

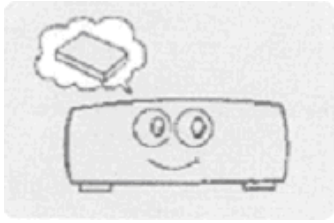
**Multimedia LCD projector**

**ProTechnik<sup>TM</sup>**

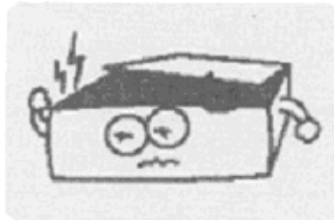


**Model NO.: PT-100A**  
**User' Manual**

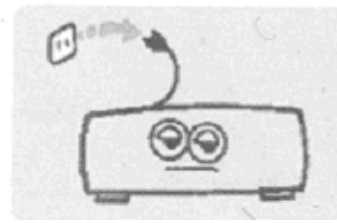
# Precaution and Instructions



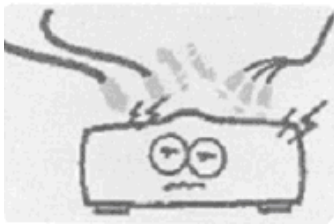
1. Read all instructions in the user manual before using the projector.



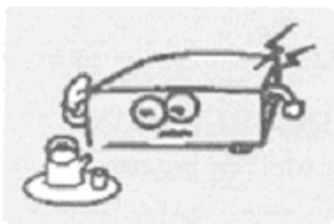
2. To avoid electric shock or damaging the projector, do not remove the cover of the projector.



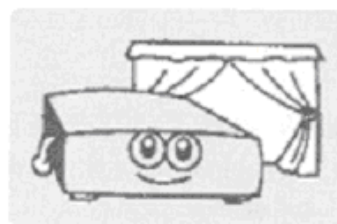
3. Unplug the electrical plug from the wall outlet when this unit is not in use for a prolonged period.



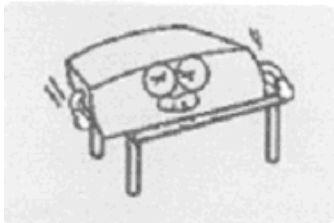
4. Do not pull the plug of cables when the machine opening as this may cause damages to the projector.



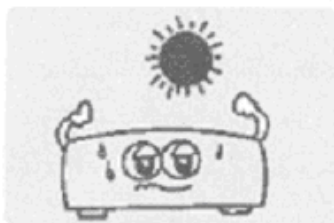
5. Do not touch the power source with wet hands. When any liquid accidentally gets inside the projector, turn it off immediately and contact Our service technician for repair.



6. Always place the Projector under a well-ventilated environment. Keep it away from sources.



7. Position the projector at Absolute horizontal level



8. Keep the projector in a well-ventilated environment



9. Do not place heavy object's on the projector.

## Note:-

This is a basic User's Manual which can be used for any model of the Protechnik Projector depending on the specification which may differ from model to model. Protechnik reserves the right to cancel, change, modify or upgrade any of its product or specification without any prior notice. For any further clarification please check with your distributor for the specification, accessories and the service you are eligible to receive on the purchase of this product.

## Warning Signs:-

**Warning:** - User can perform standard maintenance according to the guidelines in this hand book. But do not remove the cover and touch the interior fittings as the projector is very hot and with dangerous high voltage when operating.



**Warning Symbol:** - This icon reminds users of the existence of dangerous voltage!



**Warning Symbol:** - This icon reminds user of important descriptions in operation and maintenance described in the user manual attached with the product.

## ● IMPORTANT SAFETY INSTRUCTIONS:-

1. Do not look directly into the lens while the projector is working, as the strong light will hurt and damage your eyes.
2. Do not block any of the ventilation openings, as inefficient heat releasing will cause the projector to overheat, which can cause fire or damage to the projector.
3. Do not point the ventilation outlet directly at anyone to prevent burns.
4. Never unplug the machine to shut down the power. Use “OFF” button to shut down.
5. When replacing the lamp, to avoid risking electric shock and burns, turn off the power and unplug the projector and wait until the machine totally cools down.
6. When the projector has entered “Standby” mode for more than 5 minutes and if the lamp is still on, unplug the projector and contact our service technician.

