USA's primary source for projector lamps
myprojectorlamps

PROJECTOR OWNER'S MANUAL

BenQ

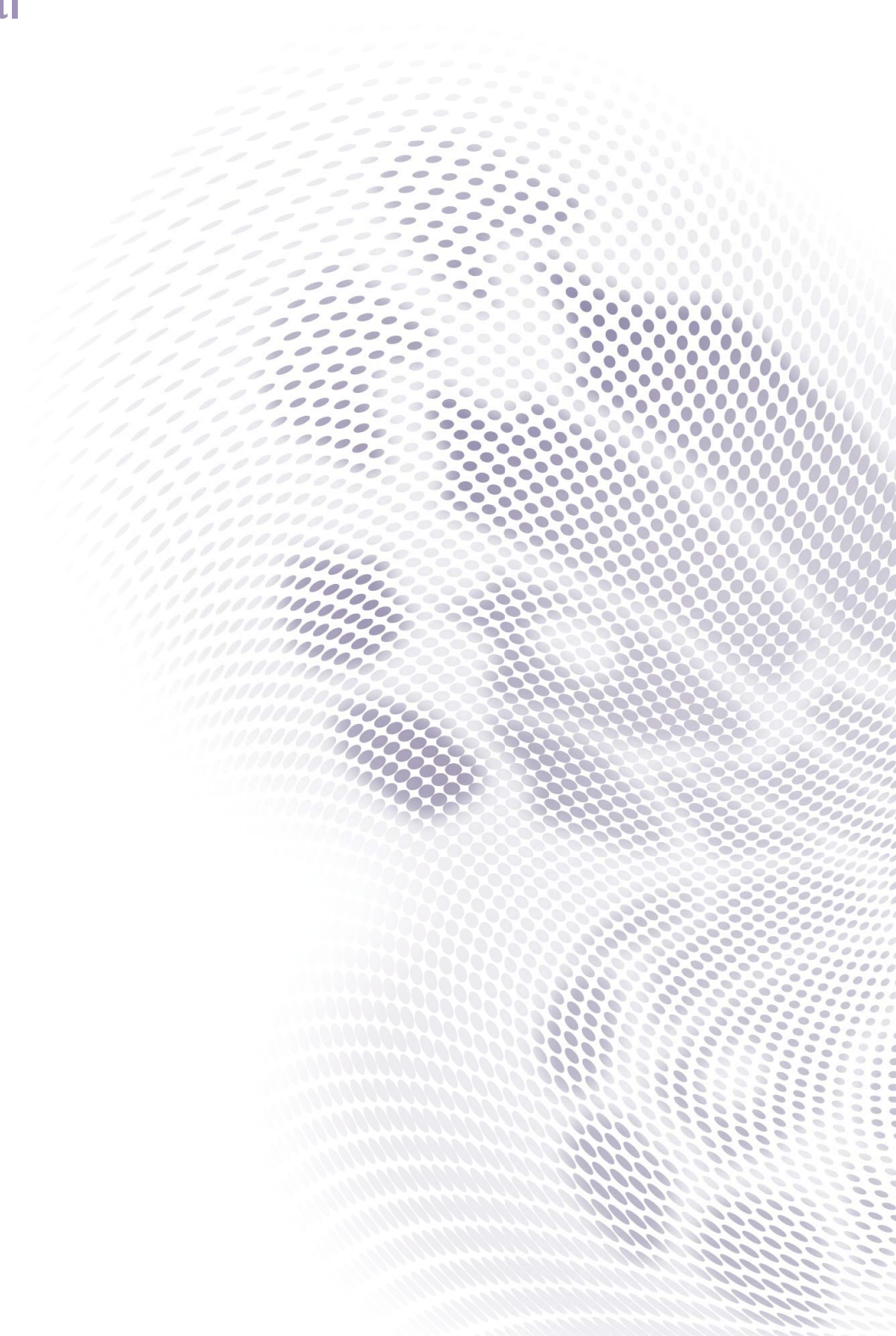
PW9520

Need a replacement lamp for this projector?

www.myprojectorlamps.com

Original manufacturer manual, provided unmodified as a courtesy of MyProjectorLamps.com.
All trademarks belong to their respective owners.

PX9510 / PW9520 / PU9530
Digital Projector
User Manual



2015/ 4/ 23

Table of Contents

Important safety instructions 4

Overview 7
- Shipping contents 7
- Projector exterior view 8
  - Front and upper side view 8
  - Rear view 8
  - Left side view 8
  - Upper-right side view 9
  - Under view 9
  - Control panel and functions 10
  - Remote control and functions 11
  - Remote control operation 12

Setup and operations 13
- Setting the remote control batteries 13
- Connecting to the projector 13
- Projection lens selection and Installation 14
  - Installing or removing the optional lens 14
  - Installing the new lens 14
- Using the Anti-theft Screw 14
- Removing the existing lens from the projector 15
- Choosing a location 16
- Throw distance and screen size 17
- Lens shift adjustable range 19
- Preventing the unauthorized use of the projector 20
  - Locking the projector 20
  - Locking the control panel 21
  - Using the physical lock 21

Making connections 22
- Preparations 22
- Connecting DVI-D devices 22
- Connecting COMPONENT-video devices 23
- Connecting a computer 24
- Connecting a external HDBaseT transmitter 25
- Connecting a monitor 26

Using the projector 27
- Preparations 27
- Turning the projector on or off 28
- Selecting an input source 29
  - To select the video source 29
- Using the menus 30
- Adjusting the projected image 31
  - Adjusting the image position 31
  - Fine-tuning the image size and clarity 31
  - Adjusting the projection angle 32
  - Correcting picture distortion 32

Auto-adjusting the image 32
Turning off the projector 33
Using On-Screen Display 34
Using the menus 34
Navigating the OSD 34
On-Screen Display (OSD) menus 35
Menu Map 35
PICTURE 38
Advanced 39
SIGNAL 40
SETUP 42
Advanced 44
Installation 45
Network Settings 47
SERVICE 49

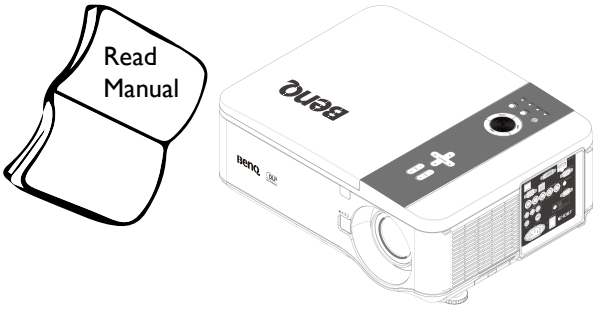
Additional information 51
Care of the projector 51
Care of the projector 51
Cleaning the lens 51
Cleaning the projector case 51
Storing the projector 51
Transporting the projector 52
Replacing the lamp 52
Removing the used lamp 53
Installing the optional color wheel 55
Cleaning the filters 56
Troubleshooting 58
Indicator messages 58
Common problems and solutions 59
Tips for troubleshooting 59
Image problems 59
Lamp problems 60
Remote control problems 60
Specifications 62
Dimensions 63
Timing chart 64
PC timing 64
3D supported timing 65
RS232 command control 66
Control the projector through a Network 69
Set up the projector for Network 69
Control the projector through a web browser 70
Projector status 70
Alert mail setup 71
Crestron control page 72
BenQ ecoFACTS 74
Copyright 74
Disclaimer 74
Statement regarding hyperlinks and third-party websites 74

Thank you for your purchase of this quality BenQ projector. For the best results, please read this manual through carefully as it is your guide through the control menus and operation.

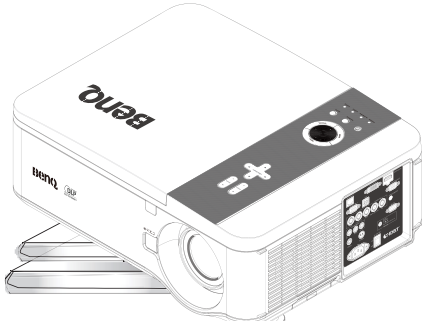
Important safety instructions

Your projector is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that you follow the instructions mentioned in this manual and marked on the product.

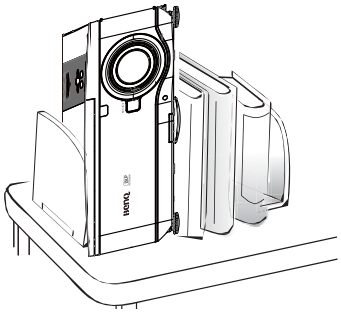
1. Please read this user manual before you operate your projector. Keep this manual in a safe place for future reference.



2. Always place the projector on a level, horizontal surface during operation.
   - Do not place the projector on an unstable cart, stand, or table as it may fall and be damaged.
   - Do not place inflammables near the projector.
   - Do not use if tilted at an angle of more than 10 degrees left to right, nor at angle of more than 15 degrees front to back.



3. Do not store the projector on end vertically. Doing so may cause the projector to fall over, causing injury or resulting in damage.

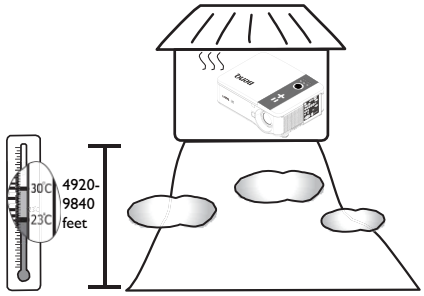


4. Do not place the projector in any of the following environments:
   - space that is poorly ventilated or confined. Allow at least 50 cm clearance from walls and free flow of air around the projector.
   - locations where temperatures may become excessively high, such as the inside of a car with all windows closed.
   - locations where excessive humidity, dust, or cigarette smoke may contaminate optical components, shorten the projector's lifespan and darken the screen.

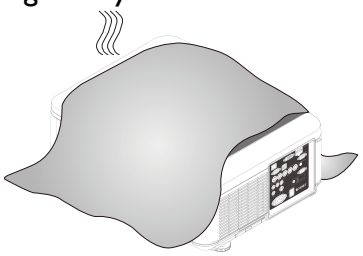


   - locations near fire alarms.
   - locations with an ambient temperature above 35°C/95°F.

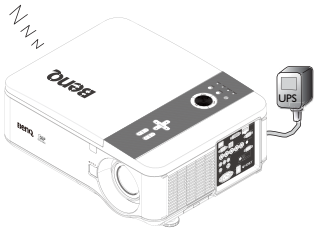
- locations where altitude is higher than 1500 meters/4920 feet above sea level.



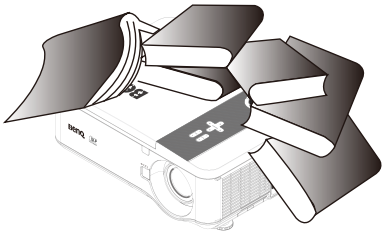
5. Do not block the vents holes while the projector is on (even in standby mode):
   - Do not cover the projector with any item.
   - Do not place the projector on a blanket, bedding or any other soft surface.



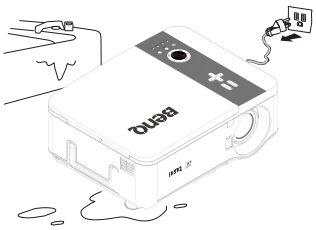
6. In areas where the mains power supply voltage may fluctuate by ±10 volts, it is recommended that you connect your projector through a power stabilizer, surge protector or uninterruptible power supply (UPS) as appropriate to your situation.



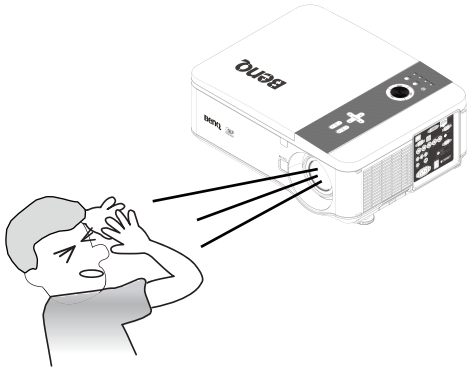
7. Do not step on the projector or place any objects upon it.



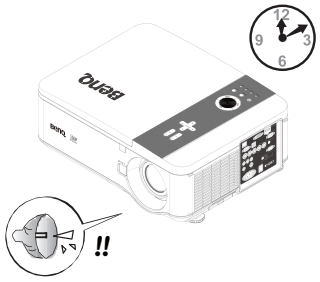
8. Do not place liquids near or on the projector. Liquids spilled into the projector will void your warranty. If the projector does become wet, disconnect it from the power point and call BenQ to have the projector repaired.



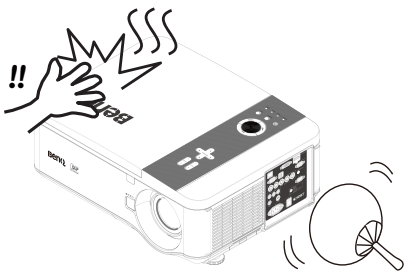
9. Do not look straight into the projector lens during operation. It may harm your sight.



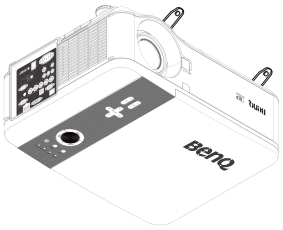
10. Do not operate the projector lamp beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause a lamp to break on rare occasions.



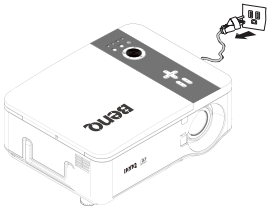
11. The lamp becomes extremely hot during operation. Allow the projector to cool for approximately 45 minutes prior to removing the lamp assembly for replacement.



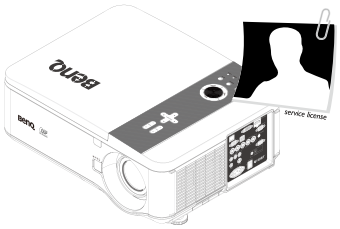
12. This projector is capable of displaying inverted images for ceiling mount installation. Use only BenQ's Ceiling Mount Kit for mounting.



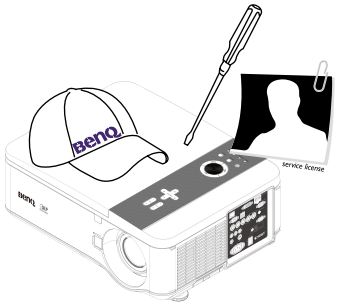
13. Never attempt to replace the lamp assembly until the projector has cooled down and is unplugged from the power supply.



14. When you think service or repair is required, take the projector only to a suitably qualified technician.



15. Do not attempt to disassemble this projector. There are dangerous high voltages inside which may cause death if you should come into contact with live parts. The only user serviceable part is the lamp which has its own removable cover. Under no circumstances should you ever undo or remove any other covers. Refer servicing only to suitably qualified professional service personnel.



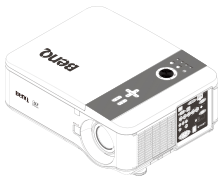
Please keep the original packing for possible future shipment.

Overview

Shipping contents

Carefully unpack and verify that you have the items below. Some of the items may not be available depending on your region of purchase. Please check with your place of purchase.

- Some of the accessories may vary from region to region.
- The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information.

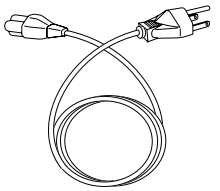

Projector without lens

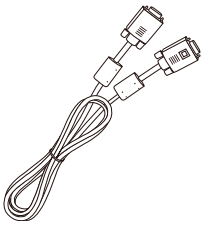

Remote Without AA batteries

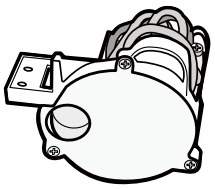

Warranty card

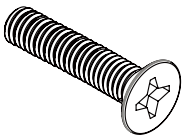

User manual CD

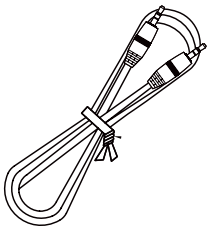

Quick start guide

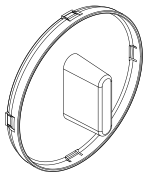

Power cable


VGA cable


Color-type Color Wheel

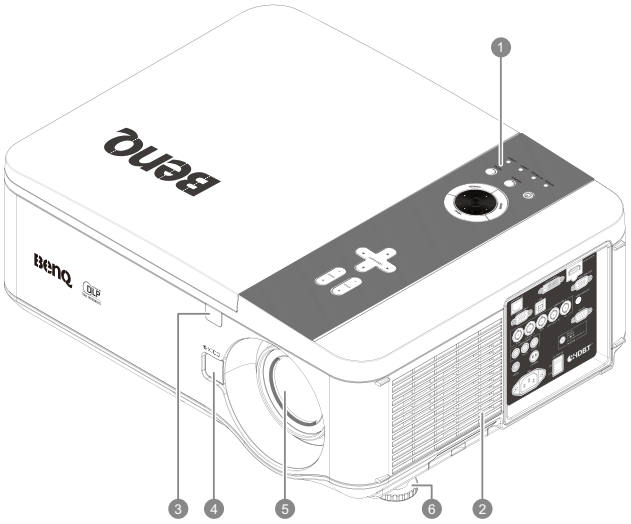

Anti-Theft screw


Wired remote cable


Lens Hole Cap

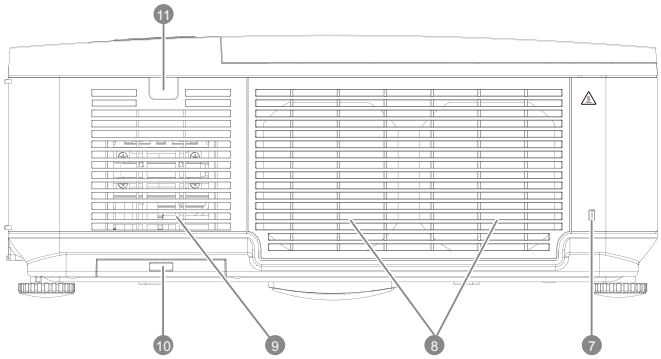
Projector exterior view

Front and upper side view



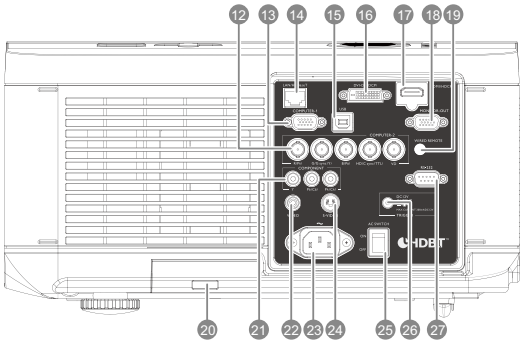
1. Control Panel
2. Air Inlet
3. Front IR sensor
4. Lens Change button
5. Lens (Remove lens hole cap before use)
6. Foot for adjusting projector level

Rear view



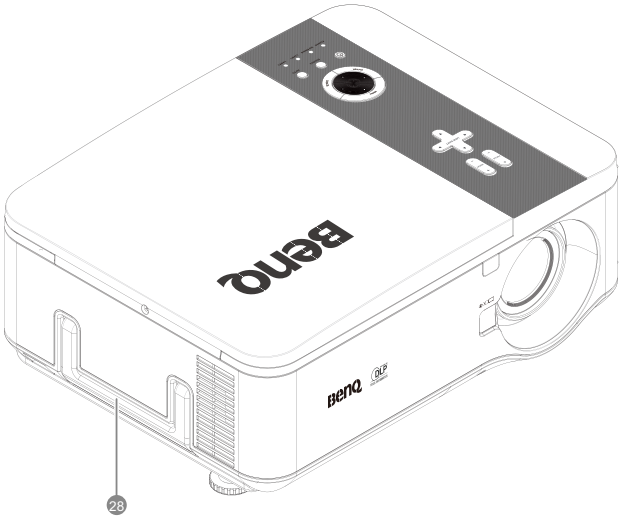
7. Kensington Lock
8. Air Exhaust
9. Air Inlet
10. Air Filter
11. Rear IR sensor

Left side view



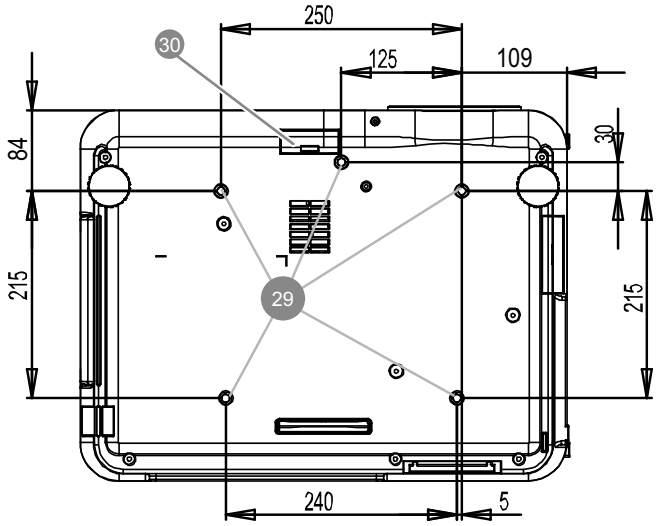
12. Computer 2, RGBHV, Y/Pb(CB)/Pr(Cr) input
13. Computer 1,VGA
14. LAN/HDBaseT
15. USB port for service
16. DVI-D Input
17. HDMI (HDCP)
18. Monitor Out, only for computer 1.
19. WIRED REMOTE
20. Air Filter
21. Components Y/Pb (Cb)/Pr(Cr) input
22. Video input
23. AC Power Cable Inlet
24. S-VIDEO input
25. AC Power Switch
26. Screen Trigger output
27. RS-232 control input

Upper-right side view



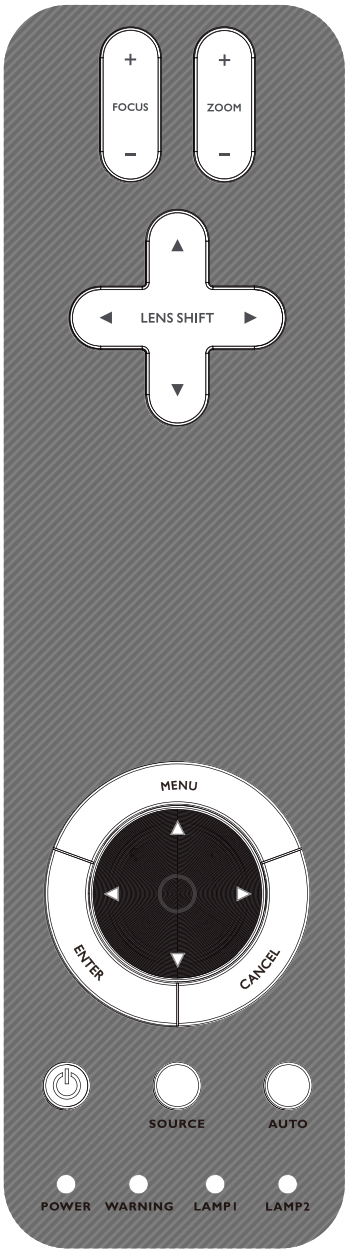
28. Handle

Under view



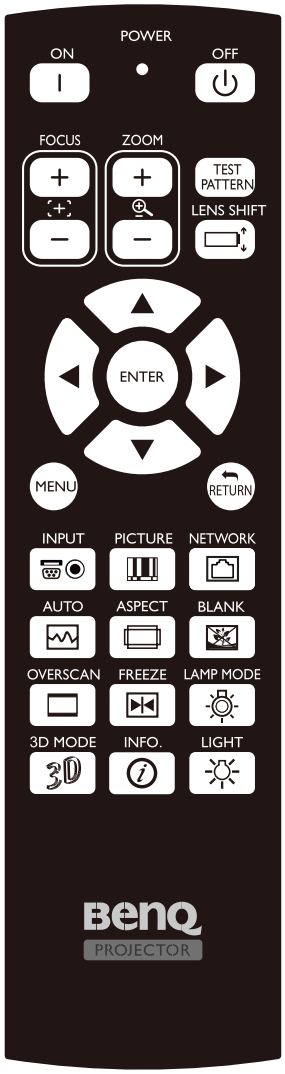
29. Ceiling support holes (Mounting Screw: M4*12mm)
30. Air Filter

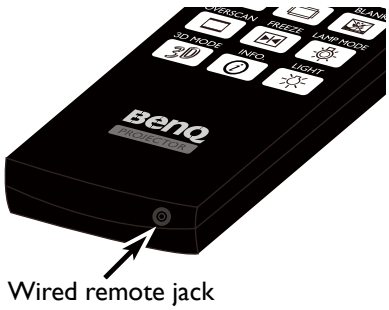
Control panel and functions



Name	Function
FOCUS+	Focus the projected image
FOCUS-	
ZOOM+	Increase/decrease projected image size
ZOOM-	
UP BUTTON	Control Lens shift to move image left, right, up, or down
RIGHT BUTTON	
DOWN BUTTON	
LEFT BUTTON	
MENU	Open / Close the OSD
UP/ DOWN/ LEFT/ RIGHT BUTTONS	Navigate and change settings in the OSD
ENTER	Select or change settings in the OSD
CANCEL	Exit the On-Screen Display (OSD)
POWER	Turn the projector on or off (main power switch must be turned on first). Press to place the projector in standby mode
SOURCE	Select the input source
AUTO	Auto Sync to optimize image size, position, and resolution
POWER (LED)	Green / Red / Orange / Flashing See "Indicator messages" on page 58
WARNING (LED)	Green / Red / Orange / Flashing See "Indicator messages" on page 58
LAMP 1 (LED)	Green / Flashing, See "Indicator messages" on page 58
LAMP 2 (LED)	

Remote control and functions



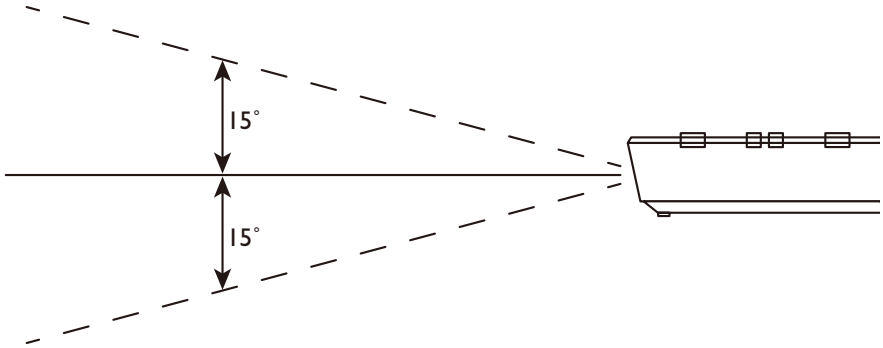


Wired remote jack

Name	Function
Status LED	Lights when the remote control is used
ON	Turn the projector on
OFF	Turn the projector off (standby mode)
FOCUS+	Focus the projection image
FOCUS-	Focus the projection image
ZOOM +	Increase the projection image size
ZOOM -	Reduce the projection image size
TEST PATTERN	Test Pattern selection
LENS SHIFT	Adjust lens shift range
UP	Move OSD cursor up
RIGHT	Move OSD cursor right or enter submenu
DOWN	Move OSD cursor down
LEFT	Move OSD cursor left or enter submenu
ENTER	Select or change setting in the OSD
MENU	Display OSD main menu
RETURN	Return to last OSD page or exit menu
INPUT	Select input source to be displayed
PICTURE	Display picture menu
NETWORK	Display Network Settings menu for configuration
AUTO	Auto adjustment for phase, tracking, size, position
ASPECT	Set up aspect ratio of the projected image
OVERSCAN	Enable or disable the overscan function
FREEZE	Freeze/unfreezes the on-screen picture
3D MODE	Open the 3D Mode menu
INFO.	Display the Information menu
LIGHT	Illuminates the buttons on the remote control for 10 seconds.
BLANK	Enable or disable the display image function
LAMP MODE	Display the Lamp Settings menu
Wired remote jack	Connect the remote cable to the jack on the projector

Remote control operation

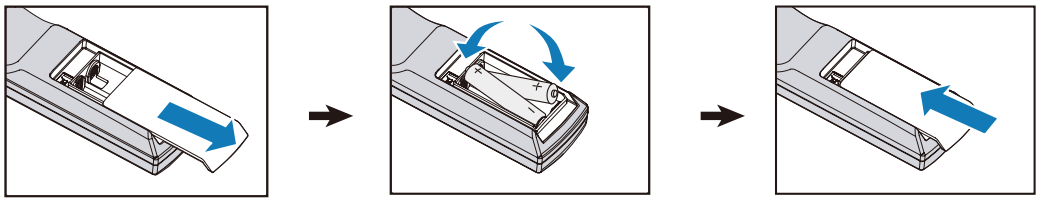
- Make sure that there is nothing positioned between the remote control and the infrared (IR) sensors on the projector that might obstruct the IR beam from the remote control reaching the projector.
- The effective range of the remote control is up to 7 meters, and at an angle within 30 degrees of the IR beam. Always aim straight at the projector, however most screens will also reflect the IR beam to the projector.



