

## Projector Specifications

### General

Type of display	Poly-silicon Thin Film Transistor (TFT)
Size of liquid crystal panels	Diagonal: 0.9 inch (22.9 mm)
Lens	F=2.0 to 2.2, f=35 to 42 mm
Resolution	1024 × 768 pixels (715c native format) 800 × 600 pixels (505c native format)
Color reproduction	24 bit, 16.7 million colors
Brightness	1200 lumens (ANSI) 715c 1100 lumens (ANSI) 505c
Contrast ratio	400:1
Image size (diagonal)	26 to 300 inches
Projection distance	3.6 to 45.5 feet (1.1 to 13.8 meters)
Projection methods	Front, rear, upside-down (ceiling mount)
Internal sound system	1 W monaural
Optical aspect ratio	4:3 (horizontal:vertical)
Zoom ratio	1:1.2
Noise level	42 dB
Keystone correction angle	±15° (maximum)
Card slot	PCMCIA Type II
Card	Supports CFA specification CompactFlash™, SmartMedia™, Memory Stick™, ATA Flash (both 3.3 V and 5 V), and Microdrive™

### Projection Lamp

Type	UHE (Ultra High Efficiency)
Power consumption	150 W
Lamp life	About 1000 hours
Part number	ELPLP14

### Remote Control

Range	32.8 feet (10 meters)
Batteries	Alkaline AA (2)

### Mouse Compatibility

Supports PS/2, USB, ADB

# EPSON PowerLite 505c/715c Projector

## Dimensions

Height	2.8 to 3.4 inches (72 to 87 mm)
Width	8.4 inches (213 mm)
Depth	10.5 inches (267 mm)
Weight	6 lb (2.7 kg)

## Electrical

Rated frequency	50 to 60 Hz
Power supply	100 to 120 VAC, 1.9 A 200 to 240 VAC, 1.0 A
Power consumption	Operating: 230 W Standby: 5 W

## Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C), Storage: 14 to 140 °F (-10 to 60 °C),
Humidity	Operating: 20 to 80% RH, non-condensing Storage: 10 to 90% RH, non-condensing

## Safety

United States	FCC Part 15B Class B UL1950 Rev. 3
Canada	DOC ICES003 Class B CSA C22.2 No. 950 Rev. 3
CE Marking	Directive 89/336/EEC, 92/31/EEC EN 60950

## Compatible Video Formats

The projector supports NTSC, HDTV, PAL, and SECAM international video standards, as well as the monitor display formats listed below.

To project images output from a computer, the computer's video card must be set at a refresh rate (vertical frequency) that's compatible with the projector; see the following table for compatible formats. As noted below, some images are automatically resized to display in one of the projector's "native" formats (such as XGA). In addition, the frequencies of some computers may not allow images to display correctly; see your computer's documentation for details.

Mode	Refresh Rate (Hz)	Resolution
VGAEGA	70	640 x 350
VGA60	59.94	640 x 480
VGA72	72.809	640 x 480
VGA75	75	640 x 480
VGA85	85.008	640 x 480
VGA Text	70.087	720 x 350
VGA Text	70.087	720 x 400
SVGA56	56.25	800 x 600
SVGA60	60.317	800 x 600
SVGA72	72.188	800 x 600
SVGA75	75	800 x 600
SVGA85	85.061	800 x 600
XGA43i	43.476	1024 x 768 <sup>1</sup>
XGA60	60.004	1024 x 768 <sup>1</sup>
XGA70	70.069	1024 x 768 <sup>1</sup>
XGA75	75.029	1024 x 768 <sup>1</sup>
XGA85	84.997	1024 x 768 <sup>1</sup>
SXGA1—70	70.012	1152 x 864 <sup>2</sup>
SXGA1—75	75	1152 x 864 <sup>2</sup>
SXGA1—85	84.999	1152 x 864 <sup>2</sup>
SXGA2—60	60	1280 x 960 <sup>2</sup>
SXGA2—75	75	1280 x 960 <sup>2</sup>
SXGA2—85	85.002	1280 x 960 <sup>2</sup>
SXGA3—43i	43.436	1280 x 1024 <sup>2</sup>
SXGA3—60	60.02	1280 x 1024 <sup>2</sup>
SXGA3—75	75.025	1280 x 1024 <sup>2</sup>
SXGA3—85	85.024	1280 x 1024 <sup>2</sup>
UXGA60	60	1600 x 1200 <sup>3</sup>
MACII13	66.67	640 x 480
MAC16	75.087	832 x 624 <sup>1</sup>
MAC19-60	59.28	1024 x 768 <sup>1</sup>
MAC19	74.93	1024 x 768 <sup>1</sup>
MAC21	75.062	1152 x 870 <sup>2</sup>
HDTV525I	59.94	640 x 480 <sup>2</sup>
HDTV525P	59.94	640 x 480 <sup>2</sup>
HDTV750P	60	1280 x 720 <sup>2</sup>
HDTV1125I	60	1920 x 1080 <sup>2</sup>
HDTV1125I	50.04	1920 x 1080 <sup>2</sup>
HDTV1125P	60	1920 x 1080 <sup>2</sup>
HDTV1125P	50	1920 x 1080 <sup>2</sup>
NTSC	60	640 x 480 <sup>2</sup>
PAL	50	720 x 540 <sup>2</sup>
SECAM	50	720 x 540 <sup>2</sup>

