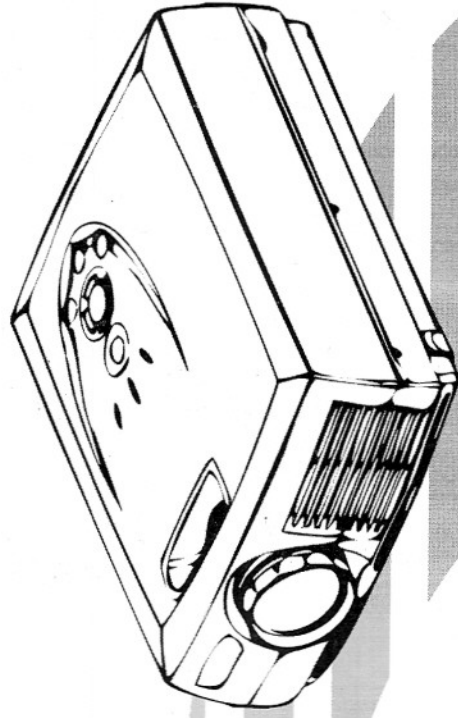


User's Manual

L-Pro1800X

L-Pro1800S

— *FWG*
PROTECTOR



FCC GUIDELINES

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 communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or 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.
- ◆ Use only shielded cables to connect I/O devices to this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

Information to User:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. Shielded interface cable, if any, must be used in order to comply with emission limits.

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Overview

Features

- 3.1kgs Micro-Portable projector.
- High Brightness with high Contrast ratio, total power consumption 200 W.
- Powerful External Connections : available for D-Sub 15 pin , S-Video, RCA composite signal , Audio in and USB.
- Good Compatibility : horizontal scanning frequency from 15K to 80KHz, vertical scanning frequency from 43 to 85Hz ,and VGA to SXGA Signals.
- Short projection distance for big image size. Projection distance 1.33m~6.67m with screen size from 40"to 200".
- Powerful functions : Vertical Keystone correction function.
(Horizontal : optional) ,freeze and blank function, Digital zoom adjustment, and PIP function (optional).
- Remote controller with Mouse function and Laser Pointer function.

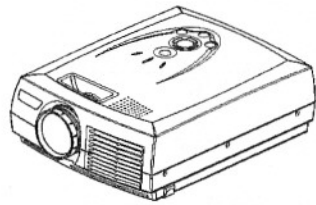
Warnings

- The projector is designed to operate on a power supply of 90~265 Vac 50/60Hz .Ensure that your power supply fits this requirement before attempting to use your projector.
- While projector is working, don't look into the lens to avoid harm of eyes.
- Do not use projector near heater or water.
- While projector is working, make sure that there is no barrier to the heat dissipation holes of the front and rear side of projector.
- Do not use multiplex socket, to avoid overload or short circuit.
- The lamp of the projector is high voltage mercury lamp, which needs specific driving circuit. Please use the specific lamp provided by you dealer.
- Never let water or other things splashing into the heat dissipation holes.
- For shut down the projector, when you press the Power key, It will have a message shown on the image, if you are sure to shut down, press Power key again to proceed the heat dissipation and shut down procedure.
- Do not turn off the power without heat dissipation and shut down procedure. You must wait until the cooling fan stop. If the machine is not to be used for a long time, the power plug must be pulled off to avoid danger.
- No further dismantle of the projector except listing in the operation manual.
- When cleaning filter sponge, please use vacuum cleaner than water to avoid moisture entering the projector.
- When replacing the lamp module, please wait for the lamp cooling down.
- When changing the lamp module, do not touch the glass in front of the lamp. It will effect the lamp life.

Checking the Accessories

Standard Accessories

- User's Guide
- S-Video Cable
- Power Cord
- Remote Controller (with NO.4 AA Battery x 2)
- USB Cable
- D-Sub 15pin Cable
- PC-PC Audio Cable
- RCA-PC Audio Cable
- Video Cable (RCA Type)



Projector



Video Cable (RCA Type)



Audio Cable (RCA-PC)



Power Cord



S-Video Cable



Audio Cable (PC-PC)



User's Guide



D-Sub 15pin Cable



USB Cable



Remote Controller (with NO.4 AA Battery)

