



Epson® PowerLite® Home 20

Home Theater Projector • Projecteur cinéma maison

User's Guide Guide de l'utilisateur



Copyright Notice

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation. The information contained herein is designed only for use with this Epson product. Epson is not responsible for any use of this information as applied to other products.

Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.

Seiko Epson Corporation shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

Epson is a registered trademark and Exceed Your Vision is a trademark of Seiko Epson Corporation.

PrivateLine and PowerLite are registered trademarks and Extra Care, Epson Connection, and Epson Store are service marks of Epson America, Inc.

Pixelworks, DNX, and the DNX logo are trademarks of Pixelworks, Inc.

General Notice: Other product names used herein are for identification purposes only and may be trademarks of their respective owners. Epson disclaims any and all rights in those marks.

Contents

Welcome!	5
Registration and Warranty	5
Projector Parts	6
Projector Controls	7
Optional Accessories	8
About This Manual	9
Getting More Information	9
Using the Projector	11
Choosing a Location	11
Adjusting the Picture	13
Controlling Your Presentation	15
Adjusting the Volume	15
Freezing the Action	15
Turning Off the Picture and Sound	15
Using the Projector's Menu System	16
Changing Menu Settings	16
Adjusting the Appearance of the Picture	17
Using Advanced Picture Settings	19
Using On-screen Display Features	21
Customizing Projector Operation	22
Viewing Lamp Usage and Other Information	23
Restoring the Default Settings	24
Caring for the Projector	25
Cleaning the Lens	25
Cleaning the Projector Case	25

Cleaning and Replacing the Air Filters	26
Replacing the Lamp	27
Resetting the Lamp Timer	29
Storing the Projector	29
Transporting the Projector	29
Problem Solving	31
What To Do When the Lights Flash	31
Solving Projector Problems	32
Solving Picture Problems	34
Where To Get Help	38
Specifications and Notices	39
Projector Specifications	39
Important Safety Information	42
FCC Compliance Statement	44
Declaration of Conformity	45
Epson America, Inc. Limited Warranty	45
Index	47

Welcome!

The Epson® PowerLite® Home 20 Theater Projector lets you enjoy high-quality projection in the relaxing environment of your own home. It offers these powerful features:

- Adjustable color modes with built-in cinema filter for great viewing
- 16:9 LCD panel for wide format projection
- Flexible setup configurations for front or rear projection and ceiling-mounted installation
- Short lens focus; you can project a 120-inch diagonal image with the projector just 10 feet away
- 1200 ANSI lumens
- 1000:1 contrast ratio
- Parental control through the projector's child lock function
- Lock port for optional Kensington® MicroSaver® anti-theft device
- Toll-free two-year priority technical support

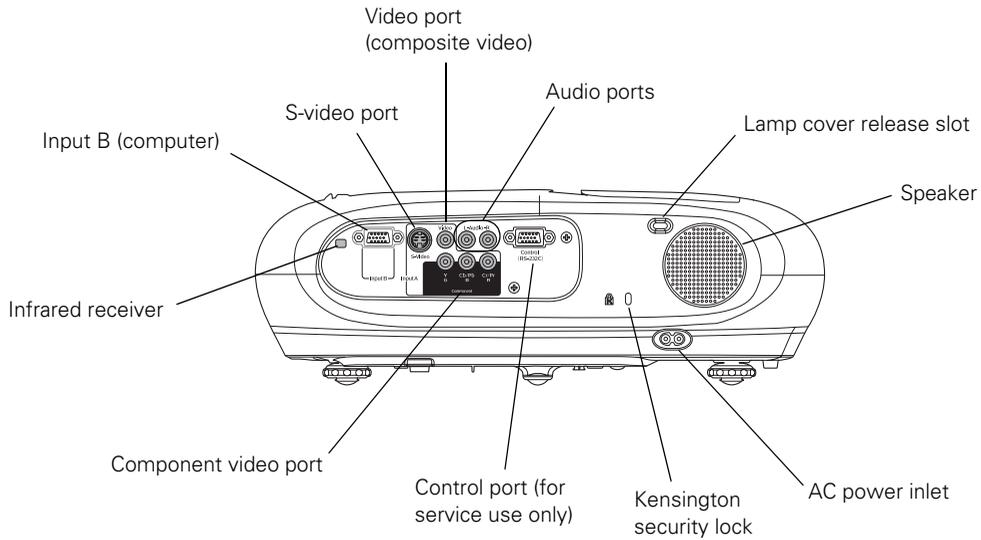
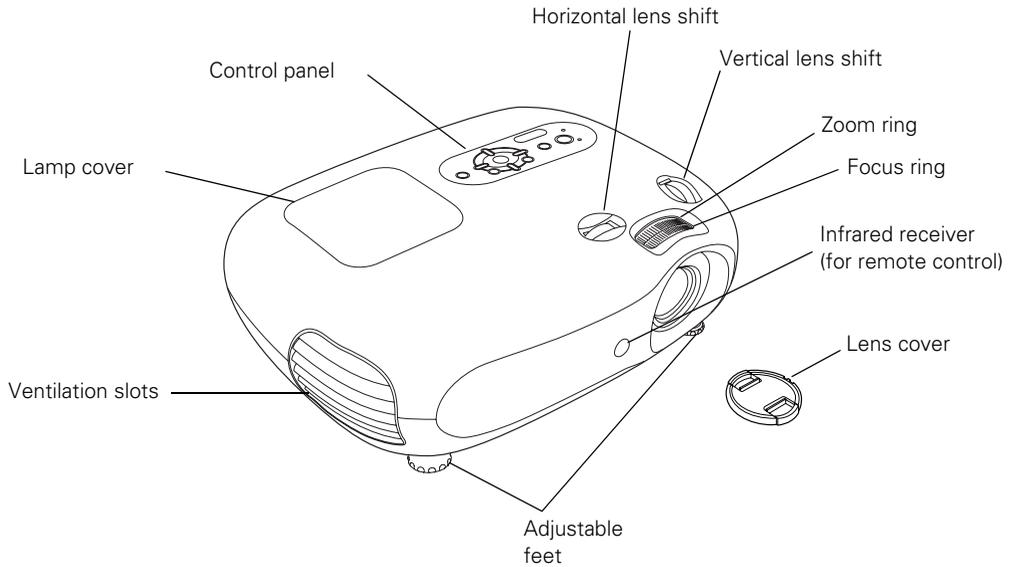
Registration and Warranty

The Epson PowerLite Home 20 projector comes with a basic two-year carry-in warranty. For details, see page 45.

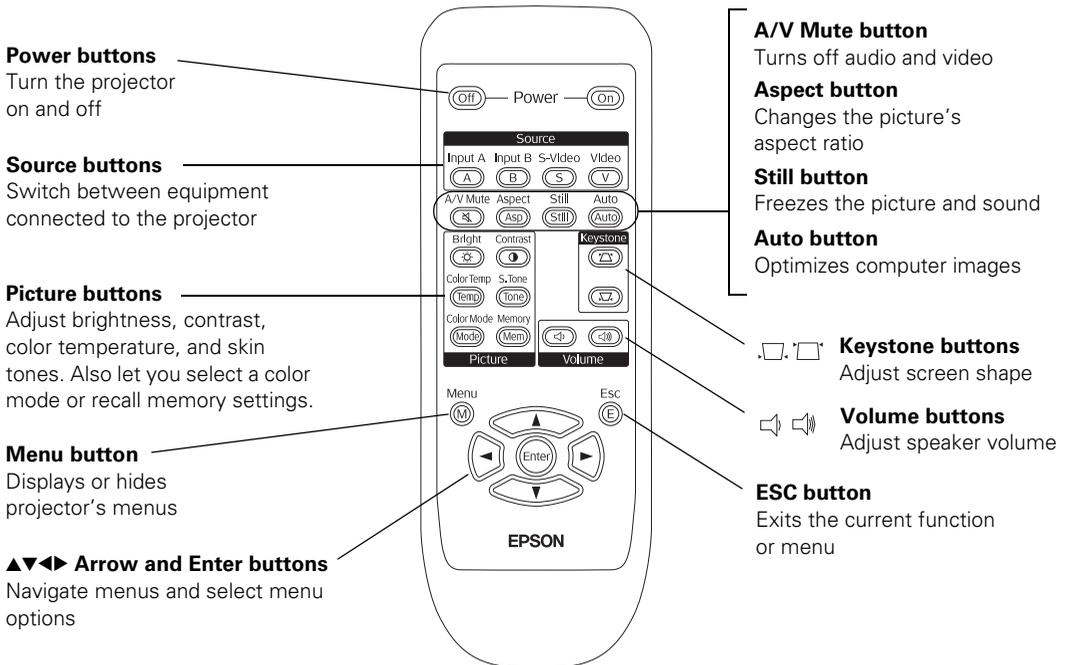
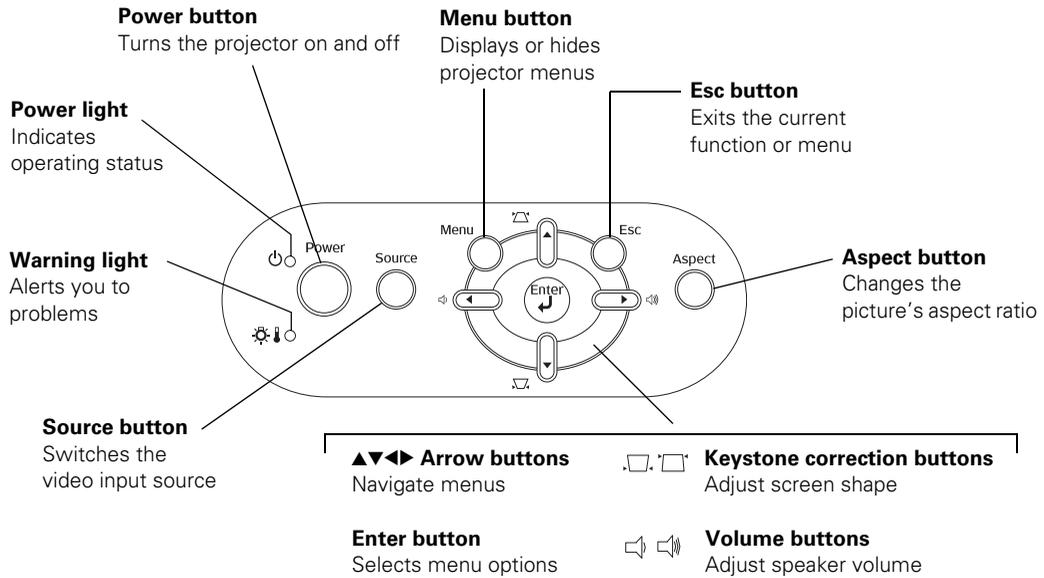
In addition, Epson offers free Extra CareSM Home Service during your warranty period. In the unlikely event of an equipment failure, you won't have to wait for your unit to be repaired. Instead, Epson will ship you a replacement unit anywhere in the United States or Canada, usually via overnight delivery. See your *Extra Care Home Service* brochure for details.