1 The image is resized so that it displays using one of the projector's native formats (PowerLite 505c only).

2 The image is resized so that it displays using one of the projector's native formats (PowerLite 505c and 715c).

3 Not supported on the PowerLite 505c.

## Computer Connector Pin Assignments

The Computer/Component video port is a female video RGB, 15-pin micro-D-style connector. The pin assignments are:

Input pin	Computer connector signals
1	Red video
2	Green video
3	Blue video
4	Monitor (ID bit 2)
5	GND
6	Red video GND
7	Green video GND
8	Blue video GND
9	+5 V
10	Synchronous GND
11	Monitor (ID bit 0)
12	SDA
13	Horizontal sync
14	Vertical sync
15	Reserved

## Projector Placement Guidelines

- ❑ Place the projector on a sturdy, level surface, between 3.6 and 45.5 feet from the screen.
- ❑ Make sure there is plenty of space for ventilation around and under the projector.
- ❑ Make sure the projector is within 6 feet of a grounded electrical outlet or extension cord. If you're using a computer and/or video source, locate them within 5 feet of the projector.
- ❑ Place the projector directly in front of the center of the screen, facing it toward the screen squarely. Otherwise, your image will not be square.

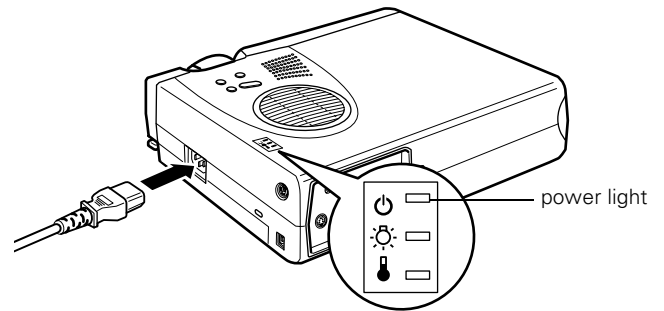
The distance from the projector to the screen determines the actual size of the projected image. Use the general guidelines in the table below to determine the proper distance.

Image size (diagonal)	Horizontal distance from projector to screen
30 inches	3.6 to 4.3 feet (1.1 to 1.3 meters)
40 inches	4.8 to 5.8 feet (1.5 to 1.8 meters)
60 inches	7.4 to 8.9 feet (2.2 to 2.7 meters)
80 inches	9.9 to 11.9 feet (3.0 to 3.7 meters)
100 inches	12.4 to 15.0 feet (3.8 to 4.6 meters)
120 inches	15.0 to 17.7 (4.6 to 5.4 meters)
150 inches	18.7 feet to 22.6 (5.7 to 6.9 meters)
200 inches	25.0 to 30.2 feet (7.6 to 9.2 meters)
300 inches	37.6 to 45.5 feet (11.5 to 13.9 meters)

## Starting Up the Projector

Follow these steps to start up the projector:

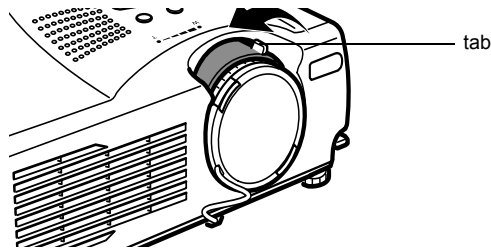
1. Connect one end of the power cord to the projector's power inlet.