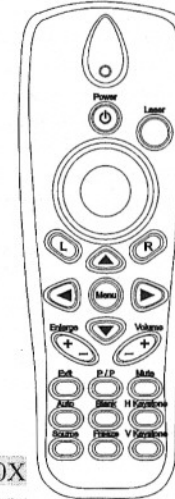
Optional Accessories

- Spare Lamp
- Sponge for air filter
- Carry bag (Soft)

You can purchase these spare accessories from your dealer

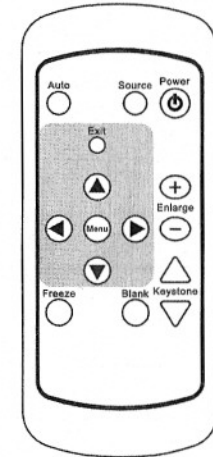
Definitions of Keys and Indicators

Remote Controller

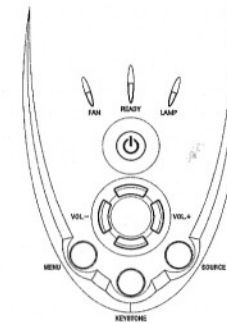


L-Pro1800X

L-Pro1800S



Keys of Control Panel



Definitions of Indicators

	⊙ Fan	⊙ Ready	⊙ Lamp	Meaning
Normal Indicator	Off	On	Off	Standby Mode
	Off	Off	On	Normal Working Mode
	Off	Alternate Flash per second		Heat Dissipating
Abnormal Indicator	On	Alternate Flash per second		Abnormal Fan (Heat Dissipating)
	Flash	Off	On	Abnormal Fan
	Off	Off	Off	No Power
	Off	Off	Flash	Lamp Error

Definitions of key functions (For L-Pro1800X)

Key	Function (Under normal working mode)
Power	<ul style="list-style-type: none"> ● Press Power button to turn on the projector. ● Press Power button twice to shut down the projector.
Menu	<ul style="list-style-type: none"> ● Press Menu button to bring up the OSD menu.
Exit	<ul style="list-style-type: none"> ● Press Exit button to leave OSD menu.
Input (Source)	<ul style="list-style-type: none"> ● Select input signal of (VGA), S-Video, AV or DVI (XGA Type) in sequence.
V Keystone	<ul style="list-style-type: none"> ● Press V Keystone and Press → ← To Adjust Shape of Image from keystone to square.
Volume	<ul style="list-style-type: none"> ● Adjust the volume.
Laser	<ul style="list-style-type: none"> ● Laser Pointer.
Auto	<ul style="list-style-type: none"> ● Auto adjust the image quality (Only on VGA mode).
L/R	<ul style="list-style-type: none"> ● L: Left click of the mouse. R: Right click of the mouse.
Track ball	<ul style="list-style-type: none"> ● Use the track ball to move the cursor.
Mute	<ul style="list-style-type: none"> ● Press Mute key for Sound Off, sound On when you press again.
Blank	<ul style="list-style-type: none"> ● Press Blank key to let the image blank, press again when you want the image show again.
Freeze	<ul style="list-style-type: none"> ● Press the Freeze Key to let the image freeze (stop) in a picture, press again when you want to continue.
Enlarge (+/-)	<ul style="list-style-type: none"> ● Press the Enlarge +/- key to enlarge or reduce the Image press ↑ ↓ → ← to move the image.
P/P	<ul style="list-style-type: none"> ● Picture in Picture Function.

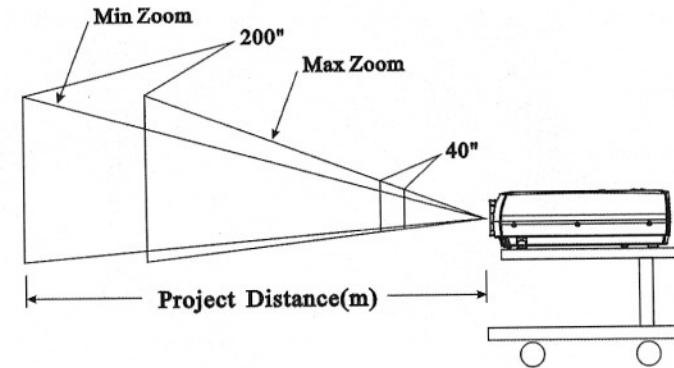
Definitions of key functions (For L-Pro1800S)