We encourage you to please register your projector. To register, simply fill out the registration card that came with your projector and mail it to Epson. Or you can register online at <http://www.epson.com/webreg>. Registering also lets you receive special updates on new accessories, products, and service.

Projector Parts



Projector Controls



Optional Accessories

Epson provides the following optional accessories for the projector:

Product	Part number
Replacement lamp	ELPLP33
Air filter replacement	ELPAF09
Customized carrying cases: Samsonite® wheeled soft case Samsonite soft shoulder bag	ELPKS35 ELPKS43
Ceiling mount	ELPHT020
Suspension adapter	ELPHTAPL
False ceiling plate	ELPHTFCP
Kensington security lock	ELPSL01
S-video cable	F8V308X25

You can purchase these accessories from an Epson authorized reseller. To find the nearest reseller, please call 800-GO-EPSON (800-463-7766). To purchase online, visit www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for reseller referral.

About This Manual

See the *Quick Setup* sheet to connect the projector to your video or computer equipment. This book contains information on using the projector, in addition to maintenance instructions, troubleshooting tips, important safety instructions, specifications, and warranty information.

Please follow these guidelines as you read through the manual:

Warnings: Must be followed carefully to avoid bodily injury.

Cautions: Must be observed to avoid damage to your equipment.

Notes: Contain important information about your projector.

Tips: Contain helpful projection tips.

Getting More Information

Need additional help? Take advantage of Epson's automated support services 24 hours a day at <http://support.epson.com>. Use this site to view FAQs (Frequently Asked Questions) or product information and e-mail your questions to Epson support.

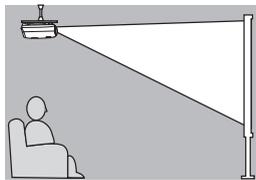
If you need more help, you can use the Epson PrivateLine® Support service. Call (800) 637-7661 and enter the PIN on the PrivateLine support card that came with your projector.

Using the Projector

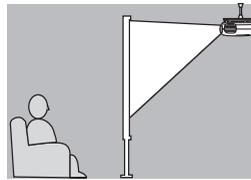
Follow the instructions in this section to choose a location for the projector, adjust the picture, control projector operation, and use the menu system.

Choosing a Location

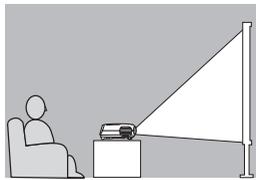
You can set up the projector for these four viewing arrangements:



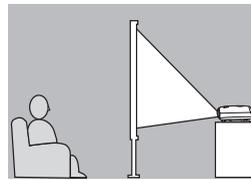
Front/Ceiling



Rear/Ceiling



Front

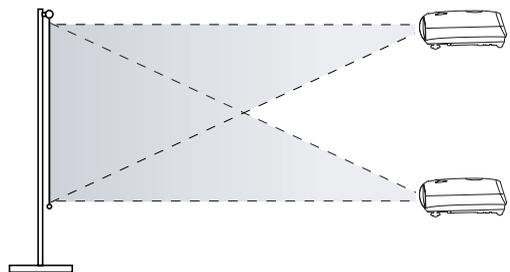


Rear

If you install the projector in a rear or overhead position, you need to invert and/or mirror the image by selecting the correct Projection option (see page 20). Professional installation is recommended if you want to attach the projector to the ceiling.

Ideally, place the projector at a height so its lens is between the top and bottom of the screen. That way, you can keep the projector level and use the vertical lens shift dial to position the image (see page 13). This produces the best-looking picture.

If you place the projector above or below screen level, you have to tilt it up or down to aim the image at the screen; this distorts the shape of the image, but you can correct it with the projector's Keystone function (see page 14).



To project a rectangular (non-distorted) image, you do not need to align the projector exactly with the center of the screen. By using the horizontal lens shift dial, you can place the projector to the left or right of the screen's center, by up to 25 percent of the image's width when projecting with a 16:9 aspect ratio. Make sure the projector faces straight ahead (at a 90-degree angle to the screen).

Note: If you place the projector too far left or right, your image will not be rectangular.

Place the projector at a suitable distance from the screen to obtain the desired image size, as indicated below. Note that the Zoom adjustment also affects image size.

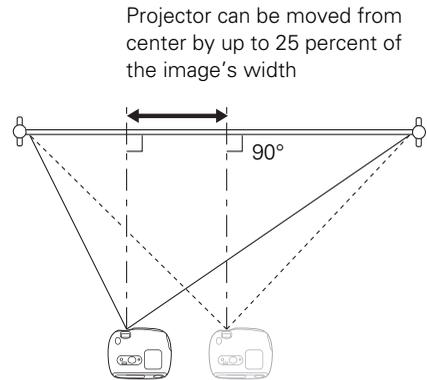


Image size (16:9)	Projection distance
30 in. (26 × 15 in.)	2.4 to 3.7 feet
40 in. (35 × 20 in.)	3.2 to 4.9 feet
60 in. (51 × 28 in.)	4.9 to 7.4 feet
80 in. (71 × 39 in.)	6.6 to 9.9 feet
100 in. (87 × 47 in.)	8.2 to 12.4 feet
200 in. (173 × 98 in.)	16.5 to 24.8 feet
300 in. (260 × 146 in.)	24.8 to 37.3 feet

When placing the projector, keep these considerations in mind:

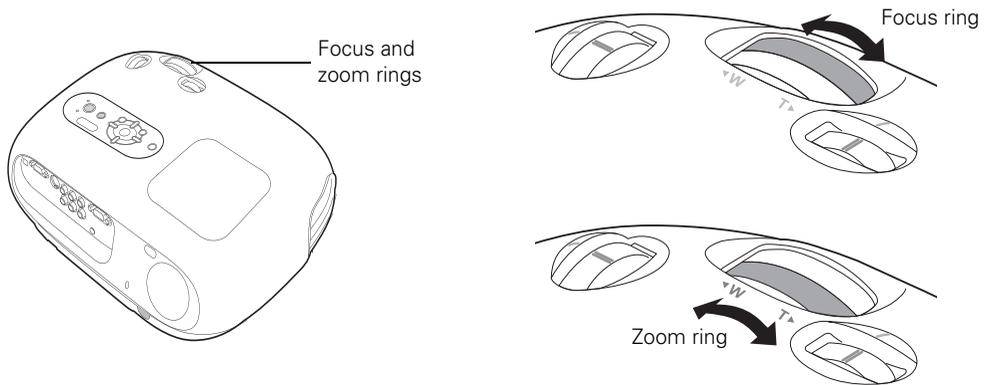
- Make sure there is plenty of space for ventilation around and under the projector. Do not set the projector on top of loose materials that could block the vents underneath.
- Make sure the projector is within 6 feet of a grounded electrical outlet or extension cord.