Setup and operations

Setting the remote control batteries

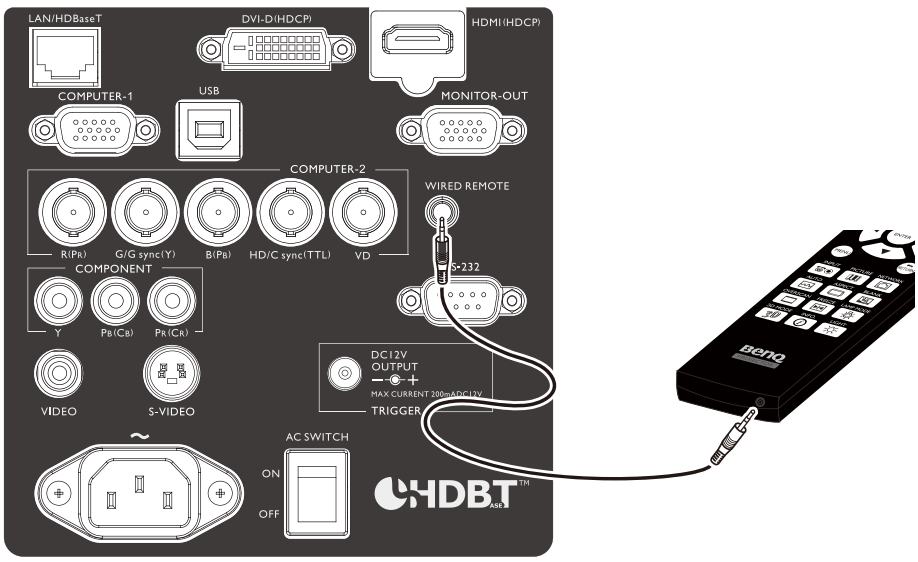
1. To open the battery cover, turn the remote control over to view its back, push on the finger grip on the cover and slide it up in the direction of the arrow as illustrated. The cover will slide off.
2. Remove any existing batteries (if necessary) and install two new AA batteries observing the battery polarities as indicated in the base of the battery compartment. Positive (+) goes to positive and negative (-) goes to negative.
3. Refit the cover by aligning it with the case and sliding it back up into position. Stop when it clicks into place.



- Do not mix old batteries with new ones, or mix different types of batteries.
- Avoid leaving the remote control and batteries in an excessive hot or humid environment like the kitchen,bathroom, sauna, sunroom, or in a closed car.
- Dispose of used batteries according to the battery manufacturer's instructions and local environment regulations for your region.
- If the remote control will not be used for an extended period of time, remove the batteries to avoid damage to the control from possible battery leakage.

Connecting to the projector

If the path between the remote control and the projector is obstructed or remote control operation is disrupt by certain high-frequency fluorescent lights, you can connect to the projector with M3 stereo mini jack cable to operate the projector.



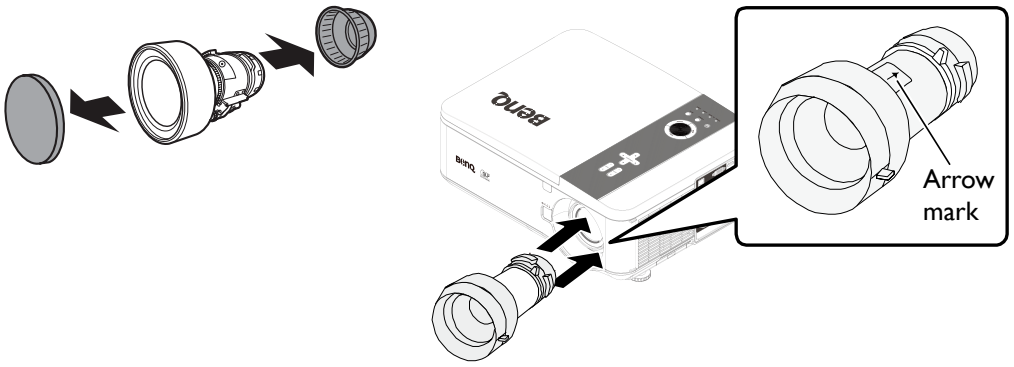
Projection lens selection and Installation

When installing the lens into the projector, be sure to remove the lens cap from the back of the optional lens before installing the optional lens into the projector. Failure to do so will cause damage to the projector.

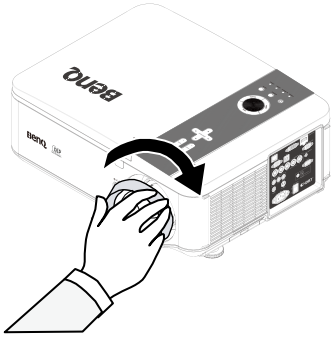
Installing or removing the optional lens

Installing the new lens

1. Remove the lens cap.
   Insert the Lens with arrow mark on top.

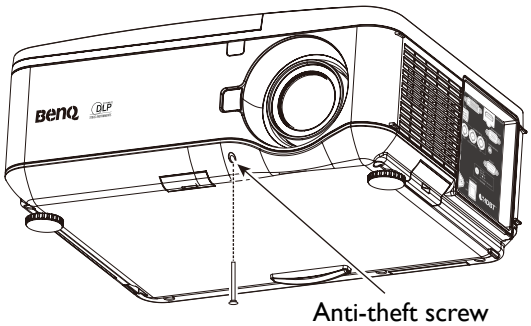


2. Rotate the Lens clockwise till click sound twice.



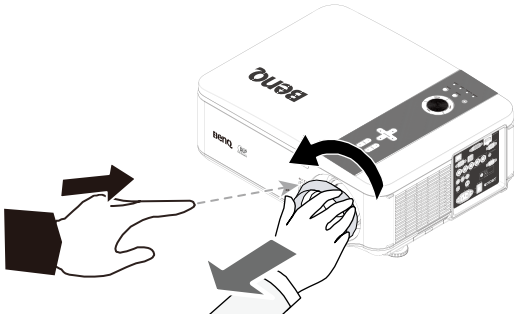
Using the Anti-theft Screw

Using the anti-theft screw to prevent theft of the lens. Tighten the supplied anti-theft screw on the front bottom.

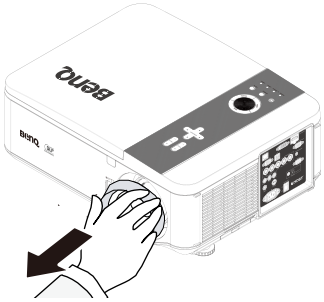


Removing the existing lens from the projector

1. Push the **LENS CHANGE** button all the way in and rotate the lens counterclockwise. The existing lens will be disengaged.



2. Pull out the existing lens slowly.



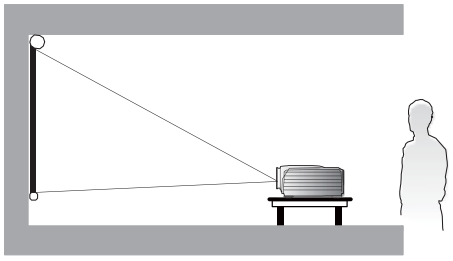
- Do not shake or place excessive pressure on the projector or the lens components as the projector and lens components contain precision parts.
- Before removing or installing the lens, be sure to turn off the projector, wait until the cooling fans stop, and turn off the main power switch.
- Do not touch the lens surface when removing or installing the lens.
- Keep fingerprints, dust or oil off the lens surface. Do not scratch the lens surface.
- If you remove and store the lens, attach the lens cap to the projector to keep off dust and dirt.

Choosing a location

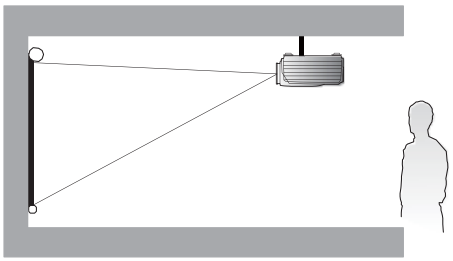
Your projector is designed to be installed in one of four possible installation locations.

Your room layout or personal preference will dictate which installation location you select. Take into consideration the size and position of your screen, the location of a suitable power outlet, as well as the location and distance between the projector and the rest of your equipment.

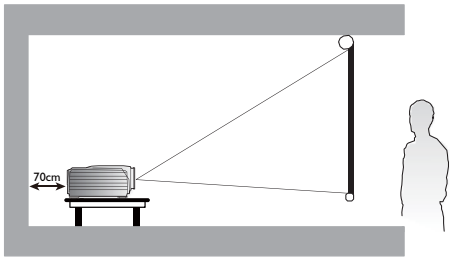
1. Front Table:
   Select this location with the projector placed near the floor in front of the screen. This is the most common way to position the projector for quick setup and portability.



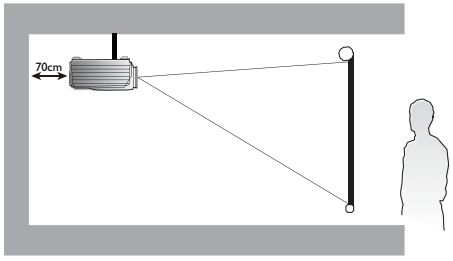
2. Front Ceiling:
   Select this location with the projector suspended from the ceiling in front of the screen. Purchase the BenQ Projector Ceiling Mount Kit from your dealer to mount your projector on the ceiling.



3. Rear Table:
   Select this location with the projector placed near the floor behind the screen. Note that a special rear projection screen is required.



4. Rear Ceiling:
   Select this location with the projector suspended from the ceiling behind the screen. Note that a special rear projection screen and the BenQ Projector Ceiling Mount Kit are required for this installation location.



*To set the projector position:

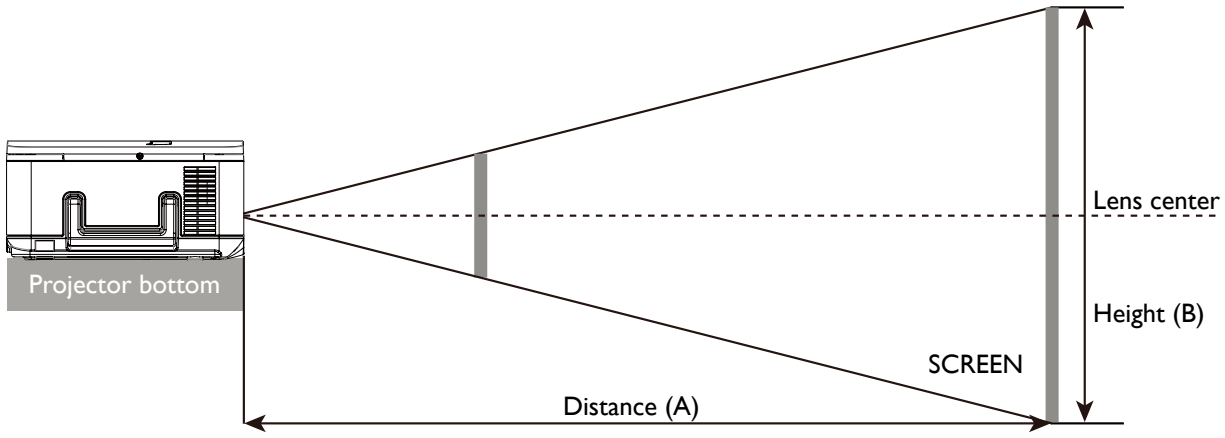
Press **MENU** and then press ◄/► until **INSTALLATION** menu is highlighted.
Press ▲/▼ to highlight **Projector Installation** and press ◄/► until the correct position is selected.

- Ceiling installation must be done by a qualified professional. Contact your dealer for more information. It is not recommended you install the projector yourself.
- Only use the projector on a solid, level surface. Serious injury and damage can occur if the projector is dropped.
- Do not use the projector in an environment where extreme temperature occurs. The projector must be used at temperatures between 41 degrees Fahrenheit (5 degrees Celsius) and 104 degrees Fahrenheit (40 degrees Celsius).
- Screen damage will occur if the projector is exposed to moisture, dust or smoke.
- Do not cover the vents on the projector. Proper ventilation is required to dissipate heat. Damage to the projector will occur if the vents are covered.

Throw distance and screen size

Example of PW9520 using Standard lens:

The further your projector is from the screen or wall, the larger the image. The minimum size the image can be is approximately 40 inches (1 m) measured diagonally when the projector is roughly 79.8 inches (2.03 m) from the wall or screen. The largest the image can be is 500 inches (12.7 m) when the projector is about 1028 inches (26.11 m) from the wall or screen.



PW9520

Screen Size						5J.JAM37.011		5J.JAM37.021		5J.JAM37.001		5J.JAM37.051							
						Wide Fix Lens		Wide Zoom Lens		Standard Lens		Semi long Zoom1							
Diagonal		Width		Height(B)		Distance(A)													
						N/A		Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	34	0.86	21	0.54	26.4	0.67	43.6	1.11	63.1	1.60	60.2	1.53	79.8	2.03	77.6	1.97	130.5	3.31
50	1.27	42	1.08	26	0.67	33.5	0.85	55.0	1.40	79.3	2.01	75.9	1.93	100.4	2.55	97.8	2.48	163.9	4.16
60	1.52	51	1.29	32	0.81	40.5	1.03	66.4	1.69	95.5	2.43	91.7	2.33	121.0	3.07	117.9	3.00	197.3	5.01
80	2.03	68	1.72	42	1.08	54.7	1.39	89.3	2.27	128.0	3.25	123.1	3.13	162.3	4.12	158.3	4.02	264.1	6.71
100	2.54	85	2.15	53	1.35	68.8	1.75	112.1	2.85	160.5	4.08	154.5	3.93	203.5	5.17	198.7	5.05	330.9	8.41
120	3.05	102	2.58	64	1.62	82.9	2.11	135.0	3.43	193.0	4.90	186.0	4.72	244.7	6.22	239.0	6.07	397.7	10.10
150	3.81	127	3.23	79	2.02	104.1	2.64	169.2	4.30	241.7	6.14	233.1	5.92	306.5	7.79	299.6	7.61	498.0	12.65
180	4.57	153	3.88	95	2.42	125.3	3.18	203.5	5.17	290.4	7.38	280.3	7.12	368.4	9.36	360.1	9.15	598.2	15.19
200	5.08	170	4.31	106	2.69	139.4	3.54	226.4	5.75	322.9	8.20	311.7	7.92	409.6	10.40	400.5	10.17	665.0	16.89
300	7.62	254	6.46	159	4.04	210.0	5.33	340.6	8.65	485.3	12.33	468.9	11.91	615.7	15.64	602.3	15.30	999.0	25.38
400	10.16	339	8.62	212	5.38	280.6	7.13	454.8	11.55	647.7	16.45	626.1	15.90	821.9	20.88	804.1	20.42	1333.1	33.86
500	12.70	424	10.77	265	6.73	351.2	8.92	569.0	14.45	810.1	20.58	783.3	19.90	1028.0	26.11	1005.9	25.55	1667.1	42.35

Screen Size						5J.JAM37.031				5J.JAM37.041				5J.JAM37.061			
						Long Zoom 1 Lens				Long zoom 2 Lens				Ultra Wide zoom Lens			
Diagonal		Width		Height(B)		Distance(A)											
						Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	34	0.86	21	0.54	124.9	3.17	190.3	4.83	183.3	4.65	292.2	7.42	25.8	0.65	32.8	0.83
50	1.27	42	1.08	26	0.67	157.5	4.00	239.2	6.08	232.0	5.89	368.1	9.35	32.7	0.83	41.4	1.05
60	1.52	51	1.29	32	0.81	190.1	4.83	288.1	7.32	280.7	7.13	444.0	11.28	39.6	1.00	50.0	1.27
80	2.03	68	1.72	42	1.08	255.2	6.48	385.9	9.80	378.1	9.60	595.9	15.13	53.3	1.35	67.3	1.71
100	2.54	85	2.15	53	1.35	320.3	8.14	483.7	12.29	475.6	12.08	747.7	18.99	67.1	1.70	84.5	2.15
120	3.05	102	2.58	64	1.62	385.5	9.79	581.5	14.77	573.0	14.55	899.6	22.85	80.9	2.05	101.8	2.59
150	3.81	127	3.23	79	2.02	483.2	12.27	728.2	18.50	719.1	18.27	1127.3	28.63	101.6	2.58	127.6	3.24
180	4.57	153	3.88	95	2.42	580.9	14.75	874.9	22.22	865.3	21.98	1355.1	34.42	122.2	3.10	153.5	3.90
200	5.08	170	4.31	106	2.69	646.0	16.41	972.7	24.71	962.7	24.45	1506.9	38.28	136.0	3.45	170.8	4.34
300	7.62	254	6.46	159	4.04	971.7	24.68	1461.8	37.13	1449.9	36.83	2266.2	57.56	204.9	5.20	257.0	6.53
400	10.16	339	8.62	212	5.38	1297.3	32.95	1950.8	49.55	1937.1	49.20	3025.4	76.85	273.8	6.95	343.2	8.72
500	12.70	424	10.77	265	6.73	1623.0	41.22	2439.8	61.97	2424.2	61.58	3784.7	96.13	342.7	8.70	429.4	10.91

PX9510

Screen Size						5J.JAM37.011		5J.JAM37.021				5J.JAM37.001				5J.JAM37.051			
						Wide Fix Lens		Wide Zoom Lens				Standard Lens				Semi long Zoom1			
Diagonal		Width		Height(B)		Distance(A)													
						N/A		Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	32	0.81	24	0.61	24.5	0.62	40.4	1.03	58.5	1.49	55.8	1.42	74.1	1.88	71.9	1.83	121.3	3.08
50	1.27	40	1.02	30	0.76	31.0	0.79	51.0	1.30	73.6	1.87	70.4	1.79	93.2	2.37	90.7	2.30	152.4	3.87
60	1.52	48	1.22	36	0.91	37.6	0.96	61.6	1.57	88.8	2.25	85.1	2.16	112.4	2.86	109.5	2.78	183.5	4.66
80	2.03	64	1.63	48	1.22	50.8	1.29	82.9	2.11	119.0	3.02	114.3	2.90	150.8	3.83	147.0	3.73	245.7	6.24
100	2.54	80	2.03	60	1.52	63.9	1.62	104.1	2.65	149.2	3.79	143.5	3.65	189.1	4.80	184.6	4.69	307.9	7.82
120	3.05	96	2.44	72	1.83	77.1	1.96	125.4	3.18	179.4	4.56	172.8	4.39	227.4	5.78	222.1	5.64	370.1	9.40
150	3.81	120	3.05	90	2.29	96.8	2.46	157.3	3.99	224.8	5.71	216.7	5.50	285.0	7.24	278.4	7.07	463.4	11.77
180	4.57	144	3.66	108	2.74	116.6	2.96	189.1	4.80	270.1	6.86	260.5	6.62	342.5	8.70	334.8	8.50	556.7	14.14
200	5.08	160	4.06	120	3.05	129.7	3.30	210.4	5.34	300.3	7.63	289.8	7.36	380.8	9.67	372.3	9.46	618.9	15.72
300	7.62	240	6.1	180	4.57	195.5	4.97	316.6	8.04	451.5	11.47	436.0	11.07	572.6	14.54	560.0	14.23	930.0	23.62
400	10.16	320	8.13	240	6.1	261.3	6.64	422.9	10.74	602.6	15.31	582.2	14.79	764.3	19.41	747.8	18.99	1241.0	31.52
500	12.70	400	10.16	300	7.62	327.1	8.31	529.1	13.44	753.7	19.14	728.5	18.50	956.1	24.28	935.5	23.76	1552.0	39.42

Screen Size						5J.JAM37.031				5J.JAM37.041				5J.JAM37.061			
						Long Zoom 1 Lens				Long zoom 2 Lens				Ultra Wide zoom Lens			
Diagonal		Width		Height(B)		Distance(A)											
						Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	32	0.81	24	0.61	115.9	2.94	176.8	4.49	169.6	4.31	271.2	6.89	23.9	0.61	30.4	0.77
50	1.27	40	1.02	30	0.76	146.2	3.71	222.3	5.65	215.0	5.46	341.9	8.68	30.3	0.77	38.4	0.98
60	1.52	48	1.22	36	0.91	176.5	4.48	267.9	6.80	260.3	6.61	412.6	10.48	36.7	0.93	46.5	1.18
80	2.03	64	1.63	48	1.22	237.1	6.02	358.9	9.12	350.9	8.91	554.0	14.07	49.5	1.26	62.5	1.59
100	2.54	80	2.03	60	1.52	297.7	7.56	450.0	11.43	441.6	11.22	695.3	17.66	62.4	1.58	78.6	2.00
120	3.05	96	2.44	72	1.83	358.2	9.10	541.0	13.74	532.2	13.52	836.7	21.25	75.2	1.91	94.7	2.40
150	3.81	120	3.05	90	2.29	449.1	11.41	677.6	17.21	668.2	16.97	1048.8	26.64	94.4	2.40	118.8	3.02
180	4.57	144	3.66	108	2.74	540.0	13.72	814.2	20.68	804.1	20.42	1260.9	32.03	113.7	2.89	142.9	3.63
200	5.08	160	4.06	120	3.05	600.6	15.26	905.3	22.99	894.8	22.73	1402.2	35.62	126.5	3.21	158.9	4.04
300	7.62	240	6.1	180	4.57	903.6	22.95	1360.5	34.56	1348.0	34.24	2109.1	53.57	190.7	4.84	239.2	6.08
400	10.16	320	8.13	240	6.1	1206.6	30.65	1815.8	46.12	1801.2	45.75	2816.0	71.53	254.9	6.47	319.5	8.12
500	12.70	400	10.16	300	7.62	1509.5	38.34	2271.1	57.69	2254.3	57.26	3522.9	89.48	319.1	8.10	399.9	10.16