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# **Preface**

We thank you for choosing Protechnik multimedia LCD projector TV, some of the Protechnik Projectors supports HDTV signal. The unit uses high quality optical engine to increase the brightness. All these make Protechnik, suitable for the purpose of KTV entertainment, home theater, educational and commercial usage.

These basic user manual provides guidelines on installation, operation, maintenance for users. To make sure you enjoy every feature of this unit, please read all instructions in the user manual before using the projector.

## ● **Key Features for few of the Protechnik Projector models:-**

1. Has De-interlaced function.
2. Supports rear projection, Image Horizontal and Aspects of 4:3 and 16:9.
3. Applies super quiet ventilation system which reduce the audible noise to <28db.
4. Uses double layer dust filtering system, makes cleaning and maintenance an easy job.
5. Applies high brightness, high efficient optical engine.
6. Use a lamp with extraordinary extensive life of 6000 hours. A special housing design allows the user to replace the lamp without removing the cover.
7. Automatic self detect at startup, Protect turning off the machine by mistake, High temperature warning and Optical Keystone correction.

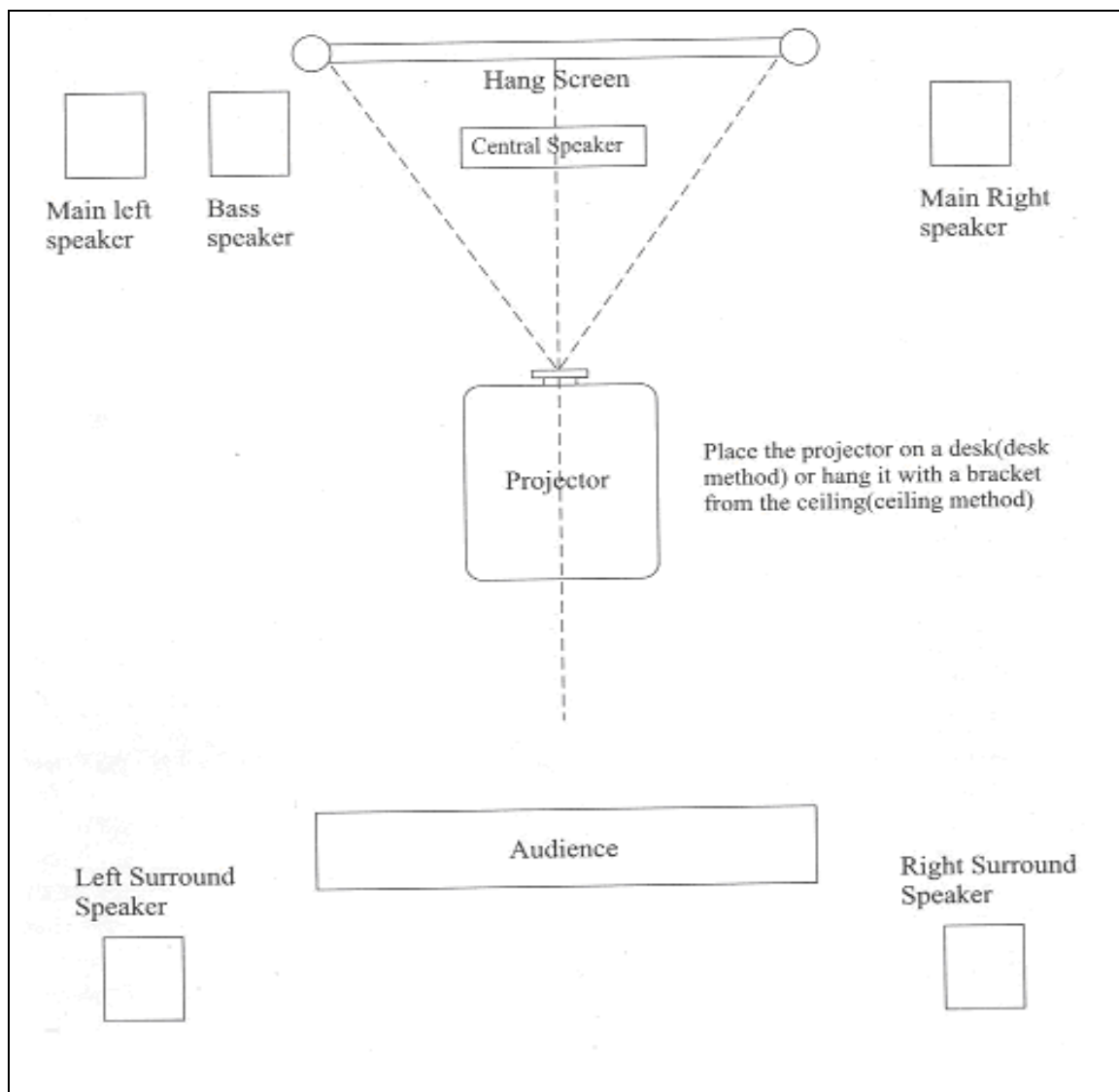
## ● **Accessories:-**

1. Remote control
2. Audio/Video cable (one set)
3. User manual
4. One set of bracket for ceiling (optional)

# Installation

## ● Setting-up:-

You should install your projection system reasonably according to the combination of your equipment. Below shown is a classic setup for your reference.



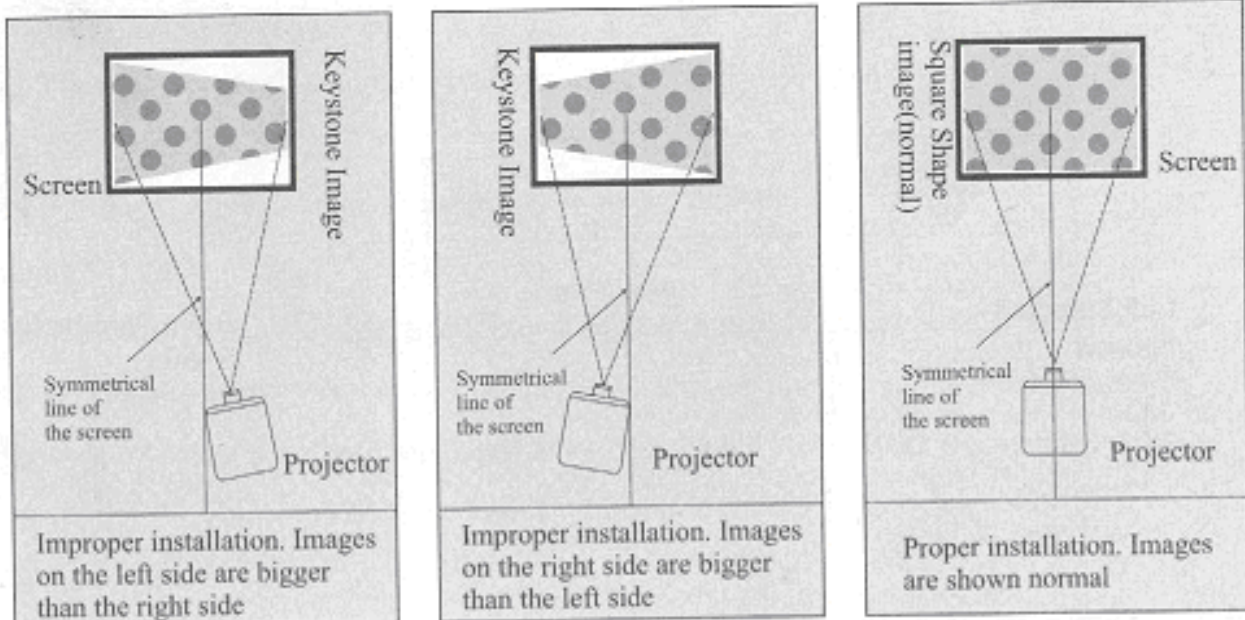
## ● Distance between the screen and the projector:-