Adjusting the Picture

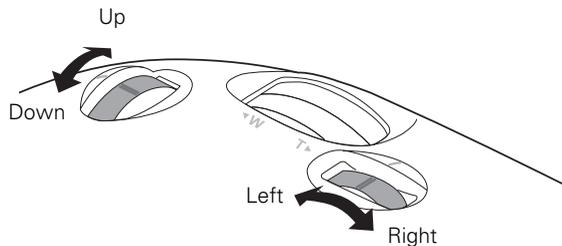
Follow the steps on the *Quick Setup* sheet to connect the projector to your equipment, turn it on, and select the image source. Once you see your picture, you may need to make certain adjustments.

Note: If you don't see a picture, or the picture doesn't look right, see page 34 for troubleshooting instructions.

1. Rotate the focus ring to sharpen the picture, or the zoom ring to reduce or enlarge it.

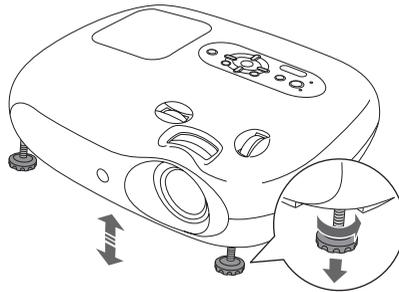


2. If the image is not centered on the screen, use the horizontal and vertical lens shift dials to adjust its position.



Note: The lens shift feature cannot move the image both horizontally and vertically by the full amount. For example, if you have moved the image all the way up, then you cannot shift it all the way to the right or left at the same time.

3. If you still need to raise the height of the image after using the vertical lens shift dial, lift the front of the projector and rotate the adjustable feet until the image is positioned correctly. You can also use the feet to correct the angle of the image if it's tilted horizontally.



4. If you raise or lower the image by tilting the projector, the image becomes “keystoned” and looks like □ or □. To return the image to a rectangular shape, use the .□. or “□” Keystone button on the projector or remote control.
5. To change the picture’s aspect ratio (ratio between length and height), press the **Aspect** button on the projector or remote control. Choose from these settings:

■ **Auto**

To automatically display the image in the correct size.

■ **Normal**

For standard TV broadcasts, computer images, or images having a 4:3 aspect ratio.

■ **Squeeze**

For DVDs or video recordings made in a compressed (anamorphic) 16:9 format, sometimes called “Squeeze Mode.”

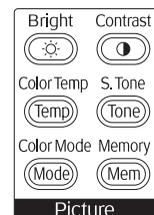
■ **Zoom**

For images having a 16:9 aspect ratio (wide-screen or letterbox format).

Note: If you display a 4:3 image using the Zoom setting, the edges of the image will be cut off. You can use the Zoom Caption option to resize and position the image to your liking (see page 19).

6. Use the **Picture** buttons on the remote control to adjust the brightness, contrast, and color. See page 17 for more information about using these settings.

Note: Before selecting the Color Mode or other picture settings, make sure the Setup Level is set correctly (see page 20).



Controlling Your Presentation

Use these settings to control the projector's speaker volume, temporarily freeze the picture, or turn off the picture and sound.

Adjusting the Volume

When an audio source is connected to the projector's Audio port, use the  and  **Volume** buttons on the projector or remote control to adjust the sound output from of the projector's speaker.

Freezing the Action

To freeze the action temporarily on the screen, press the **Still** button on the remote control. This freezes any moving images until you press the **Still** button again.

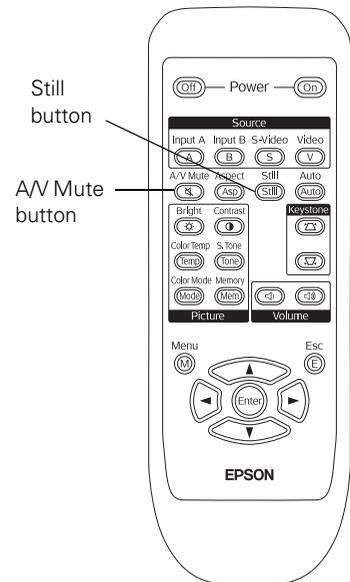
Note: The sound from your video source continues to be heard while the image is frozen. You need to press the pause button on your video source if you wish to resume playback where you stopped it.

Turning Off the Picture and Sound

You can use the **A/V Mute** button on the remote control to darken your screen and turn off the sound.

- To turn off the picture and sound, press the **A/V Mute** button. The screen goes dark.
- To turn the picture and sound back on, press the **A/V Mute** button again.

Note: Your video source continues to play while the screen is dark. You should pause the video if you wish to resume playback where you stopped it.



Using the Projector's Menu System

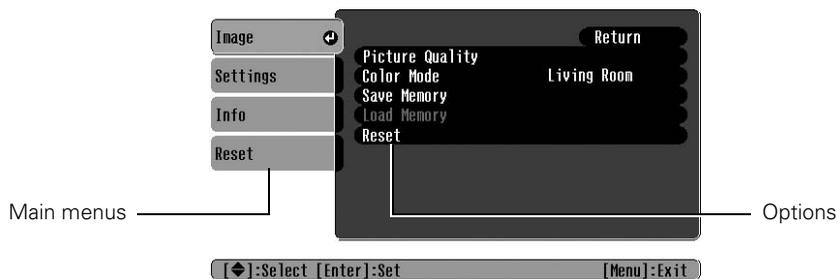
You can use the projector's on-screen menus to fine-tune the image quality, check lamp usage, and customize projector features.

- The **Image** menu controls the look and quality of the picture. It offers several ways to adjust the color and improve the sharpness and clarity of the picture.
- The **Settings** menu lets you set the child lock or sleep mode, adjust the position and size of the picture, select front or rear projection, and customize other projector features.
- The **Info** menu provides information about lamp status and video or computer settings.
- The **Reset** menu lets you reset the lamp timer, clear the projector's Memory settings, or return all the menu settings to their factory defaults.

You can use the buttons on the projector or remote control to display the menus and change settings. Follow the steps in the next section.

Changing Menu Settings

1. Press the **Menu** button on the projector or remote control. You see the main menu screen:



Note: The available options depend on which type of equipment is connected to the projector.

2. Use the **▲** and **▼** arrow buttons on the projector or remote control to highlight the desired menu, then press the **Enter** button to select it.

3. If you see a list of options, use the ▲ and ▼ arrow buttons to highlight the option you want, then press **Enter** to select it. (Enabled settings are indicated by a green light.)

If you see a slider bar like the one shown below, use the ◀ and ▶ arrow buttons to adjust the setting.



4. Press the **Esc** button to return to the previous menu, or the **Menu** button to exit the menu system.

Adjusting the Appearance of the Picture

The Image menu lets you make a variety of adjustments to the projected image to get the best color and quality.

Note: Before selecting the Color Mode or other picture settings, make sure the Setup Level is set correctly (see page 20).

Choosing the Color Mode

The Color Mode adjusts the brightness, contrast, and color for various common viewing environments. Use this setting to quickly obtain a good picture.

Press the **Menu** button. Select **Image > Color Mode** and then choose from these options:

- **Dynamic**
For projecting in bright rooms; images have greater color intensity.
- **Living Room**
For projecting in rooms with a lot of ambient light.
- **Natural**
For projecting in subdued lighting; increases contrast and makes flesh tones appear more natural.
- **Theatre**
For projecting in dark rooms; enhances the appearance of movies with dark scenes.
- **Theatre Black 1 or 2**
For projecting in fully darkened rooms; lamp brightness decreases and image contrast increases.

Using Picture Quality Settings

Before adjusting the image with these settings, make sure you have already selected the best Color Mode, as described on page 17.

Note: All settings apply to (and are retained for) only the currently selected input source (Input A, Input B, Video, or S-Video). If you use more than one source, you should adjust the settings separately for each one.

Press the **Menu** button. Select **Image > Picture Quality** and then choose from these options:

- **Brightness**
Adjusts the brightness of the picture.
- **Contrast**
Adjusts the contrast between light and dark parts of the picture.
- **Color Saturation (video only)**
Adjusts the color depth of the picture.
- **Tint (video only)**
Adjusts the hue of the picture by shifting the color balance between green and magenta.
- **Color Temp.**
Adjusts red and blue tones. A lower color temperature produces a picture with more red (warmer tones), while a higher color temperature produces more blue (cooler tones).
- **Skin Tone**
Makes fine adjustments to the tint, adjusting the balance of green to magenta. This adjustment is saved with the specific Color Mode you have selected (if you switch Color Modes, a different Skin Tone setting will apply).
- **Sharpness**
Makes lines and edges more distinct.

Adjusting Computer Images

In addition to the settings listed above, you can also adjust the following settings when projecting from a computer.