PU9530

Screen Size						5J.JAM37.011		5J.JAM37.021				5J.JAM37.001				5J.JAM37.051			
						Wide Fix Lens		Wide Zoom Lens				Standard Lens				Semi long Zoom1			
Diagonal		Width		Height(B)		Distance(A)													
						N/A		Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	34	0.86	21	0.54	25.1	0.64	41.4	1.05	59.9	1.52	57.2	1.45	75.8	1.93	73.6	1.87	124.1	3.15
50	1.27	42	1.08	26	0.67	31.8	0.81	52.3	1.33	75.4	1.92	72.1	1.83	95.5	2.42	92.9	2.36	155.9	3.96
60	1.52	51	1.29	32	0.81	38.5	0.98	63.1	1.60	90.9	2.31	87.1	2.21	115.1	2.92	112.1	2.85	187.8	4.77
80	2.03	68	1.72	42	1.08	52.0	1.32	84.9	2.16	121.8	3.09	117.0	2.97	154.3	3.92	150.5	3.82	251.4	6.39
100	2.54	85	2.15	53	1.35	65.5	1.66	106.6	2.71	152.7	3.88	147.0	3.73	193.5	4.92	188.9	4.80	315.0	8.00
120	3.05	102	2.58	64	1.62	78.9	2.01	128.4	3.26	183.6	4.66	176.9	4.49	232.8	5.91	227.6	5.78	378.6	9.62
150	3.81	127	3.23	79	2.02	99.1	2.52	161.0	4.09	230.0	5.84	221.8	5.63	291.6	7.41	285.0	7.24	474.1	12.04
180	4.57	153	3.88	95	2.42	119.3	3.03	193.6	4.92	276.4	7.02	266.7	6.77	350.5	8.90	342.6	8.70	569.5	14.47
200	5.08	170	4.31	106	2.69	132.8	3.37	215.3	5.47	307.3	7.81	296.6	7.53	389.7	9.90	381.0	9.68	633.1	16.08
300	7.62	254	6.46	159	4.04	200.1	5.08	324.0	8.23	461.9	11.73	446.3	11.34	585.9	14.9	573.2	14.56	951.2	24.16
400	10.16	339	8.62	212	5.38	267.4	6.79	432.7	10.99	616.6	15.66	595.9	15.14	782.3	19.87	765.3	19.44	1269.7	32.25
500	12.70	424	10.77	265	6.73	334.8	8.50	541.5	13.75	771.2	19.59	745.6	18.94	978.3	24.85	957.4	24.32	1587.8	40.33

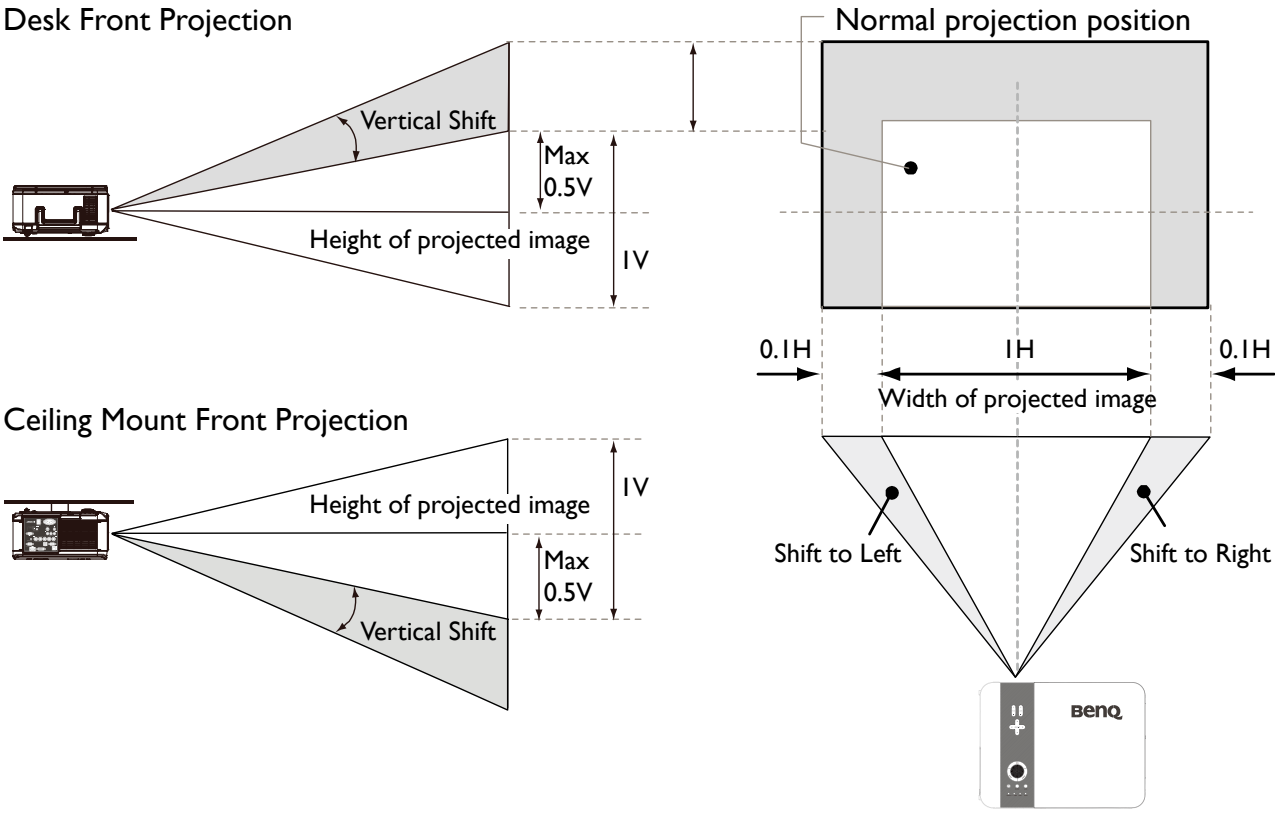
Screen Size						5J.JAM37.031				5J.JAM37.041				5J.JAM37.061			
						Long Zoom 1 Lens				Long zoom 2 Lens				Ultra Wide zoom Lens			
Diagonal		Width		Height(B)		Distance(A)											
						Wide		Tele		Wide		Tele		Wide		Tele	
(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)	(inch)	(m)
40	1.02	34	0.86	21	0.54	118.7	3.01	181.0	4.60	173.9	4.42	277.7	7.05	24.5	0.62	31.1	0.79
50	1.27	42	1.08	26	0.67	149.7	3.80	227.6	5.78	220.2	5.59	350.0	8.89	31.1	0.79	39.2	1.00
60	1.52	51	1.29	32	0.81	180.7	4.59	274.1	6.96	266.6	6.77	422.3	10.73	37.6	0.96	47.4	1.20
80	2.03	68	1.72	42	1.08	242.7	6.16	367.3	9.33	359.4	9.13	567.0	14.40	50.8	1.29	63.8	1.62
100	2.54	85	2.15	53	1.35	304.3	7.73	460.4	11.70	452.1	11.48	711.6	18.07	63.9	1.62	80.2	2.04
120	3.05	102	2.58	64	1.62	366.7	9.31	553.6	14.06	544.9	13.84	856.2	21.75	77.1	1.96	96.6	2.45
150	3.81	127	3.23	79	2.02	459.4	11.67	693.3	17.61	684.0	17.37	1073.1	27.26	96.8	2.46	121.1	3.08
180	4.57	153	3.88	95	2.42	552.4	14.03	833.0	21.16	823.1	20.91	1290.1	32.77	116.5	2.96	145.7	3.70

200	5.08	170	4.31	106	2.69	614.7	15.6	926.4	23.53	915.9	23.26	1434.7	36.44	129.7	3.29	162.1	4.12
300	7.62	254	6.46	159	4.04	924.0	23.47	1392.1	35.36	1379.6	35.04	2157.8	54.81	195.4	4.96	244.0	6.20
400	10.16	339	8.62	212	5.38	1233.9	31.34	1857.9	47.19	1843.3	46.82	2880.9	73.18	261.2	6.63	325.9	8.28
500	12.70	424	10.77	265	6.73	1543.7	39.21	2323.6	59.02	2307.1	58.60	3604.0	91.54	326.9	8.30	407.7	10.36

Lens shift adjustable range

The adjustable range for lens shift is tabulated below and subject to the conditions listed.

The drawings below apply to the standard lens only.



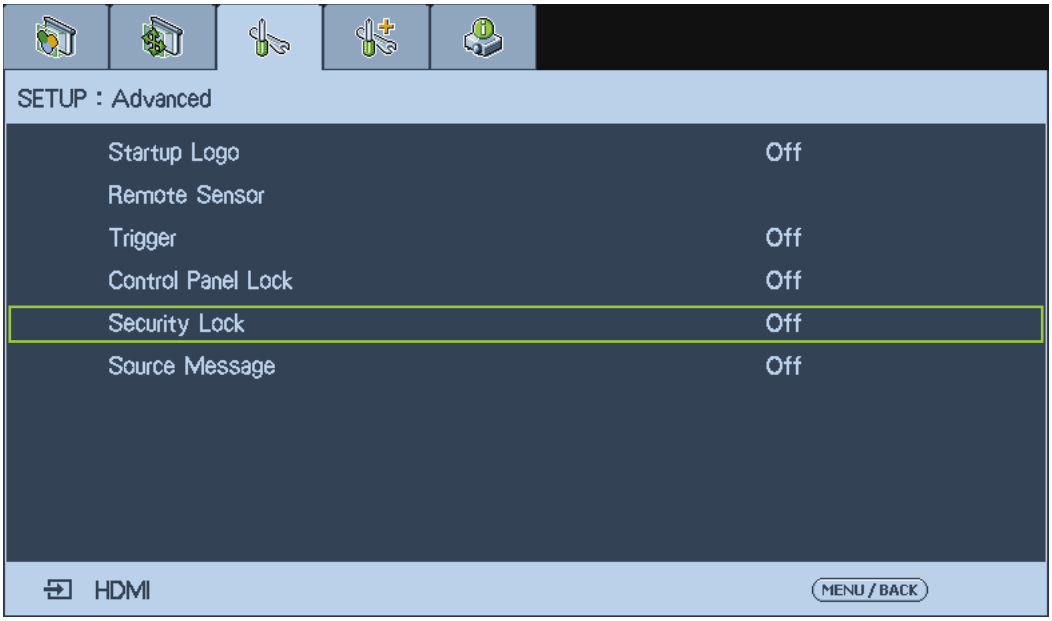
Preventing the unauthorized use of the projector

The projector has a built-in security feature to lock the OSD control panels and deny remote control operation. The security feature has no default keyword; in the first instance of enabling the security feature, the user must define a keyword.

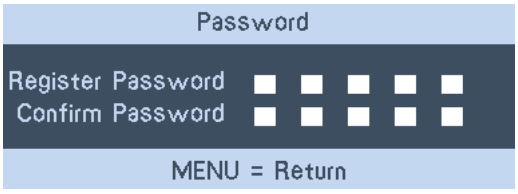
Locking the projector

To setup the security keyword, refer to the following guide.

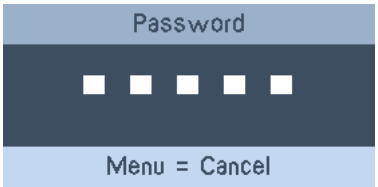
1. Press **Menu** on the OSD control panel on the projector or remote control to display the Main menu. Press arrow keys to select **Security Lock** under **Setup** > **Advanced** menu, then enable the function.



2. Enter the password by arrow keys and confirm to perform **Security Lock** function.



3. If the **Security Lock** function is performed, the PIN code window will be displayed when any control button is pressed.



When you have set or changed the password, take a memo and keep it securely. If you forget your PIN code, the projector can no longer be stared. Contact your dealer or the service center.

Unlocking the projector

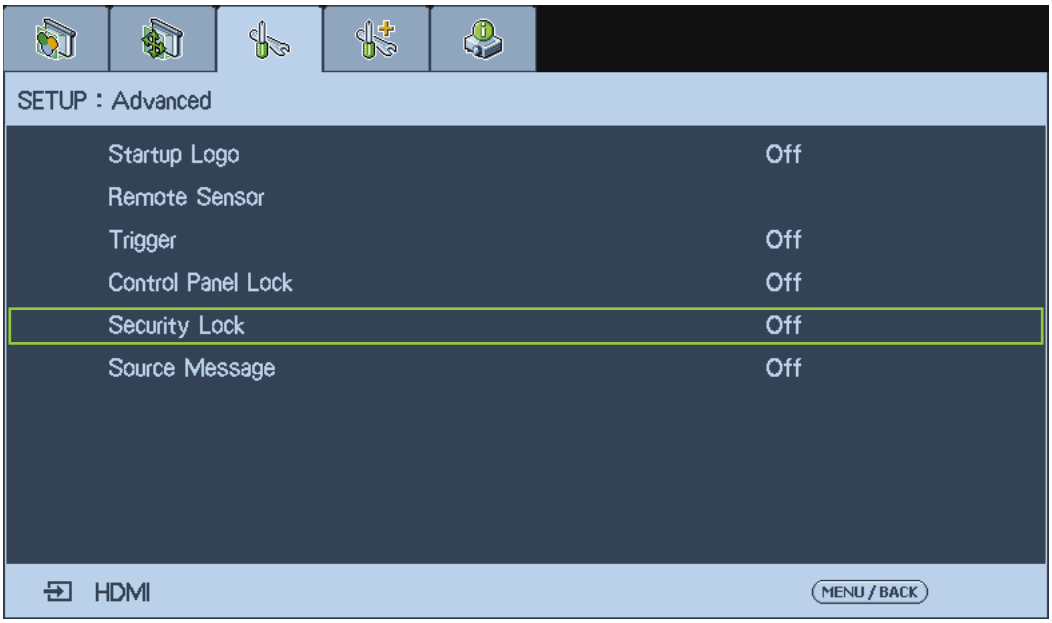
To unlock the projector, refer to the following guide.

1. When the projector is locked, either by request during operation or at start up, the locked message is displayed.

2. To unlock the projector, press **Menu** on the control panel or remote control. The PIN code window is displayed. Enter the previously defined PIN code to activate the projector.

Locking the control panel

Press **Menu** on the OSD control panel on the projector or remote control to display the Main menu. Press arrow keys to select **Panel Key Lock** under **Setup** > **Advanced** menu, then enable the function to lock control panel on the projector.



Once **Panel Key Lock** is performed, locking message displays on the screen few seconds if any control button is pressed.

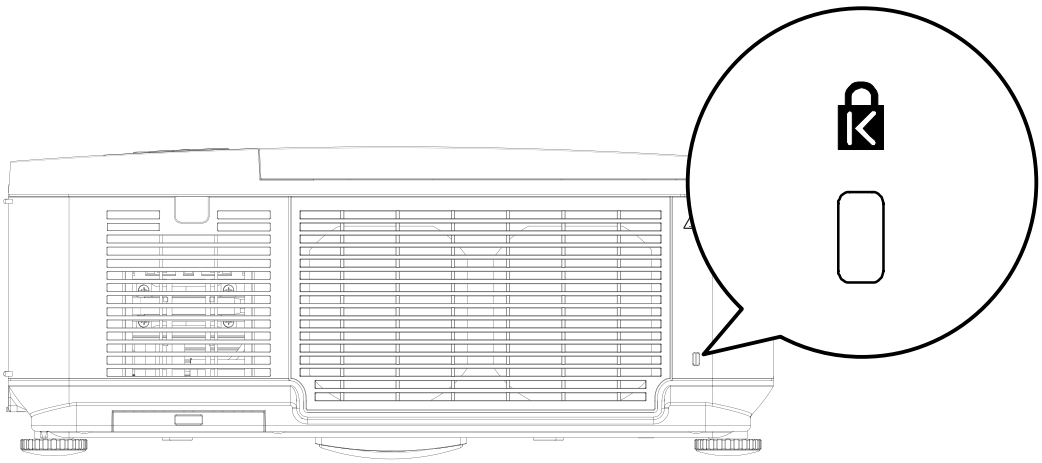


To unlock the control panel, use ◄ or ► button on the remote control to disable the **Panel Key Lock** function. The unlocking message shows on the screen few seconds.



Using the physical lock

If you are concerned about security, attach the projector to a permanent object with the Kensington slot and a security cable.



Making connections

Preparations

When connecting a signal source to the projector, be sure to:

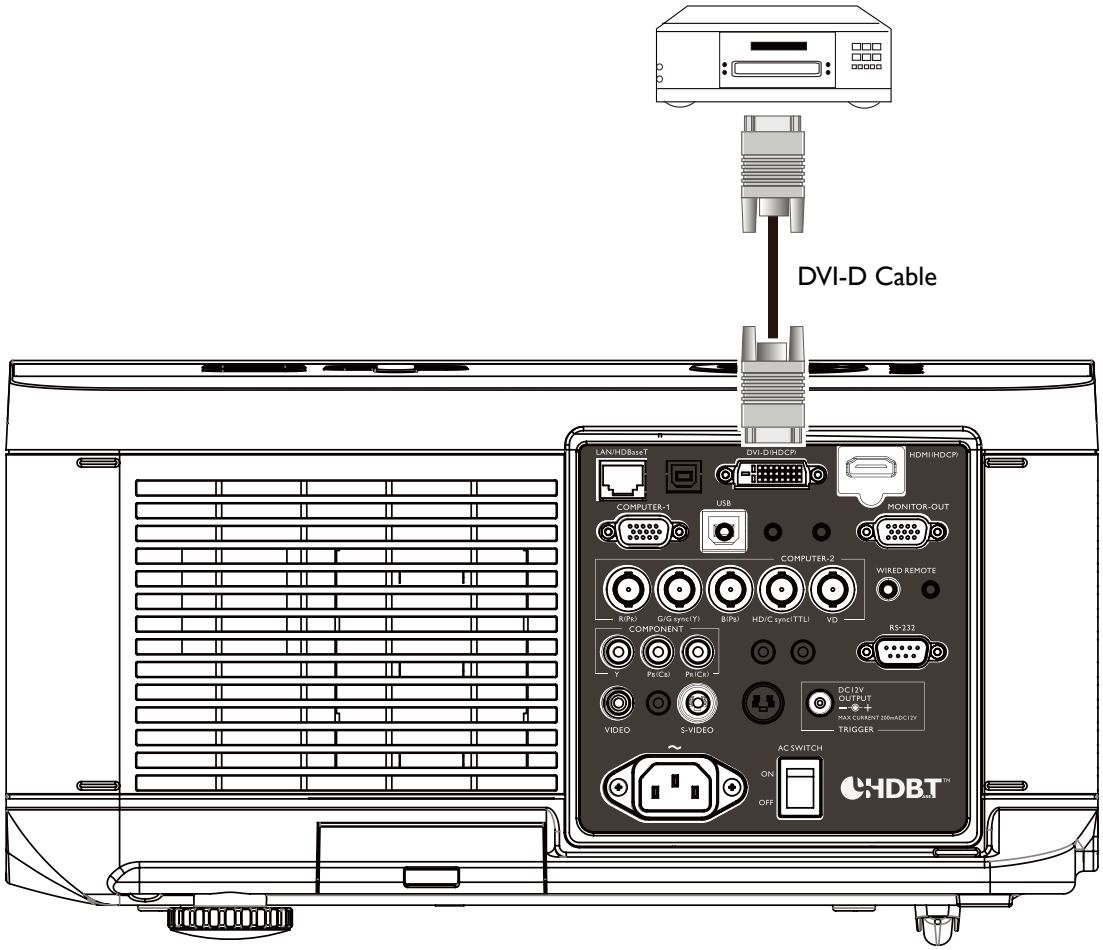
1. Turn off all equipment before making any connections.
2. Use only the correct type cables for each source with proper type plugs.
3. Ensure that all cable plugs are firmly fitted to the equipment jacks.

Note that all cables shown in the following connection diagrams may not be supplied with the projector (See "Shipping contents" on page 7). Most cables are commercially available from electronics stores.

Connecting DVI-D devices

DVI-D (Digital Visual Interface) supports uncompressed video data transmission between compatible devices like DTV tuners, DVD players and displays over a single cable. It provides pure digital viewing and listening experience. You should use an DVI-D cable when making connection between the projector and DVI-D devices.

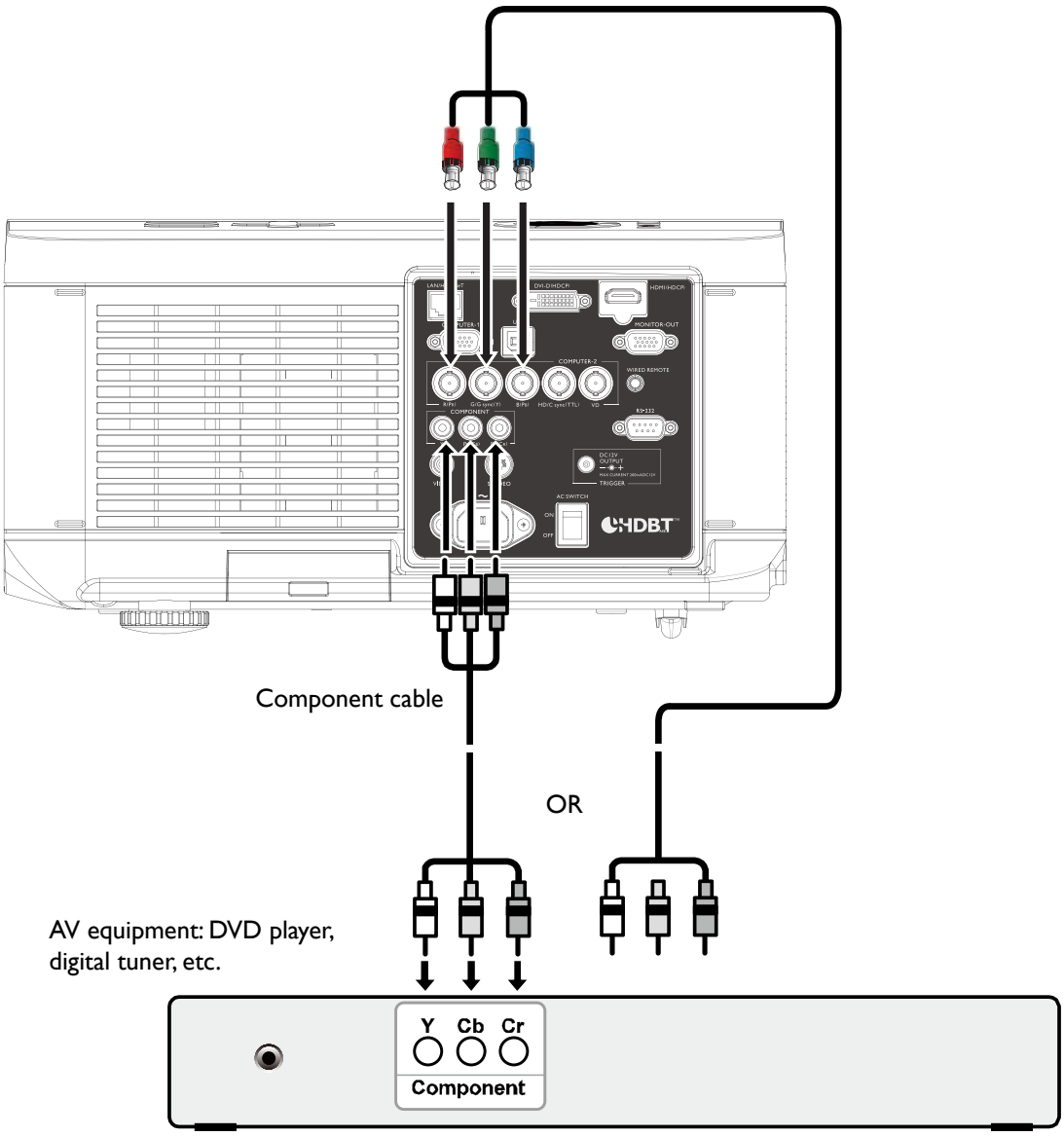
To make sure you select a correct input source type for the DVI-D signal.



DVI-D device: DVD player, digital tuner, etc.

Connecting COMPONENT-video devices

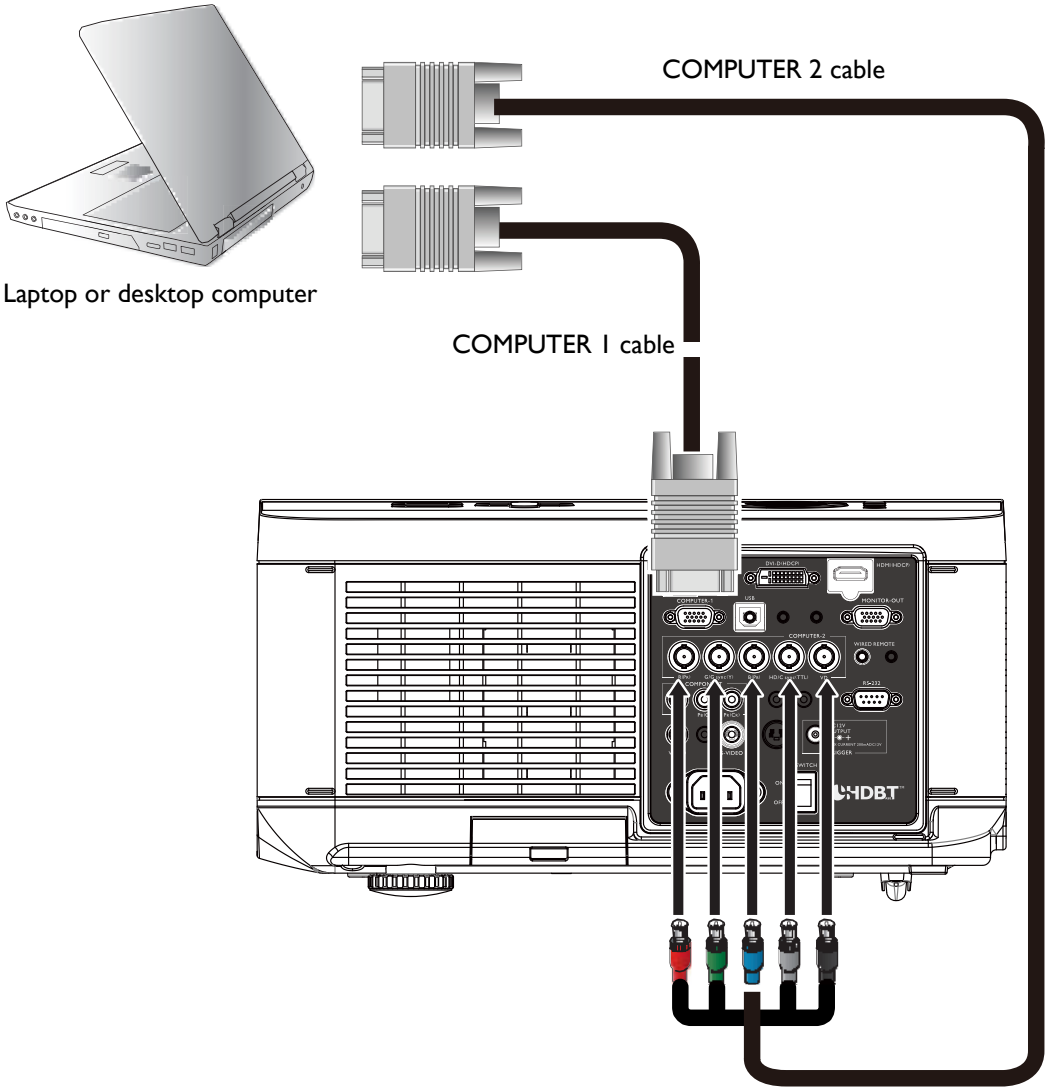
Be sure to match the corresponding colors between the cables and the terminals. The COMPUTER 2 and COMPONENT and be used for connection to video output devices.



