

marantz®

Model VP8000 User Guide

Video Projector

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FEATURES

Excellent video quality

- The MARANTZ progressive scan (3D motion adaptive line doubling) technology provides excellent video quality.
- The MARANTZ Y/C separation technology ensures excellent video quality, 3D-Y/C separation for NTSC, 2D- Y/C separation for PAL.
- The MARANTZ digital technology and DLP™ technology ensure vivid and true color reproduction, and accurate gray scale.
- The newly developed optical system and new DLP™ technology allow a high contrast ratio (500:1), high brightness (700 ANSI lumen) and excellent uniformity.

Widescreen flexibility

- The VP8000 allows the user to enjoy both a 16:9 and 4:3 aspect ratio screen image.

Ready for DVD and HDTV

- COMPONENT VIDEO IN is ideal for DVD and HDTV (1080i). This input will ensure the highest picture quality.

Picture mode and picture memory

- The VP8000 has three picture modes, THEATER, NORMAL and DYNAMIC. Furthermore the VP8000 has three kinds of memory for each of picture mode: THEATER1, THEATER2 and THEATER3. This allows the user to further fine-tune the picture for maximum personal video enjoyment.

Direct access buttons (Remote controller)

The remote controller provides direct access buttons for those functions that are most often used.

- POWER ON
- STANDBY

Input select

- COMPONENT
- S-VIDEO
- VIDEO
- RGB

Picture mode

- THEATER
- NORMAL
- DYNAMIC

MENU

- MENU
- ENTER

Others

- OSD
- ASPECT
- SQUEEZE
- ZOOM
- MUTE
- SMOOTH

Digital zoom and freeze

- The digital zoom function allows the user to magnify a video image four times at five selected points.
- The freeze function allows the user to freeze a video image. This will not degrade the image as many "pause" modes do.

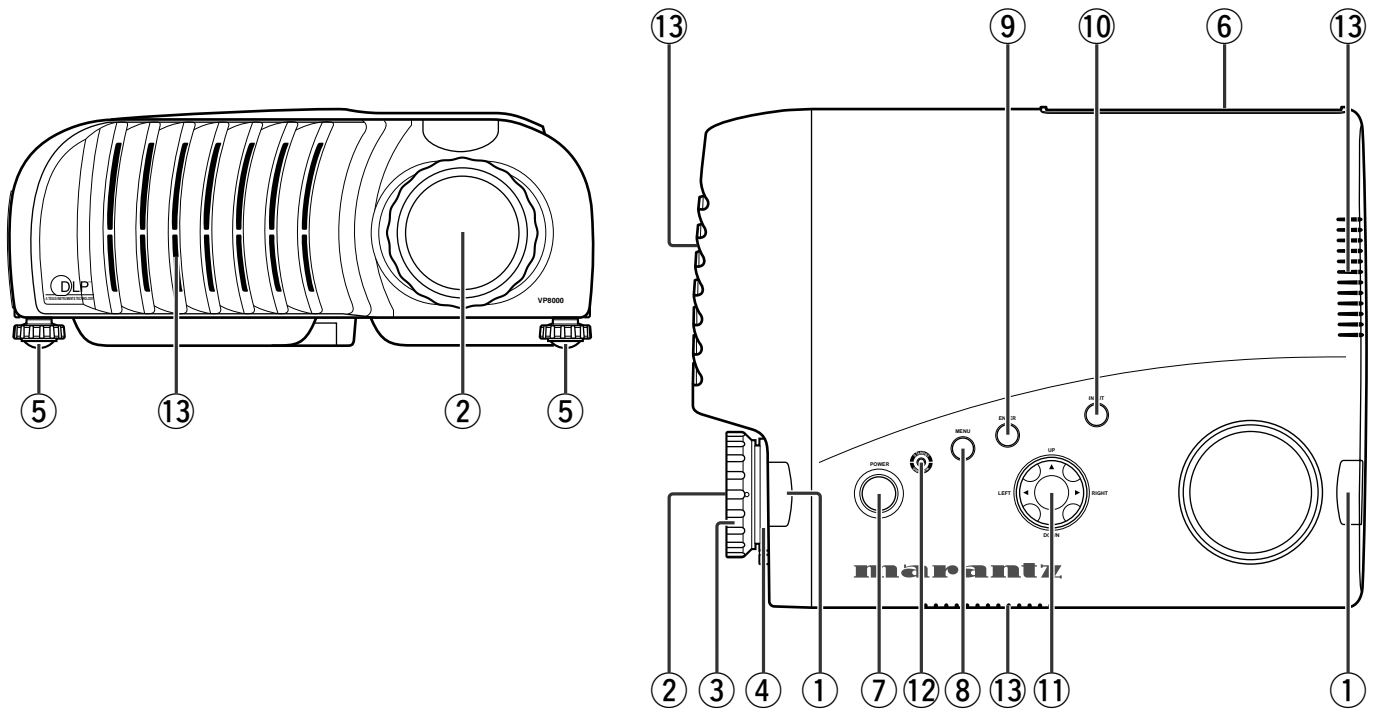
Computer compatibility

- The VP8000 is ready for SVGA computers.

– DLP™ and DMD™ are registered trademarks of Texas Instruments Incorporated

PROJECTOR LAYOUT AND FUNCTIONAL OVERVIEW

Front and Top



① IR sensor (Front and Rear)

② Lens

③ Focus ring

Adjust the picture focus.

④ Zoom ring

Adjust the size of the projected image.

⑤ Adjusters

Adjust the vertical angle of the projector.

⑥ Connector panel

⑦ POWER key

Press to turn the projector on and off. The POWER key lights up in green when the power is turned on.

⑧ MENU key

Press to display the on-screen menu.

⑨ ENTER key

Press to enter items in the menu when the menu is displayed on screen.

⑩ INPUT SELECT key

Select an input signal. Each time the key is pressed, the unit toggles between COMPONENT, S-VIDEO, VIDEO, and RGB inputs.

⑪ The ▲/▼/◀/▶ keys

Control the menu cursor.

Press the ▲ key for more than three seconds to turn the HIGH BRIGHT mode on.

Press the ▼ key to turn the HIGH BRIGHT mode off.

Notes

- The HIGH BRIGHT mode is available for only the RGB IN and the DYNAMIC picture mode for a video signal input.

⑫ Indicators: STANDBY/WARNING

Turn green when the projector is connected to AC power.