- **Auto Setup**
Select **Image > Auto Setup**. Leave this setting on so that the projector automatically adjusts the tracking, sync, and position of the image.
- **Tracking**
Select **Image > Picture Quality > Tracking**. Lets you manually eliminate unwanted vertical lines. Easiest to adjust when the image contains fine detail, such as black text on a white background.

- **Sync**
Select **Image > Picture Quality > Sync**. Corrects fuzziness by synchronizing the projector with the computer's tracking signal. For best results, adjust the tracking first.

Saving and Recalling Picture Settings

You can use the projector's Memory feature to save the current picture quality settings as a group. This lets you quickly recall them for future use.

1. Press the **Menu** button, then select **Image > Save Memory**.
2. Select **Memory 1**, **Memory 2**, or **Memory 3**, then press the **Enter** button to save your settings.
3. Press the **Menu** button to exit the menu system.
4. To recall the settings, press the **Memory** button on the remote control (or press the **Menu** button and select **Image > Load Memory**). Select the memory setting you wish to use, then press **Enter**. The screen is adjusted with your settings.

Using Advanced Picture Settings

Use these options to select basic settings for your picture, such as its position, size, and orientation, and compatible signal formats for your connected video equipment.

Press the **Menu** button. Select **Settings > Screen** and then choose from these options:

- **Position**
Use the **▲, ▼, ◀, ▶** arrow buttons to move the picture to a different position on the screen.
- **Progressive**
Leave this setting **OFF** when viewing video so that interlaced-to-progressive conversion is carried out (best for fast-moving pictures). If you notice flickering while viewing still images, switch this setting to **ON**.
- **Aspect**
Selects the picture's aspect ratio (see page 14).
- **Zoom Caption**
Lets you adjust the screen so that subtitles are visible (available only when you've selected the **Zoom** aspect ratio). Use **Vertical Size** to adjust the proportions of the image, and **Zoom Position** to move the image up or down.

■ **Output Scaling** (component video only)

Lets you see the edges of the image that are not normally visible. Select **Larger** to view both the hidden and visible parts of the image. **Normal** displays images at standard size.

■ **Keystone**

Corrects vertical keystone distortion (when your image looks like  or  from tilting the projector). Makes the image somewhat smaller.

■ **Projection**

Mirrors and/or inverts the image as needed, depending on the projector's location relative to the screen:

For this projector position . . .	Use this setting . . .
In front of the screen	Front
In front of the screen, mounted upside-down on the ceiling	Front/Ceiling
Behind the screen	Rear
Behind the screen, mounted upside-down on the ceiling	Rear/Ceiling

■ **Setup Level**

Adjusts the threshold at which dark areas of the image are rendered black. For compatibility with most video equipment sold in the United States, set to **7.5%** (7.5 IRE).

If you need to select the video signal format for any video equipment connected to the projector, select **Settings > Input Signal** and then choose from these options:

■ **Video Signal** (composite and S-video signals only)

Leave this setting on **Auto** to automatically detect the video format of your equipment. If you notice a lot of interference in the image, or no image is being projected, select the format specified in your equipment's manual.

■ **Input A** (component and RGB video signals only)

Specifies the format for the video source connected to the Input A (component/RGB) port. Select either **Component** or **RGB Video**.

Using On-screen Display Features

Use these settings to control the appearance of the on-screen menus, display a background image or color, create a startup screen, and choose a menu language.

Press the **Menu** button. Select **Settings > On-Screen Display** and then choose from these options:

■ **Menu Color**

Use this option to change the color scheme of the menu from purple and orange (Color 1) to black and white (Color 2).

■ **Message**

Turn this option off if you don't want to display information messages on the screen, such as the **No Signal** message, image source, color mode, and aspect ratio.

■ **Background Color**

Select the screen color (**Black** or **Blue**) or a custom **Logo** to display when you press the **A/V Mute** button on the remote control or when no image signal is present.

Note: To create a custom logo, see "Creating a Custom Logo" below. If you turn on the **Startup Screen** option (next item below), your logo also appears when the projector is warming up.

■ **Startup Screen**

Turn on this option to display the Epson logo or your custom logo whenever the projector starts.

Creating a Custom Logo

You can create a custom logo that displays when the projector is warming up, not receiving a signal, or when you press the **A/V Mute** button on the remote control.

1. To capture the image, first set the projector to display the image you want to use.
2. Press the **Menu** button, then select **Settings > User's Logo**. Follow the instructions on the screen, selecting the part of the screen you want to capture, and then choosing a "zoom rate" to set its magnification level.
3. When done, change the **Background Color** setting to **Logo**, as described above.

Choosing a Menu Language

To change the language you want to use for the projector menus, press the **Menu** button, then select **Settings > Language**.

Customizing Projector Operation

Use these settings to activate the Direct Power ON feature, set the child lock or sleep mode, and make the fan run faster for high-altitude operation.

Press the **Menu** button. Select **Settings > Operation** and then choose from these options:

■ **Direct Power ON**

Use this feature to turn on the projector automatically when you plug it into an electrical outlet.

Note: When this feature is used, the projector may turn itself on after power outages, or after any temporary interruption of power. Make sure your electrical outlet isn't controlled by a wall switch or timer.

■ **Sleep Mode**

When Sleep Mode is on, the projector turns off the lamp if it has not received any input signals for the specified amount of time (5, 10, or 30 minutes). You can also turn Sleep Mode off.

■ **Child Lock**

When this feature is on, the projector does not come on unless you press and hold the **⏻ Power** button on the control panel for three seconds. (The remote control operates normally.)

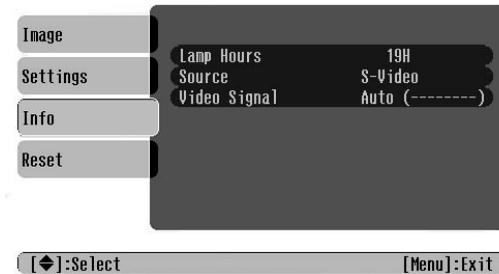
■ **Fan Speed**

When using the projector at an altitude above 5000 feet (1500 meters), select **High** to ensure that the internal temperature is regulated properly. Set to **Normal** for lower elevations.

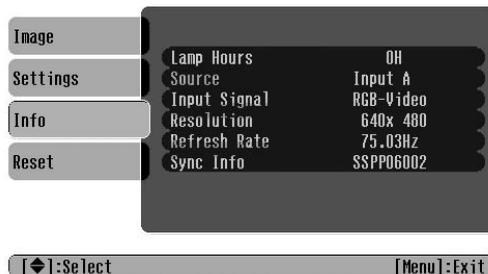
Viewing Lamp Usage and Other Information

Use the Info menu to view information about the display settings of your input source and the number of hours the lamp has been used.

Press the **Menu** button and select **Info**. If the projector is connected to video equipment, you see these settings:



If the projector is connected to a computer, you see these settings:



The life span of the lamp is about 3000 hours if the Color Mode is consistently set to **Theatre Black**, and 2000 hours if any other Color Mode is used. If the number shown is close to the limit, make sure you have a spare lamp handy.

Note: Lamp life results vary depending on environmental conditions and usage. Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the overall life of the product.

After you change the lamp, you need to reset the lamp timer. See pages 27 to 29 for instructions on replacing the lamp and resetting the timer.

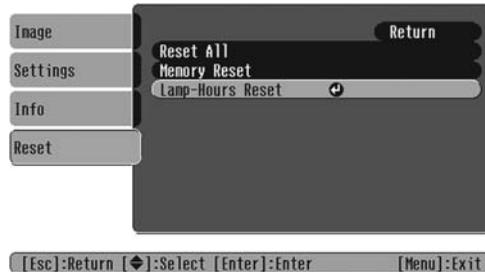
Note: The Lamp Hours shows 0H (zero hours) until you've used the lamp for at least 10 hours.

Restoring the Default Settings

The Reset menu lets you reset the lamp timer, clear the projector's Memory settings, or return all the projector settings to their factory default values.

Note: The Image menu and Settings menu also have their own Reset function that lets you clear only the settings in those menus. The Reset function in the Settings menu clears all settings except for Aspect, Child Lock, Fan Speed, Input A, and Language.

Press the **Menu** button, then select **Reset**. You see this screen:



Choose from these options:

- **Reset All**
Resets all settings to their factory default values. The only settings not affected by this option are Child Lock, Input A, Language, Memory settings, and Lamp Hours.
- **Memory Reset**
Clears all settings saved using the projector's Memory feature (see "Saving and Recalling Picture Settings" on page 19).
- **Lamp-Hours Reset**
Resets the lamp timer to 0H (zero hours). See page 23.

Caring for the Projector

Your projector needs little maintenance. All you need to do on a regular basis is keep the lens clean. You also need to clean the air filter periodically to prevent overheating.

Warning: Before you clean any part of the projector, turn it off 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 *User's Guide*.

