

# G DLP PROJECTOR

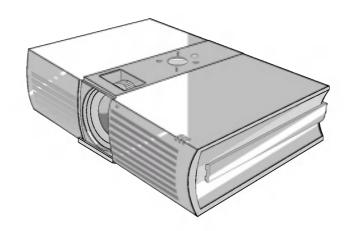
BN315-JD OWNER'S MANUAL

Please read this manual carefully before operating your set.

Retain it for future reference.

Record model number and serial number of the set. See the label attached on the bottom of the set and quote this information to your dealer when you require service.

Model number : Serial number :



# DLP PROJECTOR

#### **FCC NOTICE**

#### · A Class B digital device

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.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Warning

This is a class B product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.



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#### Disposal of your old appliance



- When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
   All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
- The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

# **Safety Instructions**

Please take note of the safety instructions to prevent any potential accident or misuse of the projector.

- → Safety Instructions are given in two forms as detailed below.
- ⚠ WARNING: The violation of this instruction may cause serious injuries and even death.
- $\triangle$  NOTES : The violation of this instruction may cause light injuries or damage to the projector.
- → After reading this manual, keep it in the place that the user always can contact easily.

# Do not place the Projector in direct sunlight or near heat sources such as radiators, fires and stove etc. This may cause a fire hazard! Do not place inflammable materials beside the projector This may cause a fire hazard! Do not allow children to hang on the installed projector. It may cause the projector to fall, causing injury or death.

This may cause a fire hazard!	This may sause a me nazara :	ing injury or death.
Indoor Installation	⚠ NOT	ES
Disconnect from the mains and remove all connections before moving.	Do not place the projector close to sources of steam or oil such as a humidifier.  This may create a fire hazard or an electric shock hazard!	Do not place the projector where it might be exposed to dust.  This may cause a fire hazard or damage to the unit!
When installing the projector on a table, be careful not to place it near the edge.  This may cause the projector to fall causing serious injury to a child or adult and serious damage to the projector.  Only use a suitable stand.	Only use the projector on a level and stable surface.  It may fall and cause injury and/or damage to the unit.	Ensure good ventilation around the projector. The distance between the projector and the wall should be more than 20cm/8 inches.  An excessive increase in its internal temperature may cause a fire hazard or damage to the unit!
Do not block the vents of the projector or restrict air-flow in any way.	Do not place the projector directly oventilation is restricted.	on a carpet, rug or place where

Do not block the vents of the projector or restrict air-flow in any way.

This would cause the internal temperature to increase and could cause a fire hazard or damage to the unit!

Do not place the projector directly on a carpet, rug or place where ventilation is restricted.

This would cause the internal temperature to increase and might create a fire hazard or damage the unit.

#### 

Do not use the projector in a damp place such as a bathroom where it is likely to get wet.

This may cause a fire or an electric shock hazard!

Power	<u></u> WARI	NING
Earth wire should be connected.  If the earth wire is not connected, there is a possible danger of electric shock caused by the current leakage.  If grounding methods are not possible, a separate circuit breaker should be installed by a qualified electrician.  Do not connect ground to telephone wires, lightning rods or gas pipe.	The mains plug should be inserted fully into the power outlet to avoid a fire hazard!  This may cause a fire hazard or damage the unit.	Do not place heavy objects on the power cord.  This may cause a fire or an electric shock hazard!

Power MARNING

Do not use too many plugs on the Mains multi-outlet.

It may result in overheating of the outlet and causes a fire hazard!

Power	∧ NOTES		
Never touch the power plug with a wet hand  This may cause an electric shock hazard!	Hold the plug firmly when unplugging. If you pull the cord, it may be damaged.  This may cause a fire hazard!	Prevent dust collecting on the power plug pins or outlet.  This may cause a fire hazard!	
Do not plug when the power cord or the plug is damaged or any part of the power outlet is loose.  This may cause a fire or an electric shock hazard or damage to the unit!	Ensure the power cord does not come into contact with sharp or hot objects such as a heater.  This may cause a fire or an electric shock hazard or damage to the unit!	Place the projector where people will not trip or tread on the power lead.  This may cause a fire or an electric shock hazard or damage to the unit!	

Do not turn the projector On/Off by plugging-in or unplugging the power plug to the wall outlet. (Do not use the power plug for switch.)

It may cause mechanical failure or could cause an electric shock.

Using	<u></u> WAF	NING
Do not place anything containing liquid on top of the projector such as flowerpot, cup, cosmetics or candle.  This may cause a fire hazard or damage to the unit!	In case of impact shock or damage to the projector switch it off and unplug it from the mains outlet and contact your service center.  This may cause a fire or an electric shock hazard or damage to the unit!	Do not allow any objects to fall into the projector.  This may cause an electric shock hazard or damage to the unit!
If water is spilt into the projector unplug it from the mains supply outlet immediately and consult your Service Agent.  This may cause an electric shock hazard or damage to the unit!	Dispose of used batteries carefully and safely.  In the case of a battery being swallowed by a child please consult a doctor immediately.	In the event that an image does not appear on the screen please switch it off and unplug it from the mains supply and contact your Service Agent.  This may cause a fire or an electric shock hazard or damage to the unit!
Do not remove any covers (except lens cover). High risk of Electric Shock!	Don't look directly onto the lens when the projector is in use. Eye damage may occur!	Do not touch metal parts during or soon after operation since the vents and lamp cover will remain very hot!