Key	Function (Under normal working mode)
Power	<ul style="list-style-type: none"> ● Press Power button to turn on the projector. ● Press Power button twice to shut down the projector.
Menu	<ul style="list-style-type: none"> ● Press Menu button to bring up the OSD menu.
Exit	<ul style="list-style-type: none"> ● Press Exit button to leave OSD menu.
Input (Source)	<ul style="list-style-type: none"> ● Select input signal of VGA, S-Video, AV or DVI (XGA Type) in sequence.
Auto	<ul style="list-style-type: none"> ● Auto adjust the image quality (Only on VGA mode).
Blank	<ul style="list-style-type: none"> ● Press Blank key to let the image blank, press again when you want the image show again.
Freeze	<ul style="list-style-type: none"> ● Press the Freeze Key to let the image freeze (stop) in a picture, press again when you want to continue.
Enlarge (+/-)	<ul style="list-style-type: none"> ● Press the Enlarge +/- key to enlarge or reduce the Image press \uparrow \downarrow \rightarrow \leftarrow to move the image.
Keystone $\blacktriangle/\blacktriangledown$	<ul style="list-style-type: none"> ● Press the keystone $\blacktriangle/\blacktriangledown$ key to adjust the keystone

Setting Up

Locations for Setting Up

- Projector shall be placed on steady desktop or use specific tooling to hand on solid ceiling.
- Adjust projector to let the lens perpendicular to screen, otherwise, the image on screen will have trapezoidal shape.



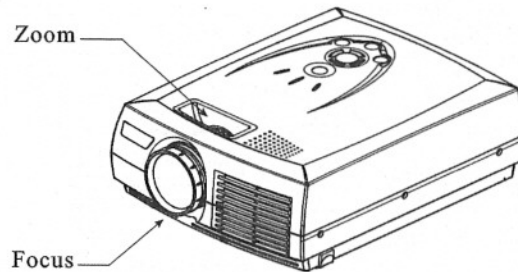
● Projection Distance /Size Table

Projection Size/inch	Project Distance /m Max Zoom	Project Distance/m Min Zoom
40"	1.33	1.64
50"	1.67	2.05
60"	2	2.46
100"	3.33	4.1
150	5	6.15
200"	6.67	8.2

Zoom, Focus and Height Adjustment

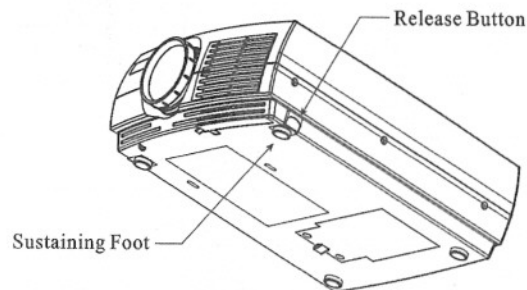
Focus, Magnitude Adjustment

- When the image appear on the screen, he focusing and accuracy of screen alignment.
- Actual projected display size depends on the distance between the projector and the screen, as well as the magnitude of projector lens.
- Focus adjustment : Turn the focusing ring of the lens, which is the outer ring at the lens in front side of projector.
- Size adjustment : Turn the inner side zoom ring, increase when clockwise.