It lights up or flashes orange under the following conditions:

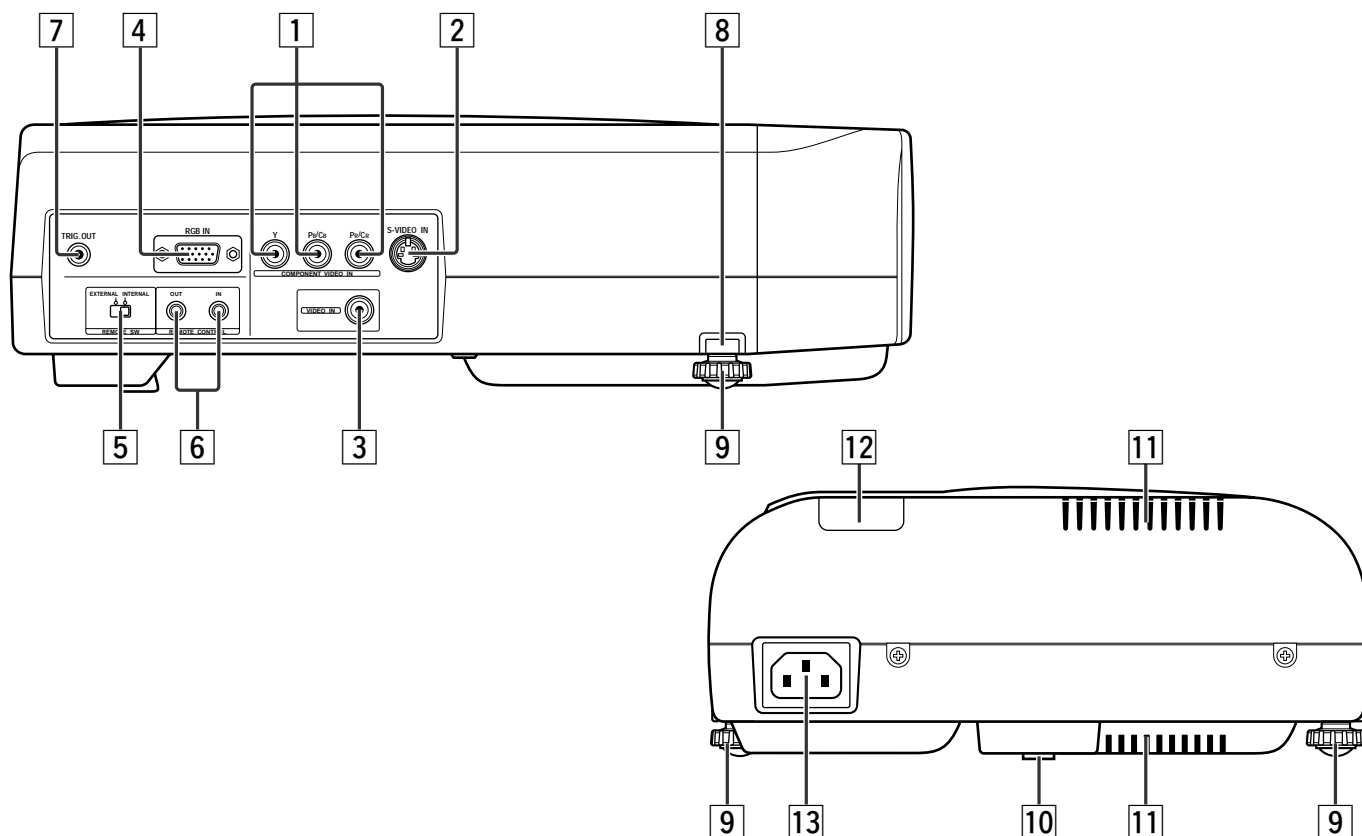
- Lights up orange when temperature inside the projector becomes unusually high.
- Flashes orange when the following errors occurs in the projector:
 - when the lamp cover is not secured firmly,
 - when the fan inside the projector stops,
 - when the lamp has failed or the lamp is almost completely worn-out.

⑬ Ventilation holes

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up.
- Do not place your hand or objects near the ventilation holes --- the air coming out is hot.

Connector panel and Rear



1 COMPONENT VIDEO IN

Y, Pb/Cb, Pr/Cr connectors.

Connect to the COMPONENT VIDEO output of video equipment or an A/V processor/receiver with a component video loop.

2 S-VIDEO IN

Connect to the S-VIDEO output of a video equipment.

3 VIDEO IN

Connect to the composite video output of a video equipment.

4 RGB IN

Connect to the analog RGB output of a computer equipment.

5 REMOTE SW. (EXTERNAL / INTERNAL)

When using the MARANTZ REMOTE CONTROL system, select EXTERNAL. Otherwise select INTERNAL.

6 REMOTE CONTROL IN / OUT

Connect to the REMOTE CONTROL connectors of other Marantz equipment. It is then possible to control the whole system with a single Remote Controller.

7 TRIG. OUT (DC jack)

When the projector is turned on, a 12 volt signal is sent to the equipment connected to the trigger. This allows automatic triggering of an accessory, such as a powered up/down screen, whenever the projector is turned on or off. When the unit is turned off, no voltage is output and when the unit is turned on, 12 V is output.

Note

You cannot use the connector as the power source.

8 Adjuster button

When using adjuster, press the button and loosen an adjuster.

9 Adjuster

10 Rear adjuster

Adjust the vertical angle of the projector.

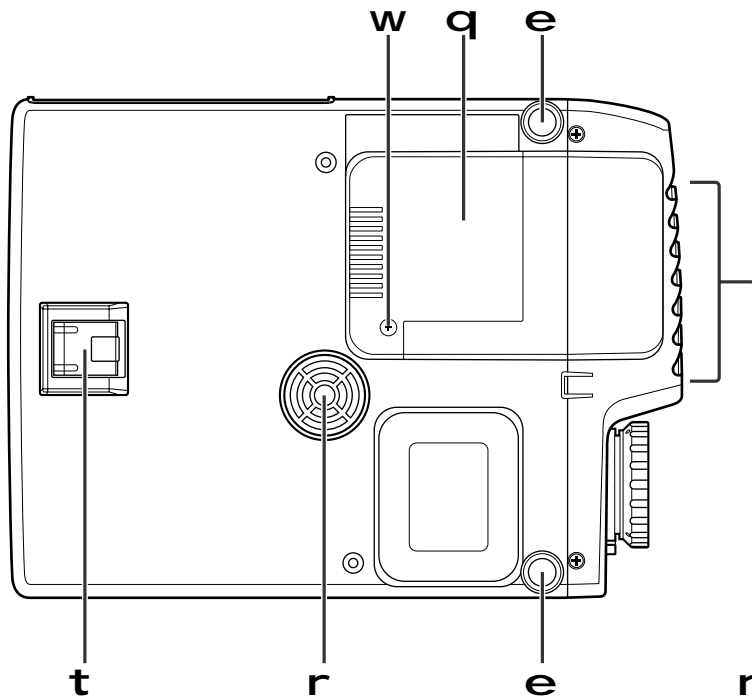
11 Ventilation holes

12 IR sensor

13 AC IN

Connect the supplied AC power cord.