#### **CAUTION concerning the Power Cord**

Most appliances recommend they be placed upon a dedicated circuit; that is,a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized service personnel.

Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

#### ⚠ WARNING **Using** Never touch the wall outlet when Do not drop the projector or allow

there is leakage of gas, open the windows and ventilate.

It can cause a fire or a burn by a spark.

impact shock.

This may cause mechanical failure or personal injury !

Don't look at laser beam directly as it can cause eye damage!

#### Using ♠ NOTES

Do not place heavy objects on top of projector.

This may cause mechanical failure or personal injury!

Take care not to impact the lens particularly when moving the projector.

Do not touch the lens of the projector. It is delicate and easily damaged.

Do not use any sharp tools on the projector as this will damage the casing.

#### WARNING Cleaning

Do not use water while cleaning the projector

This may cause damage to the projector or an electric shock hazard. In the unlikely event of smoke or a strange smell from the projector, switch it off, unplug it from the wall outlet and contact your dealer or service centre.

This may cause a fire or an electric shock hazard or damage to the unit!

Use an air spray or soft cloth that is moist with a neutral detergent and water for removing dust or stains on the projection lens.

#### ∧ NOTES Cleaning

Contact the Service Center once a year to clean the internal parts of the projector.

Accumulated dust can cause mechanical failure. When cleaning the plastic parts such as projector case, unplug the power and wipe it with a soft cloth. Do not use cleanser, spray water or wipe with a wet cloth. Especially, never use cleanser (glass cleaner), automobile or industrial shiner, abrasive or wax, benzene, alcohol etc., which can damage the product. Use an air spray or soft cloth that is moist with a neutral detergent and water for removing dust or stains on the projection lens.

It can cause fire, electric shock or product damage (deformation, corrosion and damage).

#### / WARNING **Others**

Do not attempt to service the projector yourself. Contact your dealer or service centre.

This may cause damage to the projector and could give an electric Shock as well as invalidating the warranty!

Others			
Be sure to unplug if the projector is not to be used for a long period.  Accumulated dust may cause a fire hazard or damage to the unit!	Refer lamp servicing to qualified service personnel.	Do not mix new batteries with old batteries.  This may cause the batteries to overheat and leak.	

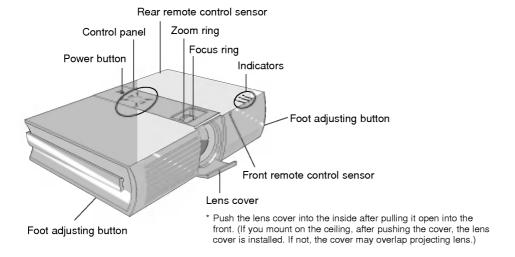
Only use the specified type of battery.

This could cause damage to the remote control

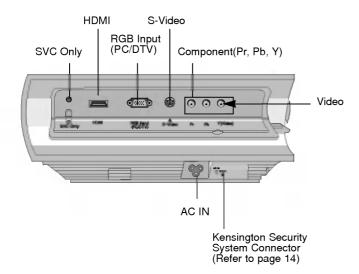
# Names of parts

#### Main Body

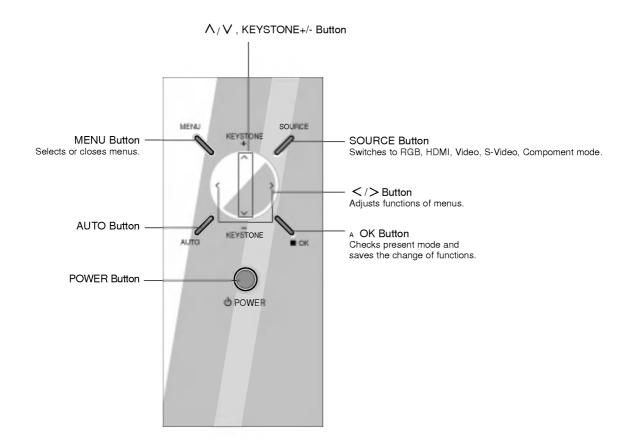
\* The projector is manufactured using high-precision technology. You may, however, see on the Projector screen tiny black points and/or bright points (red, blue, or green). This can be a normal result of the manufacturing process and does not always indicate a malfunction.



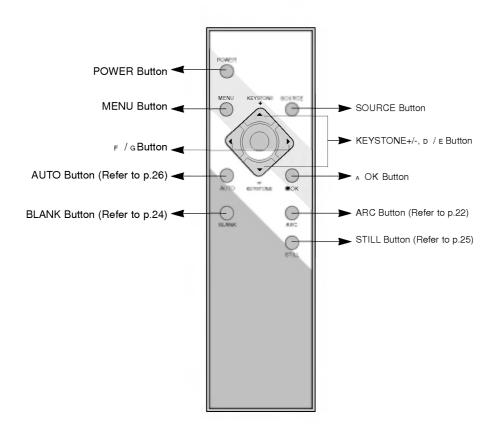
#### Connecting Part



#### Control Panel



#### Remote Control



#### Installing Batteries

#### CAUTION

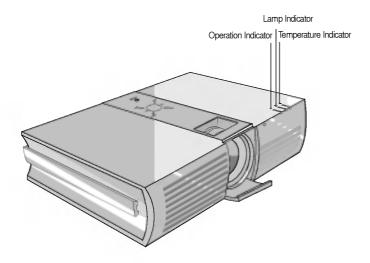
RISK OF EXPLOSION IF BATTERY IS REPLACED WITH AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.