Adjustment for Height and Deformation of Projection

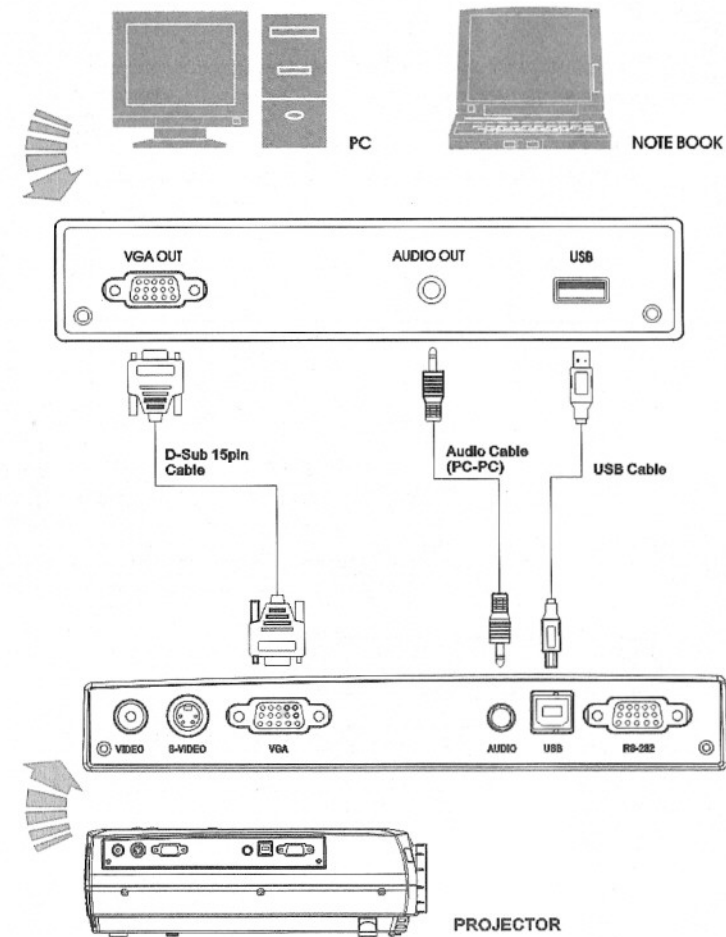
- Stand behind the projector and raise up the forward projector with both hands, then press the release button near the sustaining foot.
- Free the release button to lock the sustaining foot and lay down the projector carefully.
- Be careful when operating and keep the projector from falling off.



External Connections

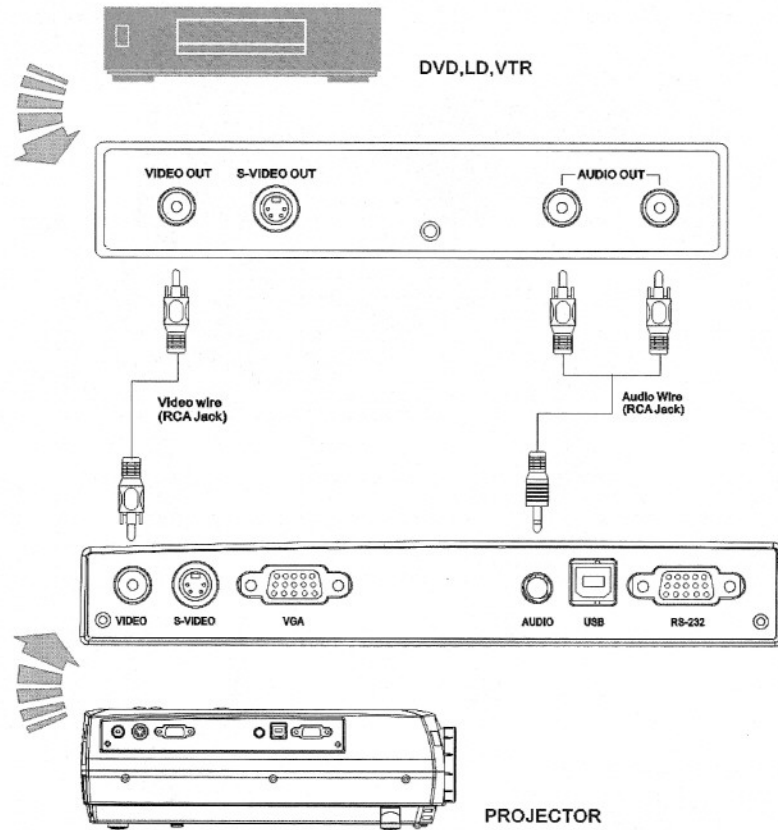
Connecting to PC

- Connect the D-Sub 15 pin cable from the VGA card of the computer into the VGA IN terminal of the projector .
- Mark sure that both two port connected well.
- Turn on projector first then computer.