When installing the projector, choose a sturdy surface if desk method is to be used, or install the ceiling bracket tightly on the ceiling when the ceiling method is chosen. To make sure that the heat is released efficiently, normally during and also after every operation choose a well ventilated environment, do not block any of the ventilating openings and keep a distance of 40cm from any objects which might possibly block the outlets. The projected size of the image depends on the distance between the screen and the projector. The longer the distance the larger the projected image. Install the projector according to your screen size (diagonally) and make reference with the below chart.

Projected Size (Diagonally)	Horizontal distance between projector lens and the screen.	
	4:3 Mode	16:9 Mode
72 Inches	2.32m	2.10m
100 Inches	3.14m	2.75m
125 Inches	4.25m	3.65m
150 Inches	4.70m	4.20m

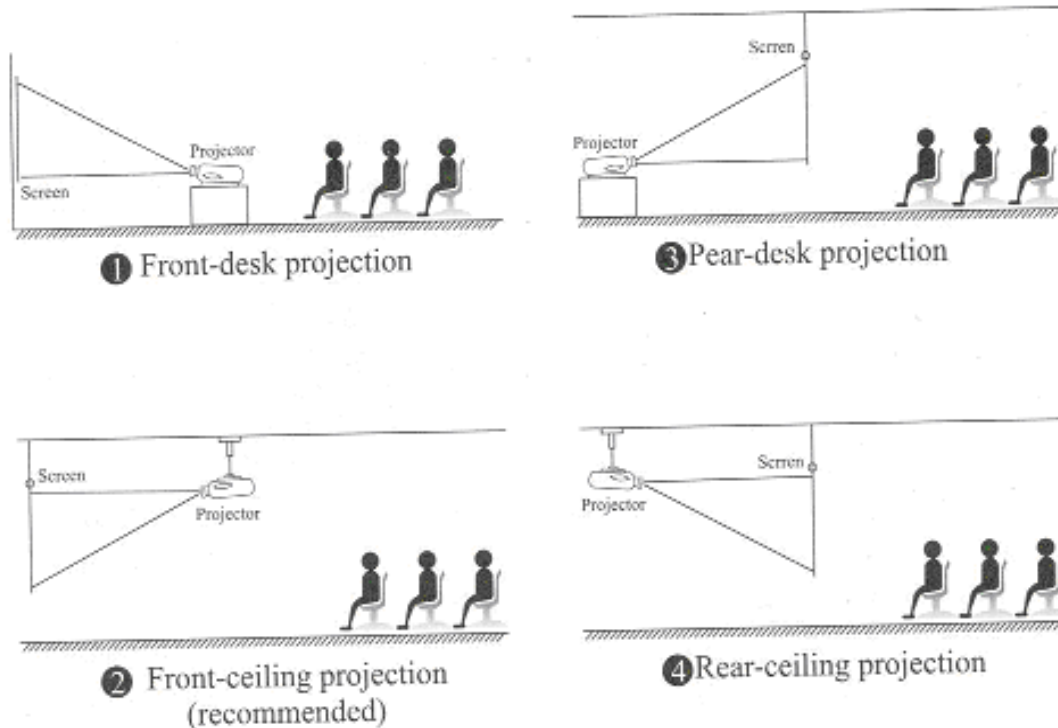
### **Note:-**

To make sure the projected image does not lose fidelity or distorted (Trapezium phenomenon). Please place or install the projector at a position of 90 degree against the symmetrical line of the screen. For further reference please check the below picture.