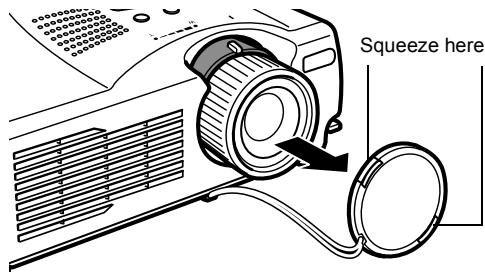
2. Connect the other end to a grounded electrical outlet.

The power light on top of the projector turns orange, indicating that the projector is receiving power but not yet turned on.

- Use the tab on the lens ring to rotate the ring and extend the lens.

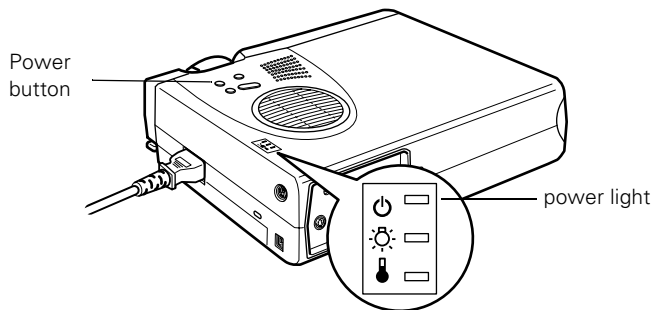


- Squeeze the lens cap tabs and remove the lens cap.



**Caution:** Do not use the projector with the lens cap in place. The heat generated by the lens can damage the cap.

- Press the red Power button on top of the projector.



The power light flashes green as the projector warms up, and the projection lamp comes on in about 30 seconds. The power light stays green.

You may see the EasyMP™ main screen or a presentation that has been saved on the memory card and set to run automatically.

**Warning:** never look into the lens when the lamp is on. This can damage your eyes, and is especially dangerous for children.

- Do one of the following:

- If you're presenting without a computer, you may see the EasyMP main screen. Use the Enter button on the remote control to select your presentation, then press Enter to start it. See the *User's Guide* for more information. If a presentation starts automatically, you may need to press Enter to change slides.
- If you're using a computer, turn it on or restart it. In a few moments, you should see your computer display projected. If you see an EasyMP screen or presentation instead, press the Source button on top of the projector to switch to the computer. (Windows® only: If you see a message saying that it has found a plug-and-play monitor, click Cancel.)
- If you're projecting a video, press the Source button on top of the projector to switch to your video source, and press the Play button on your DVD player or other video device.

If a projected image fails to appear, see the next section for help.

Once you see your image, turn to page 5 for instructions on focusing and making other image adjustments.

When you're done with your presentation, shut down the projector as described on page 6. Shutting down the projector correctly prevents premature lamp failure and possible damage from overheating.

## What To Do If You See a Blank Screen

If you see a blank screen or a blue screen with the message No Signal after turning on your computer or video source, try the following:

- Make sure the cables are connected correctly, as described in the *User's Guide*.
- Make sure the power light is green and not flashing and the lens cap is off.
- Try restarting your computer.
- Press the Source button on top of the projector to select the correct source. (Allow a few seconds for the projector to sync up after pressing the button.)

**If you're using a PowerBook:**


You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:


1. From the Apple® menu, select Control Panels, then click Monitors and Sound.
2. Click the Arrange icon.
3. Drag one monitor icon on top of the other.

If this option isn't available, you may need to select one of the Simulscan resolution settings:

1. Click the Monitor icon.
2. Select a Simulscan resolution. (Allow a few seconds for the projector to sync up after making the selection.)

**If you're using a PC laptop:**

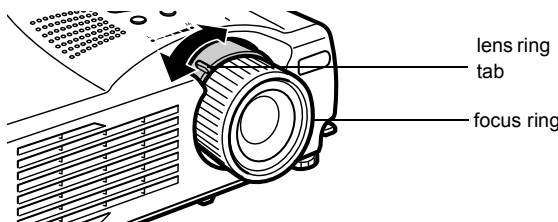
- ❑ Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as  or it may be labelled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your laptop's manual or online help for details.

On most systems, the  key lets you toggle between the LCD screen and the projector, or display on both at the same time.

- ❑ Depending on your computer's video card, you might need to use the Display utility in the Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

**Focusing and Zooming Your Image**

Rotate the focus ring to sharpen the image.