- Open the battery compartment cover on the back of the remote control.
- Insert the specified type of batteries with correct polarity, match "+" with "+", and match "-" with "-".
- · Don't mix used batteries with new batteries.

# Projector Status Indicators

 $^{\star}$  Lamp indicator, operation indicator and temperature indicator at the top of the projector show the user the operating status of the projector.



	Orange	Standby.
	Green(flashing)	Lamp is starting up.
Operation Indicator	Green	Unit is in operation (Lamp is turned on)
	Orange(flashing)	Projector lamp is cooling (1 min. 30 sec.)
	Off	Power off.
	Red	Projector lamp is reaching the end of its life and needs
	ried	to be replaced with a new lamp. (over 2000 hours)
Lamp Indicator		The projector is experiencing an error. Retry Power On
Lamp indicator	Red(flashing)	again later. If lamp indicator is red (flashing) again, con-
		tact the service center.
	Green(flashing)	The lamp cover is open.
	Oranga	A high temperature state has been detected. Turn the
	Orange	Projector off.
Temperature Indicator	Red	The Projector has turned off due to excessive heat.
	Dad (flashing)	Power has turned off due to problem with the internal
	Red (flashing)	cooling fan. Contact your service center.

#### Accessories



Remote Control



2 Batteries



Owner's Manual



Power Cord



Computer Cable



Video Cable

#### Optional Extras

- \* Contact your dealer to purchase these items.
  \* When applying a ceiling installer, use only the ceiling installer for projector.
  \* Contact your service personnel for replacing of lamp.



Projection Screen



Lamp



SCART to RCA jack (option)



S-Video Cable



HDMI Cable



Component Cable





# **Installing and Composition**

#### Installation Instructions

\* Don't place the projector in the following conditions. It may cause malfunction or product damage



Provide proper ventilation for this projector.

•The projector is equipped with ventilation holes(intake) on the bottom and ventilation holes(exhaust) on the front. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.



 Never push projector or spill any kind of liquid into the projector.



•Do not place the projector on a carpet, rug or other similar surface. It may prevent a adequate ventilation of the projector bottom. This product should be mounted to a wall or ceiling only.



 Leave an adequate distance(30cm/12 inches or more) around the projector.

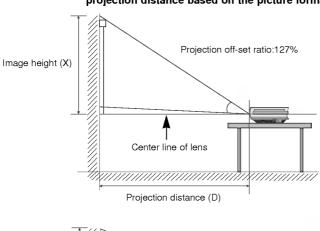


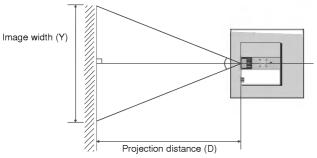
- Place this projector in adequate temperature and humidity conditions.
- Install this projector only in a location where adequate temperature and humidity is available. (refer p.31)
- Don't place the projector where it can be covered with dust.
- This may cause overheating of the projector.
- Do not obstruct the slots and openings of the projector. This may cause overheating and create a fire hazard.
- The projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the projector Screen. This is a normal result of the manufacturing process and does not indicate a malfunction.
- To display DTV programs, it is necessary to purchase a DTV receiver (Set-top Box) and connect it to the projector.
- If there is no input signal, the Menu will not be displayed on screen.

#### Basic Operation of the Projector

- 1. Place the projector on a sturdy and horizontal surface with the PC or AV source.
- 2. Place the projector with the desired distance from the screen. The distance between the projector and the screen determines the actual size of the image.
- 3. Position the projector so that the lens is set at a right angle to the screen. If the projector is not set at a right angle, the screen image will be crooked. If this is so then the keystone adjustment may correct this (Refer to page 24.).
- 4. Connect the cables of the projector to a wall power socket and other connected sources.

#### projection distance based on the picture format



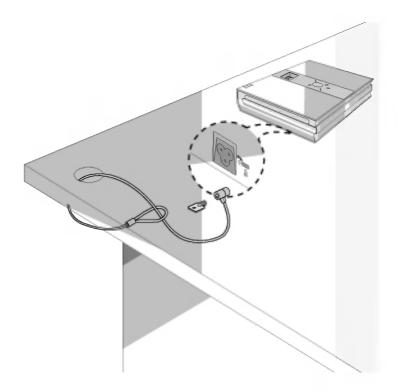


15:9 picture format mm/ in					m/ inches				
Image size	40″	60″	80″	100″	120″	140″	160″	180″	200″
Image height (X)	523/21	784/31	1045/41	1307/51	1568/62	1830/72	2091/82	2352/93	2614/103
Image width (Y)	871/34	1307/51	1742/69	2178/86	2614/103	3049/120	3485/137	3920/154	4356/171
The shortest distance (D)	1376/54	2075/82	2773/109	3472/137	4171/164	4870/192	5569/219	6268/247	6967/274
The longest distance (D)	1638/64	2470/97	3303/130	4135/163	4967/196	5800/228	6632/261	7464/294	8297/327

 $<sup>^{\</sup>star}$  The longest/shortest distance show status when adjusted by the zoom function.