- If you have already made a Component Video connection between the projector and the video source device, you need not connect to this device again using a composite Video connection as this makes an unnecessary second connection of poorer picture quality.
- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, please check that the video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.

Connecting a computer

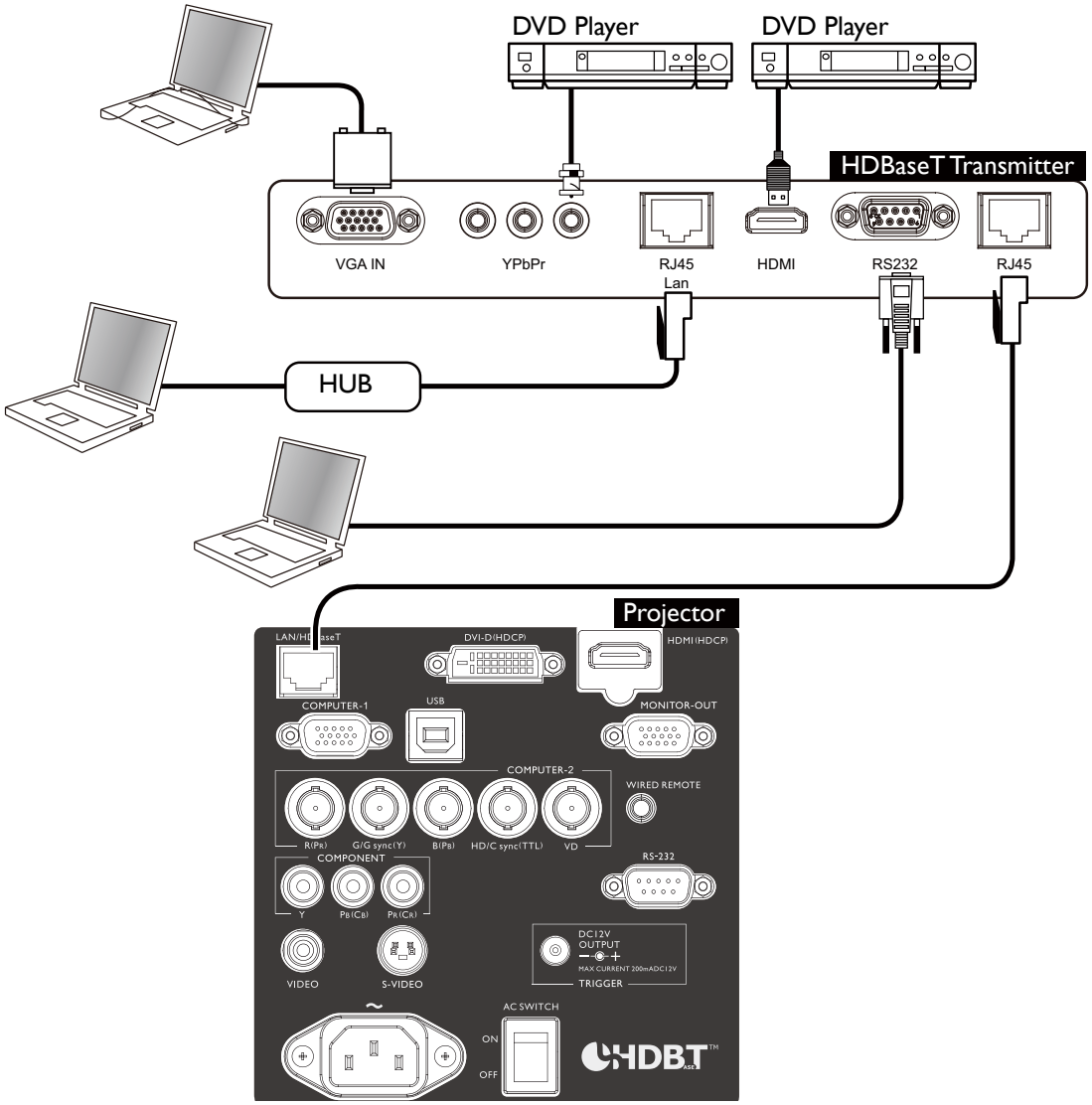
Connect the projector to a computer with a COMPUTER 1 or COMPUTER 2 as below illustration.



Many laptops do not turn on their external video ports when connected to a projector. Usually a key combination like **Fn + F3** or **CRT/LCD** key turns the external display on/off. Locate a function key labeled **CRT/LCD** or a function key with a monitor symbol on the laptop. Press **Fn** and the labeled function key simultaneously. Refer to your laptop's documentation to discover your laptop's key combination.

Connecting a external HDBaseT transmitter

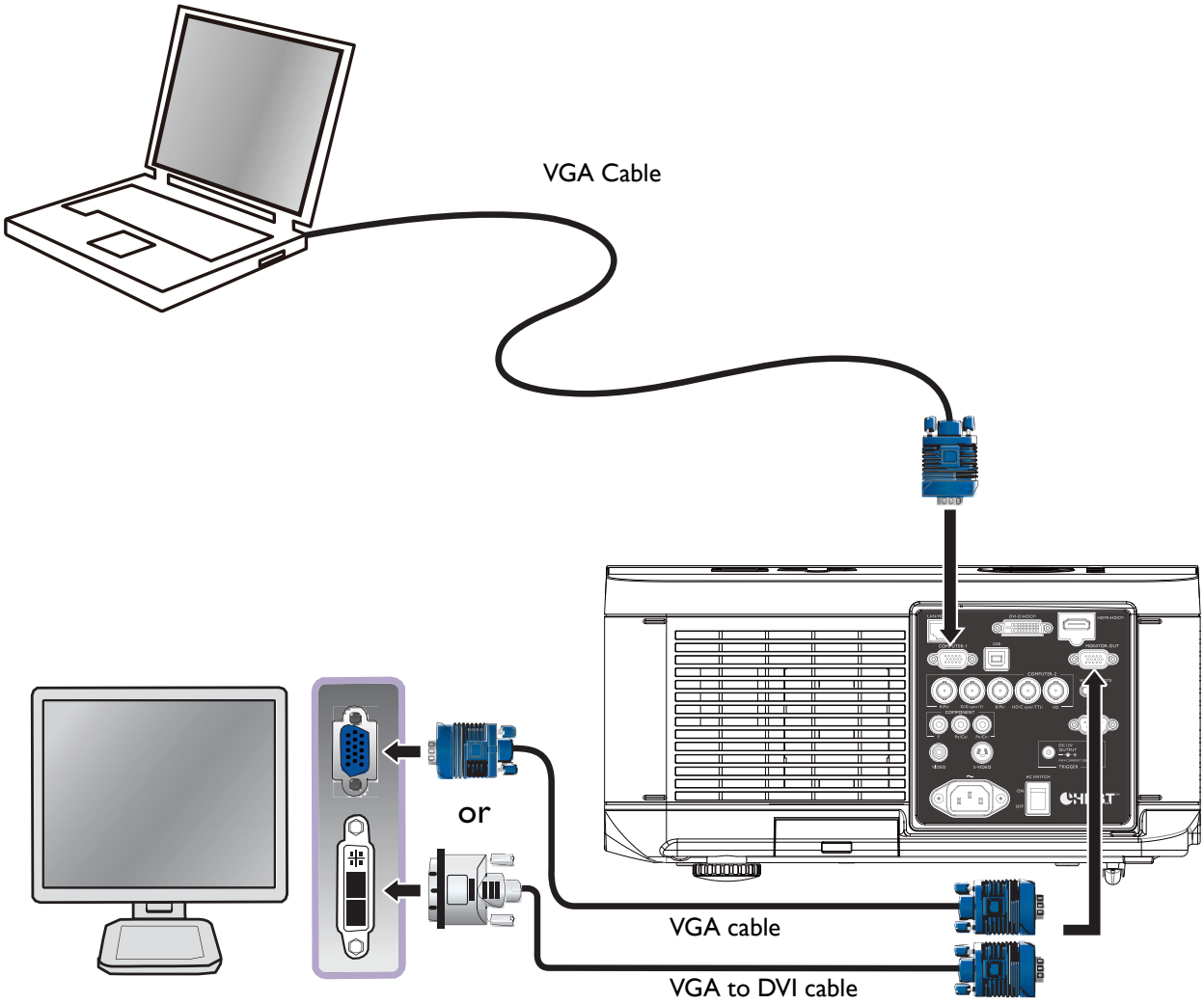
The projector features a built-in HD Connect for you to work with optional HDBaseT transmitter to send video, RS-232, LAN signal to projector with single RJ-45 cable. If the optional HDBaseT transmitter supports IR remote controller I/O, you may also send IR remote controller signal to PU9530/PW9520/PX9510 projector using the same RJ-45 cable.



- The **HDBaseT/LAN** of your projector supports to video, **RS-232**, remote controller, and network control signal receiving but not Power over Ethernet (PoE) transmission and receiving.
- To send **RS232** commands with an external digital transmitter via RJ45 cable to your projector: set **INSTALLATION** > **RS232** > **Channel** to **HDBaseT** in OSD menu, the transmission speed is changed to 9600 by the system automatically.
- Effective transmission distance of your digital transmitter is 100 meters. Transmission over 100 meters may lead to projection screen interruption, interference, or control signal failure.
- Please use Cat.5e RJ-45 cable or better and prevent the cable from becoming twisted. Otherwise the cable may be damaged and signal transmission quality poor, reducing transmission distance and image.

Connecting a monitor

If you want to view your presentation close-up on a monitor as well as on the screen and the **MONITOR OUT** jack is available on your projector, you can connect the **MONITOR OUT** signal output jack on the projector.



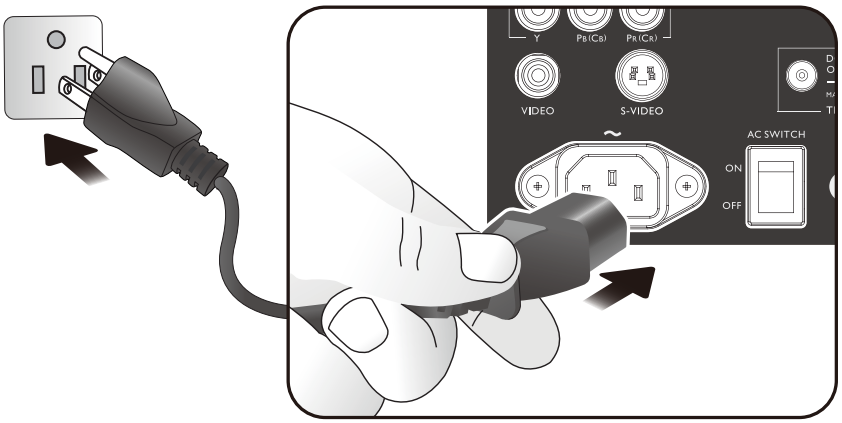
- The **MONITOR OUT** jack only works when an appropriate D-Sub input is made to the PC jack.
- The **MONITOR OUT** function is not available when the projector enters standby mode.

Using the projector

Preparations

1. Plug in and turn all of the connected equipment on.
2. If not already in, plug the supplied power cable into the AC inlet on the rear of the projector.
3. Plug the power cable into a wall power outlet and turn the wall switch on.

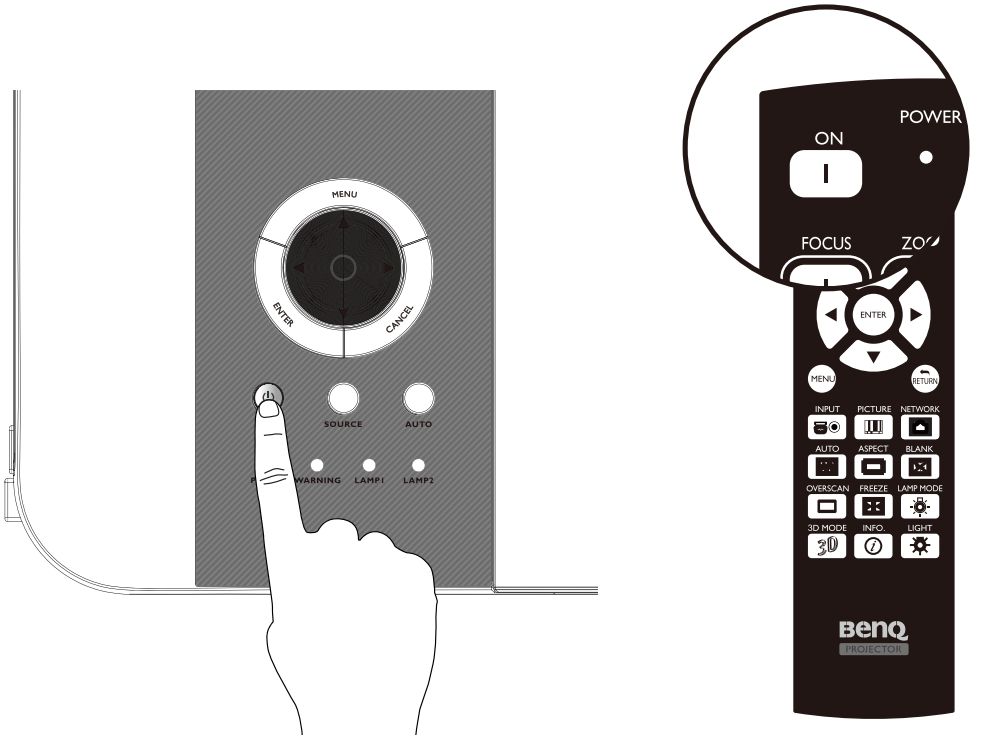
Please use the original accessories (e.g. power cable) only with the device to avoid possible dangers such as electric shock and fire.



Turning the projector on or off

Once the projector is correctly located and the power cable and other connections are in place, it is important that the projector is connected and powered on correctly in order to avoid possible dangers such as electric shock and fire. Refer to the following guide to power on the projector.

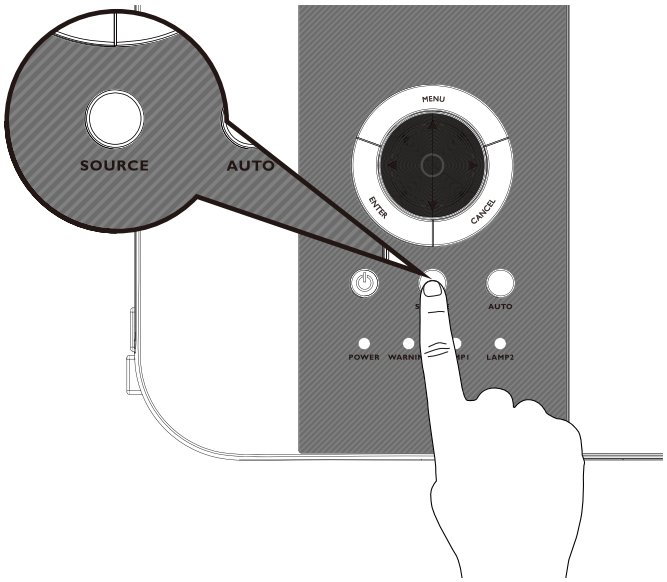
1. Turn the main power switch to **ON**, Power light is red after power has been applied.
2. Press the **POWER** button on the projector or **ON** button on the remote control to start the projector. The Power and Lamp LED flashes green and the cooling fan start operating.
3. The projected image will be displayed on the screen for a few second while it is warming up.
4. Once the power LED is lit a solid green, the projector is ready for use.
5. If any of the LEDs remain flashing or blink there may be a problem with the start up. Please refer to "Troubleshooting" on page 58.



If you attempt to re-start the projector shortly after shutdown, the fans may run for a few minutes to cool down. Press **Power** again to start the projector after the fans stop and the Power indicator light turns orange.

Selecting an input source

The projector can be connected to multiple equipment at the same time. When the projector is first turned on, it will attempt to reconnect with the input source which was in use when the projector was last shut down.



To select the video source

The input source can be selected from the projector's control panel or from the remote control. Refer to the following guide to select the desired input source.

1. Press **INPUT** key on the remote control or control panel to display **Source** menu.
2. Select your desired input source via ▲/▼ key.
3. Press **ENTER** key to confirm the source, it will take few seconds to detect the desired input signal and display the projected image.
   Press **RETURN** key to projected image if you want to keep current input source.

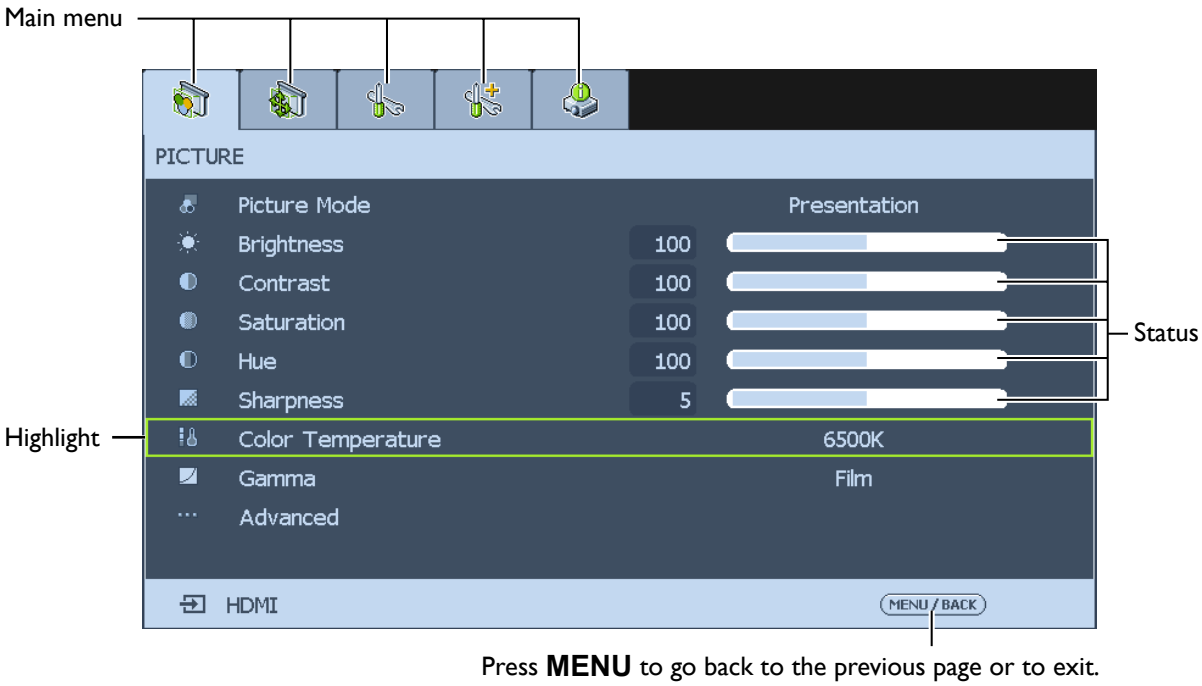


If you want the projector to automatically search for the signals, select **On** in the **Signal** > **Auto Search** menu.

Using the menus

The projector is equipped with multilingual On-Screen Display (OSD) for making various adjustment and settings, below is the overview of the OSD menu.

To use the OSD menu, please set the OSD menu to your familiar language.



Adjusting the projected image

Adjusting the image position

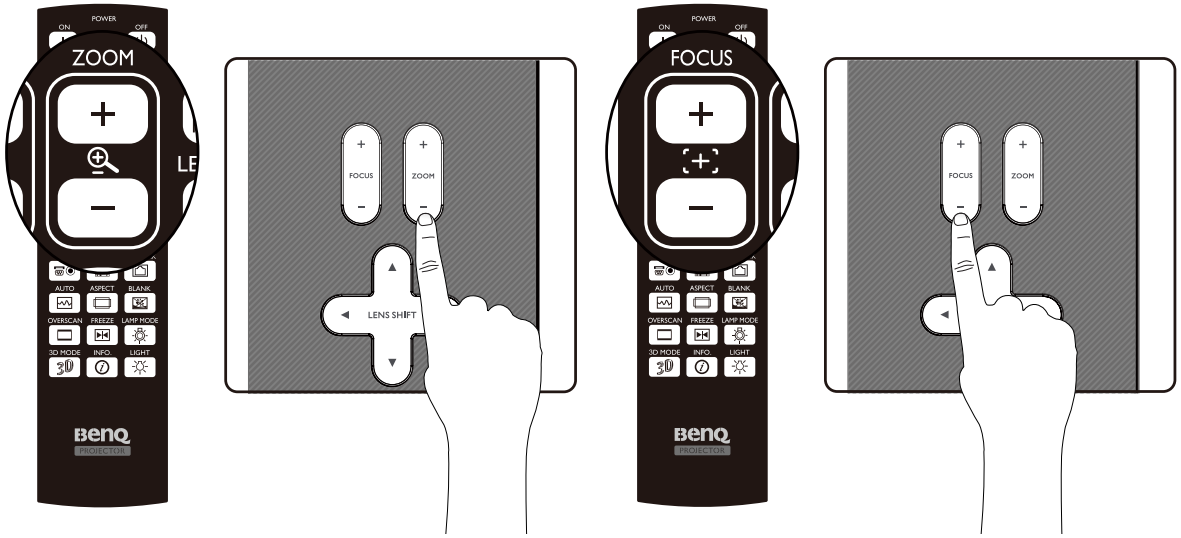
The projected image position and size can be adjusted manually from the control panel or the remote control unit. Refer to the following guides to adjust picture position manually.



1. Press the **LENS SHIFT** key on the remote control to bring up the Lens Shift window or press direction key to ship the projected image directly.
2. If the lens shift is operated via remote control, use **ENTER** button to switch Lens shift and Zoom/Focus, arrow buttons to adjust Lens shift setting.

Fine-tuning the image size and clarity

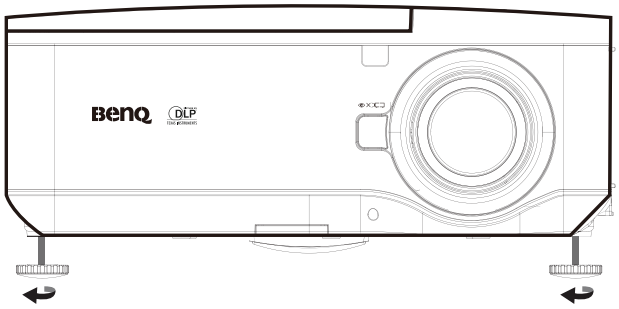
1. Press the **ZOOM +** or **ZOOM-** button on the control panel or the remote control to adjust the projected imaged as you desired.
2. Sharpen the picture by pressing **FOCUS+** or **FOCUS-** button on the control panel or the remote control.



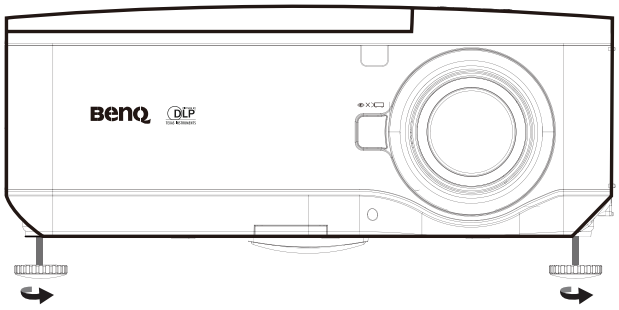
Adjusting the projection angle

There are two adjuster feet on the bottom of the projector, these can be used if necessary to change the projection angle. Screw the feet in or out as appropriate to aim and level the projection angle.

1. Twist the adjusters clockwise to raise the level of the projector.

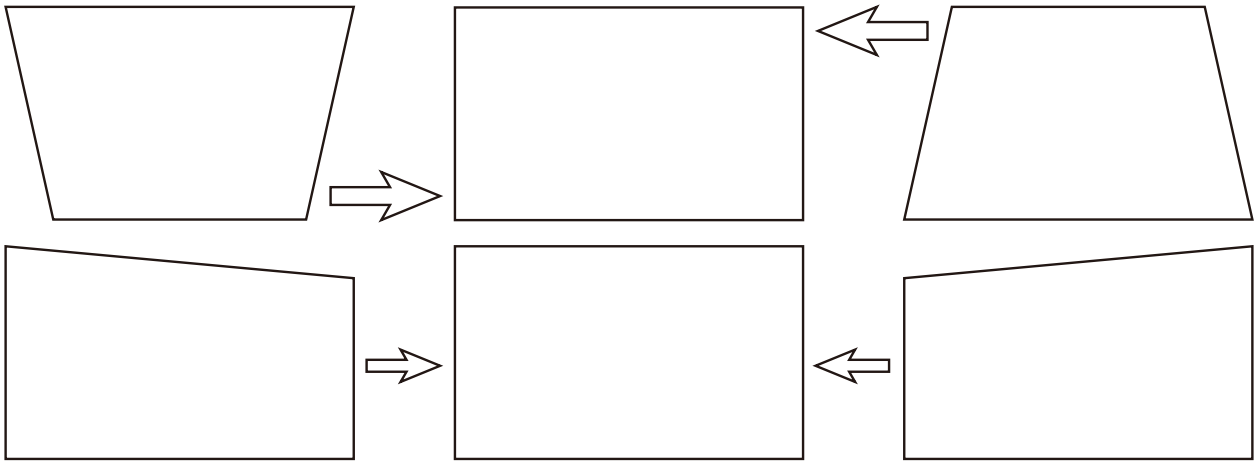


2. To lower the level of the projector, lift the projector and twist the adjusters counter clockwise.



Correcting picture distortion

When the image is projected either from the top or from the bottom towards the screen at angle, the image becomes distorted trapezoidally. **Keystone** function in the **SETUP** > **Keystone** can be used to correct trapezoidal distortion, select **V Keystone** or **H Keystone** then press ◄/► button to correct trapezoidal distortion till you are satisfied with the shape.