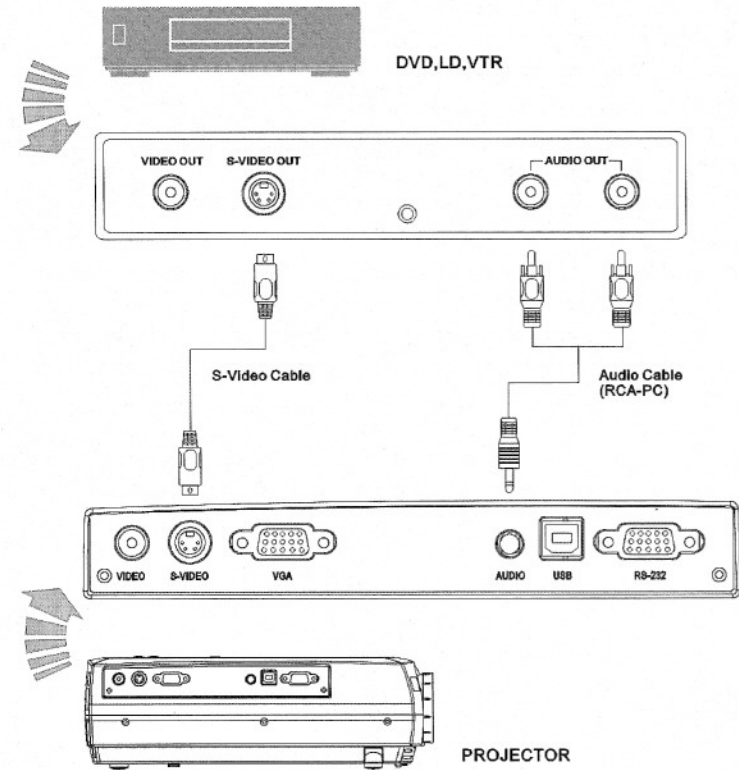


Connecting to Video Signals

- Connecting to video signal sources such as VTR, DVD or LD.
- The method for connecting RCA jack AV wire is shown below



- The method for connecting S-Video Wire is shown below



OSD (On Screen Display) Menu

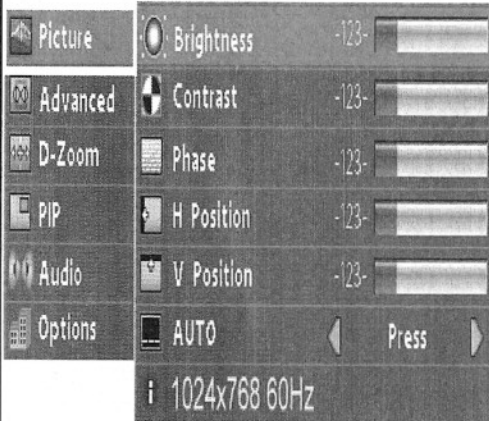


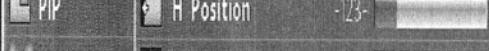


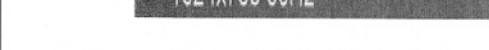
Display/Exit OSD Menu

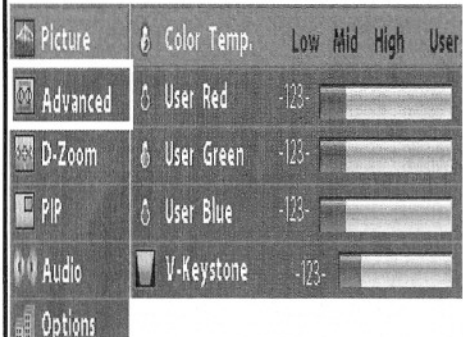
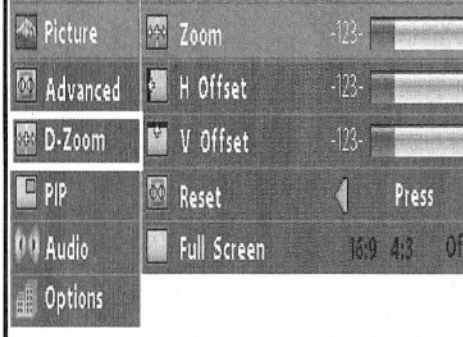
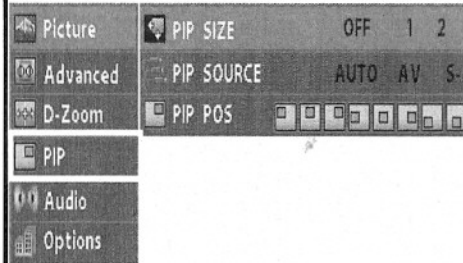
- Press MENU key to display the main menu.
- The contents of main menu are different according to various input signals which are shown as the following :
- Press EXIT key to Exit the main menu.

