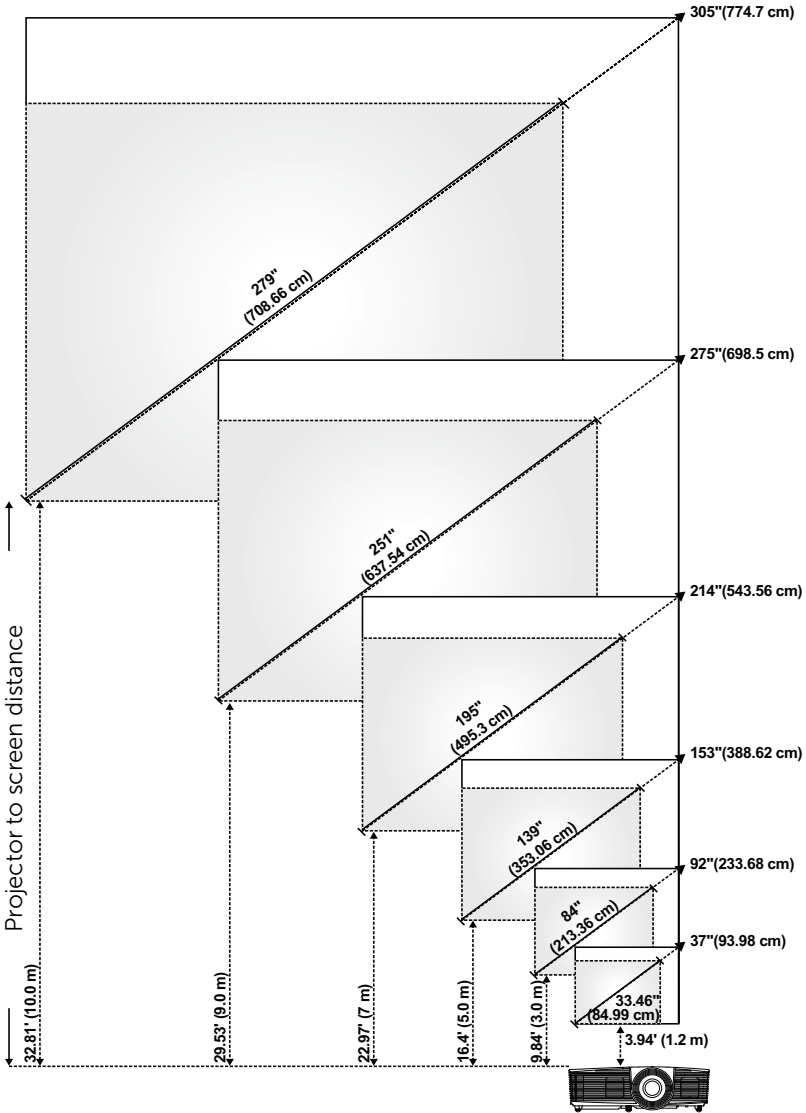
1 Rotate the focus ring until the image is clear. The projector focuses at distances ranging between 4.27 ft to 23.29 ft (1.3 m to 7.1 m).