When the values reach their maximum or minimum with repeated key presses, the picture's shape will stop changing. You will not be able to change the picture further in that direction.

Auto-adjusting the image

In some cases, you may need to optimize the RGB picture quality. To do this, press **AUTO** key on the remote control or control panel, the built-in Intelligent Auto Adjustment function will re-adjust the values of Frequency and Clock to provide the best picture quality.

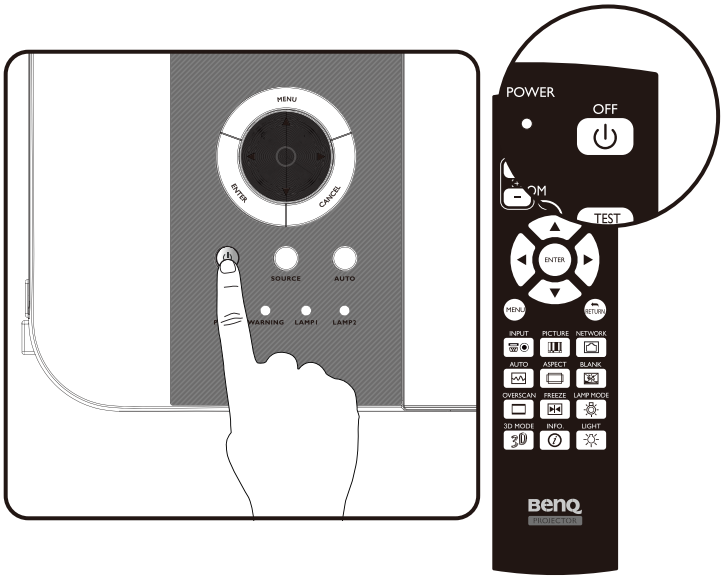
This function is only available when a PC signal (analog RGB) is selected.

Turning off the projector

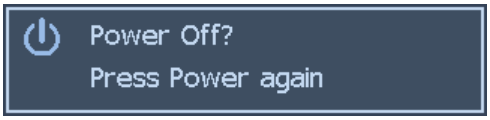
If the projector is no longer required, it is important to shut it down correctly to avoid damage or unnecessary wear and tear to the projector. Refer to the following guide to turn the projector off.

- Do not unplug the power cable from the wall outlet or projector when the projector is powered on, it may cause damage to the AC IN connector of the projector and (or) the prong plug of the power cable.
- Do not turn off the AC power supply within 10 seconds of making adjustment or setting changes and closing the menu, it may cause loss of adjustments and settings and return to default.

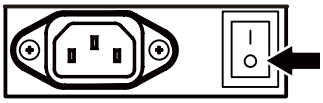
1. Press the **POWER** button on the control panel or **OFF** button on the remote control.



2. Press the **POWER** or **OFF** button again to verify power off, the cooling fans continue to operate (cooling-off time) and the power LED flashes orange. The cooling fans stop.



3. Press the **Main Power** switch to the off position (O) to turn off the projector.



Using On-Screen Display

Using the menus

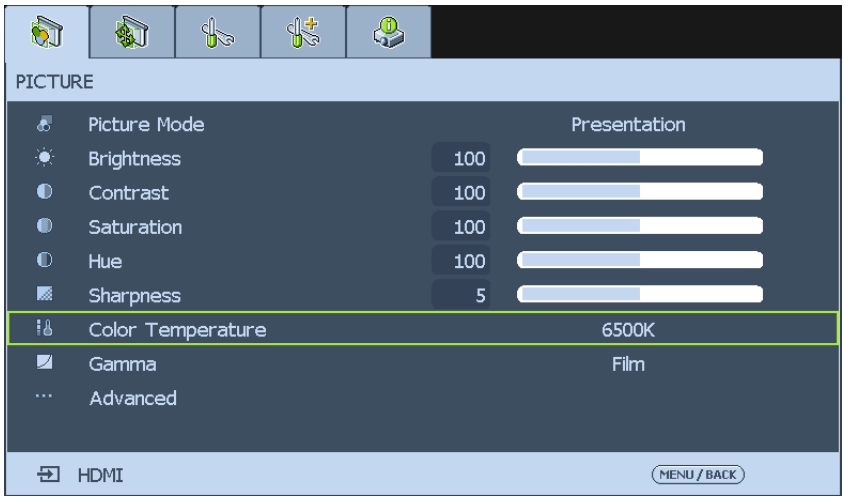
The projector has an On-Screen Display (OSD) that lets you make image adjustments and change various settings.

Navigating the OSD

You can use the remote control or the buttons on the top of the projector to navigate and make changes to the OSD. The following illustration shows the corresponding buttons on the remote control and on the projector.



1. To open the OSD, press the **Menu** button on the OSD control panel or remote control. There are five folders on the menu. Press the cursor ◄ or ► buttons to move through secondary menus.
2. Press ▲ or ▼ to select menu items and ◄ or ► to change values for settings. Press **ENTER** to confirm the new setting.



3. Press **CANCEL/RETURN** to leave a submenu or **MENU** to close menu.

On-Screen Display (OSD) menus

Use the following illustrations to quickly find a setting or determine the range for a setting. Please note that the on-screen display (OSD) menus vary according to the signal type selected.

Menu Map

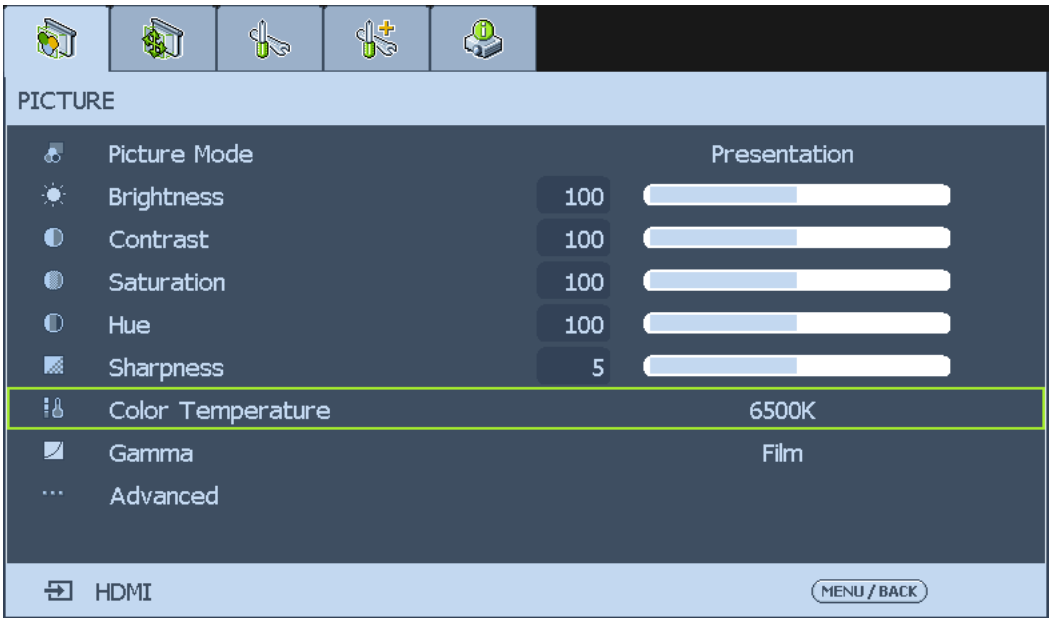
Menu	Sub Menus and Control		
PICTURE	Picture Mode	Bright	
		Presentation	
		Cinema	
	Brightness		
	Contrast		
	Saturation		
	Hue		
	Sharpness		
	Color Temperature	Native	
		6500K	
		7800K	
		9300K	
	Gamma	2.2	
		Film	
		Graphics	
		Video	
		PC	
	Advanced	Input Balance	R Offset, G Offset, B Offset, Red Gain, Green Gain, Blue Gain
		HSG	Red, Green, Blue, Cyan, Magenta, Yellow, White
		Noise Reduction	
		Dynamic Black	
SIGNAL	Source	COMPUTER 1, COMPUTER 2, DVI-D, Video, S-Video, HDMI, COMPONENT, HDBaseT	
	Auto Search	On, Off	
	Auto Sync Adjust	Always, Auto	
	Color Space	Auto, YPbPr, YCbCr, RGB-PC, RGB-Video	
	VGA Setup	H Total, H Start, H Phase, V Start	
	Aspect Ratio	5:4, 4:3, 16:10, 16:9, 1.88:1, 2.35:1, Auto, Native	
	Overscan	On, Off	
	Background	Blue, Black, Logo	

Menu	Sub Menus and Control		
SETUP	Language	English, Deutsch, Español, Français, Italiano, Svenska, Português, Русский, 繁體中文 , **簡體中文** , 한국어 , 日本語	
	Lamp Settings	Dual, Single, Lamp1, Lamp2	
	Lamp Power	Normal, Eco, Custom	
	Custom Power Level	Power Level	
	Keystone	H / V Keystone	
	Digital Alignment	Digital Zoom, Digital Pan, Digital Scan, Reset	
	H/V Alignment	H Zoom, V Zoom, H Shift, V Shift, Reset	
	3D	3D Format	Off, Auto, Side by Side, Top / Bottom, Frame Sequential
		DLP-Link	On, Off
		3D Swap	Normal, Reverse
		3D 24Hz Display	96Hz, 144Hz
	Filter Message	Off, 100H, 200H, 500H, 1000H	
	Advanced	Startup Logo	On, Off
		Remote Receiver	Front+Rear, Front, Rear, HDBaseT
		Trigger	On, Off
		Panel Key Lock	On, Off
		Security Lock	On, Off
		Source Message	On, Off

Menu	Sub Menus and Control		
INSTALLATION	**Projector Installation**	**Front Table, Rear Table, Front Ceiling, Rear Ceiling**	
	Standby Setting	**Standard, Eco, Network**	
	High Altitude	**On, Off**	
	Auto Power Off	**On, Off**	
	Auto Power On	**On, Off**	
	RS232	**Baud rate**	**115200, 57600, 38400, 19200, 14400, 9600**
		Channel	**Local, HDBaseT**
	Network Settings	**IP Address**	192.168.00.100
		Subnet mask	255.255.255.0
		Gateway	192.168.00.254
		DNS	0.0.0.0
		DHCP	**On, Off**
		Apply	**Apply, Cancel**
		MAC Address	x:x:x:x:x:x:x:x
	Lens Control	**Enter**	
		Zoom	
		Focus	**Enter, Shift V, Shift H**
	Test Pattern	**Color Bar, Crosshatch, Burst, H Ramp, Red, Green, Blue, White, Black, Off**	
	HDBaseT / Network	**Auto, HDBaseT**	
SERVICE	**Model**	**BenQ projector**	
	Serial Number	xxxxx xxxxx	
	Software Version	xxxxx xxxxx	
	BenQ Firmware version	xx-xxx	
	Lamp Status	**Lamp1 Status**	
		Lamp2 Status	
	Source Information	**Active Source**	**VGA**
		Pixel Clock	13.50 MHZ
		Signal Format	1080P
		H/V Refresh Rate	H: 15.736 KHZ V: 60 HZ
		Sync Type	**Separate Sync**
		Sync Polarity	**H:() V:()**
		Scan Type	**Non-Interlace**
		Video Type	**PAL**
	Usage Time	**Lamp1 Life Remaining, Lamp2 Life Remaining, Lamp1 Time, Lamp2 Time, Filter Time, Power On Time**	
	Filter Timer Reset	**Reset Filter Time ?**	**OK, Cancel**
	Factory Reset	**Reset Everything ?**	**OK, Cancel**

PICTURE

The pre-defined picture mode settings can be altered via the available items shown in the **PICTURE** menu such as picture mode, brightness, color temperature…etc..



Picture Mode

Select a set of preset values using ◄ or ► from the list.

Bright: Maximizes the brightness of the projected image for more enhanced presentations.
Presentation: For standard image, it's suitable for the best effect of the projected image or picture.

Cinema: Give natural tint to the projected image.

Brightness

Adjust the **Brightness** value using ◄ or ► to lighten or darken the picture.

Contrast

Adjust the **Contrast** value using ◄ or ► to highlight the differences between light and dark areas of the picture.

Saturation

Use ◄ or ► to adjust **Saturation** of the main color, the selected color become lighter or thicker.

Hue

Use ◄ or ► to adjust **Hue** of the main color as below.

Main Color	Hue		
R	Magenta	⟷	Yellow
G	Yellow	⟷	Cyan
B	Cyan	⟷	Magenta
C	Green	⟷	Blue
M	Blue	⟷	Red
Y	Red	⟷	Green

Sharpness

Adjust the **Sharpness** value using ◄ or ► to sharpen or blur the borders between colors and objects.

Color Temperature

Set the color temperature to **Native**, **6500K**, **7800K**, and **9300K**.

About color temperatures:

There are many different shades that are considered to be "white" for various purposes. One of the common methods of representing white color is known as the "color temperature". A white color with a low color temperature appears to be reddish white. A white color with a high color temperature appears to have more blue in it.

Gamma

Details of darker areas in an image may look worse when ambient light is very bright. You may use the following gamma correction options to adjust color difference of image.

2.2: Set color difference correction to 2.2

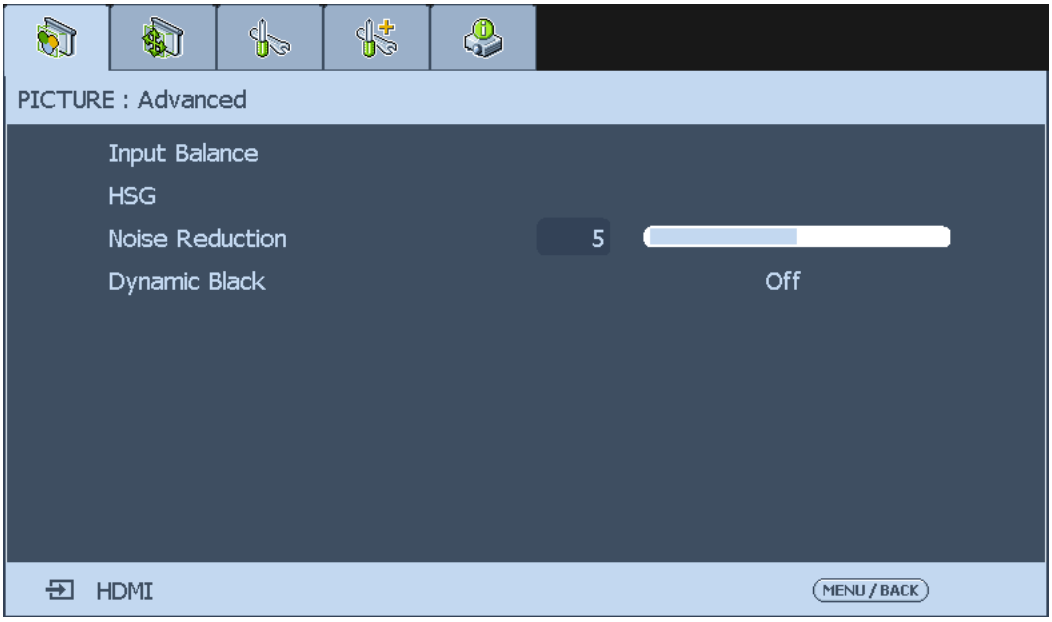
Film: Adjust color difference correction to approximate Gamma 2.2.

Graphics: Apply to situation where brightness at the expense of gray scale precision is required by computer demonstration document.

Video: Similar to film color difference correction but differs in the darker colored areas of an image. This addresses the image creation function employed by cameras.

PC: It's suitable for the application when personal computer is connected.

Advanced



Input Balance

There are two options to fine tune Red, Green and Blue color.

Offset: Use this function to shift the color spectrum for the whole image and change its brightness, the offset of the corresponding color can be adjusted accordingly if minimal amount of red, green or blue appears in the gray areas. After the offset is increased, the image brightness will become lower.

Gain: Use this option to increase or decrease the range of color input for the entire image, lower the gain of the corresponding color If minimal amount of red, green or blue appears in the gray areas. The contrast of the image will become lower as gain increases.

HSG

Use this function to adjust **Hue**, **Saturation** and **Gain** independently, it allows for specified color adjustments that are more intuitive. This is a useful function to adjust Hue, Saturation and Gain for Red, Green, Blue, Cyan, Magenta, Yellow and white independently in some applications such as edge blending…etc.

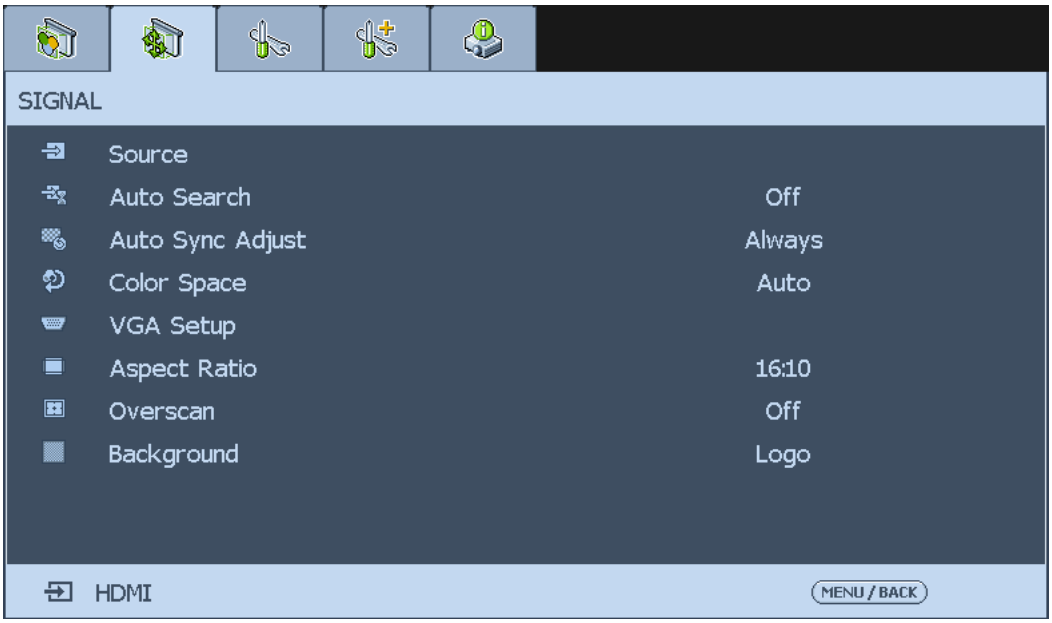
Noise Reduction

This function provides high-quality images with minimal crawl and cross color noise, you can set your preferred level from 0 to 15 steps to view a clear image.

Dynamic Black

Set this function as **ON** to improve the black level of the projected images.

SIGNAL



Source

This function is the same as the Hotkey on your remote controller. You can select the desired input source via the remote controller or this function.

HDMI: This is the terminal to input HDMI signals from PC or media device.

DVI-D: This is the terminal to input DVI-D signals from PC.

COMPUTER 1: This is the terminal to input RGB signals from PC.

COMPUTER 2: This is the terminal to input YCbCr/YPbPr or RGB singals (RGBHV) from PC or media device.

HDBaseT/LAN: This is the terminal to input uncompressed high-definition video (HD) via RJ-45 cable.

Auto Search

This function enables the projector to detect the input signal and to switch the input mode automatically when the project is turned on. Set it to **On** to enable **Auto Search** function or **Off** to disable it.

Color Space

This function enables you to change color space of input signal. In most cases, you can select **Auto** to adopt the color space automatically set by the projector. You can select one the following options to use specific color space instead:

Auto: The projector switches to valid color space by detecting input signal.

YCbCr: Set color space to ITU-R BT.601.

YPbPr: Set color space to ITU-R BT.709.

RGB-PC: Set color space to RGB with black set to 0,0,0 and white to 255, 255, 255 (for 8-bit image).

RGB-Video: Set color space to RGB with black set to 16, 16, 16 and white to 235, 235, 235 (for 8-bit image) to comply with brilliance value defined in digital component standard.

VGA Setup

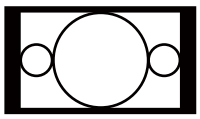
Set up VGA signal display's H Total, H Start, H Phase and V Start.

Aspect Ratio

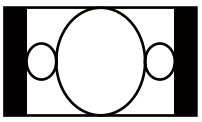
Select aspect ratio for the projected image.

For normal input of 16:10 the aspect ratio will look like the following images:

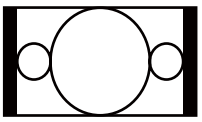
Normal output 16:10



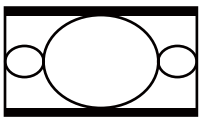
Aspect ratio of output screen 5:4



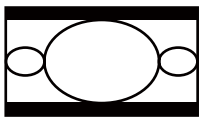
Aspect ratio of output screen 4:3



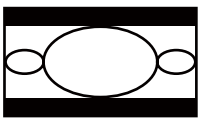
Aspect ratio of output screen 16:9



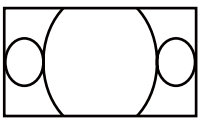
Aspect ratio of output screen 1.88



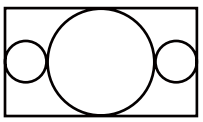
Aspect ratio of output screen 2.35:1



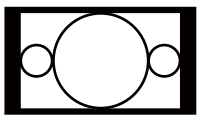
Aspect ratio of output screen Letter Box



Aspect ratio of output screen Auto

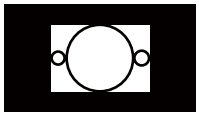


Aspect ratio of output screen Native

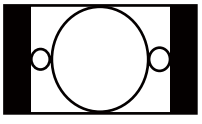


For normal input of ratio 4:3, the aspect ratio will look like the following images:

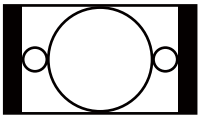
Normal output 4:3



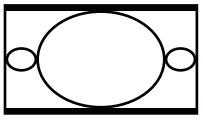
Aspect ratio of output screen 5:4



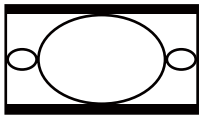
Aspect ratio of output screen 4:3



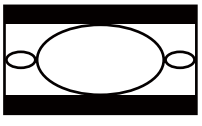
Aspect ratio of output screen 16:9



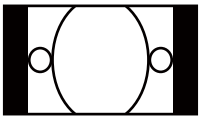
Aspect ratio of output screen 1.88



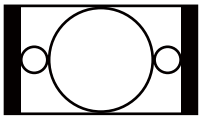
Aspect ratio of output screen 2.35:1



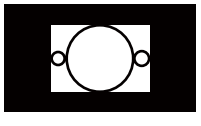
Aspect ratio of output screen Letter Box



Aspect ratio of output screen Auto



Aspect ratio of output screen Native



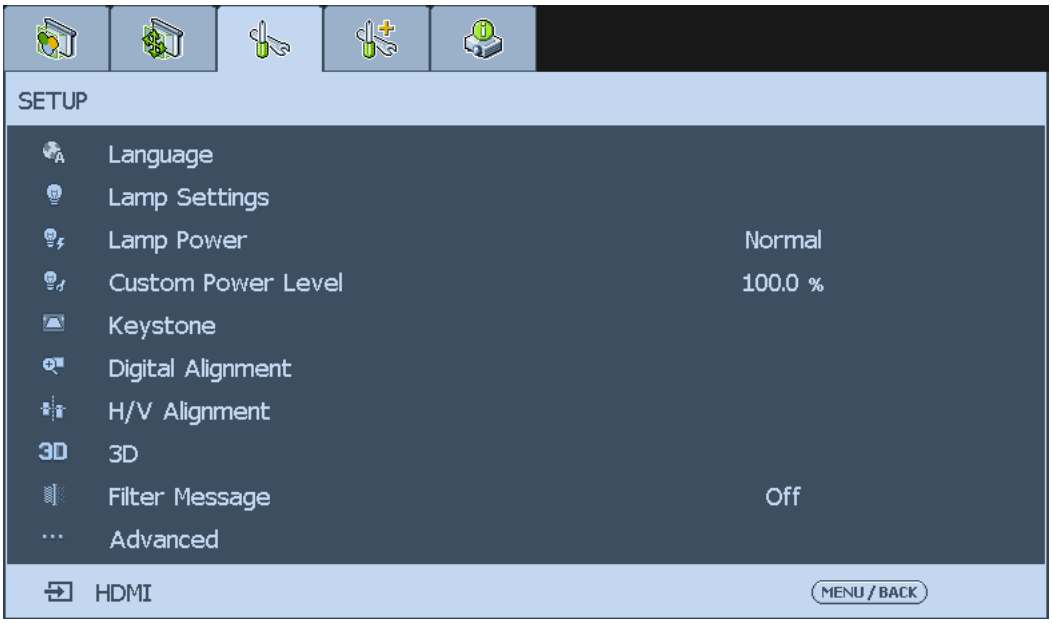
Overscan

The edge of the image may or may not be displayed correctly, this function allows you to set **Overscan** > **On** to crop the border area of the image.

Background

Background enables you to display a blue, black screen or Logo when there is no signal.