The only parts you should replace are the lamp and air filter. If another part needs replacing, contact Epson or a qualified servicer (see page 38).

Follow the instructions in this section to clean the lens and projector case, clean and replace the air filter, replace the lamp, and store or transport the projector.

Cleaning the Lens

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, use lens-cleaning paper. If necessary, moisten a soft cloth with lens cleaner and gently wipe the lens surface.

Caution: Never rub the lens with abrasive materials.

Cleaning the Projector Case

Before you clean the case, turn off the projector and unplug the power cord.

- To remove dirt or dust, wipe the case 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 case.

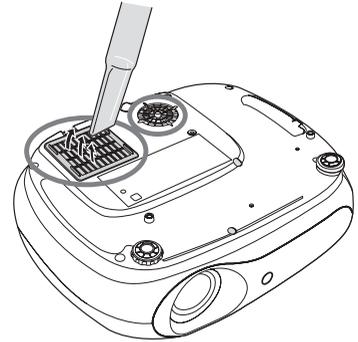
Caution: Never use wax, alcohol, benzene, thinner, or other chemical detergents. These can damage the case.

Cleaning and Replacing the Air Filters

Clean the air filters on the bottom of the projector after every 100 hours of use. If they're not cleaned periodically, they can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector.

1. Turn off the projector and wait for the  power light to stop flashing.
2. Unplug the power cord and disconnect any cables.
3. Turn the projector over. Then use a small vacuum cleaner designed for computers and other office equipment to clean the filters, as shown.

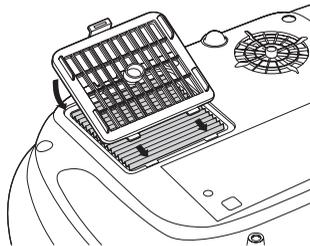
If you cannot clean the removable filter or it is broken, replace it. Contact an authorized Epson reseller at 800-GO-EPSON (800-463-7766) and ask for part number ELPAF09. In Canada, please call (800) 463-7766 for reseller referral.



4. If you need to replace the filter, press the tab in and lift the cover up.



5. Remove the old filter and replace it with a new one.
6. Replace the cover.



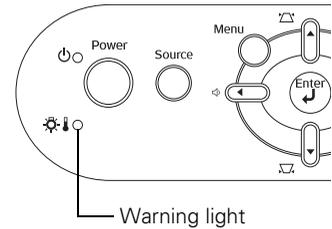
Replacing the Lamp

The life span of the lamp is about 3000 hours if the Color Mode is consistently set to **Theatre Black**, and 2000 hours if any other Color Mode is used. You can check how long the lamp has been used, as described on page 23. If the number shown is close to the limit, make sure you have a spare lamp handy.

Note: Lamp life results vary depending on environmental conditions and usage. Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the overall life of the product.

It's time to replace the lamp when:

- The projected image gets darker or starts to deteriorate.
- The projector's warning light flashes red at half second intervals.
- The message **Replace the lamp** appears on the screen when you start projecting.



Contact an authorized Epson reseller at 800-GO-EPSON (800-463-7766). Request part number **ELPLP33**. In Canada, please call (800) 463-7766 for reseller referral.

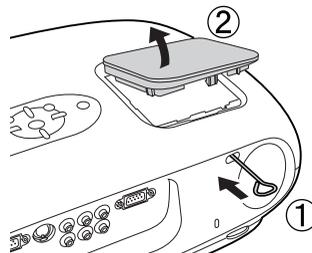
Be sure to read the “Important Safety Information” on page 42 before replacing the lamp.

Follow these steps to replace the lamp:

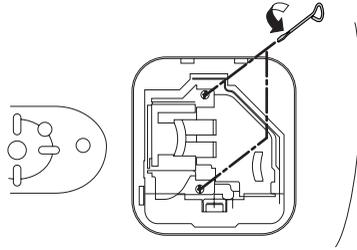
1. Turn off the projector and wait for the  power light to stop flashing.
2. Unplug the power cord and any cables.
3. If the projector has been on, let it cool for at least an hour.

Warning: Let the lamp cool before replacing it. If the lamp breaks, handle the shards carefully to avoid injury. If your projector is mounted on the ceiling, take it down before beginning this procedure.

4. Insert a small screwdriver into the lamp cover release slot, pushing it in gently to release the lamp cover.

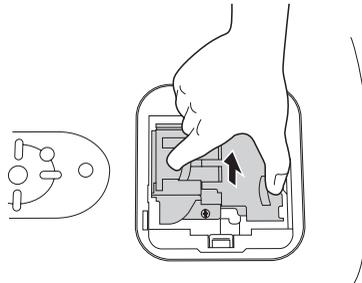


- Loosen the two silver screws holding the lamp in place. (You can't remove these screws.)



- Grasp the lamp as shown and pull it straight out.

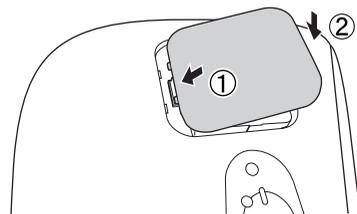
Note: (Hg) The lamp(s) in this product contain mercury. Please consult your state and local regulations regarding proper disposal or recycling. Do not place in the trash.



- Gently insert the new lamp and tighten its screws.

Caution: Don't touch the glass portion of the lamp with your bare hands; the invisible residue left by the oil on your hands may shorten the lamp life. Use a cloth or gloves to handle the new lamp assembly.

- To replace the lamp cover, insert the tabs and then snap the cover into place. (The projector won't work if the lamp cover is loose.)



After replacing the lamp, you need to reset the lamp timer, as described in the next section.

Resetting the Lamp Timer

1. Press the **Menu** button on the projector or remote control.
2. Select the **Reset** menu, and then select **Lamp-Hours Reset**.
3. When you see a prompt asking whether you want to execute the command, highlight **Yes** and press the **Enter** button.
4. When you're finished, press **Esc** or **Menu**.

The lamp usage timer displays 0H (zero hours) until you've used the lamp for at least 10 hours.

Storing the Projector

If you need to store the projector for a while, do the following:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector (14 to 140 °F [-10 to 60 °C] and 10 to 90% relative humidity).
- Attach the lens cover and retract the feet.
- Remove the batteries from the remote control.
- Package the projector in its original packaging or equivalent (as described in the following section).

Transporting the Projector

Note: Epson shall not be liable for any damages incurred during transportation.

The projector contains many glass and precision parts. If you need to transport it, follow these guidelines to prevent damage:

- When shipping the projector for repairs, use the original packaging material if possible. If you do not have the original packaging, use equivalent materials, placing plenty of cushioning around the projector. Be sure the carrier is capable of transporting fragile equipment and is aware that the projector is fragile.
- When you are hand-carrying the projector, grasp it by its left and right sides, using the recessed hand grips underneath.

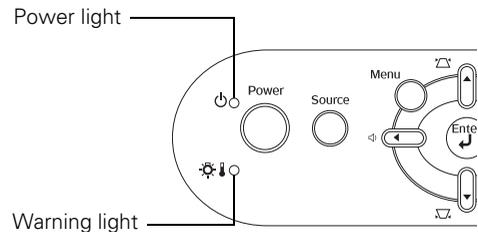
Problem Solving

This section explains how to interpret the projector's status lights, solve problems with the picture and remote control, and contact technical support.

What To Do When the Lights Flash

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

If the projector isn't working correctly, first turn it off, let it cool, and unplug it. Then plug the power cord back in and turn on the projector. If this doesn't solve the problem, check the status lights on top of the projector.



The power light is orange.

The projector is in sleep mode. Unplug it or press the  Power button to turn it on.

The power light is flashing green.

The projector is warming up. Wait for the picture to appear.

The power light is flashing orange and you can't turn on the projector.

The lamp is cooling down. Wait until the light stops flashing, then press the  Power button.

The power light does not come on.

Make sure the power cord is connected securely both at the power outlet and the projector.

The  warning light is flashing orange.

High-speed cooling is in process. If the projector gets too hot again, projection stops automatically. Make sure there is plenty of space around and under the projector for ventilation. Clean or replace the air filters if necessary (see page 26). If you are using the projector at an altitude above 5000 feet (1500 meters), switch the **Fan Speed** setting to **High** (see page 22).

The  warning light is red.

The projector is too hot and has turned itself off. Let it cool for five minutes, then turn it back on. Make sure there is plenty of space around and under the projector for ventilation. Clean or replace the air filters if necessary (see page 26). If you are using the projector at an altitude above 5000 feet (1500 meters), switch the **Fan Speed** setting to **High** (see page 22).

The  warning light is flashing red at half second intervals.

The lamp needs to be replaced. See page 27.

The  warning light is flashing red at one second intervals.

- The lamp cover may be loose or off. Make sure it's securely fastened. See page 28.
- There is an internal problem. Unplug the projector and contact Epson. See page 38.

Solving Projector Problems

The projector doesn't turn on.