1 Zoom tab

2 Focus ring

Adjusting Image Size



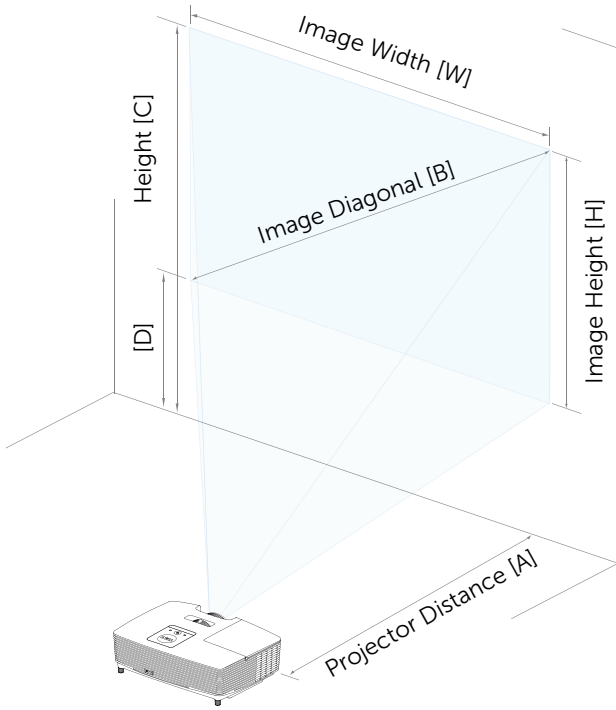
Adjusting Image Shape

Projection Distance (m) [A]	Min Zoom				
	Image size			Projector base to top of image (cm) [C]	Projector base to bottom of image (cm) [D]
	Diagonal (inch/cm) [B]	Width (cm) [W]	Height (cm) [H]		
1.2	33.46"/84.99 cm	74	42	48	6
3	84"/213.36 cm	185	104	121	17
5	139"/353.06 cm	309	174	201	27
7	195"/495.3 cm	432	243	282	39
9	251"/637.54 cm	556	313	363	50
10	279"/708.66 cm	617	347	401	54

Projection Distance (m) [A]	Max Zoom				
	Image size			Projector base to top of image (cm) [C]	Projector base to bottom of image (cm) [D]
	Diagonal (inch/cm) [B]	Width (cm) [W]	Height (cm) [H]		
1.2	37"/93.98 cm	81	46	53	7
3	92"/233.68 cm	203	114	132	18
5	153"/388.62 cm	338	190	220	30
7	214"/543.56 cm	473	266	309	43
9	275"/698.5 cm	608	343	397	54
10	305"/774.7 cm	676	380	441	61

* This graph is for user reference only.

* Offset Ratio: 116±5%



3

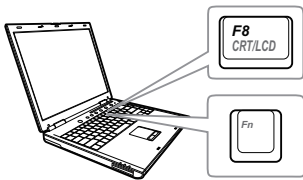
Troubleshooting

Troubleshooting Tips



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





Problem

No image appears on the screen



Possible Solution


- Ensure that you have chosen the correct input source on the INPUT SOURCE menu.
 - Ensure the external graphics port is enabled. If you are using a Dell laptop computer, press   (Fn+F8). For other computers, see your respective documentation. If images are not displayed properly, please upgrade the video driver of your computer. For Dell computers, see www.dell.com/support.
 - Ensure that all the cables are securely connected. See "Adjusting Projector Image" on page 12.
 - 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 22).
 - Use the Test Pattern in the Projector Settings of the Advanced Settings menu. Ensure that the colors of the test pattern are correct.
-

Problem (continued)	Possible Solution (continued)
Partial, scrolling, or incorrectly displayed image	<p>1 Press the Auto Adjust button on the remote control.</p> <p>2 If you are using a Dell laptop computer, set the resolution of the computer to 1080p (1920 x 1080):</p> <ul style="list-style-type: none"> a Right-click the unused portion of your Microsoft® Windows® desktop, click Properties, and then select Settings tab. b Verify that the setting is 1920 x 1080 pixels for the external monitor port. c Press   (Fn+F8). <p>If you experience difficulty in changing resolutions, or if your monitor freezes, restart all the equipment and the projector.</p> <p>If you are not using a Dell laptop computer, see your documentation. If images are not displayed properly, please upgrade the video driver of your computer. For a Dell computer, see www.dell.com/support.</p>
The screen does not display your presentation	If you are using a portable computer, press   (Fn+F8).
Image is unstable or flickering	Adjust the tracking in the OSD Display Settings of the Advanced Settings menu (in PC Mode only).
Image has vertical flickering bar	Adjust the frequency in the OSD Display Settings of the Advanced Settings menu (in PC Mode only).