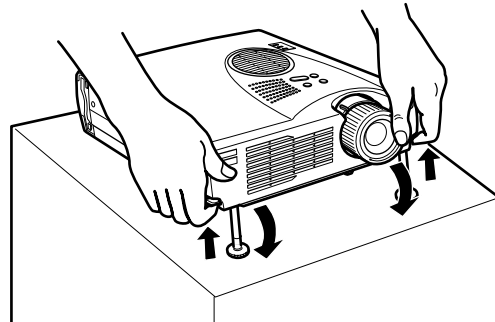
Use the tab to rotate the lens ring and reduce or enlarge the image.

You can also change the image size by moving the projector closer to or farther away from the screen. You can use the E-Zoom button on the remote control to zoom in on a portion of the image. See the *User's Guide* for instructions.

**Adjusting the Height of Your Image**

If the image is too low, you can raise it by extending the projector's feet.

1. Stand behind the projector. Pull up the blue foot release levers and lift the front of the projector. This unlocks the feet.







*Caution: Do not hold the projector by the lens; this can damage it.*

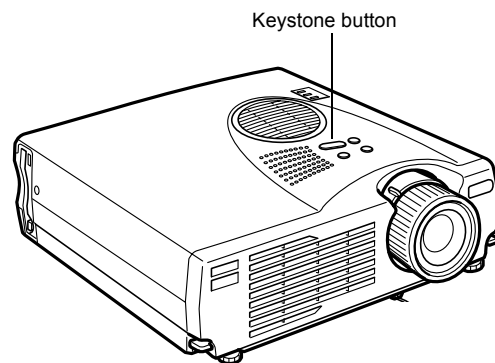
2. Once the image is positioned where you want it, release the levers to lock the feet in position.
3. To fine-tune the height of the image, rotate the thumb wheels attached to the projector's feet.

If the image is no longer square after raising it, see the next section.

**Adjusting the Image Shape**

If the projected image isn't square or has a "keystone" shape, try the following:

- ❑ If your image looks like  or , you've placed the projector off to one side of the screen, at an angle. Move it directly in front of the center of the screen, facing the screen squarely.
- ❑ If your image looks like  or , press the + or - side of the Keystone button to correct the shape of the image. After correction, your image will be slightly smaller.



## Shutting Down the Projector

When you've finished using the projector, follow the recommended procedure to shut it down. This extends the life of the lamp and protects the projector from possible overheating.

**Note:** When the projector has not received any input signals for 30 minutes, it automatically turns off the lamp and enters "sleep mode." This conserves electricity, cools the projector, and extends the life of the lamp. If you are done using the projector, unplug the power cord. If you want to start projecting again, press the Power button.

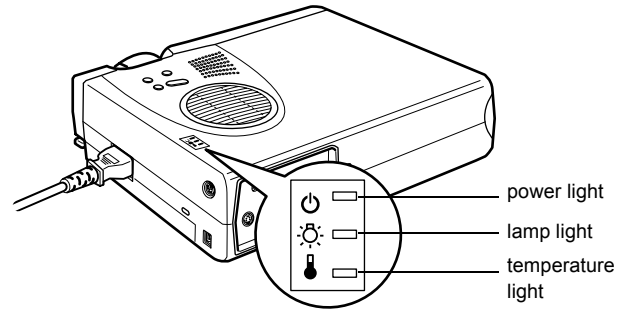
1. If you're using a computer, shut it down first.
2. To turn off the projector, press the red Power button on the projector or remote control. You see a confirmation message. (If you don't want to turn it off, press any other button.)
3. Press the Power button again. The power light flashes orange for about a minute as the projector cools down. When the projector has cooled, the orange light stays on and the exhaust fan shuts off.

If you want to turn the projector on again, wait until the orange light stops flashing. Then press the Power button.

**Caution:** To avoid damaging the projector or lamp, never unplug the power cord when the power light is green or flashing orange.

4. Replace the lens cap, retract the lens, and unplug the power cord.
5. If you're using a VCR or other video source, turn it off after you turn off the projector.
6. Disconnect all equipment, and store the projector in the bag that came with it or in a protective case.