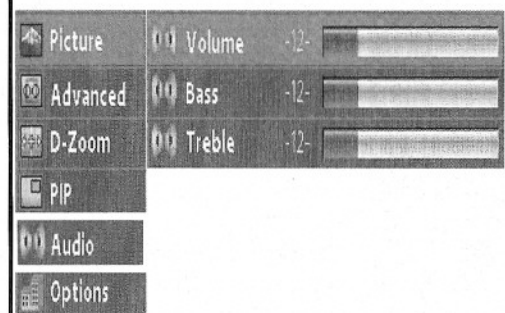

Image Quality Adjustment

- After displaying main menu, press \uparrow \downarrow key to move Bar to "Picture "
- Press \rightarrow key to enter sub menu.
- Press \uparrow \downarrow key to move Bar to the option which needs to be adjusted.
- Press \rightarrow \leftarrow key to set the value and press MENU key to return to main menu.
- Press EXIT key to exit the menu and save the setting.
- The "Adjust Option" is different according to various input signals which are shown as the following :

Input signals of VGA

	<p>Brightness : To adjust the brightness value of the image.</p>
	<p>Contrast : To adjust the contrast of image (higher value means high contrast)</p>
	<p>Phase : To adjust the Phase value of the image</p>
	<p>Clock : To adjust the Clock value of the image.</p>
	<p>H position : To adjust the horizontal position</p>
	<p>V position : To adjust the vertical position</p>
	<p>Auto : To adjust the Phase and Clock Automatically.</p>

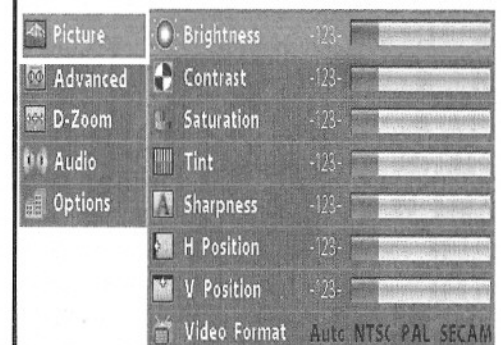
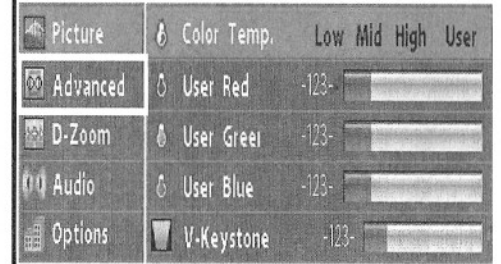
	<p>Color Temp : To adjust color temperature of image to personal performance. (Normal temp value is Middle) For cool color, select higher Color Temperature, for warm color, select lower Color Temp.</p> <p>V-Keystone : Compensating the trapezoid distorted images up to ± 15 degrees. (Normal value is 0)</p>
	<p>Zoom : Zooming picture with software.</p> <p>H offset : After zooming, display screen can be moved horizontally.</p> <p>V offset : After zooming, display screen can be moved vertically</p> <p>Reset : To reset to zooming picture to default.</p> <p>Full Screen : To adjust the mage into 16:9 or 4:3 or original</p>
	<p>PIP SIZE : To adjust the size of sub picture.</p> <p>PIP SOURCE : To choose the signal source with AV or S-Video</p> <p>PIP POS : To choose the position of sub picture</p>

	<p>Volume : To adjust the volume of speaker</p> <p>Bass : To adjust the bass of speaker.</p> <p>Treble : To adjust the treble of speaker.</p>
	<p>OSD : To select OSD position on screen.</p> <p>Language : To select language for English、Thai、French、German、Italian、Esperanto、簡體、繁體、Japanese.</p> <p>Auto Search : To select Auto Input Signal Search for on or off.</p> <p>Translucent : To select OSD Translucent function for on or off.</p> <p>Projection : Press → ← key to select Projection for Desk、Ceiling、Rear or Rear Ceiling.</p> <p>Reset : To return all parameters to factory default value</p>

Advanced Setting Adjustment

- After displaying OSD menu, press ↑↓ key to move the Bar to “Advanced ”
- Press → key to enter sub menu.
- Press ↑↓ key to move Bar to the item which needs to be adjusted.
- Press → ← key to set the value and press MENU key to return to main menu.
- Press EXIT key to exit the menu and save the setting.
- The adjustment option are shown below :