Problem (continued)	Possible Solution (continued)
Image color is incorrect	<ul style="list-style-type: none"> • If the display receives the wrong signal output from the graphics card, please set the signal type to RGB in the OSD Image Settings of the Advanced Settings tab. • Use Test Pattern in the Projector Settings of the Advanced Settings menu. Ensure that the colors of the test pattern are correct.
Image is out of focus	<ol style="list-style-type: none"> 1 Adjust the focus ring on the projector lens. 2 Ensure that the projection screen is within the required distance from the projector (3.94 ft [1.2 m] ~ 32.81 ft [10 m]).
The image is stretched when displaying a 16:9 DVD	<p>The projector automatically detects the input signal format. It will maintain the aspect ratio of the projected image according to the input signal format with an Original setting.</p> <p>If the image is still stretched, adjust the aspect ratio in the Display Settings of the Advanced Settings menu in the OSD.</p>
Image is reversed	<p>Select Projector Settings of the Advanced Settings from the OSD and adjust the projector mode.</p>
Lamp is burned out or makes a popping sound	<p>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. To replace the lamp, see "Changing the Lamp" on page 22.</p>
LAMP light is solid amber	<p>If the LAMP light is solid amber, replace the lamp.</p>

Problem (continued)	Possible Solution (continued)
LAMP light is blinking amber	<p>If the LAMP light is blinking amber, the lamp module connection may be disrupted. Please check the lamp module and ensure that it is properly installed.</p> <p>If the LAMP lights and the Power light is blinking amber, the lamp driver has failed and the projector will automatically shut down.</p> <p>If the LAMP and TEMP lights are blinking amber and the Power light is solid blue, the color wheel has failed and the projector will automatically shut down.</p> <p>To clear the protection mode, press and hold the POWER button for 10 seconds.</p>
TEMP light is solid amber	<p>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.</p>
TEMP light is blinking amber	<p>If the projector fan fails, the projector will automatically shut down. Try to clear the projector mode by pressing and holding the Power button for 10 seconds. Please wait for about 5 minutes and try to power up again. If the problem persists, contact Dell.</p>
The remote control is not operating smoothly or works only within a limited range	<p>The battery may be low. If so, replace with two new AAA batteries.</p>

Guiding Signals

Projector Status	Description	Control Buttons		Indicator	
		Power	TEMP (Amber)	LAMP (Amber)	
Standby mode	Projector in Standby mode. Ready to power on.	White Flashing	OFF	OFF	OFF
Warming up mode	Projector takes some time to warm up and power on.	White	OFF	OFF	OFF
Lamp on	Projector in Normal mode, ready to display an image.  Note: The OSD menu is not accessed.	White	OFF	OFF	OFF
Cooling mode	Projector is cooling to shutdown.	White	OFF	OFF	OFF
Projector overheated	Air vents might be blocked or ambient temperature may be above 40°C. The projector automatically shuts down. Ensure that the air vents are not blocked and that the ambient temperature is within operational range. If the problem persists, contact Dell.	OFF	AMBER	OFF	OFF
Fan breakdown	One of the fans has failed. The projector automatically shuts down. If the problem persists, contact Dell.	OFF	AMBER Flashing	OFF	OFF
Lamp driver breakdown	The lamp driver has failed. The projector automatically shuts down. Unplug the power cord after three minutes and then turn the display on again. If this problem persists, contact Dell.	AMBER Flashing	OFF	OFF	AMBER Flashing
Color Wheel breakdown	Color wheel cannot start. The projector has failed and the projector automatically shuts down. Unplug the power cord after three minutes and then turn on the projector. If this problem persists, contact Dell.	White	AMBER Flashing	OFF	AMBER Flashing
Lamp failure	Lamp is defective. Replace the lamp.	OFF	OFF	OFF	AMBER
Fault - DC supply (+12V)	Power supply has been interrupted. The projector automatically shuts down. Unplug the power cord after three minutes and then turn on the projector. If this problem persists, contact Dell.	AMBER Flashing	AMBER	OFF	AMBER
Lamp module connection failed	Lamp module connection may be disrupted. Check the lamp module and ensure that it is properly installed. If the problem persists, contact Dell.	OFF	OFF	OFF	AMBER Flashing

4

Maintenance

Changing the Lamp

CAUTION: Before you begin any of the procedures in this section, follow the Safety Instructions as described on page 7.