## Projector Status Lights



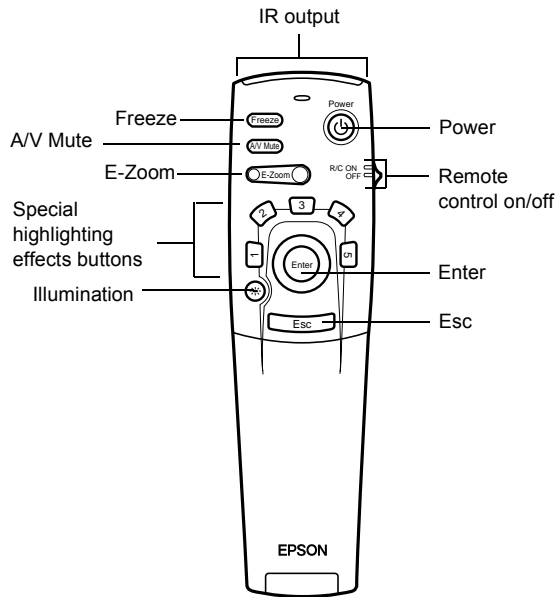
The lights on top of the projector indicate the projector's status and let you know when a problem occurs.

Light	Status	Description and action
	orange	The projector is in sleep mode. You can unplug it or press the Power button to turn it on.
	flashing green	The projector is warming up. Wait for the image to appear.
	green	The projector is operating normally.
	flashing orange	The projector is cooling down. You can't turn the projector on (and should not unplug it) until the light stops flashing and remains orange.
	flashing red	Power is cut off because of an internal problem. Remove the power cord and contact EPSON for help.
	red	The lamp is burned out. Replace it as described on page 10.
	flashing orange	The lamp is almost burned out. This is a good time to replace it, following the instructions on page 10.
	flashing red	There is a problem with the lamp, power supply, fuse, or circuit. If necessary, replace the lamp as described on page 10.
	flashing orange	The projector is in a high-temperature cooling cycle. Make sure the temperature surrounding the projector does not exceed 104 °F and there is plenty of space around and under the projector for ventilation. Clean the air filter if necessary. See page 9 for instructions.
	red	The projector has turned off automatically because it has overheated. Let it cool for a few minutes, then turn it back on. Make sure nothing is blocking the vents on the front and top of the projector. If it continues to overheat, you may need to change the air filter. See page 9 for instructions.
	flashing red	There is a problem with the cooling fan or temperature sensor. Turn off the projector and unplug it. Contact EPSON for help.

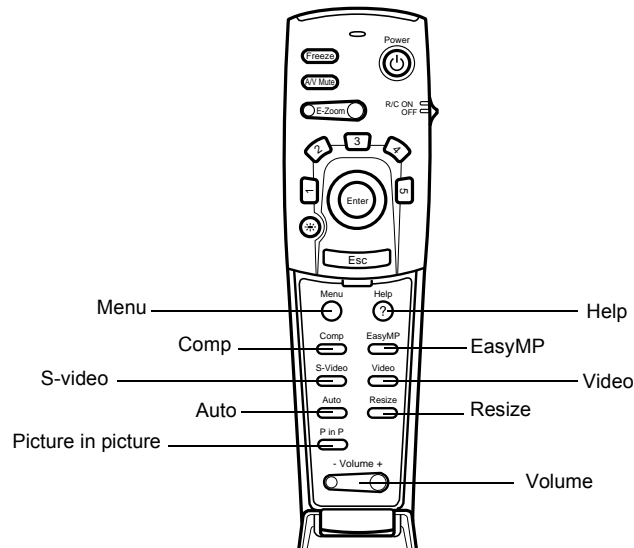
## Using the Remote Control

The remote control lets you access all of your projector's features from anywhere in the room (up to 30 feet away). You can use it to turn the projector on and off, zoom the image, and highlight your presentation, for example.

You can also use the remote control for EasyMP presentations without a computer.



Open the cover just below the Esc button to access these remote control functions:



This table summarizes the functions on the remote control.