Input signals of AV or S-VIDEO

	<p>Brightness : To adjust the brightness value of the image.</p> <p>Contrast : To adjust the contrast of image (higher value means high contrast)</p> <p>Saturation : To adjust color saturation</p> <p>Tint : To adjust the Tint</p> <p>Sharpness : To adjust the Sharpness of the image.</p> <p>H position : To adjust the horizontal position</p> <p>V position : To adjust the vertical position</p> <p>Video Format : To select input signal as Auto、NTSC、PAL or SECAM format.</p>
	<p>Color Temp : To adjust color temperature of image to personal performance. (Normal temp value is Middle) For cool color, select higher Color Temperature, for warm color, select lower Color Temp.</p> <p>V-Keystone : Compensating the trapezoid distorted images up to ± 15 degrees. (Normal value is 0)</p>

	<p>Zoom : Zooming picture with software.</p> <p>H offset : After zooming, display screen can be moved horizontally.</p> <p>V offset : After zooming, display screen can be moved vertically</p> <p>Reset : To reset to zooming picture to default.</p> <p>Full Screen : To adjust the image into 16:9 or 4:3 or original</p>
	<p>Volume : To adjust the volume of speaker</p> <p>Bass : To adjust the bass of speaker.</p> <p>Treble : To adjust the treble of speaker.</p>
	<p>OSD : To select OSD position on screen.</p> <p>Language : To select language for English、Thai、French、German、Italian、Esperanto、簡體、繁體.</p> <p>Auto Search : To select Auto Input Signal Search for on or off.</p> <p>Translucent : To select OSD Translucent function for on or off.</p> <p>Projection : Press → ← key to select Projection for Desk、Ceiling、Rear or Rear Ceiling.</p> <p>Reset : To return all parameters to factory default value</p>

Advanced Scale Adjustment (Digital Zoom)

- After displaying OSD menu, press ↑ ↓ key to move the Bar to “D-Zoom”.
- Press → key to enter sub menu.
- Press ↑ ↓ key to move Bar to the option which needs to be adjusted.
- Press → ← key to set the value and press MENU key to return to main menu.
- Press EXIT key to exit the menu and save the value.

Options

- After display Main-menu , press ↑ ↓ key to move Bar to “Options”
- Press → key to enter sub-Menu.
- Press ↑ ↓ key to move Bar to the option which needs to be adjusted.
- Press → ← key to set value and press MENU key to return to main menu.
- Press EXIT key to exit the menu and save the value.

Audio Adjustment

- After displaying main menu , press ↑ ↓ key to move Bar to “Audio” .
- Press → key to enter sub menu.
- Press ↑ ↓ key to move Bar to the option which is about adjusted.
- Press → ← key to set the value and press MENU key to return to main menu.
- Press EXIT key to hide the menu and save the set value.

PIP Adjustment

- After displaying main menu , press ↑ ↓ key to move Bar to “PIP” .
- Press → key to enter sub menu.
- Press ↑ ↓ key to move Bar to the option which is about adjusted.
- Press → ← key to set the value and press MENU key to return to main menu.
- Press EXIT key to hide the menu and save the set value.

Maintenance

Handling of Abnormality

Abnormality of Indicators

- When Red indicator is on, It means the heat dissipation or fan is at fault, please contact with your dealer.
- If there is No indicator on, please check whether the power cord connect properly .If it still doesn't work, please contact with your dealer.

Abnormality of Lighting-up Lamp

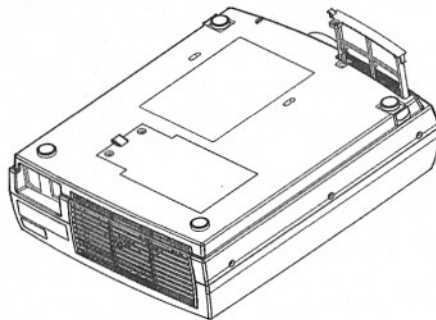
- When the red indicator is flashing and orange indicator is on, it's abnormal and possibly due to damaged lamp or unstable voltage , just turn off Projector and restart again. If it still doesn't work, please contact with your dealer.

Cleaning the Projector

- Un-plug the power of projector before cleaning. Clean with a non-cotton dry cloth or with slight water and neutral detergent if necessary.