Replace the lamp when the message "Lamp is approaching the end of its useful life in the operation. Replacement suggested!"

www.dell.com/lamps" appears on the screen. If this problem persists after replacing the lamp, contact Dell.

CAUTION: Use an original lamp to ensure safe and optimal working condition of your projector.

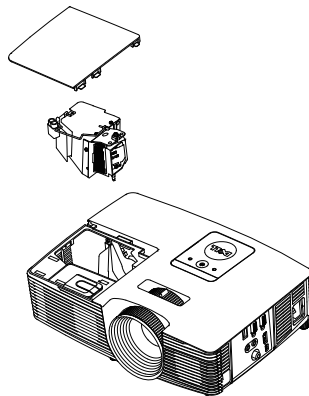
CAUTION: The lamp becomes very hot when in use. Do not attempt to replace the lamp until the projector has been allowed to cool down for at least 30 minutes.

CAUTION: Do not touch the bulb or the lamp glass at any time. Projector lamps are very fragile and may shatter if touched. The shattered glass pieces are sharp and can cause injury.

CAUTION: If the lamp shatters, remove all broken pieces from the projector and dispose or recycle according to state, local, or federal law. For more information see www.dell.com/hg.

- 1 Turn off the projector and disconnect the power cord.
- 2 Let the projector cool for at least 30 minutes.
- 3 Loosen the screw that secures the top cover, and remove the cover.
- 4 Loosen the screw that secures the lamp.
- 5 Pull the lamp up by its metal handle.

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



- 6 Replace with the new lamp.
- 7 Tighten the screw that secures the lamp.
- 8 Replace the top cover and tighten the screw.
- 9 Reset the lamp usage time by selecting "Yes" for **Lamp Reset** in the OSD **Power Settings** of the **Advanced Settings** menu. When a new lamp module has been changed, the projector will automatically detect and reset the lamp hours.



CAUTION: Lamp Disposal (for the US only)

 **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.**

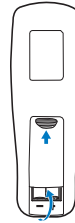
Replacing Remote Control Batteries



NOTE: Remove the batteries from the remote control when not in use.

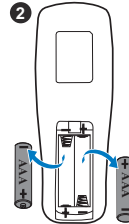
1 Press the tab to lift the battery compartment cover.

1



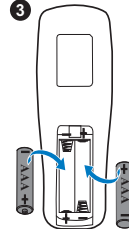
2 Check the polarity (+/-) marking on the batteries.

2



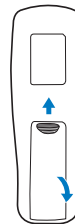
3 Insert the batteries and align their polarity correctly according to the marking in the battery compartment.

3



4 Slip the battery cover back.

4



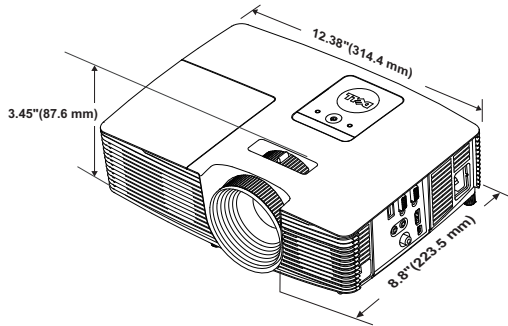
NOTE: Avoid mixing different types of batteries or using new and old batteries together.