#### Using Kensington Security System

- The projector has a 'Kensington' Security System Connector on the back panel. Connect the 'Kensington' Security System cable as below.
- For the detailed installation and use of the Kensington Security System, refer to the user's guide attached to the Kensington Security System set.
  And for further information, contact <a href="http://www.kensington.com">http://www.kensington.com</a>, the internet homepage of the Kensington company that deals with expensive electronic equipment such as notebook PCs or projectors
- Kensington Security System is an optional item.



#### Turning on the Projector

- 1. Connect power cord correctly.
- 2. Remove the lens cover of the projector.
- 3. Press the **POWER** button on the remote control or top cover. (Green operation indicator flashes if lamp is in start-up cycle.)
  - An image will appear after the operation indicator light turns (Green).
  - Select the source mode with the SOURCE button.
  - Leave the projector plugged in for at least 1 minute 30 seconds after switching off the projector, as this will allow the lamp cooling to continue which will help to preserve the lamp life.

#### Note!-

\* Don't unplug the power cord while the ventilation fan (inlet/outlet) is working. If so, this may increase risk of damage to the lamp.

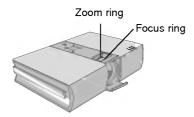
#### Turning off the Projector

- 1. Press the **POWER** button on the top cover or remote control.
- 2. Press the POWER button on the top cover or remote control again to turn off the power.
- 3. If the operation indicator LED is orange and blinking, do not disconnect the supply until the operation indicator LED is lit constantly (orange).
  - If the operation indicator LED is orange and blinking, the power button on the top cover or on the remote control will not
    operate.



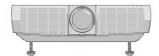
#### Focus and Position of the Screen Image

When an image appears on the screen, check if it is in focus and fits well to the screen.



- To adjust the focus of the image, rotate the focus ring which is the outer ring on the lens.
- To adjust the size of the image, rotate the zoom ring which is the inner ring on the lens.

To raise or lower the image on the screen, extend or retract the foot at the bottom of the projector by pushing foot adjusting button as below.



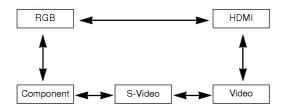
- While pressing the foot adjusting button, raise or lower the projector to place the screen image in the proper position.
   Release the button to lock the foot in its new position.
   To fine-tune the height of the projector, rotate the front foot to raise or lower it.
- After raising the front foot, do not press down on the projector.

#### Selecting source mode

1. Press the **SOURCE** button.



2. Each press of the F, G button changes the display as below.



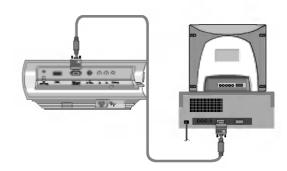
# Connection

#### Connecting to a Desktop PC

- \* You can connect the projector to a computer of VGA, SVGA, XGA and SXGA output.
- \* You can use ARC function for the RGB signals of the Aspect Ratio 4:3. (For HD wide input signals, you cannot use ARC function.)
- \* Fundamentally, HD wide input signal is not included in the Spec., so the set may not support HD signal perfectly.
- \* Refer to page 28 for the supported monitor displays of the projector.

#### < How to connect >

Connect computer cable to **RGB Input (PC/DTV)** of the projector.

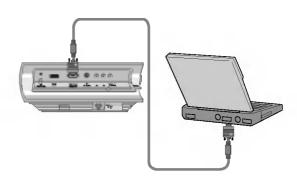


#### Connecting to a Notebook PC

#### < How to connect >

Connect computer cable to **RGB Input (PC/DTV)** of the projector.

\* If you set your computer to output the signal to both the display of your computer and the external projector, the picture of the external projector may not appear properly. In such cases, set the output mode of your computer to output the signal only to the external projector. For details, refer to the operating instructions supplied with your computer.



#### Connecting to a Video Source

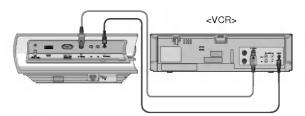
\* You can connect a VTR, a camcorder or any other compatible video image source to the projector.

#### < How to connect 1 >

a. Connect the Video input jacks of the projector to the output jacks of the A/V source with Video cable.

#### < How to connect 2 >

- b. Connect the S-Video input jack of the projector to the S-Video output jack of an A/V source with an S-Video cable.
  - \* You can get better picture quality when connecting S-Video source to the projector.

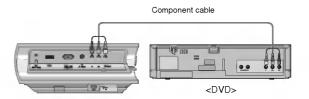


#### Connecting to a DVD

\* The output jacks (Y, PB, PR) of the DVD might be labelled as Y, Pb, Pr / Y, B-Y, R-Y / Y, Cb, Cr according to the equipment.

#### < How to connect >

- a. Connect the DVD Component cable to Component Pr, Pb, Y of the projector.
  - \* When connecting the component cable, match the jack colors with the component cable.(Y=green, PB=blue, PR=red)
- b. Use a DVD with Component 480i(576i)/480p(576p), 720p, 1080i mode.