- Check the  power light. If it's dark, the projector is not receiving power. Make sure the power cord is securely attached at both ends. Check that the electrical outlet isn't controlled by a timer, wall switch, or power strip switch, which may be interrupting the power.
- If the  power light is orange, the projector is in sleep mode. Press the  **Power** button to turn on the projector.

If the Child Lock is being used (see page 22), you have to press and hold the projector's  **Power** button for at least 3 seconds to turn on the projector. (The remote control, however, operates normally.)
- If the  power light is green and not flashing, the projector is operating normally. Make sure the lens cover is off. Press the **A/V Mute** button on the remote control to make sure the picture hasn't been turned off temporarily.

The projector turns itself off after a period of time.

The projector's Sleep Mode function may be turned on. This causes the projector to turn itself off if it hasn't received any input signals for a specified period of time. You can turn the Sleep Mode setting off. See page 22.

The projector turns on by itself.

If you are using the Direct Power ON feature, the projector turns on automatically when you plug it into an electrical outlet (see page 22). It may also turn itself on after power outages, or after any temporary interruption of power. Make sure your electrical outlet isn't controlled by a wall switch or timer.

There is no sound coming from the projector.

- Make sure audio cables are connected to the Audio port, and your audio equipment is turned on.
- Use the  and  Volume buttons on the projector or remote control to adjust the sound output from the projector's speaker.
- Press the A/V Mute button on the remote control to make sure the picture and sound haven't been turned off temporarily.

The projector doesn't respond to remote control commands.

- Make sure you're within 20 feet of the projector, and within range of the projector's front or back sensor (approximately 30° left or right, and 15° above or below).
- You may need to replace the remote control's batteries. Make sure they're inserted with the positive (+) ends facing the bottom of the remote, as shown on the *Quick Setup* sheet.
- Dim the room lights and turn off any fluorescent lights. Make sure the projector is not in direct sunlight.
- Turn off nearby equipment that emits infrared energy, such as a radiant room heater.

Solving Picture Problems

You see a screen with the message **No Signal displayed.**

- Make sure your video equipment is turned on.
- Make sure your cable(s) are connected correctly, as described in the *Quick Setup* sheet.
- Use the **Source** button(s) on the projector or remote control to select the correct input source. Allow a few seconds for the projector to sync up.
- Press the **Menu** button and select **Info**. Make sure the resolution or video signal format shown for your connected equipment is listed as a compatible format on page 41.

No picture appears on the screen.

- Make sure the projector is turned on (the  power light is green and not flashing).
- Make sure the lens cover is off.
- Press the **A/V Mute** button on the remote control to make sure the picture hasn't been turned off temporarily.
- If you're projecting from a laptop, you may need to set it to display on an external monitor, as described below.

If you're using a PC laptop:

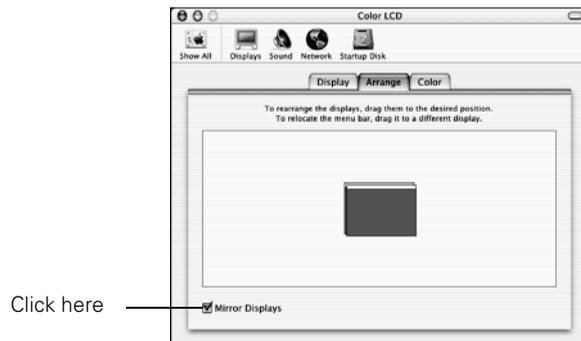
Press the function key that lets you display on an external monitor. It's often labeled with an icon such as , but it may also be labeled **CRT/LCD**. You may have to hold down the **Fn** key while pressing it, or restart your laptop. Check your laptop's manual or online help.

On most systems, the  key lets you toggle between the LCD screen and the projector, or display on both at the same time. Allow a few seconds for the projector to sync up after pressing it.

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 for details.

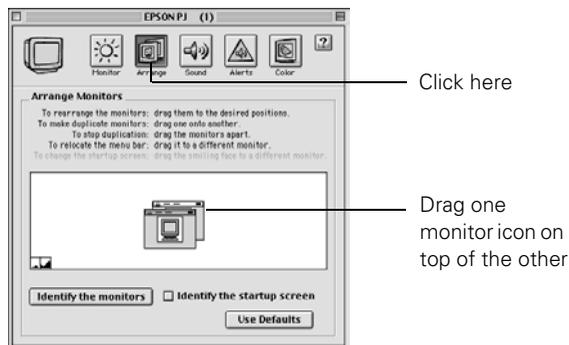
If you're using a Macintosh® laptop with OS X:

1. Select **System Preferences** from the Apple® menu and click **Displays**.
2. Click **Detect Displays**.
3. To display the entire desktop on both your projector screen and LCD screen, click the **Arrange** (or **Arrangement**) tab. (If you don't see this tab, make sure it isn't hidden by another window.)
4. Click **Mirror Displays** in the lower corner of the screen. One of the monitor icons automatically moves on top of the other.



If you're using a Macintosh laptop with OS 9.x or earlier:

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



If the **Arrange** option isn't available, you may need to select one of the Simulscan resolutions. Click the **Monitor** icon and then select a Simulscan resolution from the **Resolution** box. (Allow a few seconds for the projector to sync up.)

The picture is upside-down or reversed.

Change the setting for the Projection option in the Settings menu. See page 20.

The image doesn't fit on the screen correctly, or it is stretched or compressed.

- Press the Aspect button to select a different aspect ratio. See page 14.
- Check the Zoom Caption and Output Scaling settings. See pages 19 and 20.
- Use the Position setting in the Settings menu to reposition the image on the screen. See page 19.

The picture is wider at the top or bottom.

You've tilted the projector to raise or lower the image, causing it to become "keystoned." Use the  or  Keystone button on the projector or remote control to correct the problem.

Better yet, place the projector at a height approximately between the top and bottom of the screen, keeping it level, and then use the vertical lens shift dial to position the image (see page 13). You won't have to correct for keystone distortion this way, and you'll get a better-looking image.

The picture is taller on the left or right side.

The projector is set at an angle to the screen. Face it squarely toward the screen, and then use the horizontal lens shift dial to center the image. See pages 12 and 13.

The picture contains static or noise.

- Make sure your cable is securely connected at both ends.
- Excessive cable length may cause interference. The practical length of the cable depends on the type of cable used, its quality, and the complexity of your connections. Consider using a signal amplifier.
- If you're displaying the same image on your computer and projector screen, try turning off your laptop's LCD display.
- Check the settings in the Video Signal and Input A options in the Settings menu to make sure they're correct for your video equipment. See page 20.
- Make sure the Progressive setting is set to OFF when viewing video. If you notice flickering while viewing still images, switch the setting to ON. See page 19.

The picture is blurry.

- There may be dirt on the lens. Clean the lens as described on page 25.
- Make sure the lens is not fogged by condensation. If you've just moved the projector from a cold environment, wait a couple of minutes before using it.
- Adjust the focus using the focus ring. See page 13.
- Make sure the projector is placed the correct distance from the screen: no closer than 2.4 feet (73 cm) and no farther than 45.7 feet (13.9 m).
- Adjust the **Sharpness** setting in the Image menu. See page 18.
- If you're using the **Keystone** adjustment, be aware that it lessens image quality. You may wish to decrease the projection angle to reduce the amount of keystone correction needed, or use the lens shift dials to position the image. See page 13.
- If you're projecting from a computer, press the **Auto** button on the remote control. If you see no improvement, you may need to adjust the **Tracking** and **Sync**. See page 18.

The picture looks too light or too dark.

- Make sure the **Setup Level** is set correctly (see page 20). If it's not, dark or black parts of the picture may look washed-out.
- Press the **Color Mode** button on the remote control to select the best setting for your viewing environment.
- Adjust the **Brightness** and **Contrast** settings in the Image menu. See page 18.
Note: These settings should be adjusted separately for each video source you're using.
- If the picture looks darker than it used to, you may need to replace the lamp. See page 27.

The colors on the screen don't look right.

- Press the **Color Mode** button on the remote control to select the best setting for your viewing environment.
- Adjust the following settings in the Image menu: **Color Saturation**, **Tint**, **Color Temp.**, and **Skin Tone**. See page 18.
Note: These settings should be adjusted separately for each video source you're using.
- Check the settings in the **Video Signal** and **Input A** options in the Settings menu to make sure they're correct for your video equipment. See page 20.
- If your video equipment is connected with component video cables, make sure all three connectors are securely attached at both ends.

Where To Get Help

Epson provides technical assistance 24 hours a day at <http://support.epson.com>. Here you can access troubleshooting information, download product documentation, and receive technical advice through e-mail.

To use the Epson PrivateLine Support service, call **(800) 637-7661** and enter the PIN on the Epson PrivateLine Support card that came with your projector. This is the fastest way of speaking to a live representative, and it's free. This service is available 6 AM to 6 PM, Pacific Time, Monday through Friday, for the duration of your warranty period.