## ● Projection Methods:-

Install the projector according to your home environment. You can place the projector on a sturdy surface or hang it on the ceiling with a bracket. Please check the four kinds of projection methods that can be used.



### **Note:-**

1. When using front projection method, make sure that the projector is not higher than the upper edge of the screen, or the projected images will be distorted or show trapezium shape.
2. Please refer to the chart on **“Page 3”** to decide the distance between the projector and the screen.
3. To avoid trapezium phenomenon, make sure the projector is installed/placed 90 degrees facing the screen in symmetrical line.
4. It is always recommended to use the two front projection methods. They result better projection effects.
5. Place/Install the projector at a well-ventilated environment; make sure no objects block any ventilation openings.
6. To avoid electric shock or damage to the projector, do not carry electric sources during installation.
7. When installing the projector for the first time Keystone distortion may happen, images might be a bit blurry and lose fidelity. Please refer to **“Page 6”** to get the image fixed.

# Operations

## ● Power ON/OFF:-

Please follow the steps written below the first time you operate the machine.

1. Connect the accessory main lead to the AC in the socket. The power indicator at the rear panel will illuminate.
2. Press the “**Power Key**”. The power indicator on the projector will be on.
3. After a few seconds the system will be activated, the screen will turn on from dim to bright and the projected image will reach the normal operational brightness in two minutes.
4. Press “**TV/AV**” key to select the sources for input signal.
5. Press the “**Power Key**” and “**Power Off?**” **OSD** will be displayed on the screen. To confirm shut down the machine, press the button again to enter “**protect mode**”, the operation indicator will be off, the protect/warning indicator will be on.
6. The machine will still be in auto protection and auto cooling down mode within 5 minutes after the machine is shut down. Please do not turn off the main power source. After 5 minutes the machine will enter “**Standby Mode**” and the protect/warning indicator will be off.
7. Turn off the main switch.

### **Note:-**

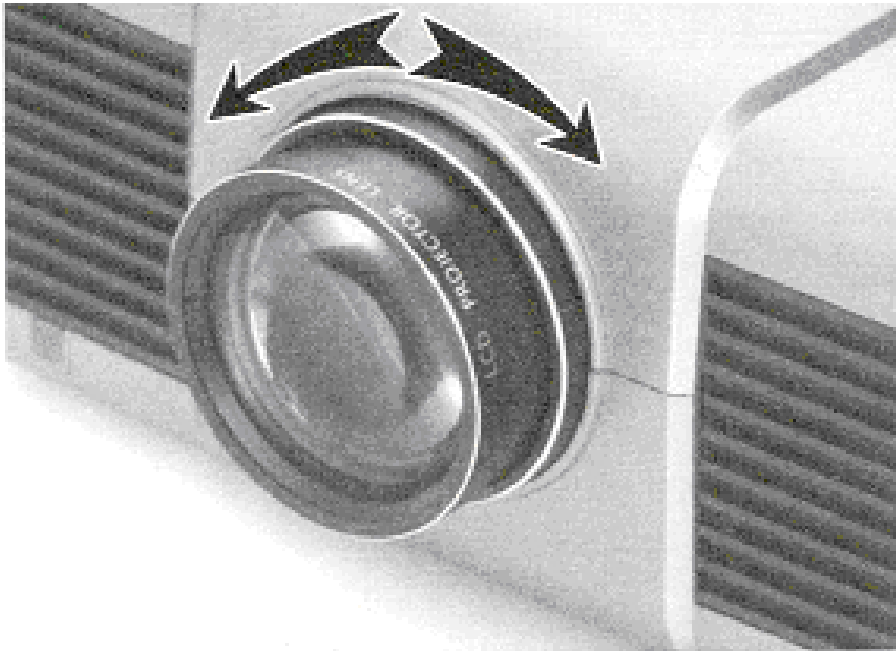
The machine will be in the state of high temperature and high voltage, please do not use the main lead to turn off the machine as it will shorten the machine's life.