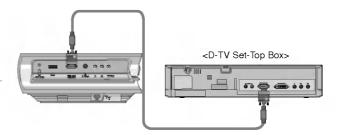
#### Connecting to a D-TV Set-Top Box

- \* To receive D-TV programmes, it is necessary to purchase a D-TV receiver (Set-Top Box) and connect it to the projector.
- connect it to the projector.

  \* Please refer to the owner's manual of the D-TV Set-Top Box for the connection between projector and D-TV Set-Top Box.

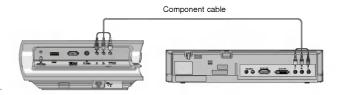
#### < How to connect an RGB source >

- a. Connect RGB cable to **RGB Input (PC/DTV)** of the projector.
- b. Use a DTV receiver with DTV 480p(576p)/720p/1080i mode.
  \* HDMI supports HDCP.



#### < How to connect a Component source >

- a. Connect the D-TV Set-Top Box Component cable to Component Pr, Pb, Y of the projector.
  - \* When connecting the component cable, match the jack colors with the component cable.(Y=green, PB=blue, PR=red)
- b. Use a DTV receiver with DTV 480p(576p)/720p/1080i mode.



# **Function**

- \* In this manual, the OSD(On Screen Display) may be different from your Projector's because it is just an example to help with the Projector operation.
- \* If there is no input signal present, the Menu will not be displayed.
- \* This operating guide explains operation of RGB(PC) mode mainly.

# **Video Menu Options**

#### Adjusting Video

- 1. Press the **MENU** button and then use D, E button to select the menu.
- 2. Press the  ${\tt G}\,$  button and then use  ${\tt D}\,$  ,  ${\tt E}\,$  button to select a video item you want to adjust.
- 3. Press the F, G button to adjust the screen condition as you want.
- 4. Press the A OK button to save the new settings.
  - Each adjustment of menu options will not affect other inputs.
     As required, re-adjust menu options for the following input source:
     Video/S-Video/Component (480i(576i)), Component (480p(576p), 720p, 1080i)
  - To restore the original image condition after changing it, press A **OK** button after selecting [**Reset**] item.
  - When receiving an NTSC signal, the picture item Tint is displayed and can be adjusted.(60Hz only)
  - To exit the menu display, repeatedly, press the MENU button.

#### < RGB mode >

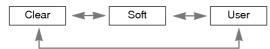


< Video mode >



#### APC (Auto Picture Control)

- \* Use APC to set the projector for the best picture appearance.
- \* This function will not work in RGB mode.
- 1. Press the **MENU** button and then use D, E button to select the menu.
- 2. Press the G button and then use D , E button to select APC item.
- 3. Press the  ${\tt G}\,$  button and then use  ${\tt D}\,$  ,  ${\tt E}\,$  button to adjust the screen condition as you want.
- 4. Press the A OK button to save the new settings.
  - Each press of the D, E button changes the screen as shown below.



• To exit the menu display, repeatedly, press the MENU button.



#### Auto Color Temperature Control

- To initialize values (reset to default settings), select the Normal option.
- 1. Press the **MENU** button and then use D, E button to select the menu.
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select  ${\tt ACC}$  item.
- 3. Press the G button and then use D , E button to make desired adjustments.
- 4. Press the A  $\mathbf{OK}$  button to save the new settings.
  - Each press of the D, E button changes the screen as shown below.

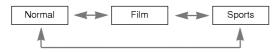


• To exit the menu display, repeatedly, press the MENU button.

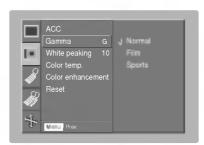


#### Gamma Function

- 1. Press the **MENU** button and then use D, E button to select the menu.
- 2. Press the G button and then use D , E button to select **Gamma** item.
- 3. Press the  ${\tt G}\,$  button and then use  ${\tt D}\,\,{\tt ,E}\,\,$  button to adjust the screen condition as required.
- 4. Press the A OK button to save the new settings.
  - Each press of the D, E button changes the screen as shown below.



• To exit the menu display, repeatedly, press the **MENU** button.



#### White peaking Function

- 1. Press the MENU button and then use D, E button to select the menu.
- 2. Press the G button and then use D , E button to select White peaking item.
- 3. Press the F, G button to adjust the screen condition as you want.
- 4. Press the A **OK** button to save the new settings.
  - White Peaking is only available in RGB(PC) and HDMI(DVI) Mode.
  - The default value may changed based on input mode.
  - Adjust to higher setting to achieve brighter picture. Adjust to lower setting for darker picture.
  - To exit the menu display, repeatedly, press the MENU button.



#### Color temperature Control

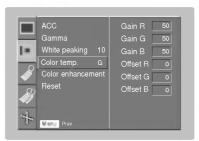
- \* You can adjust color to any color temperature you prefer.
- 1. Press the **MENU** button and then use D, E button to select the menu.
- 2. Press the G button and then use D , E button to select Color temp. item.
- 3. Press the G button and then use D , E button to select **Gain R**, **Gain G**, **Gain B** or **Offset R**, **Offset G**, **Offset B**.
- 4. Use the F, G button to make appropriate adjustments.
  - The **Gain R**, **Gain G**, **Gain B** adjustment range is  $0 \sim 100$ .
  - The Offset R, Offset G, Offset B adjustment range is -50 ~ +50.
- 5. Press the A **OK** button to save the new settings.
  - To exit the menu display, repeatedly, press the **MENU** button.