SETUP



Language

Select the OSD language to be used, the available options are **English**, **Français**, **Español**, **Deutsch**, **Português**, **简体中文** , 繁體中文 , 日本語 , 한국어 , **Italiano**, **Svenska**, **Русский**.

Lamp Settings

This projector is capable of dual-lamp projection and provides four lamp modes for different purposes. Select **Lamp Setting** then press **Enter** to display available options.

Dual: Both lamps are used for greater brightness.

Single: Select the lamp which the usage is lower than the other one.

Lamp1: Select Lamp 1 for the projector. If lamp 1 burns out, the projector switches to lamp2 automatically.

Lamp2: Select Lamp 2 for the projector. If lamp 2 burns out, the projector switches to lamp1 automatically.

Lamp Power

Press ◄► arrow key to select **ECO** (power saving), **Normal**, or **Custom Power Level**.

Normal: To project at normal lamp power for the highest brightness output.

ECO: To project in economic mode for longer lamp life cycle.

Custom Power Level: You can set lamp power at 75-100% to normal mode for fine tuning image projection. This function helps for fast installation of multiple projectors and regular maintenance.

Custom Power Level

Press ◄► arrow key to customize lamp output power in the range of 75-100% of normal mode. This function is valid only when the **Custom Power Level** option is set to **Custom Power Level** mode. In the other two modes, **Normal** and **ECO**, this function is disabled (dimmed).

Digital Alignment

Select this function to zoom the projection image.

Digital Zoom: Press ◄► arrow key to zoom in the projection image.

Digital Pan: Press ◄► arrow key to pan out on projection image. This is valid only when the projected image is enlarged.

Digital Scan: Press ◄► arrow key to tilt projection image. This is valid only when the projected image is enlarged.

Reset: Press to reset **Digital Alignment** settings to factory default values.

H/V Alignment

H Zoom: Use ◄► to narrow the horizontal size of the projected image.

V Zoom: Use ◄► to narrow the vertical size of the projected image.

H Shift: Use ◄► to move the narrowed projected image horizontally. This function is only available when the projected image is narrowed.

V Shift: Use ◄► to move the narrowed projected image vertically. This function is only available when the projected image is narrowed.

Reset: Set the **H/V Alignment** back to the factory default settings.

3D

Set up 3D format and sync method. The projector displays options available for setup by detecting connected input signal type and dims these unavailable items. Please ensure you have connected to input signal before 3D setup.

3D Format

Select this option and press the **Enter** button to enable 3D playback and set 3D options.

Off: Turn off the 3D Display Mode and press the **Enter** button..

Note when **Auto**, **Side by Side**, **Top/Bottom** or **Frame Sequential** is selected, the 3D mode will be turned on automatically.

Auto: Enable the 3D format detection such as **Side by Side**, **Top/Bottom** and **Frame Sequential**. This function may only be enabled for the input signal below:

- The input signal is HDMI 1.4 3D.
- The HDMI 1.4 3D signal connects to the projector through HDBaseT transmitter.

Side by Side: Manually switch the 3D Format to Side by Side. This option is only applicable to the HDMI input signal, the signal can be sent from the HDMI output of media device or through HDBaseT transmitter.

Top/Bottom: Manually switch the 3D Format to Top/Bottom. This option is only applicable to the HDMI input signal, the signal can be sent from the HDMI output of media device or through HDBaseT transmitter.

Frame Sequential: Set the format to Frame Sequential.

DLP Link: Select to disable or enable DLP Link sync.

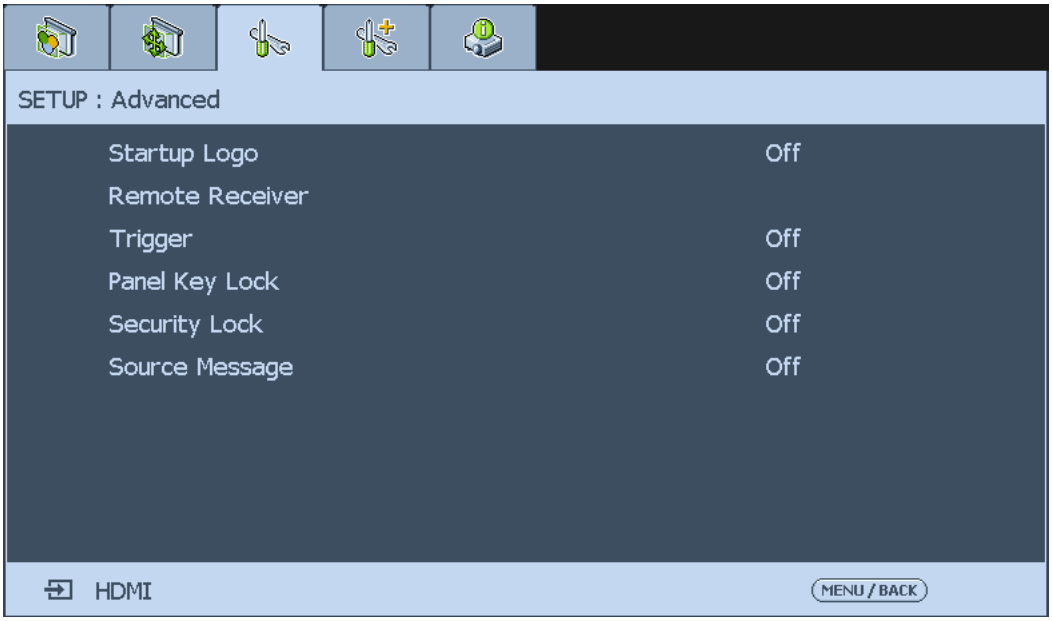
3D Swap: Set 3D Swap to Inverse if left and right eye 3D image inversion by 3D glasses is needed. If image looks normal, keeps current settings.

3D 24Hz Display: Set frame rate to 144fps or 96fps when input signal is at 24Hz.

Filter Message

Set the interval time to display a message for cleaning the filter, the selectable options are **Off**, **100H**, **200H**, **500H** and **1000H**.

Advanced



Startup Logo

Press ◄► arrow key to enable /disable the startup logo function.

Remote Receiver

Setup the IR control signal receiving by the projector, there are four options to setup control signal receiving as below.

Front+Rear: Both front IR and back IR receiver are turned on.

Front: Turn on front IR receiver only; back IR receiver is turned off.

Rear: Turn on back IR receiver only; front IR receiver is turned off.

HDBaseT: Select HDBaseT as a channel for IR control signal transmitting if the optional HDBaseT transmitter is capable of IR signal receiving and transmitting. If the option is selected, both front IR receiver and back IR receiver are turned off.

Trigger

The projector features one trigger output. If the projector comes with an auto screen device, you can connect it to the trigger to open the screen when the projector powers up. This function may have a 2-3 second lag before powering up.

Panel Key Lock

This function allows you to lock the control panel for preventing the unauthorized use.

Security Lock

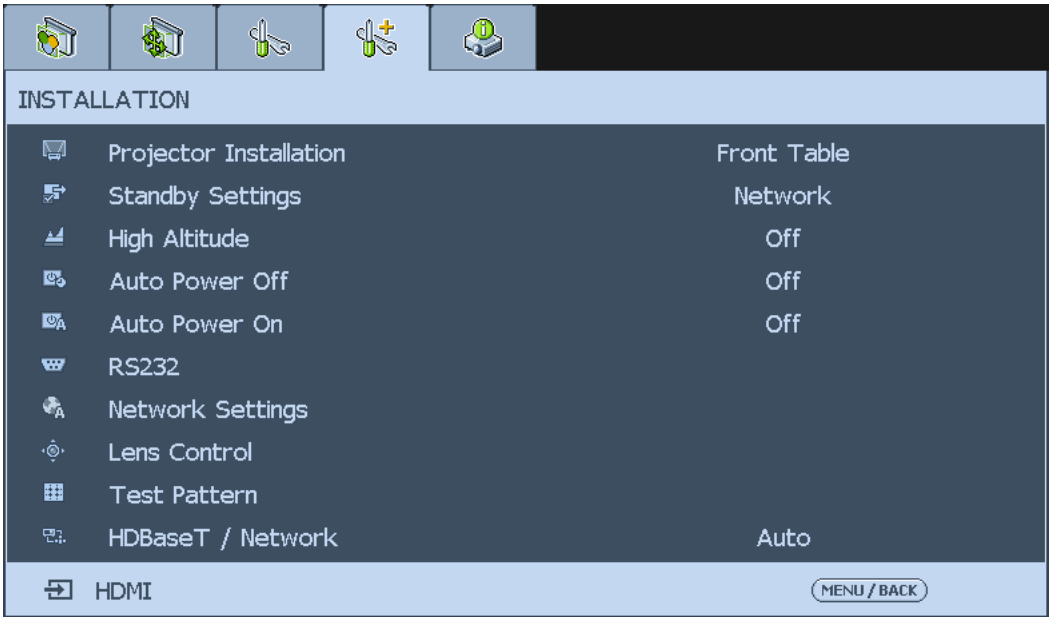
This function allows you to enable or disable **Security Lock**, this is a useful function to preventing the unauthorized use of the projector. Set it **On** to lock the OSD control panels and deny remote control operation, the password is required for the operation. Please refer to "Preventing the unauthorized use of the projector" on page 20.

When you have set or changed the password, take a memo and keep it securely. If you forget your PIN code, the projector can no longer be stared. Contact local dealer or service center.

Source Message

The function allows you to turn off "Searching for source" on the projection screen when projector is searching for the input source. Select **On** to display the message; select **Off** to hide the message on the screen.

Installation



Projector Installation

This function enables you to set how the projected image is displayed. Select from the following option for the projector installation.

Front Table: Standard forward facing projection (Default setting).

Rear Table: Standard rear projection, enables the projector to produce the image from behind the screen by reversing the image.

Front Ceiling: Forward facing ceiling mounted projection, enables ceiling mounted projection by inverting the image.

Rear Ceiling: Rear ceiling mounted projection, enables ceiling mounted projection from behind the screen by inverting and reversing the image.

The cooling fan speed varies with projector installation to ensure the projector's proper heat dissipation. Invalid projection can lead to the projector overheating or shortened lamp life. Be careful to choose the correct projector installation when installing your projector.

Standby Settings

Press ◄► arrow key to toggle switch between **Standard**, **Eco** and **Network** mode.

Standard: The projector can be turned on using the remote control, RS-232 command or network control.

Eco: The projector maintains in the standby status at the lowest power (<0.5W). In this mode, the projector can be turned on only using the power button on the remote controller or projector.

Network: The projector maintains in the standby status at the power consumption under 6W, the projector can be turned on using the power button or network control only, RS-232 control command and wired remote control signal via external transmitter through RJ45 cable are not available.

Some of communication ports are turned off if it's set to **Eco** or **Network** mode, please make sure that the Standby Settings is set to proper setting.

High Altitude

You can use this function to turn the option to **On** for switching the cooling setting if the project is installed in a high altitude environment, the default is **Off**.

The projector may turn off automatically if it is used in an environment at excessively high temperature or in an area at a high altitude. In this case, you can enable this function by setting it to **On** and have the cooling fan operate at a higher speed to low the internal temperature of the projector.

An area is considered high altitude when it is above 5000 feet.

Auto Power Off

This function enables the projector to enter standby mode automatically when no input signal is detected more than 15 minutes. Set the function to **On** to enable **Auto Power off** or to **Off** to disable it.

Auto Power On

This function enables the projector to be turned on automatically when the power cord is plugged into the AC outlet or the breaker switch is turned. Set the function to **On** to enable this function.

This function is activated by below conditions

- The Main Power switch on the projector has to be switched to On.
- The projector should be turned off by unplugging power cord or the breaker switch directly, **Auto Power On** will be activated next time when you plug in the power cord or turn on breaker switch.

RS232

Baud Rate: Set transmission speed to: **115200**, **57600**, **38400**, **19200**, **14400**, and **9600**. Transmission speed shall vary with length of RS-232 cable (longer cable requires slower speed). In case of unstable signal or connection failure when controlling with RS-232 cable, try downgrading the transmission speed.

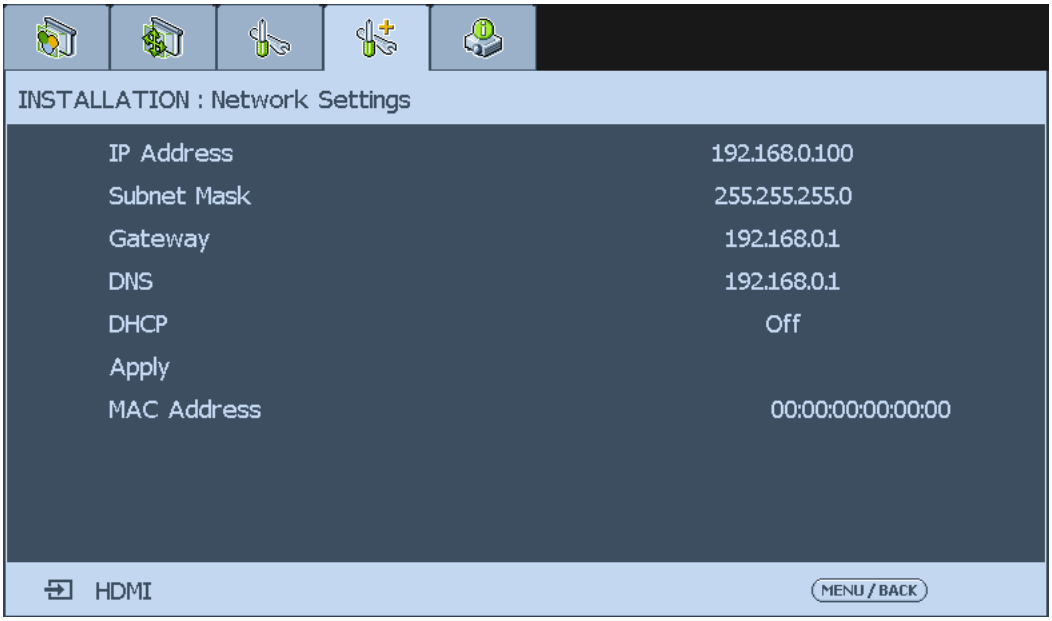
Channel: You can send RS-232 control commands to your projector through the RS-232 port or external HDBaseT transmission box connected to its HDBaseT/LAN port. Please set up the following communication channel before sending control commands:

Local: Send RS-232 control command through your projector's RS-232 port. Please set up proper transmission speed in advance.

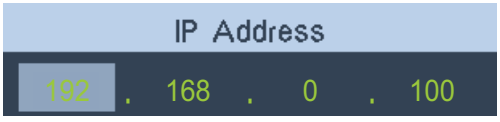
HDBaseT: Send RS-232 control commands to your projector's HDBaseT/LAN port through an external HDBaseT transmission box. The transmission speed is automatically set to **9600**.

RS-232 control is only available when **Standby Settings** is set to **Standard** mode, it's unavailable when **Standby Settings** is set to **Network** or **Eco** mode.

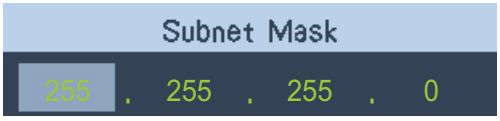
Network Settings



IP Address: To specify an IP address, press the **Enter** button to show the IP address input window. Use the ◄► button to select the number in the address to be changed. Use the ▲▼ button to increase or decrease the number in the IP address.



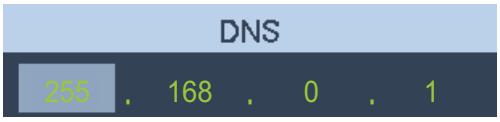
Subnet Mask: Set up IP address of subnet.



Gateway: Set up IP address of gateway.



DNS: The Domain Name System (DNS) is a hierarchical distributed naming system for computers connected to the Internet or a private network. Set up DNS address via ▲ or ▼ buttons.



DHCP: Set DHCP to **On** or **Off**. If this is set to **On**, the DHCP server of the network domain assigns an IP address to the projector. That is, the IP address is displayed in the address window instead of being entering manually. Otherwise, the domain does not or cannot assign an IP address, and 0. 0. 0. 0 is shown on the IP address window.

Apply: Select this button to display **Apply** window then select **Enter** button on the window to confirm the each change you made. It takes several seconds to execute the change in network settings till the following message disappears.



MAC Address: Display the MAC address of the projector.

Lens Control

Select this function or press the **LENS SHIFT** button on the remote controller to open the lens control menu to zoom, focus or shift the lens. Press the **Enter** key to switch zoom/ focus or lens shift menu. Press ◄► arrow key focus the projected image or shift the lens in horizontal direction, and ▲▼ to zoom the projection size or shift the lens in vertical direction.



Test Pattern

The projector has a set of test patterns for installation and adjustment. Select **Test Pattern** to display pattern menu. Use ◄► or ▲▼ to select the desired test pattern, press the **RETURN** button to exit test pattern or return to pattern menu by pressing the **MENU** button.

HDBaseT / Network

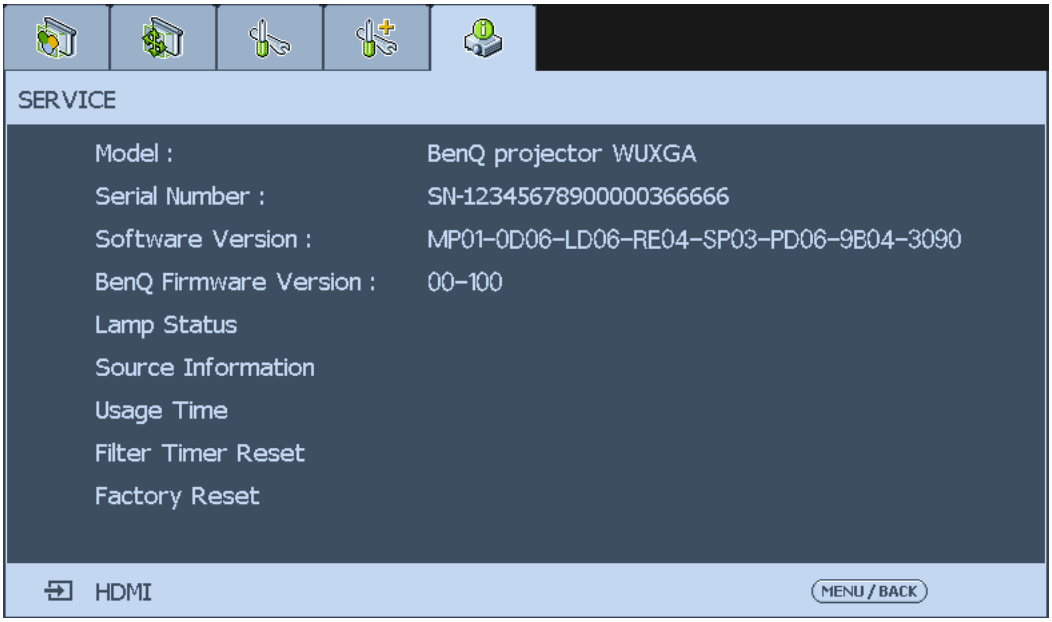
The projector features with HDBaseT receiver and allows you control the projector via RJ-45 cable connected from external HDBaseT transmitter.

Auto: The projector detects the signal from HDBaseT transmitter or LAN, and switch to the channel automatically.

HDBaseT: Select HDBaseT as the channel for LAN control.

- If HDBaseT is selected, LAN control channel is switched to HDBaseT transmitter. LAN control signal must be transmitted through HDBaseT transmitter, directly connected to the LAN will not be available.
- HDBaseT function enters to lower power mode if the connection is interrupt. If the option is set to Auto, some of HDBaseT transmitter may not send a signal to active the function, Power On/Off operation via LAN control may not be operated. In this case, please switch it to HDBaseT.

SERVICE



Model

Display the model name of the projector.

Serial Number

Display the serial number of the projector.

Software Version

Display current software version installed in the projector.

BenQ Firmware Version

Display current firmware version installed in the projector.

Lamp Status

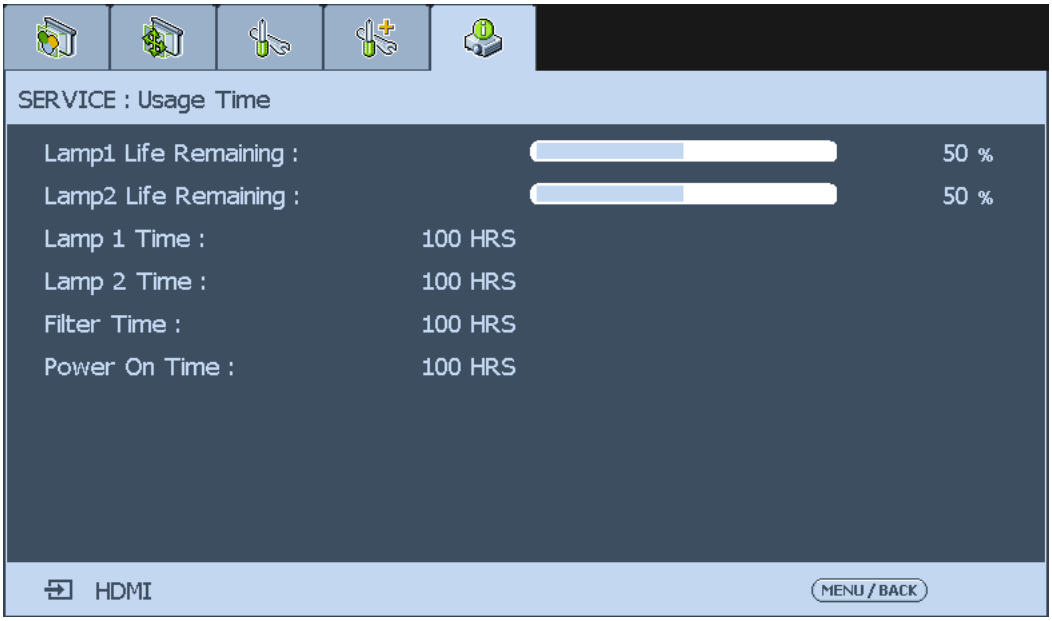
Select this option to display current lamp status, the menu shows which lamp is in use.

Source Information

Select this option to display source information such as active source, pixel clock, signal format, H/V refresh rate, sync type, sync polarity and video type.

Usage Time

Select this option to display lamp usage time.



Lamp 1 Life Remaining: Display estimated remaining life of lamp 1.

Lamp 2 Life Remaining: Display estimated remaining life of lamp 2.

Lamp 1 Time: Display used hours of lamp 1.

Lamp 2 Time: Display used hours of lamp 2.

Filter Time: Current filter usage time counted from last reset you made.

Power On Time: Display the operation hours of the projector.

- Used hours and remaining lamp life are estimated by the used hours of lamp at **Normal** and **Eco** mode. The actual lamp life may vary with installation and operation conditions.
- After replacing a new lamp, please contact your dealer to reset lamp usage counter.

Filter Timer Reset

The function allows you to reset the filter timer, please make sure to reset the timer after cleaning or change the dust filter. Press **Enter** or ► to display the message window and select **OK** to reset the filter timer.



Factory Reset

Select this option to reset menu settings back to factory default including every user defined value.

Used hours or estimated remaining life of the lamp is not reset when executing **Factory Reset**.

Additional information

Care of the projector

Care of the projector

Your projector needs little maintenance. The only thing you have to do on a regular basis is keep the lens clean. Never remove any parts of the projector except the lamp. Contact your dealer or local customer service center if the projector fails to operate as expected.

Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface. Before you attempt to clean the lens, turn the projector off, unplug the power cable, and leave it several minutes to cool completely.

Use a canister of compressed air to remove dust. (Available from building hardware or photographic suppliers.)

If there is stubborn dirt or smudge marks, use a proper photographic lens brush or moisten a clean soft lens cloth with lens cleaner to gently wipe the lens surface.

Never use any type of abrasive pad, alkaline/acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the projector surface and cabinet material.



Never touch the lens with your finger or rub the lens with abrasive materials. Even paper towels can damage the lens coating. Only ever use a proper photographic lens brush, cloth, and cleaning solution. Do not attempt to clean the lens while the projector is switched on or is still hot from previous use. Be sure to turn off the projector and let it cool down completely before cleaning the lens.

Cleaning the projector case

Before you attempt to clean the case, turn the projector off, unplug the power cable, and leave it several minutes to cool completely.

To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.

To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral detergent. Then wipe the case.



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

Storing the projector

If you need to store the projector for an extended time, please:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to "Specifications" on page 62 in this manual or consult your dealer about the range.
- Retract the adjuster feet.
- Remove the batteries from the remote control.

- Pack the projector in its original packing or equivalent.

Transporting the projector

It is recommended that you ship the projector with its original packing or equivalent.

Replacing the lamp

The projection lamps should be replaced when they burn out. They should only be replaced with a certified replacement part, contact your local dealer if unsure.

- Lamps are positioned differently. Take care not to force the lamps when replacing.
- Installation of both lamp modules (Lamp 1 and Lamp 2) is required to operate the projector in dual or single lamp mode. If only a single lamp module is installed, the projector's lamp will not turn on and will appear as a lamp failure.

- The lamp contains a certain amount of mercury and should be disposed of according to local ordinance regulations.
- Avoid touching the glass surface of the new lamp: doing so may shorten its operation life.

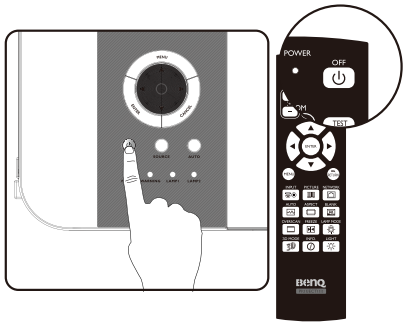
Lamp Handling Precautions

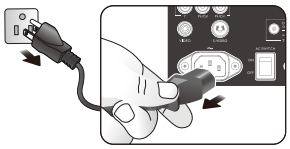
- This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.
- Lamp life may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same life for each lamp. Some lamps may fail or terminate their life in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if LAMP 1 and/or LAMP 2 light up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down. (Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with LAMP 1 and/or LAMP 2 lighted may increase the risk of lamp explosion.
- A lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.
- If a lamp explodes, the following safety precautions should be taken:
- Disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.
- The projection lamp should be replaced when it burns out. It should only be replaced with a certified replacement part, which you can order from your local dealer.