## ● **Keystone correction and focus adjustment:-**

When installing the projector for the first time Keystone distortion might happen, images might be a bit blurry and lose fidelity as the focus of the lens and the “**Keystone Correction**” has not been adjusted. Please follow the following steps to correct the image:

### **1. Focus Adjustment:-**

Turn the lens clockwise to withdraw the lens back to machine body, slowly turn the lens anti-clockwise and check carefully the image resolution on the screen. Set the lens at the position that the images are projected the clearest (Use the center part of the screen as reference).



**Picture**

### **2. Keystone Correction:-**

It is situated at the base of the unit. Adjust the height of the tilt until the projected frame becomes a perfect square. The maximum adjustment for the tilt is 15 degrees. If the keystone distortion is still not perfect then please shorten the distance between the projector and the screen.

## **Power off confirmation Menu:-**

Press Power key to enter “Power off confirmation Menu”.

This menu can avoid turning off the machine by mistake:

POWER OFF?

Press “POWER” Key again to power off

Press “MENU” Key to return

Press “POWER” to power off. Press “Menu” to return (still on).

In this mode, the machine will return to “working” mode after 10 seconds.

## **High Temperature Warning Menu:-**

If the temperature goes exceedingly high during operations, the machine will show “High Temperature Warning Menu” See picture below:

High Temperature Warning!

System will go to Standby mode  
after 10 seconds

System has entered the Protect Mode. All the keys will not function except for the Power button. Please do not shut down the power with the mains lead. The system will automatically enter protect mode for cooling down after 10 seconds.

When High Temperature Warning appears, it indicates that the ventilation system might have problems. Please refer to “Abnormal Phenomenon and Solution’s” or “High Temperature Warning Mode” for solution.

# Menu and Operations

## **Brightness:**

This function is used to adjust the brightness.

## **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**brightness**”.
5. Press [←] or [→] key to adjust “**brightness**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

## **Contrast:**

This function is used to adjust the contrast.

## **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**contrast**”.
5. Press [←] or [→] key to adjust “**contrast**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

## **Color:**

This function is used to adjust the color.

## **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**color**”.
5. Press [←] or [→] key to adjust “**color**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

**Tone:**

This function is used to adjust the tone.

**Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**tone**”.
5. Press [←] or [→] key to adjust “**tone**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

**Sharpness:**

This function is used to adjust the sharpness.

**Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**sharpness**”.
5. Press [←] or [→] key to adjust “**sharpness**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

**Horizontal Position:**

This function is used to adjust the horizontal position.

**Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**horizontal position**”.
5. Press [←] or [→] key to adjust “**horizontal position**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

### **Vertical Position:**

This function is used to adjust the Vertical Position.

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**image**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Vertical Position**”.
5. Press [←] or [→] key to adjust “**Vertical Position**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

### **Language:**

This function is used to adjust the Language.

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**model**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Language**”.
5. Press [←] or [→] key to adjust “**Language**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

### **Display Model:**

This function is used to adjust the Display Model.

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**Display model**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Display Model**”.
5. Press [←] or [→] key to adjust “**Display Model**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

## **OSD:**

This function is used to adjust the OSD.

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**Display model**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**OSD**”.
5. Press [←] or [→] key to adjust “**OSD**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

## **Image Revolve:**

This function is used to adjust the Image Revolve (display model).

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**Display model**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Image Revolve**”.
5. Press [←] or [→] key to adjust “**Image Revolve**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

## **Mode:**

This function is used to adjust the **Mode**.

### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image function**”.
3. Press [↑↓] key; enter “**Display model**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Mode**”.
5. Press [←] or [→] key to adjust “**Mode**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

## **TV Signal Input:**

To connect the projector to the TV, operate as below:

### **Auto Search TV channel:**

#### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**Channel**”.
3. Press [↑↓] key; enter “**Channel**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Auto search TV channel**”.
5. Press [←] or [→] key to adjust “**TV channel**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

### **Fine adjustment:**

#### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**Fine adjustment**”.
3. Press [↑↓] key; enter “**Fine adjustment**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Fine adjustment**”.
5. Press [←] or [→] key to adjust “**Fine adjustment**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

### **Channel Number Reset:**

#### **Operation:**

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**Channel Number Reset**”.
3. Press [↑↓] key; enter “**Channel Number Reset**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Channel Number Reset**”.
5. Press [←] or [→] key to adjust “**Channel Number Reset**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

## VGA Input:

To connect the projector to the VGA signal input, operate as below:

### Horizontal Position:

#### Operation:

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image position**”.
3. Press [↑↓] key; enter “**image position**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**horizontal position**”.
5. Press [←] or [→] key to adjust “**horizontal position**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window.

### Vertical Position:

This function is used to adjust the Vertical Position.

#### Operation:

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image position**”.
3. Press [↑↓] key; enter “**image position**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Vertical Position**”.
5. Press [←] or [→] key to adjust “**Vertical Position**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

### Original Setting:

#### Operation:

1. Press the “**Menu**” key on the panel, “**Menu**” will appear on the screen.
2. Press [←] or [→] key, move the cursor to “**image position**”.
3. Press [↑↓] key; enter “**image position**” function choice.
4. Press [↑] or [↓] key, move the cursor to “**Original Setting**”.
5. Press [←] or [→] key to adjust “**Original Setting**”.
6. Press [↑] to go back to the Menu.
7. Press “menu” key to exit the “menu” window

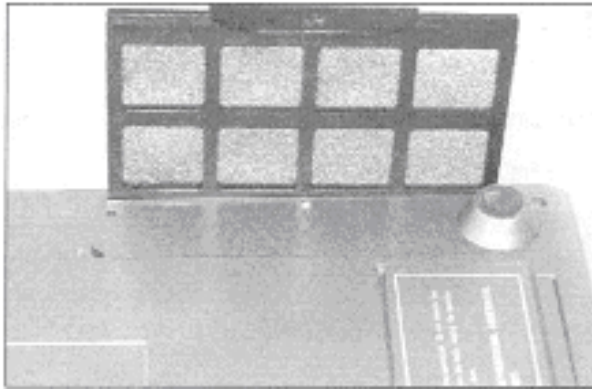
# Cleaning and Maintenance

## ● Cleaning the air filter:-

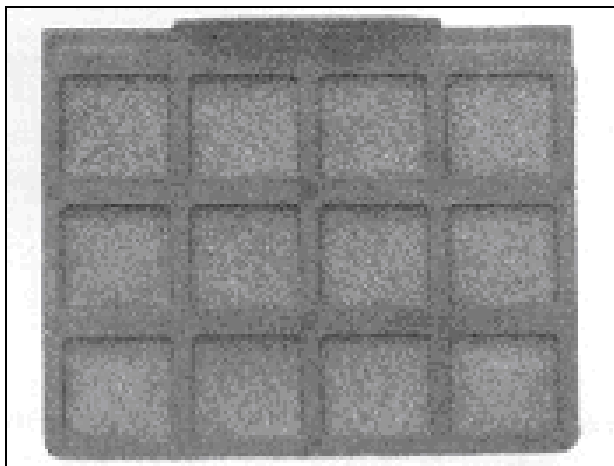
The optical system in the projector will create heat when the projector is in operations. It requires the ventilating system to cool down. Currently almost all the projectors acquire a fan cooling system. The system releases the heat by high speed wind circulation to carry the heat away. However, during this process, the system will carry dust in the air to the projector's air filter, so you need to clean the projector's air filter regularly. To make sure the projector will function normally, please clean the air filter every month.

### Instruction Pictures:-

1. Take the screws out with a screw driver and remove the air filter.



2. Clean the air filter with a vacuum cleaner or water and put the air filter back (if cleaned with water wait until the air filter dries out before putting it back).