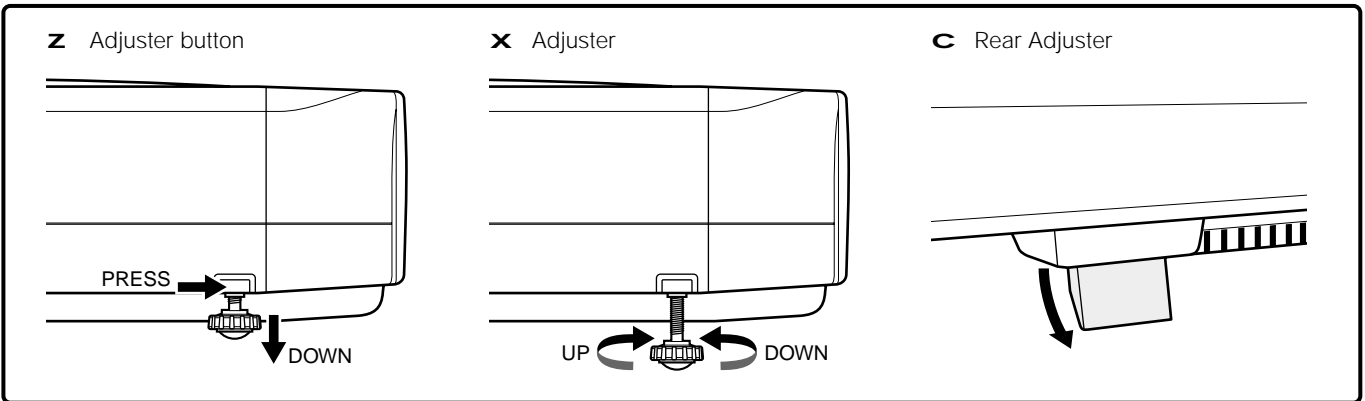
Bottom



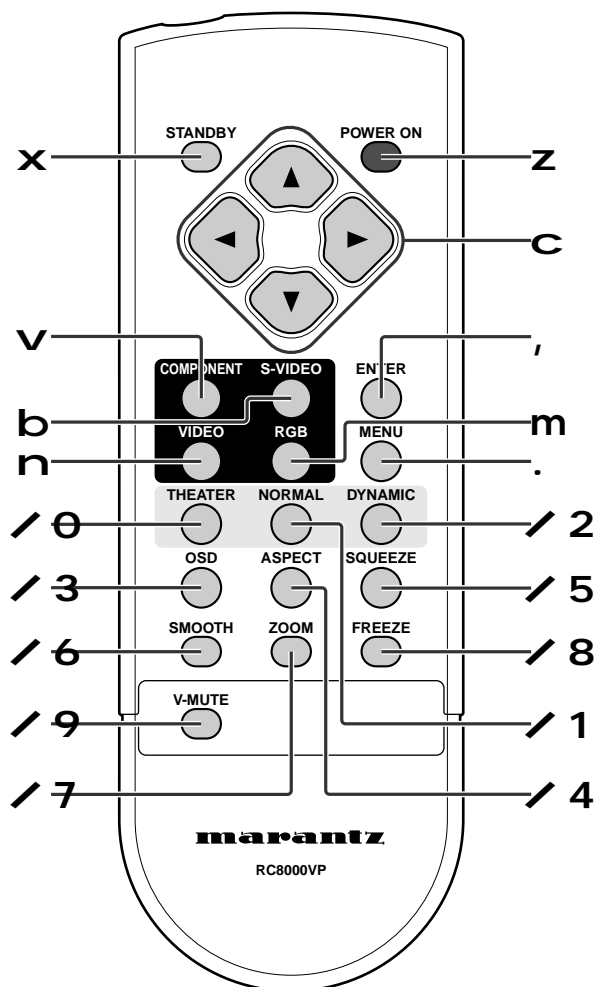
- q** Lamp cover
- w** Lamp cover securing screw
- e** Adjuster
- r** Ventilation hole
- t** Rear adjuster

Adjusters

How to use adjuster, adjuster button, and rear adjuster.



Remote Controller



z POWER ON key

Press to turn the projector on.

x STANDBY key

Press to turn the projector off.

c ▲/▼/◀/▶ keys

v COMPONENT key

Select the COMPONENT VIDEO IN signal.

b S-VIDEO key

Select the S-VIDEO IN signal.

n VIDEO key

Select the VIDEO IN signal.

m RGB key

Select the RGB IN signal.

, ENTER key

. MENU key

/ 0 THEATER key

Select the THEATER picture mode.

The key toggles between THEATER1, THEATER2, THEATER3 and THEATER STD.

/ 1 NORMAL key

Select the NORMAL picture mode.

The key toggles between NORMAL1, NORMAL2, NORMAL3 and NORMAL STD.

/ 2 DYNAMIC key

Select the DYNAMIC picture mode.

The key toggles between DYNAMIC1, DYNAMIC2, DYNAMIC3 and DYNAMIC STD.

/ 3 OSD key

When the key is pressed, projector setting information is displayed. Press again to display the FOCUS pattern. Then press again to clear the FOCUS pattern.

/ 4 ASPECT key

Select the image aspect ratio and size modes. The button toggles between FULL mode, SQUEEZE mode, 4:3 mode, and 4:3 FULL mode.

/ 5 SQUEEZE key

Press to turn the SQUEEZE mode on and off. When the video signal is squeezed, turn the SQUEEZE mode on. This mode is intended to use with "Anamorphic" picture material. If you are using an Anamorphically squeezed DVD or Laser Disc, this mode will "unsqueeze" the image to give proper picture geometry and enhanced resolution.

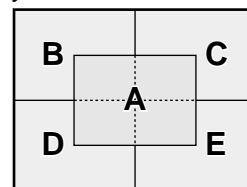
/ 6 SMOOTH key

When screening a still picture in video equipment and intending eliminating notches on some source materials, press to the SMOOTH mode on.

/ 7 ZOOM key (Digital zoom)

Press to turn the digital ZOOM mode on. The key toggles in selected five frames in the following order:

A → B → C → D → E



/ 8 FREEZE key

Press to turn the FREEZE mode on and off.