You may also speak with a projector support specialist by dialing one of these numbers:

- U.S.: **(562) 276-4394**, 6 AM to 6 PM, Pacific Time, Monday through Friday
- Canada: **(905) 709-3839**, 6 AM to 6 PM, Pacific Time, Monday through Friday

Toll or long distance charges may apply.

Before you call, please have the following information ready:

- Product name (Epson PowerLite Home 20)
- Product serial number (located on the bottom of the projector)
- Computer configuration, if you're projecting from a computer
- Description of the problem

You can purchase screens, carrying cases, or other accessories from an Epson authorized reseller. To find the nearest reseller, please call 800-GO-EPSON (800-463-7766). To purchase online, visit www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for reseller referral.

Specifications and Notices

This section includes projector specifications, safety instructions, and other important information about your projector.

Projector Specifications

General

Type of display	Poly-silicon TFT active matrix
Size of LCD panels	0.55 inch (14 mm) wide
Lens	F=1.7 to 2.1, f=13.7 to 20.5 mm
Resolution (native format)	854 × 480 pixels, 480p
Brightness	1200 lumens (ANSI)
Color reproduction	24 bit, 16.8 million colors
Contrast ratio	1000:1
Image size	30 to 300 inches (0.76 to 7.6 m)
Projection distance	2.4 to 45.7 feet (0.73 to 13.9 m)
Internal sound system	1 W monaural
Zoom ratio	1:1.5
Lens shift (maximum)	50% vertically, 25% horizontally
Optical aspect ratio	16:9
Noise level	33 dB (all color modes except Theatre Black) 28 dB (Theatre Black color mode)
Keystone correction	Vertical: -30° to +30°

Remote Control

Range	Approx. 20 feet (6 m)
Battery	AA × 2

Projection Lamp

Type	135 W UHE (Ultra High Efficiency)
Part number	ELPLP33
Lamp life	Approx. 2000 hours (all color modes except Theatre Black) Approx. 3000 hours (Theatre Black mode)

Note: Lamp life results vary depending on environmental conditions and usage. Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the overall life of the product.

Dimensions

Height	4.4 inches (111 mm), excluding feet
Width	14.7 inches (373 mm)
Depth	11.6 inches (295 mm)
Weight	7.8 lb. (3.5 kg)

Electrical

Rated voltage	100 to 240 VAC
Rated frequency	50/60 Hz
Power consumption	Operating: 200 W Standby: 4 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
Operating altitude	0 to 7,500 ft (0 to 2,286 m)

Safety and Approvals

United States	FCC 47CFR Part 15B Class B (DoC) UL1950 Rev. 3
Canada	ICES-003 Class B CSA C22.2 No. 950-95 (cUL)



Pixelworks™ DNX™ ICs are used in this projector.

Compatible Video Formats

The projector supports digital video (SDTV, HDTV), analog TV (NTSC, PAL, SECAM), and various monitor display formats. Images are automatically resized, if necessary, to display in the projector's native resolution.

Note: To project images from a computer, set the computer's video card at a refresh rate (vertical frequency) compatible with the projector; see below for compatible formats.

Digital video formats

Mode	Refresh Rate (Hz)	Resolution
HDTV (750p)	60	1280 × 720
HDTV (1125i)	60	1920 × 1080
HDTV (1125i)	50	1920 × 1080
SDTV (525i)	60	640 × 480
SDTV (525p)	60	640 × 480
SDTV (625i)	50	768 × 576
SDTV (625p)	50	768 × 576

Monitor display formats

Mode	Refresh Rate (Hz)	Resolution
VGAEGA	70	640 × 350
VGA—60	60	640 × 480
VESA—72	72	640 × 480
VESA—75	75	640 × 480
VESA—85	85	640 × 480
SVGA—56	56	800 × 600
SVGA—60	60	800 × 600
SVGA—72	72	800 × 600
SVGA—75	75	800 × 600
SVGA—85	85	800 × 600
XGA—60	60	1024 × 768
XGA—70	70	1024 × 768
XGA—75	75	1024 × 768
XGA—85	85	1024 × 768
MAC13	67	640 × 480
MAC16	75	832 × 624
MAC19	75	1024 × 768
MAC19—60	59	1024 × 768

Analog TV formats

Mode	Refresh Rate (Hz)
NTSC	60
NTSC 4:43	60
PAL	50
N-PAL	50
M-PAL	60
PAL—60	60
SECAM	50

Important Safety Information

Follow these safety instructions when setting up and using the projector:

- Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.
- Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages inside the projector can severely injure you.
- The projector and its accessories come packaged in plastic bags. Keep plastic bags away from small children to avoid any risk of suffocation.
- Never look into the projector lens when the lamp is turned on; the bright light can damage your eyes. Never let children look into the lens when it is on.
- Don't place the projector on an unstable cart, stand, or table. Also, don't stand on the projector or place heavy objects on it.
- Never push objects through the cabinet slots or spill liquid into the projector.
- Do not use the projector near water or sources of heat.
- Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners. Unplug the projector from the wall outlet before cleaning.
- Never try to remove the lamp immediately after use. Doing so will result in serious burns. Before removing the lamp, turn off the projector and wait for the lamp to cool completely.
- The lamp is fragile and can easily break. If the lamp breaks, handle the projector with extreme care to avoid injury from broken glass. If the projector is mounted to a ceiling, take it down before replacing the lamp, or pieces of broken glass could fall into your eyes or mouth.
- Do not use the lamp after the lamp replacement period has elapsed, because the possibility of lamp breakage increases. When the lamp replacement message appears, replace the lamp with a new one as soon as possible.
- (Hg) The lamp(s) in this product contain mercury. Please consult your state and local regulations regarding disposal or recycling. Do not place in the trash.

- The lamp in this projector is under high internal pressure and may make a loud noise if it breaks. If it breaks, ventilate the room to prevent mercury gas inside the lamp from being inhaled or coming into contact with the eyes or mouth.
- Do not bring your face close to the projector while it is in use, to prevent inhaling or contact with the gases inside the lamp if it breaks.
- If the lamp breaks and gas from the lamp or fragments of broken glass are inhaled or get into the eyes or mouth, or if any other ill effects are noticed, immediately seek medical advice.
- Use the type of power source indicated on the projector. If you're not sure of the power available, consult the power company.
- If you use the projector in a country other than where you purchased it, use the correct power cord for that country.
- Place the projector near a wall outlet where the plug can be easily unplugged.
- Don't place the projector where the cord can be walked on. This may result in fraying or damage to the plug.
- Don't insert the plug into an outlet with dust present, and insert the plug firmly into the outlet. Failure to do so could result in sparks or fire.
- Don't handle the plug with wet hands.
- Don't overload wall outlets, extension cords, or integral convenience receptacles. This can cause fire or electric shock.
- Unplug the projector from the wall outlet and refer servicing to qualified service personnel under the following conditions: when the power cord or plug is damaged or frayed; if liquid has been spilled into the projector, or if it has been exposed to rain or water; if it doesn't operate normally when you follow the operating instructions, or if it exhibits a distinct change in performance, indicating a need for service; if it has been dropped or the housing has been damaged.
- If there is an electrical storm, do not touch the power plug, otherwise you may receive an electric shock.
- Keep the projector unplugged when not in use for extended periods.
- Keep the batteries for the remote control out of the reach of children. Batteries are choking hazards and can be very dangerous if swallowed. If they are swallowed, seek medical attention immediately.
- Replace the batteries as soon as they run out.
- Do not expose batteries to heat or flame.
- Dispose of used batteries according to local regulations.
- Remove the batteries if you won't be using the projector for a long period of time.
- Don't block the slots and openings in the projector case. They provide ventilation and prevent the projector from overheating. Don't operate the projector on a sofa, rug, or other soft surface, or in a closed-in cabinet unless proper ventilation is provided.
- Material or paper may get stuck against the air filter underneath the projector while it is in use. Remove anything from underneath the projector that might get stuck against the air filter in this way.

- Don't place the projector or remote control on top of heat-producing equipment or in a heated place, such as a car.
- Don't use the projector outside of the required temperature range (see page 40). Doing so may cause an unstable display and could lead to projector damage.
- Don't store the projector outside of the required temperature range (see page 40) or in direct sunlight for long periods of time. Doing so may cause damage to the case.

WARNING: The cord included with this product contains chemicals, including lead, known to the State of California to cause birth defects or other reproductive harm. *Wash hands after handling.* (provided in accordance with Proposition 65 in Cal. Health & Safety Code § 25249.5 et seq)

FCC Compliance Statement

For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Declaration of Conformity

According to 47CFR, Part 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: Epson America, Inc.
Located at: 3840 Kilroy Airport Way
MS 3-13
Long Beach, CA 90806
Telephone: (562) 290-5254

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: Epson
Type of Product: Projector
Model: EMP-TW20
Marketing Name: PowerLite Home 20

Epson America, Inc. Limited Warranty

What Is Covered: Epson America, Inc. (“Epson”) warrants to the original end user customer that the Epson product enclosed with this limited warranty statement, if purchased new and operated only in the United States or Canada, conforms to the manufacturer’s specifications and will be free from defects in workmanship and materials for a period of two (2) years from the date of original purchase (except that the warranty period is 90 days for projector lamps). For warranty service, you must provide proof of the date of original purchase.