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Specifications


Light Valve	0.65" 1080p S600 DMD, DarkChip3™	
Brightness	3000 ANSI Lumens (Max.)	
Contrast Ratio	2000:1 Typical (Full On/Full Off)	
Uniformity	75% Typical (Japan Standard - JBMA)	
Number of Pixels	1920 x 1080 (1080p)	
Aspect Ratio	16:9	
Displayable Color	1.07 billion colors	
Color Wheel Speed	2 X	
Projection Lens	1 X for 3D Display	
	F-Stop: F/2.5~2.67	
	Focal length, f=21.9-24 mm	
	1.1X manual Zoom Lens	
	Throw ratio =1.48~1.62 wide and tele	
Projection Screen Size	Offset ratio: 116 ± 5%	
	33.46 ~ 305 inches (diagonal)	
	Projection Distance	3.94 ~ 32.81 ft (1.2 ~ 10 m)
	Video Compatibility	Composite Video:
		NTSC: M (3.58 MHz), 4.43 MHz
	PAL: B, D, G, H, I, M, N, 4.43 MHz	
	SECAM: B, D, G, K, K1, L, 4.25/4.4 MHz	
	Component Video input via VGA: 1080i (50/60 Hz), 720p (50/60 Hz), 576i/p, 480i/p	
	HDMI input: 1080p, 720p, 576i/p, 480i/p	
Power Supply	Universal AC 100-240 V 50-60 Hz with PFC input	
Power Consumption	Normal mode: 275 W ± 10% @ 110 Vac	
	Eco mode: 215 W ± 10% @ 110 Vac	
	Standby mode: < 0.5 W	

Audio	1 speaker x 10 watt RMS
Noise Level	Normal mode: 35 dB(A) Eco mode: 32 dB(A)
Projector Weight	5.7 lbs (2.6 Kg)
Dimensions (W x H x D)	12.38 x 3.45 x 8.8 inches (314.4 x 86.7 x 223.5 mm)



Environmental	<p>Operating temperature: 5 °C - 40 °C (41 °F- 104 °F)</p> <p>Humidity: 80% maximum</p> <p>Storage temperature: 0 °C to 60 °C (32 °F to 140 °F)</p> <p>Humidity: 90% maximum</p> <p>Shipping temperature: -20 °C to 60 °C (-4 °F to 140 °F)</p> <p>Humidity: 90% maximum</p>
I/O Connectors	<p>Power: One AC power socket (3-pin - C14 inlet)</p> <p>VGA input: One 15-pin D-sub connector (Blue), VGA In, for analog RGB/Component input signals.</p> <p>VGA output: One 15-pin D-sub connector (Black) for VGA-A loop through.</p> <p>Composite Video input: One Yellow RCA jack for CVBS signal.</p> <p>HDMI input: One HDMI connectors for supporting HDMI 1.4a. specification HDCP compliant.</p>

	Analog Audio input: One 3.5 mm stereo mini phone jack (Blue).
	Variable audio output: One 3.5 mm stereo mini phone jack (Green).
	USB (type B) port: One mini USB slave for remote support and firmware upgrade.
	5V/1A output: One USB type A 5V DC / 1 A outputs for supporting wireless display dongle.
Lamp	PHILIPS 220 W user-replaceable lamp
Lamp life	Normal mode: Up to 3500 hours
	Eco mode: Up to 5000 hours

 **NOTE:** The lamp life rating for any projector is a measure of brightness degradation only, and is not a specification for the time it takes a lamp to fail and cease light output. Lamp life is defined as the time it takes for more than 50 percent of a lamp sample population to have brightness decrease by approximately 50 percent of the rated lumens for the specified lamp. The lamp life rating is not guaranteed in any way. 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, many hours per day, and abrupt powering-off will most likely result in a lamp's shortened operating life span or possible lamp failure.

6

Additional Information

For additional information on how to use your projector, please see the **Dell Projectors User Guide** at www.dell.com/support/manuals.

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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:

- 1 Visit go to www.dell.com/contactDell.
- 2 Select your region on the interactive map.
- 3 Select a Segment for Contact.
- 4 Select the appropriate service or support link based on your need.

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