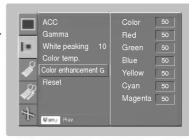
#### Color enhancement Control

- \* You can adjust color to any color enhancement you prefer.
- 1. Press the **MENU** button and then use D, E button to select the **I** menu.
- 2. Press the G button and then use D , E button to select Color enhancement item.
- 3. Press the G button and then use D , E button to select **Color**, **Red**, **Green**, **Blue**, **Yellow**, **Cyan**, or **Magenta**.
- 4. Use the F, G button to adjust the screen condition as desired.
  - The adjustment range of Color, Red, Green, Blue, Yellow, Cyαn, and Magenta is 0~ 100.
- 5. Press the A **OK** button to save the new settings.
  - To exit the menu display, repeatedly, press the **MENU** button.

#### Reset (Reset to original factory value)

• To restore the original image condition after changing it, press the A OK button after selecting [Reset] item.





# **Special Menu Options**

#### Selecting Language

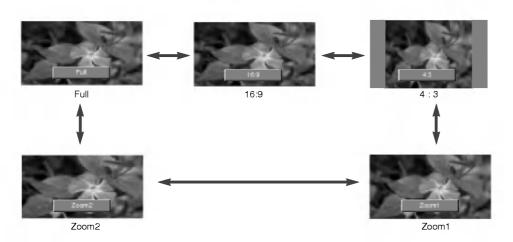
- 1. Press the **MENU** button and then use D, E button to select the weenu.
- 2. Press the  ${\tt G}\,$  button and then use  ${\tt D}\,$  ,  ${\tt E}\,$  button to select Language item.
- 3. Press the  ${\tt G}\,$  button and then use  ${\tt D}\,$  ,  ${\tt E}\,$  button to select the language you want to use.
- 4. Press the A OK button to save the new settings.
  - On-Screen-Display (OSD) is displayed in the selected language.
  - $\bullet$  To exit the menu display, repeatedly, press the MENU button.



#### Using ARC Function

1. Press the **ARC** button.

Each press of the button changes the display as below.



Note!

You can also use this function by using the MENU button.

#### Flip horizontal Function

- \* This function reverses the projected image horizontally. Use this function when rear projecting an image.
- 1. Press the **MENU** button and then use D, E button to select the and menu.



- 2. Press the G button and then use D , E button to select Flip horizontal item.
- 3. Press the G button to see reversed image.
  - Each time you press the G button, the image will be reversed.
  - $\bullet$  To exit the menu display, repeatedly, press the MENU button.



#### Flip Vertical Function

- \* This function reverses the projected image vertically.
- \* When you hang the projector upside down from the ceiling , you will need to reverse the image vertically and horizontally.
- 1. Press the **MENU** button and then use D, E button to select the select the menu.



- 3. Press the G button to see reversed image.
  - Each time you press the G button, the image will be reversed.
  - To exit the menu display, repeatedly, press the **MENU** button.



#### Auto sleep Function

- \* The sleep timer turns the projector off at the preset time.
- 1. Press the **MENU** button and then use D, E button to select the menu.



- 2. Press the G button and then use D , E button to select Auto sleep item.
- 3. Press the G button and then use D , E button to select the desired preset time.
- 4. Press the A **OK** button to save the new settings.
  - To exit the menu display, repeatedly, press the MENU button.



# **Special Menu Options**

#### Using Keystone Function

- \* Use this function when the screen is not at a right angle to the projector and the image is a trapezoid shape.
- \*Only use the Keystone function when you can't get the best angle of projection.
- 1. Press the **KEYSTONE** + or **KEYSTONE** button.
- Press the KEYSTONE + or KEYSTONE button to adjust as needed to correct the keystone.
  - Keystone can be adjusted from -20 to +20.
  - You can also access this function via the MENU button.



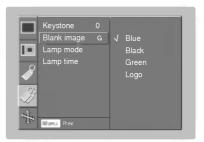
#### Using Blank Function

- \*This function may be effective if you need to get the attention of the audience during presentations, meetings or briefings.
- 1. Press the BLANK button.
  - The screen turns off to a background color.
  - You can choose the background color.
     (Refer to 'Selecting blank image color')
- 2. Press any button to cancel the blank function.



#### Selecting Blank image color

- 1. Press the MENU button and then use D, E button to select the select the
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select **Blank image** item.
- 3. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select the color you want to use.
- 4. Press the A **OK** button to save the new settings.
  - Background color will be altered to the selected Blank function color.
  - To exit the menu display, repeatedly, press the MENU button.



#### Lamp mode Function

- 1. Press the MENU button and then use D , E button to select the  $\longrightarrow$  menu.
- 2. Press the G button and then use D , E button to select Lamp mode item.
- 3. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select Normal mode or Silent mode.
- 4. Press the A **OK** button to save the new settings.
  - To exit the menu display, repeatedly, press the MENU button.



#### Checking Lamp time

- 1. Press the MENU button and then use D, E button to select the and menu.
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select Lamp time item.

  - ◆The used lamp time is displayed.◆When projector lamp is reaching the end of its life (approximately 2000 hours), the lamp indicator will turn red.
  - The lamp warning LED illuminates red continuously in the case of excessive lamp time.
  - To exit the menu display, repeatedly, press the **MENU** button.