What Epson Will Do To Correct Problems: Should your Epson projector require service during the warranty period, Epson will, at its option, exchange or repair the projector without charge for parts or labor. If Epson authorizes an exchange for the defective unit, Epson will ship a replacement projector to you, freight prepaid, to an address in Canada or the U.S. (excluding Puerto Rico and U.S. Possessions). Shipments to other locations will be made freight collect. You are responsible for securely packaging the defective unit and returning it to Epson within five (5) working days of receipt of the replacement. Epson requires a debit or credit card number to secure the cost of the replacement projector in the event that you fail to return the defective one. If your projector is being repaired by carry-in warranty service, please bring the product securely packaged in its original container or an equivalent to your Epson Dealer or Epson Customer Care Center. Epson will, at its option, repair or replace on an exchange basis the defective unit, without charge for parts or labor. When warranty service involves the

exchange of the product or of a part, the item replaced becomes Epson property. The exchanged product or part may be new or previously repaired to the Epson standard of quality, or, at Epson's option, may be another model of like kind and quality. Exchange or replacement products assume the remaining warranty period of the product covered by this limited warranty, except that each replacement lamp carries the limited 90-day warranty stated above.

What This Warranty Does Not Cover: This warranty covers only normal use of the product in the United States and Canada. 24-hour-per-day use of this product causes unusual strain and is not considered normal use. This warranty does not cover consumables (e.g., fuses), other than lamps. This warranty does not apply to refurbished or reconditioned products, and this warranty is not transferable. Epson is not responsible for warranty service should the Epson label or logo or the rating label or serial number be removed or should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood, and lightning, improper electrical current, software problems, interaction with non-Epson products, or service other than by an Epson Authorized Servicer. Postage, insurance, or shipping costs incurred in presenting your Epson product for carry-in warranty service are your responsibility. If a claimed defect cannot be identified or reproduced in service, you will be held responsible for costs incurred.

THE WARRANTY AND REMEDY PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED TO THE WARRANTY PERIOD IDENTIFIED ABOVE. UNLESS STATED HEREIN, ANY STATEMENTS OR REPRESENTATIONS MADE BY ANY OTHER PERSON OR FIRM ARE VOID. EXCEPT AS PROVIDED IN THIS WRITTEN WARRANTY, NEITHER EPSON AMERICA, INC. NOR ITS AFFILIATES SHALL BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR INABILITY TO USE THE EPSON PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY. IF THE REMEDY ABOVE FAILS, EPSON'S ENTIRE LIABILITY SHALL BE LIMITED TO A REFUND OF THE PRICE PAID FOR THE EPSON PRODUCT COVERED BY THIS LIMITED WARRANTY.

In Canada, warranties include both warranties and conditions.

Some jurisdictions do not allow limitations on how long an implied warranty lasts, and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from jurisdiction to jurisdiction.

To locate the Authorized Epson Servicer nearest you, call the Epson ConnectionSM at (800) 637-7661 + PIN or (562) 276-4394 in the U.S. and (905) 709-3839 in Canada, or write to: Epson America, Inc., P.O. Box 93012, Long Beach, CA 90809-3012.

Index

A

- A/V Mute button, 7, 15
- Accessories, 8, 38
- Air filters
 - cleaning and replacing, 26
 - ordering, 8
- Anti-theft device, 8
- Aspect button, 7
- Aspect ratio, adjusting, 14, 36
- Audio problems, 33
- Auto button, 7, 37

B

- Background Color setting, 21
- Blurry picture, 37
- Brightness
 - adjusting, 14, 18
 - lamp, 5, 27, 39
- Buttons, 7

C

- Cable, 8
- Ceiling projection, 11, 20
- Child Lock, 22, 32
- Cleaning
 - air filters, 26
 - lens and projector case, 25
- Color Mode, 14, 17, 23, 27, 37
- Color Mode button, 7
- Color problems, 37
- Color temperature, adjusting, 18
- Computers
 - adjusting image, 18 to 19
 - compatible video formats, 41 to 42
 - projecting from, 34 to 35
- Contrast ratio, 5, 39

- Contrast, adjusting, 14, 18
- Control panel, projector, 7

D

- Dark image, 37
- Declaration of Conformity, 45
- Default settings, resetting, 24
- Direct Power ON, 22, 33
- Distance, projection, 12, 39
- Documentation, 9

E

- Electrical specifications, 40
- Epson
 - accessories, 8, 38
 - Home Service, 5
 - PrivateLine Support, 38
 - technical support, 9, 38

F

- Fan speed, 22, 32
- FCC Compliance Statement, 44
- Feet, adjustable, 14
- Filters, *see* Air filters
- Focus ring, 6, 13
- Freezing the image, 15

H

- HDTV, compatible formats, 41
- Help, 38
- High altitude mode, 22, 32
- Home Service, 5
- Horizontal lens shift, 12 to 13

I

Image

- blurry, 37
- distorted, 36
- inverted or backwards, 36
- noisy, 36
- size, 12, 39
- too light or dark, 37
- wrong colors, 37

K

Kensington

- anti-theft device, 8
- lock port, 6

Keystone correction, 11, 14, 20, 36, 39

L

Lamp

- brightness, 5, 27, 39
- ordering, 8, 27
- replacing, 27 to 28
- specifications, 40
- usage timer, resetting, 29
- viewing usage, 23

Language, menu, 21

Laptop, projecting from, 34 to 35

Lens shift, 6, 11 to 13, 39

Lens, cleaning, 25

Lights, projector, 31 to 32

Lock, *see* Child lock

Logo, creating, 21

M

Maintenance, 25 to 29

Memory button, 7

Memory settings, using, 19

Menu button, 7, 16

Menus

- adjusting on-screen display, 21
- adjusting picture quality, 17 to 20
- customizing projector operation, 22
- resetting, 24
- using, 16 to 17
- viewing projector information, 23

Moving projector, 29

N

No Signal message, 34

O

Optional accessories, 8

Output Scaling setting, 20

Overhead projection, 11

Overheating, 12, 26, 32

P

Parts, identifying, 6 to 7

Picture

- adjustments, 13 to 14, 17 to 20
- problems, 34 to 37
- repositioning, 19
- turning off, 15

Pixelworks DNX, 41

Positioning projector, 11 to 12

Presentation, controlling, 15

Problems

- audio, 33
- overheating, 12, 26, 32
- picture, 34 to 37
- projector, 32 to 33
- remote control, 33

Progressive setting, 19

Projection distance, 12, 39

Projection setting, 11, 20

Projector
choosing location, 11 to 12
cleaning, 25
control panel, 7
dimensions, 40
distance from screen, 12, 39
feet, 14
lights, 31 to 32
maintenance, 25 to 29
menus, 16 to 24
parts, 6
positioning, 11 to 12
problems, 32 to 33
resetting default values, 24
speaker, 39
storing, 29
transporting, 29

R

Rear projection, 11, 20
Registration, 5
Remote control
 buttons, 7
 problems, 33
Replacing lamp, 27 to 28
Reset menu, 24
Resetting lamp timer, 29
Resolution, 39

S

Safety
 approvals, 40
 instructions, 42 to 44
Saturation, color, 18
Saving picture settings, 19
Screen distance, 12, 39
SDTV, compatible formats, 41
Setup Level setting, 20
Size, image, 12, 39
Skin Tone setting, 18
Sleep Mode, 22, 31, 32, 33

Sound
 adjusting, 15
 problems, 33
 turning off, 15
Source buttons, 7
Sources, switching, 34
Speaker, projector, 39
Specifications
 compatible video formats, 41 to 42
 electrical, 40
 environmental, 40
 general, 39
 lamp, 40
 remote control, 39
Squeeze mode, 14
Startup Screen setting, 21
Still button, 15
Storing projector, 29
Support, *see* Technical support
Sync, 19, 37

T

Technical support, 9, 38
Temperature, projector, 12, 26, 32
Tint, adjusting, 18
Tracking, 18, 37
Transporting projector, 29
TV video formats, 41 to 42

U

User's Logo setting, 21

V

Ventilation, 12, 26, 32
Vertical lens shift, 11, 13
Video
 cable, 8
 compatible formats, 41 to 42
 signal format, selecting, 20
Volume, adjusting, 15

W

Warranty, 5, 45 to 46

Washed-out picture, 37

Z

Zoom Caption setting, 14, 19

Zoom ring, 6, 13

Zoom setting, 14