Button	Function
Power	Starts or stops the projector.
Freeze	Keeps the current computer or video image on the screen.
A/V mute	Turns off the audio and video, displaying the black, blue or user logo background.
E-Zoom	Enlarges or reduces the image size from 1x to 4x (in 24 steps). Pressing the right side of the button enlarges the image, pressing the left side of the button reduces the image. To display a portion of an enlarged image which is outside the display area, press the Enter button and scroll the image to the desired location.
R/C ON/OFF	Turns the remote control on or off.
Button 1	Places a pointer or cursor stamp on the screen.
Button 2	Draws a box highlight.
Button 3	Places a spotlight on the screen.
Button 4	Draws a horizontal or vertical bar.
Button 5	Erases highlighting effects.
Enter (pointer button)	Use the Enter button for EasyMP, to navigate the menus, or to use the remote as a mouse pointer when the projector is connected to a computer with the mouse cable. The Enter button acts as a mouse left-click.
Illumination	Illuminates all buttons on the remote control.
Esc	Stops the current function. Pressing Esc while presenting an EasyMP scenario or viewing a menu displays the previous slide or menu. When the image source is Computer, the Esc button acts as a mouse right-click.
Menu	Displays or hides the menu.
Comp	Switches to Computer image.
S-Video	Switches to S-Video image.
Auto	Optimizes the computer image.
P in P	Displays a video or S-video image in a subscreen on the main display. Use the Enter button to reposition the Picture in Picture (P in P) screen, or the E-Zoom button to enlarge or reduce the image. Changes made to the P in P screen location and size are automatically carried over to the next P in P session.
Help	Displays the online help menu.
EasyMP	Displays the EasyMP main screen.
Video	Switches to Video image.
Resize	Switches the display dot mode and resize mode for VGA, UXGA, SVGA, and SXGA input. Switches the aspect ratio between 4:3 and 16:9 when video images are being projected.
- Volume +	Adjusts the volume.

*Note: The projector might not respond to remote control commands in these conditions: the R/C (remote control) ON/OFF switch is in the OFF position; batteries are weak; ambient light is too bright; a certain type of fluorescent light is present; a strong light source (such as direct sunlight) shines into the infrared receiver; or other equipment emitting infrared energy is present (such as a radiant room heater). Correct these conditions to use the remote control.*

## Using EasyMP

The projector's EasyMP feature lets you give a presentation without a computer. You start by converting a Microsoft® PowerPoint® file into a format called a *scenario* and downloading the scenario to the projector's memory card. See the *User's Guide* for instructions.

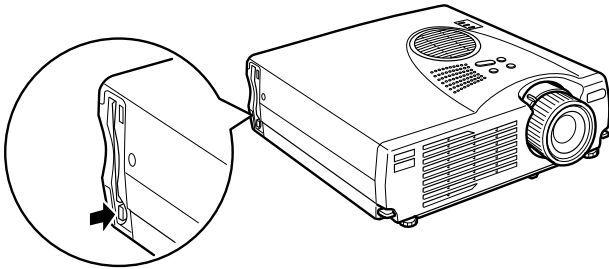
Once the scenario is saved on the memory card in the projector, you can run it automatically or with the remote control. You can also rearrange your slides and show images captured from videos or other sources.

### Accessing the Memory Card

To access the memory card, you can either transfer it to your computer or use a USB cable to access the card in the projector. (USB access available with Windows 98/Me/2000 only.)

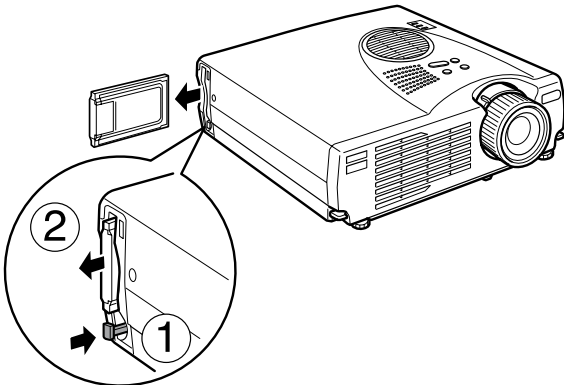
If your computer has a PCMCIA slot or PC card reader, you can insert the projector's memory card in your computer to transfer your scenario. First you need to remove it from the projector. Make sure a scenario is not playing and the card is not in use (the access light is off) before you remove it.

1. Press the button below the card slot.



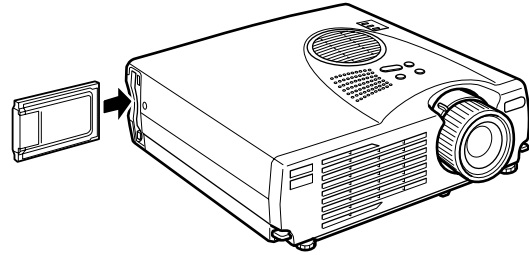
The button pops out.

2. Press the button again. The memory card is released, and you can remove it from the slot in the projector.

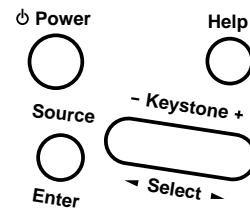


**Caution:** Press the button carefully to avoid breaking it. Make sure the button is pressed in before you store the projector in a carrying case or box.