/ 9 V-MUTE key

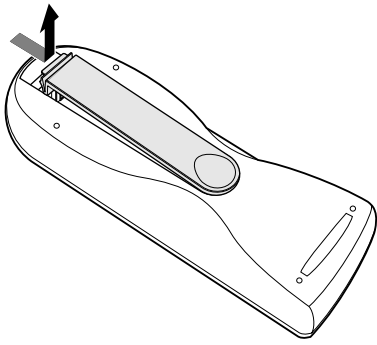
Mute the picture so that the screen turns dark and no image is displayed.

Note:

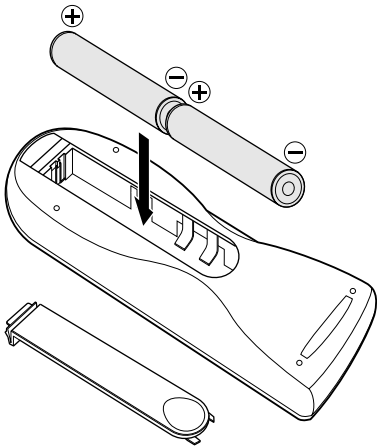
ASPECT key, SQUEEZE key, SMOOTH key, ZOOM key, and FREEZE key are available for only COMPONENT VIDEO IN, S-VIDEO IN and VIDEO IN.

Preparing the Remote Controller

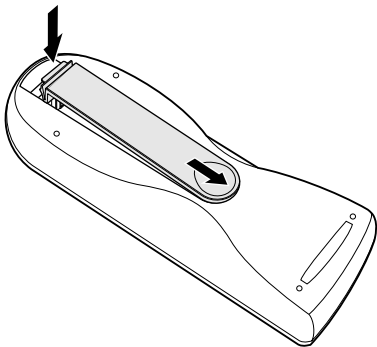
1. Open the cover.



2. Insert batteries (AA).
Make sure to match the + and - marks on the batteries with inside the battery component.



3. Close the cover.

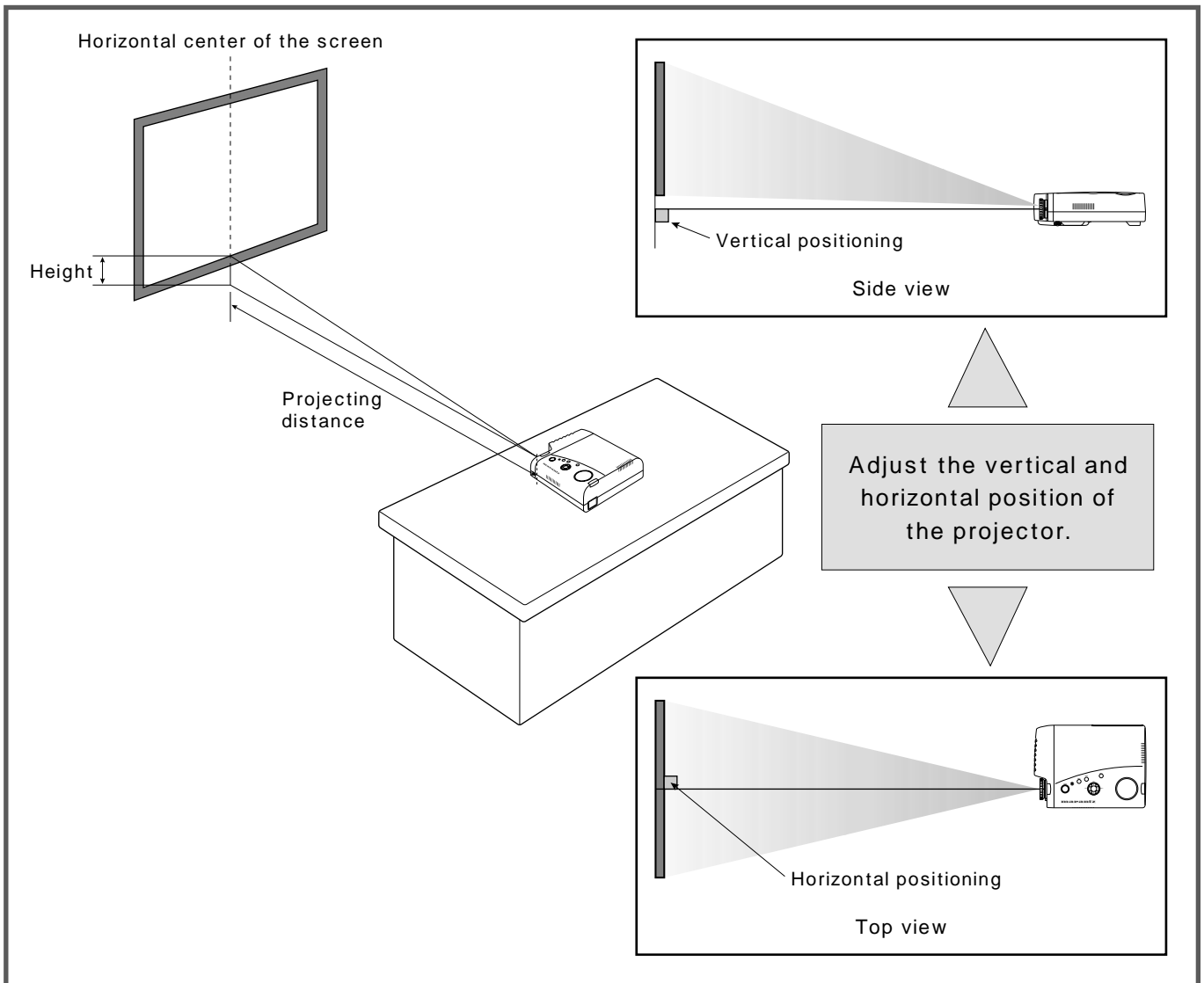


CAUTION

- Do not mix old and new batteries, and never mix different types of batteries (standard, alkaline and so on).
- If the user does not intend to use the Remote Controller for a long time, remove the batteries.
- Do not be subject to strong shock.
- Do not be subject to moisture.
If moisture gets the unit, wipe it off immediately.
- Keep away from heat.
- The effect range of the Remote Controller is approximately 6m.
- The Remote Controller operation may not function if the projector's IR sensors are exposed to direct sun light or strong artificial light, or if there is an obstacle between the IR sensors and the Remote Controller.