#### Using Still Function

- 1. Press the STILL button.
  - \* You can freeze the input image.



- 2. To exit STILL, press any button .
  - \* The STILL function will release automatically after approximately 10 minutes.

# **Screen Menu Options**

#### Auto Configure Function

- \* This function assures you of getting the best video quality by automatically adjusting the horizontal size and synchronization of the image.
- \* Auto Tracking function works in RGB PC input only.
- 1. Press the AUTO button.
  - Image positioning and synchronization are automatically adjusted.
- Adjust Manual configure in menu after operating Auto configure
  if you want to get better picture quality in accordance with diverse PC
  input modes. In certain circumstances, you can't get the best picture
  quality by only using auto-correction.



#### Note!

You can also use this function by using the MENU button. (Only in RGB mode) For best results, perform this function while displaying a still image.

#### Manual configure

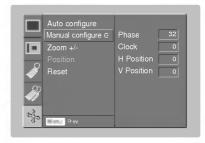
- \* Manual Configure is available in RGB PC mode only.
- \* Phase Function

This function is for the detailed adjustment of the phase function.

\* Clock Function

This function adjusts the horizontal width of the projected image to get the image to fit to the screen size.

- 1. Press the **MENU** button and then use D, E button to select the  $\P$  menu.
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  ,  ${\tt E}$  button to select **Manual configure** item.
- Press the G button and then use D , E button to select Phase, Clock, H Position or V Position.
- 4. Press the F, G button to adjust the screen condition.
  - The **Phase** adjustment range is 0 ~ 63.
  - The Clock adjustment range is -50 ~ +50.
  - Based on the input mode, the adjustment range may be changed.
- 5. Press the A OK button to save the new settings.
  - To exit the menu display, repeatedly, press the MENU button.



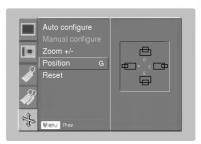
#### Using ZOOM Function

- 1. Press the **MENU** button and then use D, E button to select the  $\final +$  menu.
- 2. Press the G button and then use D , E button to select **Zoom +/-** item.
- 3. Press the G button and then use F, G button to zoom in or out of the picture.
  - **Zoom** +/- adjustment range is 100% ~ 250%.
  - To exit the menu display, repeatedly, press the MENU button.



#### Screen Position

- \* This function is only available once the picture has been zoomed.
- 1. Press the **MENU** button and then use D, E button to select the  $\P$  menu.
- 2. Press the G button and then use D , E button to select **Position** item.
- 3. Press the G button and then use D, E, F, G button to adjust the position.
- 4. Press the A **OK** button to save the new settings.
  - To exit the menu display, repeatedly, press the **MENU** button.



#### Reset (Reset to original factory value)

- To restore the original image condition after changing it, press A OK button after selecting [Reset] item.
- This function resets all Manual Configuration settings. (Zoom +/-, Position etc).

# **Supported Monitor Display**

\* The following table lists the display formats supported by the projector

Sources	Format	Vertical Freq.(Hz)	Horizontal Freq. (kHz)
VGAEGA	640X350	70.090Hz	31.468kHz
	640X350	85.080Hz	37.861kHz
PC98 / VGA text	640X400	70.090Hz	31.468kHz
	640X400	85.080Hz	37.861 kHz
	720X400	70.082Hz	31.469kHz
	720X400	85.039Hz	37.927kHz
VGA	640X480	59.940Hz	31.469kHz
	640X480	72.800Hz	37.861kHz
	640X480	75.00Hz	37.500kHz
	640X480	85.008Hz	43.269kHz
SVGA	800X600	56.250Hz	35.156kHz
	800X600	60.317Hz	37.879kHz
	800X600	72.188Hz	48.077kHz
	800X600	75.00Hz	46.875kHz
	800X600	85.061 Hz	53.674kHz
XGA	1024X768	60.004Hz	48.363kHz
	1024X768	70.069Hz	56.476kHz
	1024X768	75.029Hz	60.023kHz
	1024X768	84.997Hz	68.677kHz
SXGA	1152X864	60.053Hz	54.348kHz
	1152X864	70.01Hz	63.995kHz
	1152X864	75.00Hz	67.500kHz
	1280X768	60.00Hz	47.693kHz
	1280X960	60.00Hz	60.00kHz
	1280X1024	60.020Hz	63.981 kHz

- \* If the projector does not support the input signal, "Out of Range" message appears on the screen.

  \* The projector supports DDC1/2B type as Plug & Play function. (Auto recognition of PC monitor)

  \* The Synchronization input form for horizontal and vertical frequencies are Separate, Composite and SOG.

  \* According to PC, the optimum vertical frequency may not be displayed up to the optimum frequency of set in 'Registration information (Display registration information)'. (ex, The optimum vertical frequency may be displayed up to the PCAL or under in the prediction of \$40,000 (ex). up to 85Hz or under in the resolution of 640X480 or 800X600.)