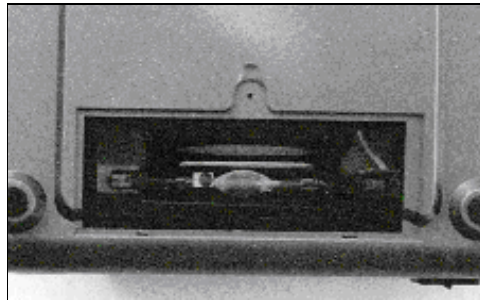
## **Replacing the Lamp unit:-**

Projector lamp is a consumable component. After working for 6000- 10,000 hours, the brightness of the lamp will gradually decline. As the lamp is exhausting, the projecting effect will be affected and you may find the projector harder to “turn on”, than before. At this point, you have to consider replacing the lamp.

1. Disconnect the electric source and use a screw-driver to remove the lamp unit cover.



2. Use the screw driver to un-screw the screws on the metal protection piece. Remove the metal protection board and you will see the lamp.



3. Use a small screw driver to force the small metal piece that tightens the lamp to right and loosen the lamp and pull the lamp gently out from the projector.
4. Carefully insert a new lamp into the projector following the same procedures of taking out the old one.

### **NOTE:-**

The lamp will be extremely hot during operation. Do not remove the cover and touch it. If you need to replace the lamp, un-plug the machine and wait for one hour until the lamp cools down. During the lamp changing, make sure nothing falls into the projector, as this will cause damage to the projector.

# Specifications

**(May differ from model to model)**

Total Power	200W	
Lamp Power	175W	
Lamp Color Temperature	10000K	
Lamp Life	Up-to 6000 Hours	
Input Voltage	Voltages are 240V AC – Australia & New Zealand Voltages are 110V AC – U.S.A & Canada	
Operating Current	<2A	
Brightness	Up-to 8000ANSI Lumens	
Lens	Focal Length F=200MM, Diaphragm 3:0	
Contrast	Up to 5000:01:00	
Resolution	800 x 480 (WVGA)	
Input Terminal	TV, VGA, PC- VGA, S-Video	
TV System	PAL/SECAM	
Support	TV, VTR, Camera, VCD, DVD, etc.	PAL/NTSC
	PC	640 x 480 ~ 1024 x 768@85Hz
Audio Output	2W*2	
Keystone Correction	Optics +/-15 Degrees	
Projection Size	36 ~ 200 Inches	
Projection Distance	1.2m ~ 5M	
Fan Noise	<30DB	
Maximum Measurements	360 x 280 x 118 mm	
Weight	4.8 KG	
Package	Double Layer, Foam box vibration resistance	

## Abnormal Phenomenon and Solutions

Abnormal Phenomenon	Solutions
No Power Indicator after switching on AC power.	1. Power plug was not plugged properly.
	2. Fuse is broken.
Power indicator is on, but normal operations indicator is not off.	1. Battery life in the remote control has expired.
	2. Obstacles between the remote control and the projector.
	3. Remote control is out of range to detect signals.
Normal operation indicator is is on, but the lamp is off.	1. Time interval between "power on/off" operations is too short, the lamp is still very hot.
	2. Improper power shut down, caused by direct removal of the power plug or sudden power shut down.
	3. Lamp has been over heated.
High temperature warning.	1. Ventilation openings are blocked.
	2. Dust filter is too dirty.
	3. Fan is not working properly.
Auto power off after using for a period time.	1. Ventilation openings are blocked.
	2. Dust filter is too dirty.
	3. Fan is not working properly.
No Image.	1. Lens cover has not been open.
	2. Cables are not connected properly.
	3. Brightness and contrast might have been set at the lowest values.
Image is not Clear.	1. Focus has not been adjusted to the best.
	2. Lens is not clean enough.
No audio.	1. The audio cable was not connected properly.
	2. TV signal's audio system is not correct.
	3. Projector is in mute mode, or volume was set to the lowest level.

Please contact our technician if the problem(s) can not be solved after trying the recommended solutions.