- Be sure to turn off and unplug the projector at least 30 minutes before replacing the lamp. Failure to do so could result in a severe burn.
- Safety glasses should be worn when replacing the lamp while the projector is ceiling mounted.

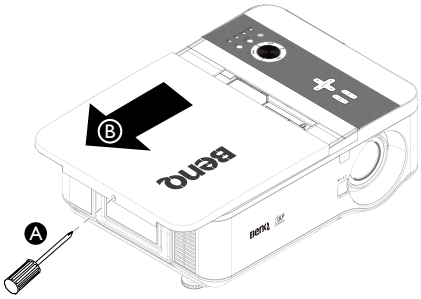
Removing the used lamp

1. Turn the power off and disconnect the projector from the power outlet. Turn off all connected equipment and disconnect all other cables.

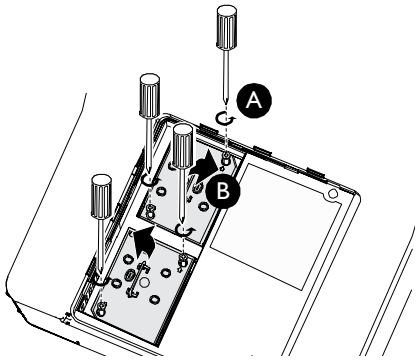




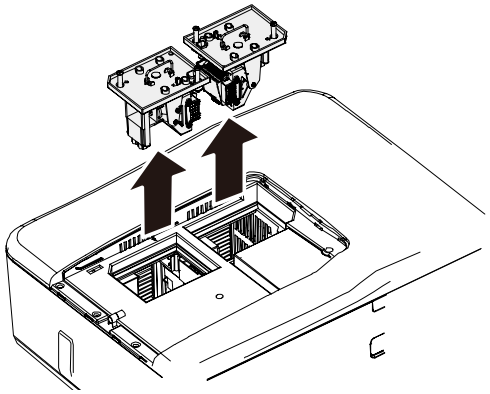
2. Remove the screws on the lamp cover (A), and slide the lamp cover as shown (B).



3. Loosen the two captive screws on the lamp module (A). Lift the module handle up as shown (B).

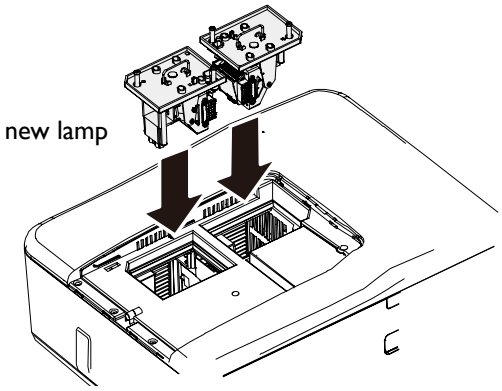


4. Pull firmly on the module handle in the direction shown to remove the lamp.



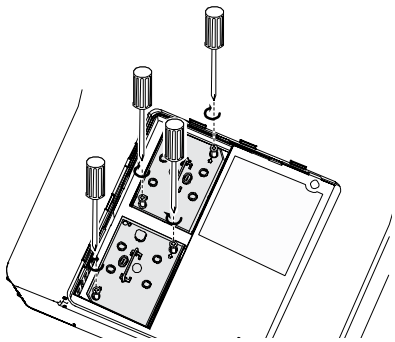
- Pulling it too quickly may cause the lamp to break and scatter broken glass in the projector. To reduce the risk of injuries to fingers and damage to internal components, use caution when removing lamp glass that has shattered.
- Do not place the lamp in locations where water might splash on it, children can reach it, near or above heat sources, or near flammable materials.
- Do not insert your hand into the projector when the lamp is removed. If you touch the optical components inside, it could cause blurred images.

5. Reverse steps 1 to 3 to install the new lamp module(s).

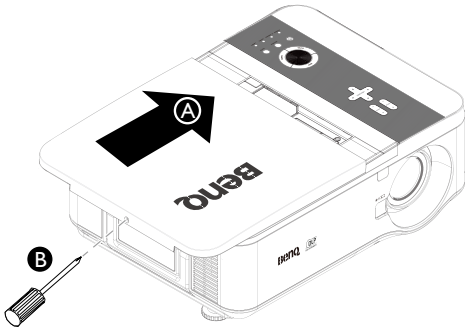


6. Tighten the screws securing the lamp box. Reconnect the lamp connector.

7. Ensure the handle is fully locked in place.



8. Replace the lamp cover.
   Close the lamp cover (A) and lock attached screws (B).



9. Tighten the screws on the lamp cover.
10. Reapply power and turn the projector back on.

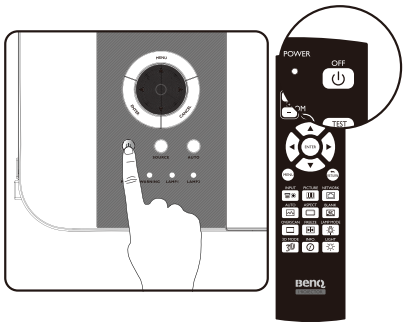
- Please be careful to not over-tighten the screws.
- Loose screws may cause a bad connection, which could result in malfunction.

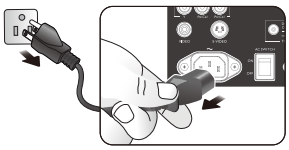
Installing the optional color wheel

The projector comes with a four-segment color wheel installed. An additional six-segment color wheel is optional. To replace the color wheel (located under the lamp cover adjacent to lamp 1) refer to the following guide.

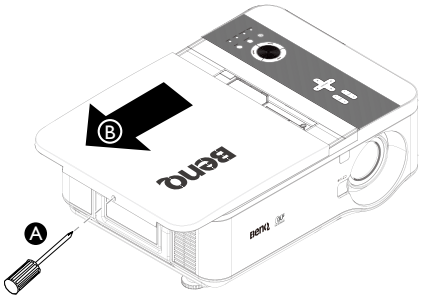
Wait until the lamp house and the color wheel cool off.

1. Turn the power off and disconnect the projector from the power outlet. Turn off all connected equipment and disconnect all other cables.

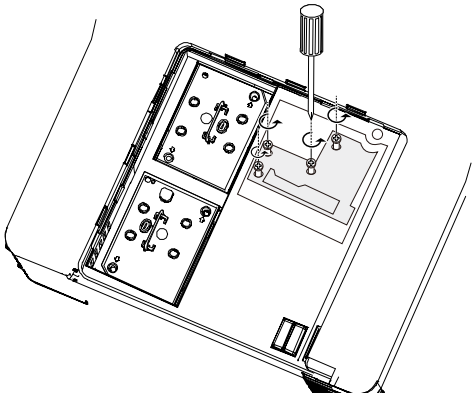




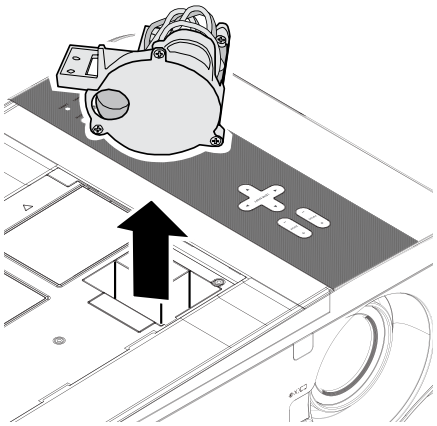
2. Remove the screws on the lamp cover (A), and slide the lamp cover as shown (B).



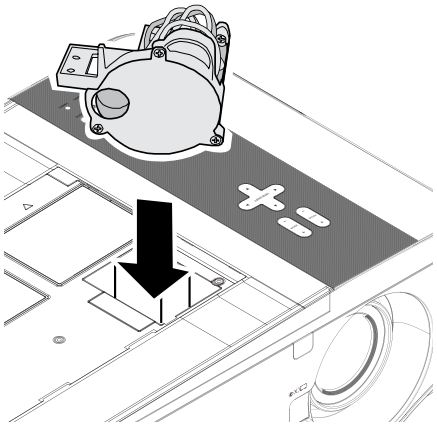
3. Unscrew the retaining screws (x 4) on the four-segment color wheel.



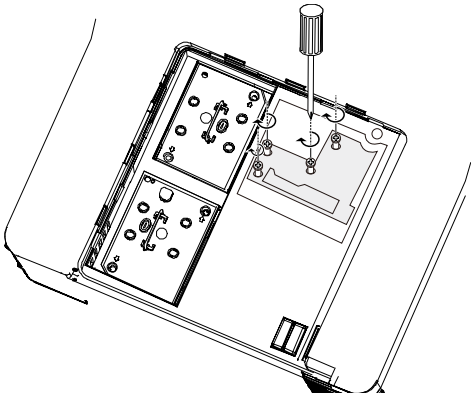
4. Lift the color wheel in the direction shown.



5. Insert the six-segment color wheel.



6. Secure the retaining screws as shown, and then close the lamp cover.



Storing Unused Color Wheel: Keep the unused color wheel in the zipper bag in which the 6-segment color wheel (not supplied) was packaged. This bag prevents dust from falling or collecting on the color wheel.

Cleaning the filters

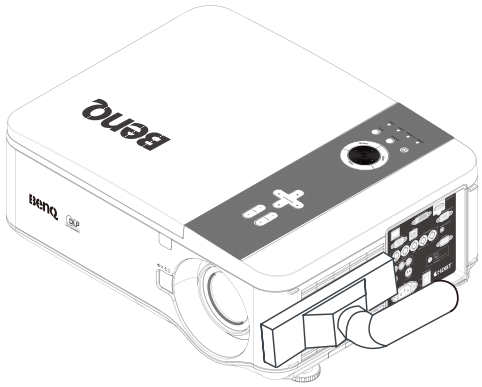
The projector uses three filters to keep the fans free of dust and other particles, and should be cleaned every 500 hours of operation. In dusty environments, it is recommended to clean the filters more frequently. If the filter is dirty or clogged, your projector may overheat. When the message be-low is displayed, the filters must be cleaned.

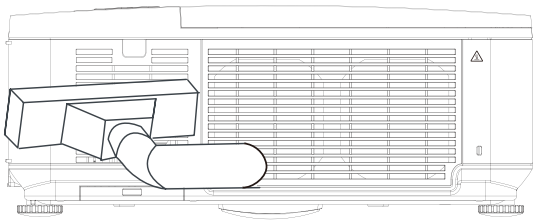
When the "**Please clean filter**" message is displayed, please clean all three filters at the same time to synchronize the filter time display. The **Filter Message** item should be enabled in the **Options** menu.

Refer to the following guide to clean the filters:

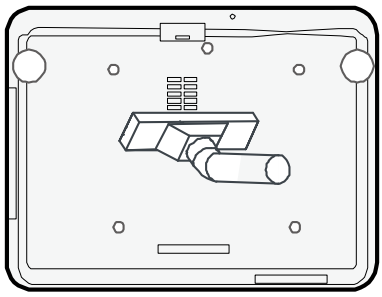
1. The left-side and rear filters can be cleaned as demonstrated in the following images.

Only clean the outside of the exhaust vents with a vacuum cleaner.

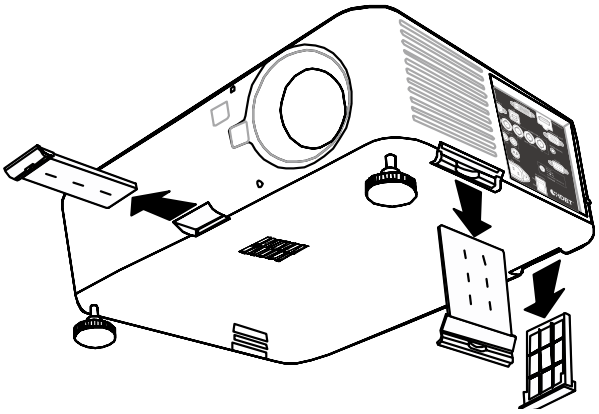




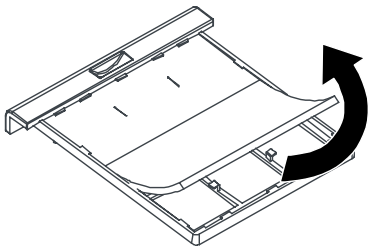
2. The bottom exhaust vent can be accessed as shown.



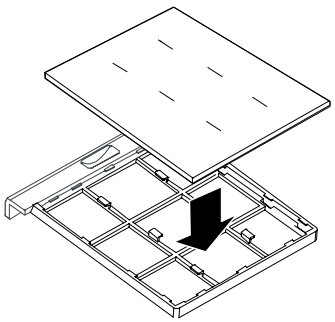
3. Gently slide the filter holders in the direction shown.



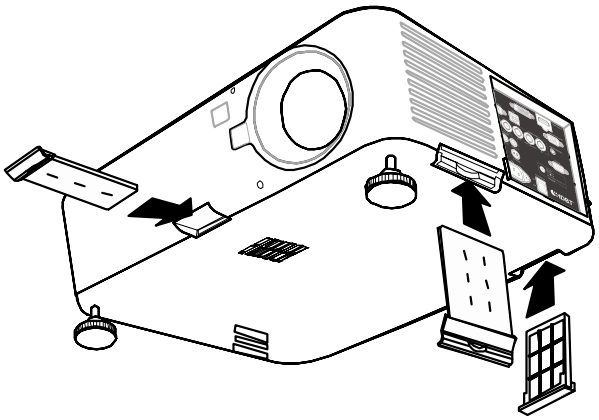
4. Lift the filter foams from all three filter holders in the direction shown. Remove them completely from each filter holder and discard.



5. Place a replacement foam and press down firmly.



6. Replace the filter holders by pushing-in gently in the direction shown.



Troubleshooting

Indicator messages

Several indicator messages are used by the projector to alert users of problems with setup or internal parts. The LEDs on the top surface of the projector show the status of the WARNING and lamp 1/2 as well as the general working order of the projector through the WARNING LED.

The following tables describe the various states of the 4 LEDs.

LED indicator	LED status	Projector status
Power Indicator	Off	AC off
	Red on	Standby
	Green on	Power on
	Orange blinks	Projector is under cooling
	Green blinks	Start up
Lamp indicator	Green on	Normal, Lamp Power is set to Normal
	Orange on	Normal, Lamp Power is set to ECO
	Green blinks	Lamp Power is set to Normal and is warming up
	Orange blinks	Lamp Power is set to Eco and is warming up

LED indicator	LED status	Possible cause
Warning indicator	Red blinks	The lamp cover is open.
	Red blinks 2 times	The internal temperature is abnormally over specification. • The temperature around the projector is high. ✓ Placed projector under temperature 104°F (40°C).
		• Air intake may be blocked. ✓ Placed projector at proper ventilation environment. • Internal circuit may be fail.
	Orange blinks	The internal temperature is abnormally over specification. • Cooling fan breakdown. • Air intake may be blocked. • Internal circuit may be fail. Contact with your nearest authorized dealer or service center.

LED indicator	LED status	Possible cause
Lamp indicator	Red blinks	The lamp does not illuminate • No lamp is installed or lamp should be replaced. ✓ Install the lamp or check if the lamp is installed properly.
	Red blinks 2 times (Repeatedly)	The lamp does not illuminate • The lamp is shut down abnormally. • The lamp is burnt out • Lamp circuit failure Contact with your nearest authorized dealer or service center.

Common problems and solutions

These guidelines provide tips to deal with problems you may encounter while using the projector. If the problem remains unsolved, contact your dealer for assistance.

Often the problem is something as simple as a loose connection. Check the following before proceeding to the problem-specific solutions.

- Use some other electrical device to confirm that the electrical outlet is working.
- Ensure the projector is turned on.
- Ensure all connections are securely attached.
- Ensure the attached device is turned on.
- Ensure a connected PC is not in suspend mode.
- Ensure a connected notebook computer is configured for an external display. (This is usually done by pressing an Fn-key combination on the notebook.)

Tips for troubleshooting

In each problem-specific section, try the steps in the order suggested. This may help you to solve the problem more quickly.

Try to pinpoint the problem to avoid replacing non-defective parts.

For example, if you replace batteries and the problem remains, put the original batteries back and go to the next step.

Keep a record of the steps you take when troubleshooting: The information may be useful when calling for technical support or for passing on to service personnel.

Image problems

Problem: No image appears on the screen

1. Verify the settings on your notebook or desktop PC.
2. Turn off all equipment and power up again in the correct order.

Problem: The image is blurred

1. Adjust the Focus on the projector.

2. Press the **AUTO SYNC** button on the remote control or projector.
3. Ensure the projector-to-screen distance is within the specified range.
4. Check that the projector lens is clean.
5. Remove the lens cover.

Problem: The image is wider at the top or bottom (trapezoid effect)

1. Position the projector so it is as perpendicular to the screen as possible.
2. Use the **Keystone** function on the OSD to correct the problem.

Problem: The image is reversed or upside down

Check the **Ceiling & Rear** setting on the **Setting** menu of the OSD.

Problem: The image is streaked

1. Adjust the **Phase and Clock** on the **Signal** menu of the OSD to the default settings.
2. To ensure the problem is not caused by a connected PC's video card, connect to another computer.

Problem: The image is flat with no contrast

1. Adjust the **Contrast** setting on the **Picture** menu of the OSD.
2. Adjust the **Brightness** setting on the **Picture** menu of the OSD.

Problem: The color of the projected image does not match the source image.

Adjust the Color temperature and Picture settings.

Lamp problems

Problem: There is no light from the projector

1. Check that the power cable is securely connected.
2. Ensure the power source is good by testing with another electrical device.
3. Restart the projector in the correct order and check that the Power LED is green.
4. If you have replaced the lamp recently, try resetting the lamp connections.
5. Replace the lamp module.
6. Remove the lens cap.
7. Put the old lamp back in the projector and have the projector serviced.

Problem: The lamp goes off

1. Power surges can cause the lamp to turn off. Press the power button twice to turn off the projector. When the Power LED is orange, press the power button.
2. Replace the lamp module.
3. Put the old lamp back in the projector and have the projector serviced.

Remote control problems

Problem: The projector does not respond to the remote control

1. Direct the remote control towards remote receiver on the projector.
2. Ensure the path between remote and sensor is not obstructed.
3. Turn off any fluorescent lights in the room.
4. Check the battery polarity.
5. Replace the batteries.

6. Turn off other Infrared-enabled devices in the vicinity.
7. Have the remote control serviced.
8. Ensure that the remote control code conforms to the projector's code.

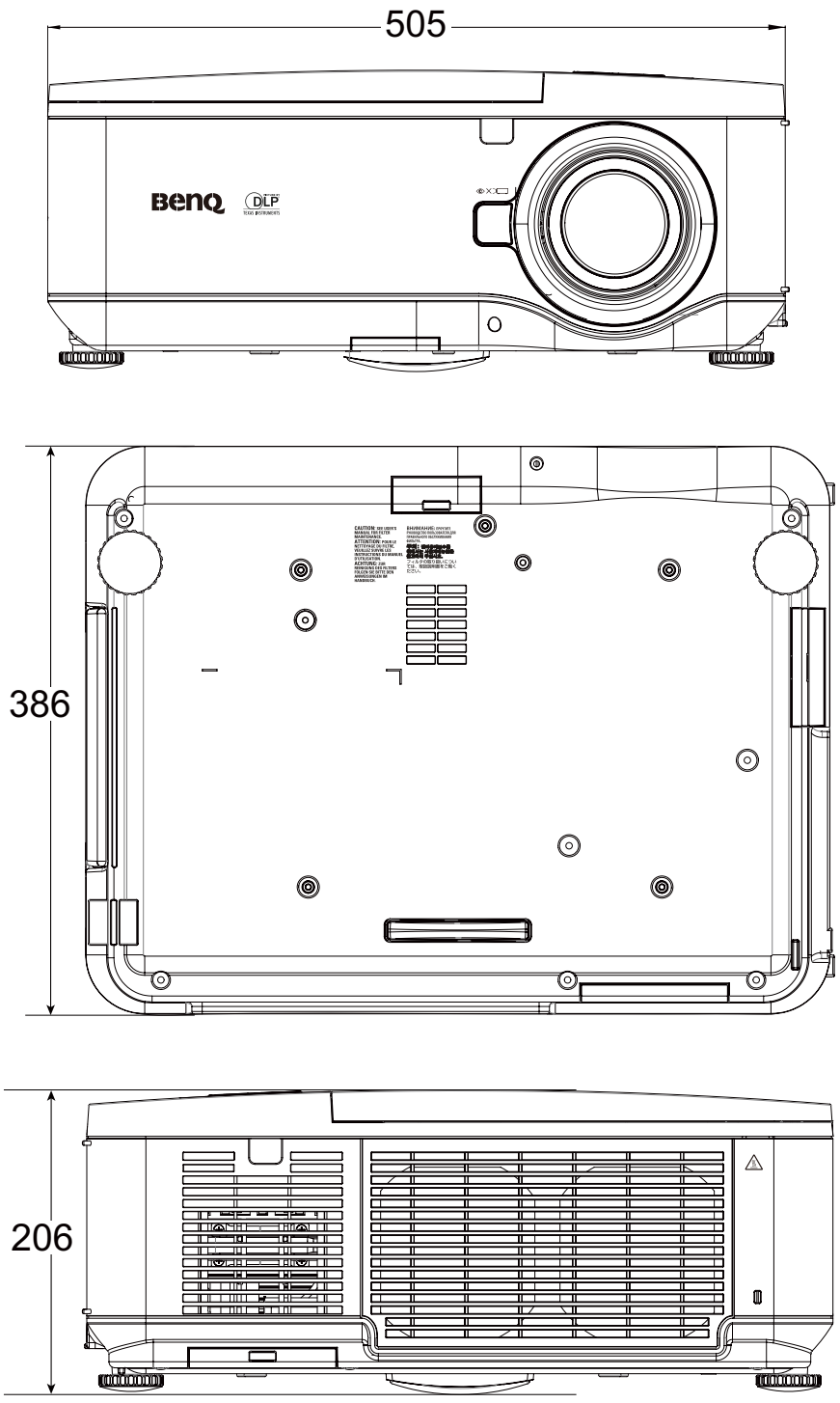
Specifications

All specifications are subject to change without notice

Model		PU9530	PX9510	PW9520
Display Devices		0.67",1- DLP Chip	0.7",1- DLP Chip	0.65",1-DLP Chip
Display Devices		WUXGA (1920x1200)	XGA (1024x768)	WXGA (1280x800)
Input Terminals	DVI-D (Compatible with HDCP)	X1		
	HDMI (Compatible with HDCP)	X1		
	COMPUTER 2 (BNC)	X1		
	COMPUTER 1 (D-sub 15p)	X1		
	Component (RCA)	X1,Y/Pb(Cb)/Pr(Cr) x1		
	S-Video (min Din 4 pin)	X1		
	Video (RCA)	X1		
	HDBaseT	X 1, share the same terminal with LAN		
Output	Monitor Out (D-sub 15 p)	X1		
	Trigger (φ3.5mm stereo min jack)	X1 (DC 12V Output)		
Control	Wired Remote (φ3.5mm stereo minijack)	X1		
	LAN	X1, share the same terminal with HDBaseT		
	RS-232C	X1		
Service	USB (Type B) for service	X1		
Power Requirement		AC 100 - 240V, 50/60Hz		
Input Current		7.30A		
Power Consumption (Standby Setting: Standard/Eco)		710W (<24W/<0.5W) with AC 100V		
		690W (<24W/<0.5W) with AC 240V		
Operation Temperature		41°F to 104°F (5°C to 40°C)		
Storage Temperature		14°F to 140°F (-10°C to 60°C), 5% to 90% Humidity (non-condensing)		

Model	PU9530	PX9510	PW9520
Dimensions	19.9" (W) x 15.1" (H) x 8.1" (D) 505 mm (W) x 386 mm (H) x 206 mm (D) (not including protrusions)		
Weight	37.5 lb/17 kg		

Dimensions



Unit: mm

Timing chart

The following table shows compatible signal types, their resolution and frequency refresh rates.