Cleaning of Air Filter

- Turn off the projector and un-plug the power.
- Use star type screwdriver to loosen the screw and take the filter out.
- Clean the filter
- If the filter is hard to clean and need to replace a new one, please contact with your dealer.
- When cleaning filter sponge, please use vacuum cleaner than water to avoid moisture entering the projector. We recommend you to clean Projector every 100 working hours.



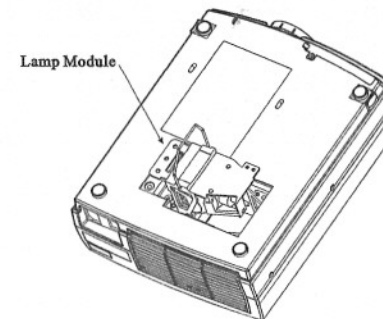
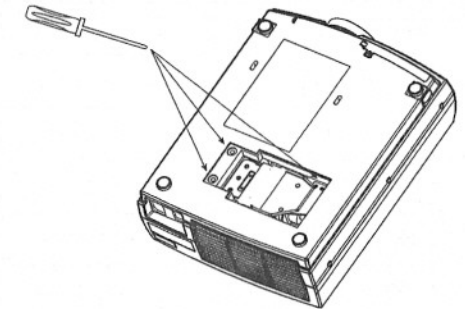
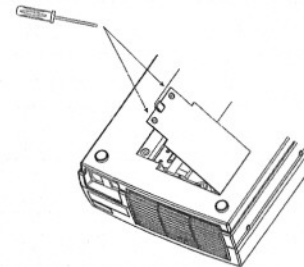
*Filter cleaned
2005-08-11
JH.*

Replacing Main Lamp

※Install the new lamp module provided by your dealer into the projector.

Replacing Lamp Module

- When the red indicator is flashing and the lamp doesn't lighting up, the lamp source might abnormal or burn out.
- When the projection image is too dark, or the projection image is unstable and flashing , please change the lamp.
- Please use specific lamp module provided by your local dealer.
- Turn off projector and unplug power cord.
- Loosen the 2 screws of the cap of lamp module.
- You need to find a special star type screwdriver.
- When screws are loosed, take off the cap of lamp module.
- Loosen the 3 screws placed on the lamp module.
- Pull up the handle of the lamp module and pull the lamp module out of projector.
- Fasten the 3 screws of the lamp module.
- Install the cap of lamp module then fasten 2 screws of the cap.



Appendix

Compatible Modes

Resolution	V. Frequency	H. Frequency	Resolution	V. Frequency	H. Frequency
720 × 420	70Hz	31.5KHz	1024 × 768	75Hz	60.0KHz
640 × 350	70Hz	31.5KHz	1024 × 768	85Hz	68.7KHz
720 × 400	85Hz	37.9KHz	1152 × 864	60Hz	54.3KHz
640 × 350	85Hz	37.9KHz	1152 × 864	70Hz	63.9KHz
640 × 480	60Hz	31.5KHz	1152 × 864	70Hz	64KHz
640 × 480	67Hz	35KHz	1152 × 864	75Hz	67.5KHz
640 × 480	72Hz	37.9KHz	1152 × 864	85Hz	77.1KHz
640 × 480	75Hz	37.5KHz	1280 × 960	60Hz	60KHz
640 × 480	85Hz	43.3KHz	1280 × 960	75Hz	75.93KHz
640 × 400	70Hz	31.5KHz	1280 × 960	85Hz	85.93KHz
640 × 400	85Hz	37.9KHz	1280 × 1024	43Hz	46.6KHz
800 × 600	56Hz	35.2KHz	1280 × 1024	60Hz	64KHz
800 × 600	60Hz	37.9KHz	1280 × 1024	74Hz	78.8KHz
800 × 600	72Hz	48.1KHz	1280 × 1024	75Hz	79KHz
800 × 600	75Hz	46.9KHz	MAC-13LC	67Hz	35KHz
800 × 600	85Hz	53.7KHz	MAC-15	75Hz	68.7KHz
832 × 624	75Hz	49.7KHz	MAC-16	75Hz	49.1KHz
1024 × 768	43Hz	35.5KHz	MAC-19	75Hz	60.2KHz
1024 × 768	60Hz	48.4KHz	MAC-1960	60Hz	48.2KHz
1024 × 768	70Hz	56.5KHz			
1024 × 768	72Hz	57.8KHz			