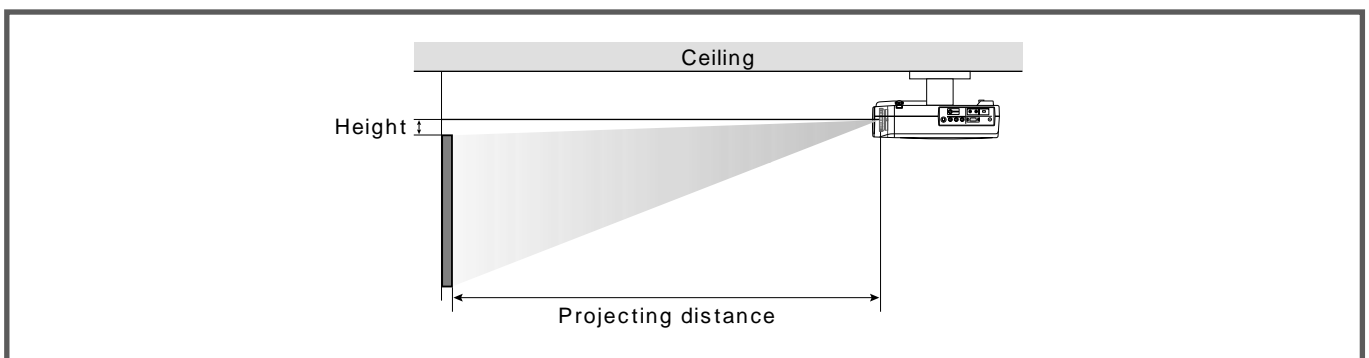
INSTALLATION

Floor Installation



Ceiling Installation

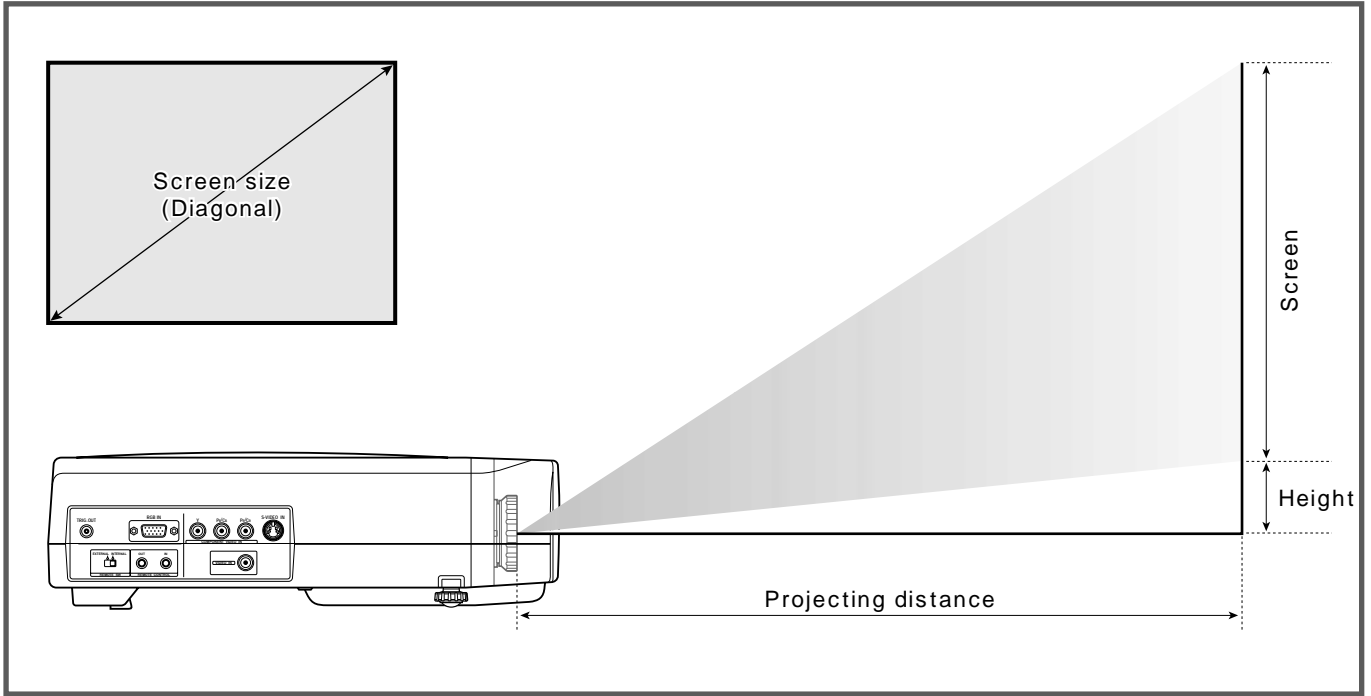
For ceiling installation, consult with Marantz dealer.



CAUTION

- Do not look into the lens when the projector is turned on. It could damage your eyesight.

Distance between the projector and the screen (throw distance)



screen size (inches)	16:9 screen			4:3 screen		
	Distance Unit :mm (inches)		Height Unit: mm (inches)	Distance Unit :mm (inches)		Height Unit: mm (inches)
	Minimum	Maximum		Minimum	Maximum	
40	1730 (68 ^{1/8})	2080 (81 ^{7/8})	212 (8 ^{3/8})	1600 (63)	1900 (74 ^{3/4})	119 (4 ^{5/8})
60	2620 (103 ^{3/8})	3150 (124)	318 (12 ^{1/2})	2400 (94 ^{1/2})	2900 (114 ^{1/8})	178 (7)
80	3510 (138 ^{1/4})	4220 (166 ^{1/8})	425 (17 ^{1/4})	3200 (126)	3900 (153 ^{1/2})	237 (9 ^{3/8})
100	4400 (173 ^{1/4})	5300 (208 ^{5/8})	531 (20 ^{7/8})	4000 (157 ^{1/2})	4900 (192 ^{7/8})	297 (11 ^{3/4})
120	5290 (208 ^{1/4})	6360 (250 ^{3/8})	639 (25 ^{1/8})	4900 (193 ^{3/8})	5800 (228 ^{3/8})	356 (14)
150	6620 (260 ^{5/8})	7960 (313 ^{3/8})	796 (31 ^{3/8})	6000 (236 ^{1/4})	7300 (287 ^{3/8})	445 (17 ^{1/2})
200	8850 (348 ^{3/8})	10630 (418 ^{1/2})	1061 (41 ^{3/4})	8100 (318 ^{7/8})	9800 (385 ^{7/8})	593 (23 ^{3/8})
240	10630 (418 ^{1/2})	12760 (502 ^{3/8})	1274 (50 ^{1/8})	9800 (385 ^{7/8})	11700 (460 ^{5/8})	712 (28)
275 (300 for 4:3 screen)	12180 (479 ^{1/2})	-	1459 (57 ^{1/2})	12300 (484 ^{1/4})	-	890 (35)

Note: Tolerance ±5%

The Screen Images in a Widescreen (16:9)

- Press the ASPECT key on the remote controller to select FULL mode, or SQUEEZE mode for 4:3 video sources.
- Press to select the 4:3 mode for 16:9 video sources.