Horizontal: 15kHz, 31kHz to 90 kHz, Vertical: 50 Hz to 85 Hz

PC timing

Signal Type	Resolution	Frame Rate	Computer 2		Computer 1		DVI-D	HDMI		HDBaseT	Video / S-Video
			RGBHV	YUV	RGBHV	YUV		RGB	YUV		
PC	640x480	60	V		V		V	V		V	
	640x480	75	V		V		V	V		V	
	640x480	85	V		V		V	V		V	
	800x600	60	V		V		V	V		V	
	800x600	75	V		V		V	V		V	
	800x600	85	V		V		V	V		V	
	848x480	60	V		V		V	V		V	
	1024x768	60	V		V		V	V		V	
	1024x768	75	V		V		V	V		V	
	1024x768	85	V		V		V	V		V	
	1024x768	120	V		V		V	V		V	
	1024x768 RB	120	V		V		V	V		V	
	1280x720	60	V		V		V	V		V	
	1280x720	120	V		V		V	V		V	
	1280x768	60	V		V		V	V		V	
	1280x800	60	V		V		V	V		V	
	1280x800 RB	120	V		V		V	V		V	
	1280x960	60	V		V		V	V		V	
	1280x1024	60	V		V		V	V		V	
	1280x1024	75	V		V		V	V		V	
	1280x1024	85	V		V		V	V		V	
	1440x900	60	V		V		V	V		V	
	1400X1050	60	V		V		V	V		V	
	1600x1200	60	V		V		V	V		V	
	1680x1050	59.94	V		V		V	V		V	
	1920X1200 RB	60	V		V		V	V		V	
Video	NTSC (M) (3.58, 4.43)	59.94									V
	PAL (B,G,H,I)	50									V
	PAL (N)	50									V
	PAL (M)	60									V
	SECAM (M) (4.25/4.4)	50									V
SDTV	1440x480i	60						V	V	V (HDMI)	
	1440x576i	50						V	V	V (HDMI)	
	480i	59.94		V		V					V
	576i	50		V		V					V
EDTV	480p	59.94	V	V	V	V	V	V	V	V	
	576p	50	V	V	V	V	V	V	V	V	
	1080i	50		V		V	V	V	V	V	
	1080i	60		V		V	V	V	V	V	
	720p	50	V	V	V	V	V	V	V	V	
	720p	60	V	V	V	V	V	V	V	V	
	1080p	24	V	V	V	V	V	V	V	V	
	1080p	25	V	V	V	V	V	V	V	V	
	1080p	29.97	V	V	V	V	V	V	V	V	
	1080p	30	V	V	V	V	V	V	V	V	
	1080p	50	V	V	V	V	V	V	V	V	
	1080p	60	V	V	V	V	V	V	V	V	

3D supported timing

Signal Type	Resolution	Frame Rate	Frame Packing	Side by Side	Top / Bottom	Frame Sequential
PC	640x480	60				V
	800x600	60				V
	848x480	60				V
	1024x768	60				V
	1024x768	120				V
	1024x768 RB	120				V
	1280x720	60				V
	1280x720	120				V
	1280x768	60				V
	1280x800	60				V
	1280x800 RB	120				V
	1280x960	60				V
	1280x1024	60				V
	1440x900	60				V
	1400x1050	60				V
	1600x1200	60				V
	1680x1050	59.94				V
	1920X1200 RB	60				V
	720p	50	V	V	V	V
	720p	60	V	V	V	V
	1080i	50		V		
	1080i	60		V		
	1080p	24	V	V	V	
	1080p	50		V	V	V
	1080p	60		V	V	V

- An image with higher or lower resolution than the projector's native resolution will be compressed.
- Some Sync on Green signals may not be displayed correctly.
- Signals other than those specified in the table above may not be displayed correctly. If this should happen, change the refresh rate or resolution on your PC.

RS232 command control

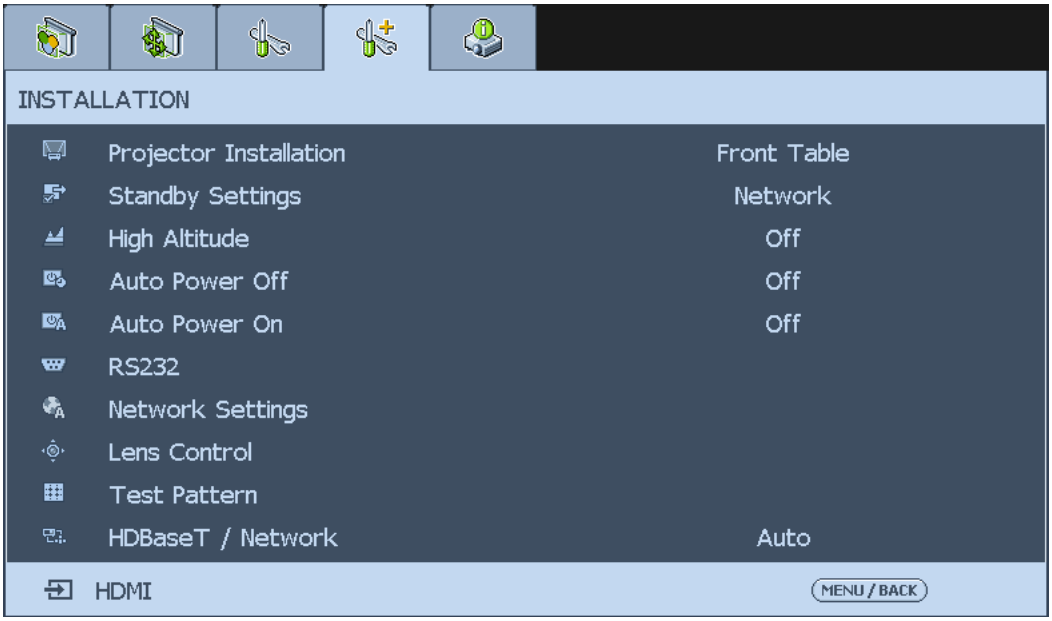
Function	Type	Description	ASCII
Power	Write	Power On	<CR>*pow=on#<CR>
	Write	Power off	<CR>*pow=off#<CR>
	Read	Power Status	<CR>*pow=?#<CR>
Source Selection	Write	COMPUTER/YPbPr	<CR>*sour=RGB#<CR>
	Write	COMPUTER 2/YPbPr2	<CR>*sour=RGB2#<CR>
	Write	Component	<CR>*sour=YPbr#<CR>
	Write	DVI-D	<CR>*sour=dvid#<CR>
	Write	HDMI	<CR>*sour=hdmi#<CR>
	Write	Composite	<CR>*sour=vid#<CR>
	Write	S-Video	<CR>*sour=svid#<CR>
	Write	HDBaseT	<CR>*sour=hdbaset#<CR>
	Read	Current source	<CR>*sour=?#<CR>
Picture Setting	Write	Bright	<CR>*appmod=bright#<CR>
	Write	Presentation	<CR>*appmod=preset#<CR>
	Write	Cinema	<CR>*appmod=cine#<CR>
	Read	Picture Mode	<CR>*appmod=?#<CR>
	Write	Contrast +	<CR>*con=+#<CR>
	Write	Contrast -	<CR>*con=-#<CR>
	Read	Contrast value	<CR>*con=?#<CR>
	Write	Brightness +	<CR>*bri=+#<CR>
	Write	Brightness -	<CR>*bri=-#<CR>
	Read	Brightness value	<CR>*bri=?#<CR>
	Write	Color +	<CR>*color=+#<CR>
	Write	Color -	<CR>*color=-#<CR>
	Read	Color value	<CR>*color=?#<CR>
	Write	Sharpness +	<CR>*sharp=+#<CR>
	Write	Sharpness -	<CR>*sharp=-#<CR>
	Read	Sharpness value	<CR>*sharp=?#<CR>
	Write	Color Temperature-Warm	<CR>*ct=warm#<CR>
	Write	Color Temperature-Normal	<CR>*ct=normal#<CR>
	Write	Color Temperature-Cool	<CR>*ct=cool#<CR>
	Write	Color Temperature-lamp native	<CR>*ct=native#<CR>
	Read	Color Temperature Status	<CR>*ct=?#<CR>
	Write	Aspect 4:3	<CR>*asp=4:3#<CR>
	Write	Aspect 16:9	<CR>*asp=16:9#<CR>
	Write	Aspect 16:10	<CR>*asp=16:10#<CR>
	Write	Aspect Auto	<CR>*asp=AUTO#<CR>
Picture Setting	Write	Aspect Real	<CR>*asp=REAL#<CR>
	Write	Aspect 5:4	<CR>*asp=5:4#<CR>
	Write	Aspect 1.88	<CR>*asp=1.88:1#<CR>
	Write	Aspect 2.35	<CR>*asp=2.35:1#<CR>
	Read	Aspect Status	<CR>*asp=?#<CR>
	Write	Digital Zoom In	<CR>*zoomI#<CR>
	Write	Digital Zoom out	<CR>*zoomO#<CR>
	Write	Auto	<CR>*auto#<CR>

Function	Type	Description	ASCII
Operation Settings	Write	Projector Position-Front Table	<CR>*pp=FT#<CR>
	Write	Projector Position-Rear Table	<CR>*pp=RE#<CR>
	Write	Projector Position-Rear Ceiling	<CR>*pp=RC#<CR>
	Write	Projector Position-Front Ceiling	<CR>*pp=FC#<CR>
	Read	Projector Position Status	<CR>*pp=?#<CR>
	Write	Quick auto search on	<CR>*QAS=on#<CR>
	Write	Quick auto search off	<CR>*QAS=off#<CR>
	Read	Quick auto search status	<CR>*QAS=?#<CR>
	Write	Direct Power On-on	<CR>*directpower=on#<CR>
	Write	Direct Power On-off	<CR>*directpower=off#<CR>
	Read	Direct Power On-Status	<CR>*directpower=?#<CR>
	Write	Standby Settings-Standard	<CR>*standbynet=standard#<CR>
	Write	Standby Settings-Eco	<CR>*standbynet=eco#<CR>
	Write	Standby Settings-Network	<CR>*standbynet=network#<CR>
	Read	Standby Settings-Network Status	<CR>*standbynet=?#<CR>
	Write	9600	<CR>*baud=9600#<CR>
	Write	14400	<CR>*baud=14400#<CR>
	Write	19200	<CR>*baud=19200#<CR>
	Write	38400	<CR>*baud=38400#<CR>
	Write	57600	<CR>*baud=57600#<CR>
	Write	115200	<CR>*baud=115200#<CR>
	Read	Current Baud Rate	<CR>*baud=?#<CR>
Lamp Control	Read	Lamp Hour	<CR>*ltim=?#<CR>
	Read	Lamp2 Hour	<CR>*ltim2=?#<CR>
	Write	Lamp hour reset	<CR>*ltim=reset#<CR>
	Write	Lamp2 hour reset	<CR>*ltim2=reset#<CR>
	Write	Normal mode	<CR>*lampm=lnor#<CR>
	Write	Eco mode	<CR>*lampm=eco#<CR>
	Write	Dual lamp	<CR>*lammd=dual#<CR>
Lamp Control	Write	Number 1 lamp	<CR>*lammd=num1l#<CR>
	Write	Number 2 lamp	<CR>*lammd=num2#<CR>
	Write	Single lamp (minimum)	<CR>*lammd=single#<CR>
	Read	Current Lamp status	<CR>*lammd=?#<CR>
	Read	Lamp Mode Status	<CR>*lampm=?#<CR>

Function	Type	Description	ASCII
Miscellaneous	Read	Model Name	<CR>*modelname=?#<CR>
	Write	Blank On	<CR>*blank=on#<CR>
	Write	Blank Off	<CR>*blank=off#<CR>
	Read	Blank Status	<CR>*blank=?#<CR>
	Write	Freeze On	<CR>*freeze=on#<CR>
	Write	Freeze Off	<CR>*freeze=off#<CR>
	Read	Freeze Status	<CR>*freeze=?#<CR>
	Write	Menu On	<CR>*menu=on#<CR>
	Write	Menu Off	<CR>*menu=off#<CR>
	Read	Menu Status	<CR>*menu=?#<CR>
	Write	Up	<CR>*up#<CR>
	Write	Down	<CR>*down#<CR>
	Write	Right	<CR>*right#<CR>
	Write	Left	<CR>*left#<CR>
	Write	Enter	<CR>*enter#<CR>
	Write	3D Sync Off	<CR>*3d=off#<CR>
	Write	3D Auto	<CR>*3d=auto#<CR>
	Write	3D Sync Top Bottom	<CR>*3d=tb#<CR>
	Write	3D Sync Frame Sequential	<CR>*3d=fs#<CR>
	Write	3D Side by side	<CR>*3d=sbs#<CR>
	Write	3D inverter disable	<CR>*3d=da#<CR>
	Write	3D inverter	<CR>*3d=iv#<CR>
	Read	3D Sync Status	<CR>*3d=?#<CR>
	Write	Trigger on	<CR>*trigger=on#<CR>
	Write	Trigger off	<CR>*trigger=off#<CR>
	Read	Trigger status	<CR>*trigger=?#<CR>
	Write	High Altitude mode on	<CR>*Highaltitude=on#<CR>
	Write	High Altitude mode off	<CR>*Highaltitude=off#<CR>
	Read	High Altitude mode status	<CR>*Highaltitude=?#<CR>
	Read	Error Code	<CR>*error=report#<CR>
	Write	Lens Shift Up	<CR>*lst=up#<CR>
	Write	Lens Shift Down	<CR>*lst=down#<CR>
	Write	Lens Shift Left	<CR>*lst=left#<CR>
	Write	Lens Shift Right	<CR>*lst=right#<CR>
Miscellaneous	Write	Focus Plus	<CR>*focus=+#<CR>
	Write	Focus Minus	<CR>*focus=-#<CR>
	Write	Zoom Plus	<CR>*zoom=+#<CR>
	Write	Zoom Minus	<CR>*zoom=-#<CR>
	Write	Keystone-Vertical Decrease	<CR>*keyst=-#<CR>
	Write	Keystone-Vertical Increase	<CR>*keyst=+#<CR>
	Read	Keystone-Vertical Status	<CR>*keyst=?#<CR>

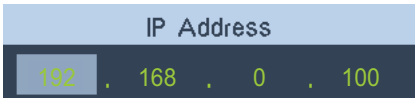
Control the projector through a Network

Set up the projector for Network



Please set DHCP option to Off and select Apply to activate it. The DHCP service assigns an IP address and settings. The **IP address**, **Subnet Mask** and **Gateway** options will be dimmed and not available for selection. If the LAN does not support DHCP service, please press ▲▼ and **Enter** key to select network and its settings:

IP Address: To specify an IP address, press the **Enter** button to show the IP address input window. Use the ◄► button to select the number in the IP address to be changed. Use the ▲▼ button to increase or decrease the number in the IP address.



Subnet Mask: Set up the subnet address in the same way as for the IP Address setup.

Gateway: Set up the gateway address in the same way as for the IP Address setup.

DHCP: Set DHCP to On or Off. If this is set to On, the DHCP server of network domain will assign an IP address to the projector. That is, the IP address will display in the address window instead of having to be manually entered. Otherwise, the domain does not or cannot assign an IP address, and 0. 0. 0. 0 is shown on the IP address window.

Apply: Select this button and press **Enter**. It takes the projector several seconds to execute the change in network setting until the following message disappears.



Please contact your network administrator if the network remains disconnected.

Control the projector through a web browser

Open a web browser and enter the projector's IP address. Its home page with four options will display:

Projector Status: Current projector settings.

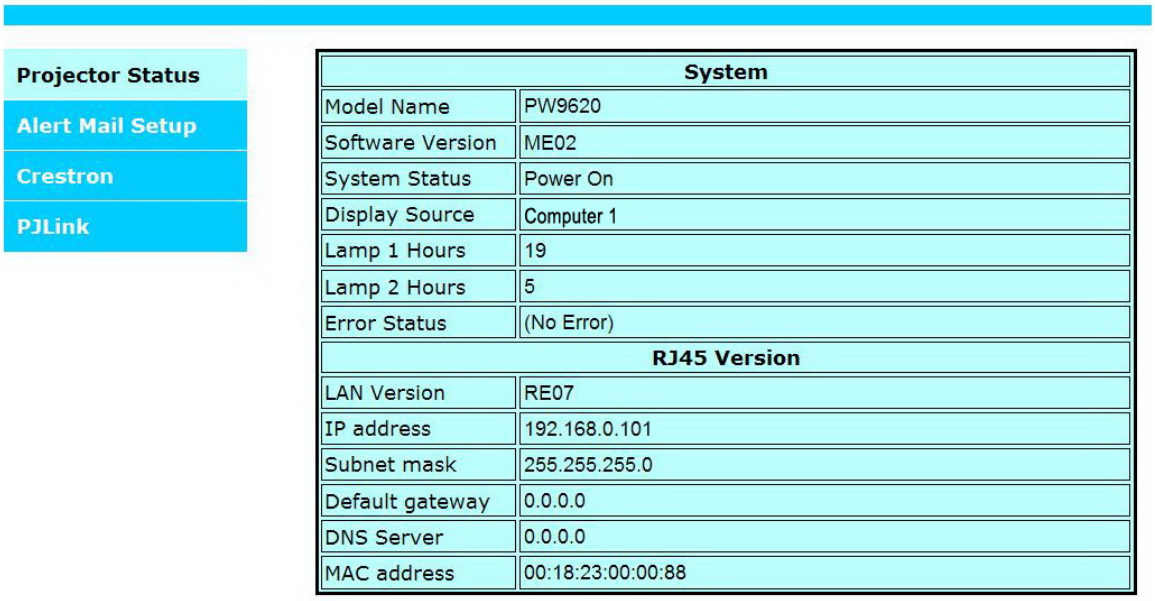
Alert Mail Setup: Settings for projector abnormality email reminders. In case of any abnormality the projector sends emails to preset users.

Crestron: Crestron compatible network browser control page.

PJLink: This page lets you set up a security password for PJLink connection.

Projector status

The following illustrates a projector with IP address "192.168.0.100":



System	
Model Name	PW9620
Software Version	ME02
System Status	Power On
Display Source	Computer 1
Lamp 1 Hours	19
Lamp 2 Hours	5
Error Status	(No Error)
RJ45 Version	
LAN Version	RE07
IP address	192.168.0.101
Subnet mask	255.255.255.0
Default gateway	0.0.0.0
DNS Server	0.0.0.0
MAC address	00:18:23:00:00:88

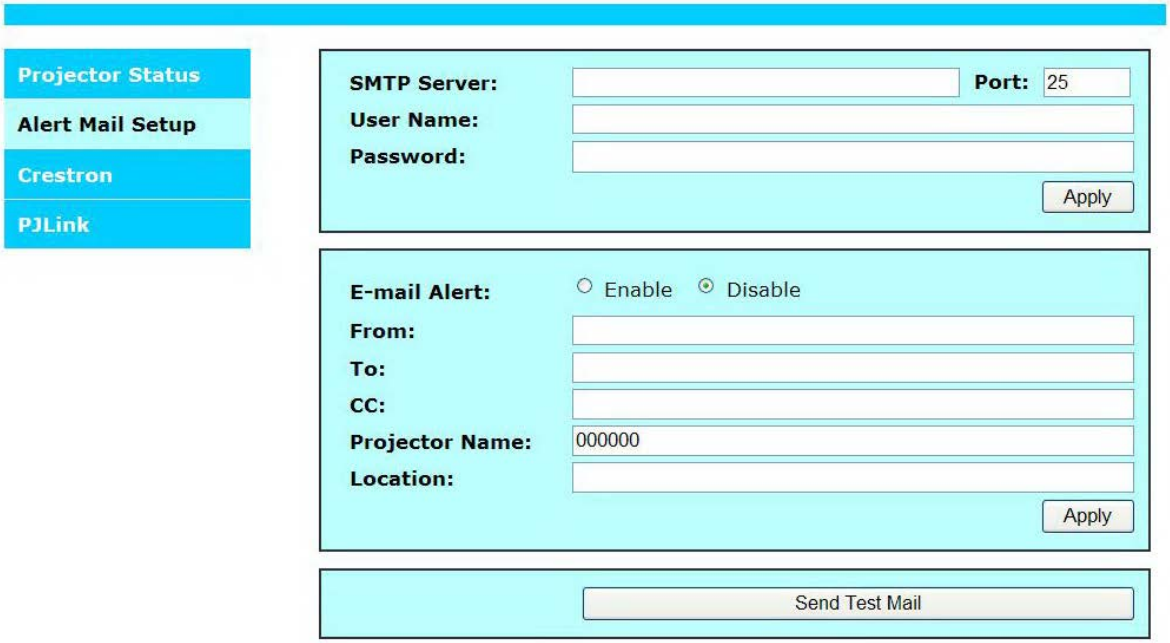
System

Model Name : Model number of the projector
Software Version :Version of projector system software
System Status : Current projector power on status
Display Source : Current input signal
Lamp 1 Hours : Use hours of lamp 1
Lamp 2 Hours : Use hours of lamp 2
Error Status : Display projector error messages

Network control setup information (RJ-45 Version)

Lan Version :Version of network control software
IP address : Current IP address
Subnet mask : Current subnet setting
Default gateway : Current gateway setting
DNS server : Current DNS server setting
MAC address : Preset MAC address

Alert mail setup



The projector can send alert messages with Email to predefined users. Make the following settings before enabling this function:

SMTP Sever : Set up name of SMTP server for the projector's sending reminder email.
Port : Set up transmission port
User Name : Set up user name for the projector's sending reminder email through SMTP server.
Password : Set up user password.
E-mail Alert : Enable or disable E-mail Alert function.
From : Set up sender's email address.
To : Set up recipient's email address.
CC : Set up CC recipient's email address.
Projector Name : Set up projector name or ID
Location : Set up installation location of projector.
Apply : Accept settings. Press this button to save the changes made.
Send Test Mail : Send test email to validate your settings. The reminder email is sent only in the event of a projector error. Press this button to validate email settings after setup is completed.

Crestron control page

Click the Crestron option in your projector's home page to display its control page in a new tab.



Power: Press to power on or off your projector.

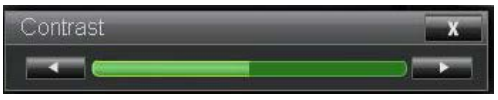
Source List: Switch among list of available projector input signal sources. Press the ▲ (at top of screen) or ▼ (at bottom of screen) arrow key to scroll through the list.

Image adjust options

Press the ◄ (to the left of screen) or ► (to the right of screen) arrow key to scroll through other adjustment options.

Freeze: Freeze the current projection screen. The projection screen prompts "**Freeze**" message once the freeze function is enabled. Press the **Freeze** button again to unfreeze the image.

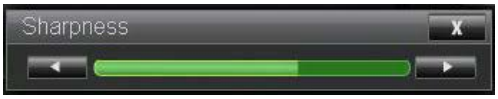
Contrast: Press to display the adjustment window, click ◄► arrow key to adjust contrast.



Brightness: Press to display the adjustment window, click ◄► arrow key with the mouse to adjust brightness.



Sharpness: Press to display the adjustment window, click ◄► arrow key with the mouse to adjust sharpness.



Zoom: Zoom in on the projection image. Click "**+**" key to zoom in and "**-**" to zoom out. Click the four arrow keys in the window to move the zoomed projection image.



Control key window

This window simulates keys on the remote controller and control panel.



Enter: Confirm the changes and select the OSD option

Menu: Press to display the OSD menu. Press again to exit it.

Auto: Execute the auto image adjustment function.

Blank: Pause the image projection, i.e. the projection image is masked. Press again to resume the projection.

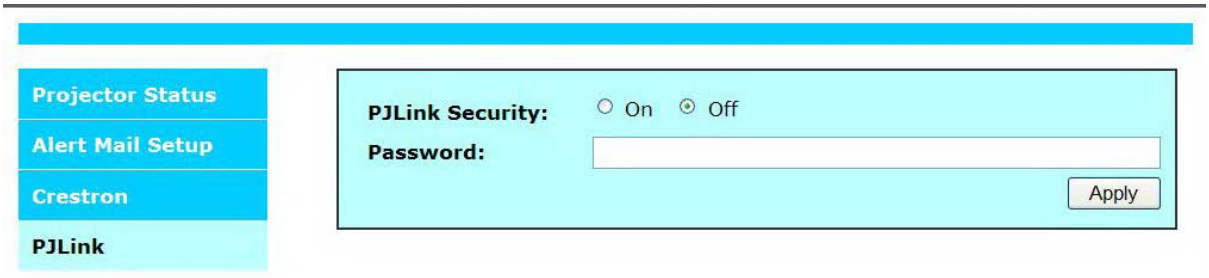
Source: Display list of signal sources.

Tool: Set up options to work with Crestron compatible devices. See relevant manuals for detailed setup steps.

Info: Display current projector status and Crestron settings.

Control your projector with PJLink commands

PJLink is a standard designed by the Japan Business Machine and Information System Industries Association (JBMIA) to control projectors with genuine commands. A projector featuring PJLink functions can be controlled with standard commands regardless of who made it. This product supports PJLink control commands. Please set up password for PJLink connection on this page.



PJLink Security: Select **On** to enable PJLink security password or **Off** to disable it.

Password: Set up security password at length of up to 32 characters. See PJLink official web site for standard commands and connection methods.

BenQ ecoFACTS

BenQ has been dedicated to the design and development of greener product as part of its aspiration to realize the ideal of the "Bringing Enjoyment 'N Quality to Life" corporate vision with the ultimate goal to achieve a low-carbon society. Besides meeting international regulatory requirement and standards pertaining to environmental management, BenQ has spared no efforts in pushing our initiatives further to incorporate life cycle design in the aspects of material selection, manufacturing, packaging, transportation, using and disposal of the products. BenQ ecoFACTS label lists key eco-friendly design highlights of each product, hoping to ensure that consumers make informed green choices at purchase. Check out BenQ's CSR Website at http://csr.BenQ.com/ for more details on BenQ's environmental commitments and achievements.



Copyright

Copyright 2015 BenQ Corporation. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of BenQ Corporation.

All other logos, products, or company names mentioned in this manual may be the registered trademarks or copyrights of their respective companies, and are used for informational purposes only.

Disclaimer

BenQ Corporation makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Further, BenQ Corporation reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of BenQ Corporation to notify any person of such revision or changes.

This user manual aims to provide the most updated and accurate information to customers, and thus all contents may be modified from time to time without prior notice. Please visit http://www.benq.com for the latest version of this manual.

Statement regarding hyperlinks and third-party websites

BenQ is not responsible for the content of the websites or of similar resources, which are maintained and controlled by third parties, that may be linked from this product. Providing links to those websites or to similar resources does not mean that BenQ makes any warranty or representation to their content by expression or by implication.

Any third party content or service preinstalled in this product is provided "as is". BenQ does not, by expression or by implication, make any warrant to the content or to the services provided by third parties. BenQ does not warrant or guarantee that the content or services provided by third

parties are accurate, effective, most up-to-date, legal, or complete. Under no circumstances shall BenQ be liable for the content or services provided by third parties including their negligence. Services provided by third parties may be terminated temporarily or permanently. BenQ does not warrant or guarantee that any content or services provided by third parties are in good condition at any time, and is not liable for the termination of the said content and services. In addition, BenQ is not involved in any transactions you conduct in the websites or similar resources maintained by third parties.

You should contact the content or service providers for any questions, concerns, or disputes.