3. Press the button to insert it in the slot.
4. Insert the card in your computer's PCMCIA slot or card reader. See your computer documentation if you need instructions.
5. Create your scenario and save it on the memory card, following the instructions in the *User's Guide*.
6. See your computer's documentation if you need instructions on removing the card from your computer. If you're using Windows 2000 or Me, you first need to click an icon to stop or disconnect the card.
7. Make sure the button below the memory card slot is pressed in. Then insert the memory card (and adapter) in the projector as shown. Make sure the card faces the back of the projector.



## Using the Buttons



The following table summarizes the functions of the buttons on top of the projector:

Button	Function
Power	Starts or stops projection.
Help	Displays the online help menu.
Source	Switches between Computer, Video, and S-video sources.
Enter	Selects a menu option when the Help menu is displayed.
- Keystone +	Adjusts a trapezoid distorted image to normal, correction up to a $\pm 15^\circ$ tilt.
Select	Scrolls through options when the Help menu is displayed.



## Cleaning the Lens

**Warning:** Before you clean any part of the projector, turn off the projector and unplug the power cord. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages in the projector can injure you severely. Do not try to service this product yourself, except as specifically explained in this Product Information Guide. Refer all other servicing to qualified service personnel.


Clean the lens whenever you notice dirt or dust on the surface. Use a canister of compressed air to remove dust. To remove dirt or smears on the lens, use lens-cleaning paper. If necessary, moisten a soft cloth with lens cleaner and gently wipe the lens surface.

## Cleaning the Projector

To clean the projector, first unplug the power cord. To remove dirt or dust, wipe the projector with a soft, dry, lint-free cloth. To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral detergent. Then wipe the projector.

Do not use wax, alcohol, benzene, thinner, or other chemical detergents. These can cause the projector's plastic case to warp.

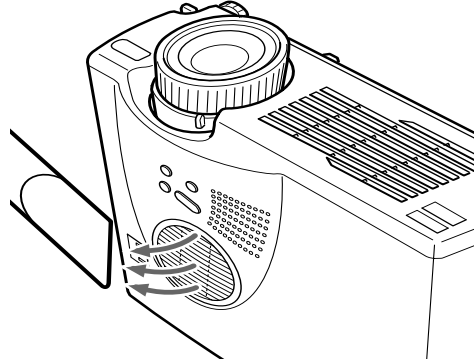
## Cleaning the Air Filter

Clean the air filter after every 100 hours of use, or if the  temperature warning light on top of the projector turns red.

If the filter is not cleaned periodically, it can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector. Follow these steps to clean the filter:

1. Turn off the projector and unplug the power cord.
2. Stand the projector on end to keep dust and dirt from falling inside.

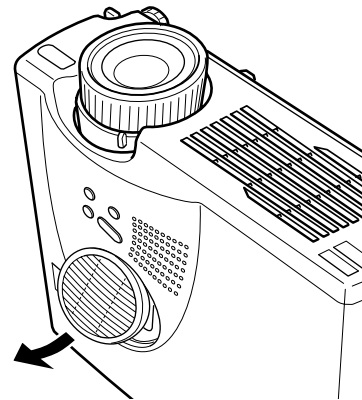
3. To clean the filter, EPSON recommends using a small vacuum cleaner designed for computers and other office equipment. If you don't have one, gently clean the filter using a very soft brush (such as an artist's camel-hair brush).



If the dirt is difficult to remove or if the filter is torn, replace it. Contact your dealer or call EPSON at (800) 873-7766 in the United States and Canada to obtain a new one.

**Note:** When you get a replacement lamp for your projector, a new air filter is included. You should replace the filter when you replace the lamp.


4. If you need to replace the filter, use a small screwdriver to pry it off.



5. To install the new filter, first insert the tab, then press down until it clicks in place.

## Replacing the Lamp

The projection lamp typically lasts for about 1000 hours of use. It is time to replace the lamp when you see the following:

- ❑ The projected image gets darker or starts to deteriorate.
- ❑ The  lamp warning light on top of the projector is red, flashing red, or orange.
- ❑ The message LAMP REPLACE appears on the screen when the lamp comes on (after about 900 hours of use). To maintain projector brightness and image quality, replace the lamp as soon as possible.

**Warning:** Let the lamp cool before replacing it. Also, do not touch the glass portion of the lamp assembly. Touching the glass portion of the lamp will result in premature lamp failure.