■ FULL mode



4:3 video source

■ 4:3 mode



4:3 video source

■ SQUEEZE mode



4:3 video source

The Screen Images in a 4:3 Screen

- Press the ASPECT key on the remote controller to select the 4:3 FULL mode.
- Video sources will be projected according to its aspect ratio as illustrated below

■ 4:3 FULL mode



4:3 video source

■ 4:3 FULL mode



16:9 video source

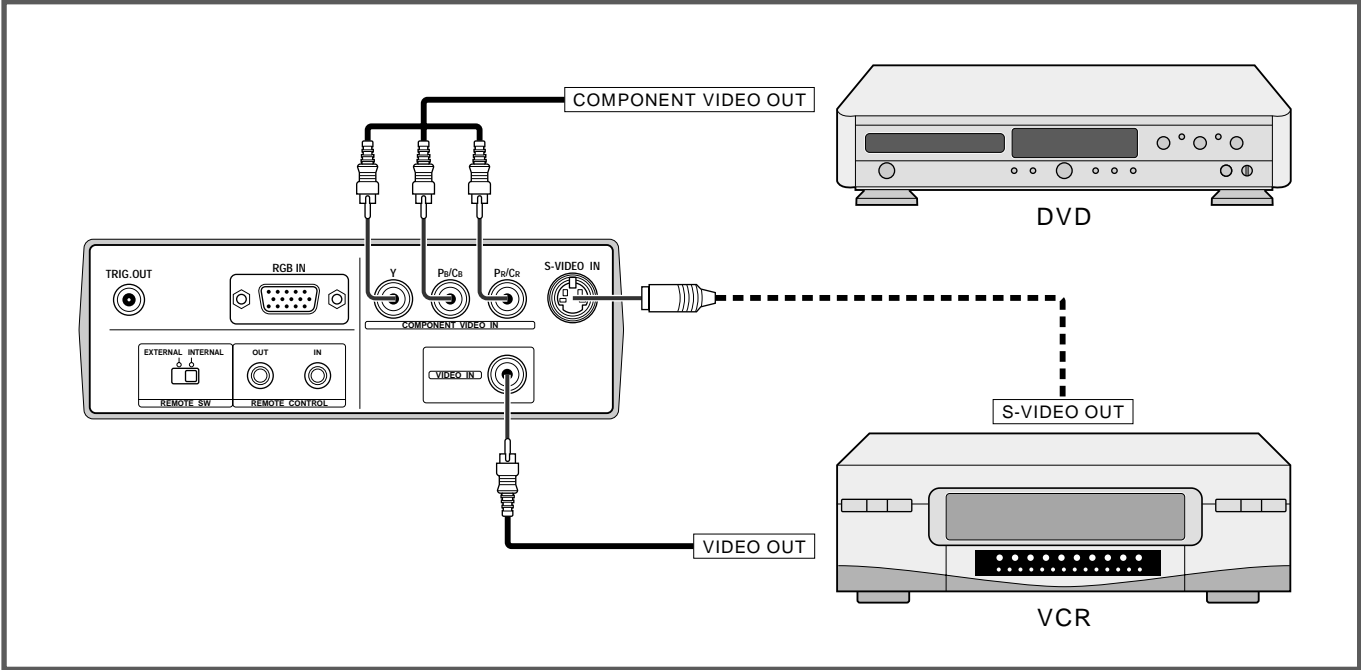
SQUEEZE mode

*If the user is using an squeezed signal, this mode will "unsqueeze" the image to give a proper picture.

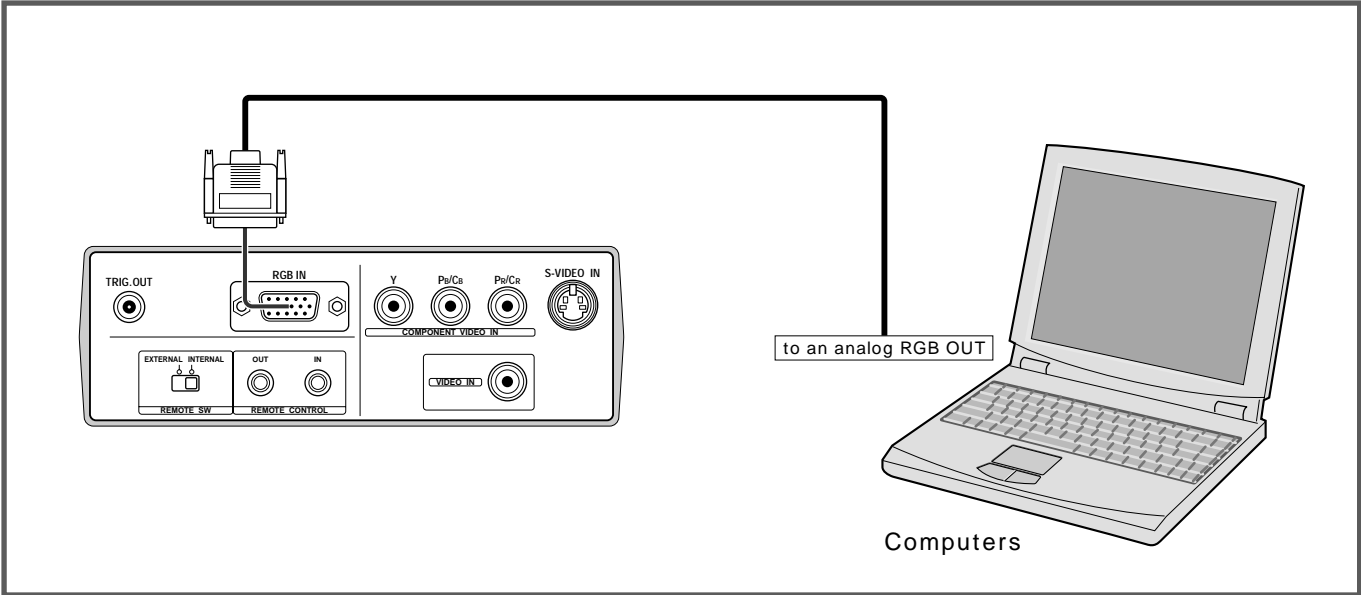
INSTALLING

Standard Connections

Connections with VIDEO EQUIPMENT



Connection with a PC



When making connections be sure to:

- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the plugs for the cables properly. Plugs that are not fully inserted often generate noise.
- When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

INITIAL SET UP:

- 1.** Connect the supplied AC power cord. The STANDBY indicator will light in green and the projector goes into the standby mode.
- 2.** Press the POWER ON key on the remote controller or the POWER key on the projector. The POWER key lights in green.
- 3.** Switch on the equipment connected to the projector. Press the INPUT SELECT key on the projector or the COMPONENT key, S-VIDEO key, VIDEO key, or RGB key on the remote controller.
- 4.** Press the OSD key twice on the remote controller to display the FOCUS PATTERN and turn the FOCUS ring to make an adjustment. Adjust the focus for the sharpest image possible to obtain, using the built-in focus pattern. Press the OSD key again to clear the pattern.
- 5.** Turn the ZOOM ring to adjust the size of the image. The image should fill the screen vertically with normal 4:3 aspect ratio material. If the user is using a 16:9 screen, the image will fill the screen horizontally only when the 16:9 source program is employed. The use of 4:3 video source will leave a black stripe on the left and right side in the 16:9 screen. This is normal.

TO TURN OFF THE POWER

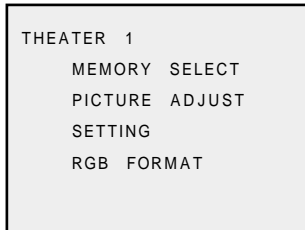
- 1.** Press the STANDBY key on the remote controller or the POWER key on the projector.
- 2.** The fan continues to run for a while to reduce internal heat. The power key flashes green and no key will be functional while the fan is operating. After sufficient cooling has been provided the STANDBY indicator lights in green.

OPERATIONS

Menu

Refer to the on-screen menu for making various adjustments and settings.

1. Press the MENU key.
The menu display appears.



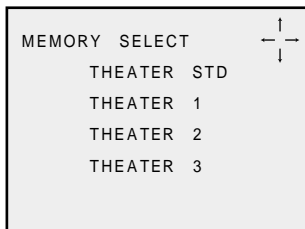
2. Use the ▲/▼ keys to select a menu, then press the ENTER key.
The selected menu appears.
3. Make adjustments in MEMORY SELECT, PICTURE ADJUST, SETTING or RGB FORMAT.

To display the previous menu Press the MENU key.

Memory Select

The user can recall the stored memory preference. This projector has three picture modes: THEATER, NORMAL and DYNAMIC. And each picture mode has three picture memories.

1. Use the ◀/▶ keys to select a picture memory.
2. Use the ▲/▼ keys to select a picture mode.



Picture Adjust

The user can adjust the picture to suit own preference by using the PICTURE ADJUST feature.

1. Use the ◀/▶ keys to select an item.
2. Use the ▲/▼ keys to change the adjustment level.

To increase the number, press the ▲ key.
To decrease the number, press the ▼ key.

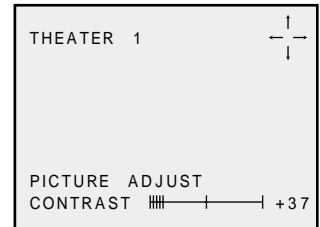
■ For a video signal input, the following adjustments can be made:

ITEM	0	←	→	99
CONTRAST	Weak			Strong
BRIGHTNESS	Dark			Bright
COLOR	Light			Deep
SHARPNESS	Soft			Sharp
	R50	←	→	G49
TINT (only for NTSC)	Purple			Green
	L	M	H	
COLOR TEMP.(Color temperature)	Red			Blue
NOISE REDUCTION	ON/OFF			
WHITE ENHANCER	ON/OFF			

Note

The user cannot adjust the THEATER STD, NORMAL STD, and DYNAMIC STD settings.

- CONTRAST

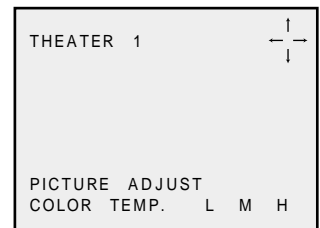


- COLOR TEMP.

H: Make the white color more blue. This setting is approximately 12000 degrees in Kelvin.

M: Make white less blue. This setting is approximately 9300 degrees in Kelvin.

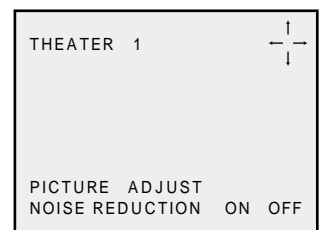
L: Make white more reddish. This setting is approximately 6500 degrees in Kelvin.



- NOISE REDUCTION

ON: Turn the video noise reduction circuit on.

OFF: Turn the noise reduction off.



Setting

1. Use the ▲/▼ keys to select an item.
2. Use the ◀/▶ keys to change the setting

SETTING		
ASPECT	SQUEEZE	
OSD MODE	16:9	4:3
LANGUAGE	ENGLISH	
CEILING	YES	NO
REAR	YES	NO
COMPONENT	YPbPr	YCbCr
SYSTEM	AUTO	
RESET LAMP	YES	NO
RESET ALL	YES	NO

3. Press the ENTER key to restore.

■ For video input signals, the following settings can be made:

- ASPECT
- OSD MODE
- LANGUAGE
- CEILING
- REAR
- COMPONENT
- SYSTEM
- RESET LAMP
- RESET ALL

- LANGUAGE

Select the language used in the on screen menu. Available languages are English, French, German, Spanish, and Italian.

- COMPONENT

Select the YPbPr or YCbCr from COMPONENT IN. YPbPr for a HDTV (1080i) signal, YCbCr for a component signal.

- SYSTEM

Select the television standard. When set to AUTO, the broadcast format is automatically selected. If the picture is distorted or colorless, select another system from among NTSC, PAL and SECAM.

- ALL RESET

When the user selects "YES", the following message appears:

SETTING	
RESET	ALL ?
YES	NO

Again, select "YES", and press the ENTER key, then restore the factory default settings except for the lamp life and RGB ADJUST MEMORY.

- RESET LAMP

When the user selects "YES", the following message appears:

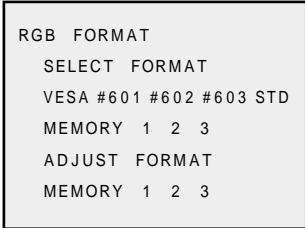
SETTING	
RESET	LAMP ?
YES	NO

Again, select "YES", and press the ENTER key, then the lamp life is initialized.