#### <DVD/DTV Input>

Signal		Component-*1	RGB(DTV)-*2	HDMI(DTV)-*3
	480i	0	Х	Х
NITO CARRILLY	480p	0	0	0
NTSC(60Hz)	720p	0	0	0
	1080i	0	0	0
	576i	0	Х	X
PAL(50Hz)	576p	0	0	0
1712(00112)	720p	0	0	0
	1080i	0	0	0

- \* Cable type
- 1- Component Cable
- 2- Computer Cable
- 3- HDMI Cable
- If you want to see a cleaner picture in the RGB/HDMI 720p signal, select the ZOOM 1 mode in ARC function.

# **Maintenance**

\* The projector needs little maintenance. You should keep the lens clean because any dirt or stains may appear on the screen. If any parts need to be replaced, contact your dealer. When cleaning any part of the projector, always turn the power off and unplug the projector first.

#### Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface of it. Wipe the lens surface gently with an air spray or a soft, dry lint-free cloth

To remove dirt or stains on the lens, moisten a soft cloth with water and a neutral detergent and wipe the lens surface gently.

#### Cleaning the Projector Case

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

Do not use alcohol, benzene, thinners or other chemical detergents as these can cause the casing to be warped or discolored.

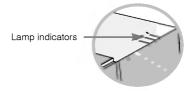
# Replacing the Lamp

#### Lamp Replacement

The projector lamp is rated for approximately 2000 hours. You can see the used lamp time in the LAMP TIME section of the Menu (p.25). You must replace the lamp when:

- The projected image gets darker or starts to deteriorate.
- · The lamp indicator is red.
- The message "Replace the lamp" appears on the screen when turning the projector on.

#### <Front panel of the Projector>



#### Be careful when replacing lamp

- Press the POWER button on the control panel or remote control to turn off power.
- If the operation indicator LED is orange and blinking, do not disconnect the main supply until the operation indicator LED is lit up constantly (orange).
- Allow the lamp to cool for 1 hour before replacing it.
- Replace only with the same type lamp from an LG Electronics Service Center. Using another manufacturers lamp may cause damage to the Projector and lamp.
- Pull out the lamp only when replacing the lamp.
- Keep the lamp unit out of reach of children. Keep the Lamp away from heat sources such as radiators, stoves etc.
- To reduce the risk of fire do not expose the lamp to liquids or foreign materials.
- Do not place the lamp near any heat source.
- Make sure the new lamp is securely tightened with screws. If not, the image may be dark or there could be an increased risk of fire.
- Never touch the lamp unit glass otherwise image quality may be compromised or lamp life maybe reduced.

#### To obtain a replacement Lamp unit

Lamp model number is on page 31. Check the lamp model and then purchase it from an LG Electronics Service Center. Using another manufacturers lamp may cause damage to the projector.

#### Lamp unit disposal

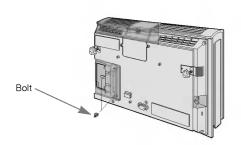
Dispose of the used lamp by returning it to the LG Electronic Service Center.

#### Replacing the Lamp

Turn off the projector and unplug the power cable. Carefully place on a cushioned surface.

(Allow the lamp to cool for 1 hour before removing the used lamp from the projector.)

After lifting the lamp cover off, remove the two retaining screws on the lamp case with a screw-driver.

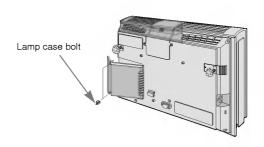


Pull out the handle slowly and remove the lamp case.

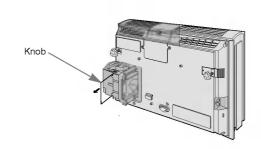
Tighten the screws you removed in step 3.

(Make sure they are fixed firmly.)

2 Unscrew the screws from the lamp cover using a screwdriver.



4 Lift the lamp up by the attached knob.



6 Insert the new lamp gently into the correct position.

Make sure it is inserted correctly.

Close the lamp cover and install the screws from step 2 to install the cover.

(If the lamp cover is not installed correctly the unit will not power on.)

#### Note!

Using another manufacturers lamp may cause damage to the projector or lamp.

Make sure the lamp cover is securely fastened. If the lamp cover is not installed correctly the unit will not power on. If this fault persists contact an LG Authorized Service Center.

# **Specifications**

MODEL	BN315-JD	
resolution	1280(Horizontal) x 768(Vertical)pixel	
horizontal / vertical ratio	15:9(horizontal:vertical)	
DLP panel size	0.65 inches	
screen size	Wide: 1.35 ~ 7.00m(40 ~ 200 inches)	
	Tele: 1.60 ~ 8.30m(40 ~ 200 inches)	
remote control distance	12m	
zoom ratio	1:1.2	
Video compatibility	NTSC/PAL/SECAM/NTSC4.43/PAL-M/PAL-N	
Power	AC 100 - 240V~50/60Hz, 3A-1A	
height(mm/inches)	100.7/3.9	
breadth(mm/inches)	330/12.9	
length(mm/inches)	220.1/8.7	

500000	the second	Same.	Acres and
Opera	uma	Condi	tion

#### temperature

In operation : 32~104 °F(0 °C~40 °C) In storage and transit : -4~140 °F(-20 °C~60 °C)

### humidity

In operation :  $0\sim75\%$  relative humidity by dry hygrometer Not in operation :  $0\sim85\%$  relative humidity by dry hygrometer

#### Projector Lamp

lamo model

AJ-LBN3

iamp power consumption

200W



P/NO: 38289U0029F