Contact your dealer or call EPSON at (800) 873-7766 in the United States and Canada for a replacement lamp. Request part number ELPLP14.

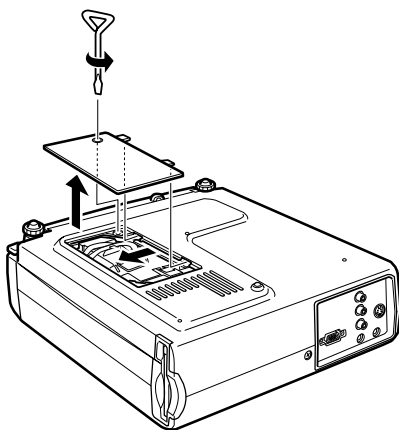
Follow these steps to replace the lamp:

1. Turn off the projector, then unplug the power cord.
2. Allow the projector to cool down for at least half an hour (if it has been on).

**Warning:** If the lamp breaks, handle the shards carefully to avoid injury.

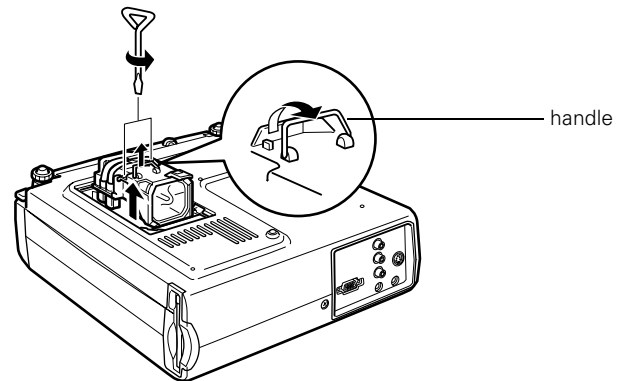
3. Turn the projector upside-down to access the lamp compartment.
4. Use a screwdriver to loosen the retaining screw on the lamp cover. (You can't remove the screw from the cover.)

When the screw is loose, lift off the lamp cover.

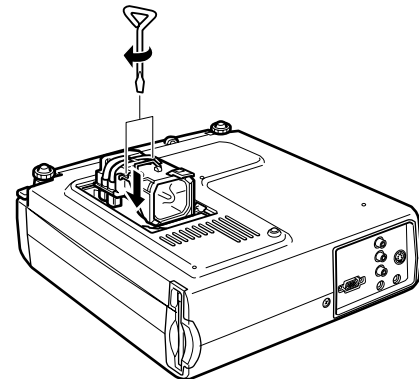


5. Use a screwdriver to loosen the two screws holding the lamp in place. (You can't remove these screws.)

6. Lift up the wire handle, as shown, and pull the lamp straight out.



7. Gently insert the new lamp.
8. Once the lamp is fully inserted, tighten its screws.



9. Replace the lamp cover and tighten its screw securely. (The projector won't come on if the lamp cover is loose.)

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## Optional Accessories

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<b>Product</b>	<b>Product number</b>
Replacement lamp and air filter	ELPLP14
Soft carrying cases:	
Samsonite® wheeled soft case	ELPKS35
Slimline soft shoulder bag	ELPKS31
Notebook/projector soft shoulder bag	ELPKS32
ATA molded hard shell case	ELPKS30
Ceiling mount	ELPMB34
Suspension adapter for ceiling mount (1-inch pipe)	ELPMBAPS
Suspension adapter for ceiling mount (1.5-inch pipe)	ELPMBAST
Kensington MicroSaver® security lock	ELPSL01
Portable projection screens:	
50-inch screen	ELPSC06
60-inch Insta-Theatre screen	ELPSC07
80-inch Insta-Theatre screen	ELPSC08
Wireless microphone and two satellite speakers	ELPCVS1
Presentation audio system	ELPPAS1
Macintosh® adapter set (includes monitor adapter and desktop adapter)	ELPAP01
VGA to 13W3 video cable (for connecting to certain high-end workstations)	ELPKC06
Component video cable (D-sub 15-pin to 3BNC)	ELPKC19

You can purchase these accessories from your dealer or by calling EPSON at (800) 873-7766; or visit the EPSON Store™ at [www.epson.com](http://www.epson.com) (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

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## Related Documentation

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CPD-11736	EPSON PowerLite 505c/715c User's Guide
CPD-11737	EPSON PowerLite 505c/715c Quick Setup sheet
Service Manual	TM-505c/715c
Parts Price Lists	PL-EMP505c, PL-EMP715c