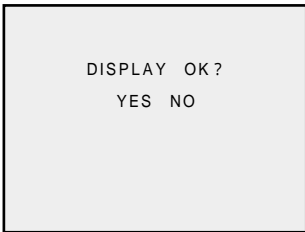
RGB Format

For an RGB input signal, carry out the following steps:

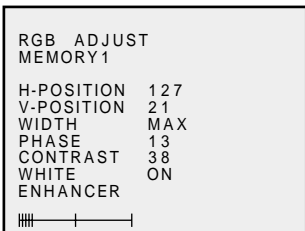
1. Connect a SVGA computer.
2. Select the RGB IN using RGB key on the remote controller or INPUT key on the projector. The RGB FORMAT menu appears.



3. Select a format from VESA #601, 602, 603, MEMORY 1, 2, and 3, and press the ENTER key.
4. The following menu appears. When found no need to adjust, select "YES" in ten seconds, and press the ENTER key, then the RGB signal is projected properly. Otherwise select "No", and press the ENTER key, and the RGB FORMAT menu appears.

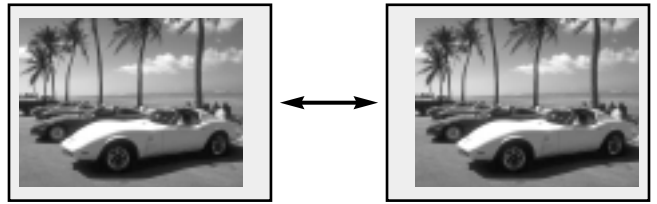


5. Select another format, and try again step 3 and 4.
6. When there is no selectable format left, go to the ADJUST FORMAT in the RGB FORMAT menu. Select a MEMORY from MEMORY 1, 2 and 3, and press the ENTER key. The RGB ADJUST menu appears.

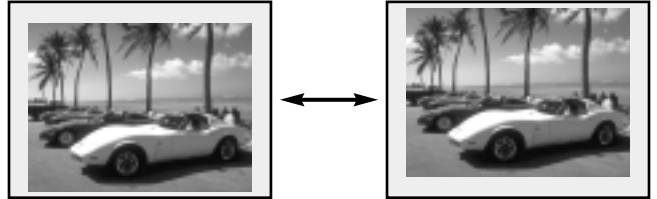


7. Use the ▲/▼ keys to select an item. Use the ◀/▶ keys to change the adjustment level.

■ H-POSITION Adjust the horizontal position of the image.



■ V-POSITION Adjust the vertical position of the image.



■ WIDTH Adjust the width of the image.



■ PHASE Adjust the clock phase to reduce video noise, dot interference, or cross talk.

8. Press the ENTER key and select "YES", then the adjusted data are stored in the memory which you selected in the step 6.

Lamp Life and Replace Lamp

LAMP LIFE

You can display the lamp life remaining at any time. Press the OSD key on the remote controller. The menu appears. LAMP LIFE is on the bottom line of the menu.

VIDEO INPUT	:COMPONENT
VIDEO SETTING	:NORMAL STD
DIG-ZOOM	:OFF
SMOOTHING	:OFF
NOISE REDUCTION	:OFF
WHITE ENHANCER	:OFF
ASPECT	:SQUEEZE
OSD MODE	:WIDE
LAMP LIFE	:1125HOURS

Notes

- When the LAMP LIFE is less than 1000 HOURS, it is recommended to replace the lamp unit. A lamp may be worn-out when the LAMP LIFE is less than 1000 HOURS.
 - The projector is designed not to turn on after the lamp use has exceeded 2000 hours. (LAMP LIFE 0 HOUR)
If the projector is in use, it will turn off.
- ▶ When the lamp expires in about 100 hours, the lamp life remaining is displayed on the screen when the projector is on.

WARM UP
LAMP LIFE 100 HOURS

- ▶ When the lamp life expires in about 5 hours, the lamp life remaining is displayed on the screen at one hour interval.

WARNING
LAMP LIFE 5 HOURS

To clear the menu above, press the MENU key.

- ▶ When the lamp life has expired (LAMP LIFE 0 HOURS), the projector will be immediately turned off and the WARNING indicator will blink in orange.

WARNING
LAMP LIFE 0 HOUR

Use the following procedure to reset (initialize) the lamp life indicator when replacing the lamp with a new one:

1. Unplug the power cord.
2. Wait about one minute and reconnect the power cord.
3. Press the POWER key. Only the POWER key will be of effect. The following message appears for 120 seconds.

REPLACE LAMP!
RESET LAMP LIFE YES NO

4. Select "YES", using the ◀▶ keys.
5. Press the ENTER key. The lamp life indicator is now initialized.

MAINTENANCE

Replacing the Lamp Unit

CAUTION:

- Do not touch the lamp and the lamp unit. It will be extremely hot. Allow at least one hour for the lamp to cool down before handling.
- Do not loosen any screws except for those mentioned below.
- The lamp may break if handled improperly.
- Do not use a lamp housing other than a Marantz replacement lamp unit.

WARNING:

- The lamp may be hot. Be careful when handling.

1. Press the POWER key to turn the projector off.
2. Unplug the AC power cord.
3. Wait at least one hour for the lamp and lamp unit to cool down.
4. Turn the projector upside down carefully.
(Read the caution and warning labels on the lamp cover.)
5. Loosen the lamp cover securing screw.
6. Remove the lamp cover.
7. Loosen the three lamp housing screws.
(This projector has a safety switch.)
8. Hold the handle then pull the lamp unit upward to remove it.
9. Install the new lamp unit.
10. Secure the lamp unit with the three screws.
11. Replace the lamp cover and secure it with a screw driver.

Cleaning the lens

If the lens becomes dirty or smudged, clean it with a soft dry cloth. Do not use a dampcloth, detergent solution, or thinner. Use optical lens cleaners only which are approved for eyeglasses or cameras.

Replacement parts

When replacement parts are required, be sure to inform only a Marantz authorized service center. Only the use of replacement parts specified by Marantz, which has the same characteristics as the original parts, is allowed. Unauthorized substitutions may result in fire, electric shock, or other hazards. Otherwise the warranty may not be guaranteed.

Optional accessories

■ Lamp Unit: LU8000VP

■ Ceiling Mount KIT: RM8000VP

CAUTION:

- For ceiling installation, consult with the Marantz dealer.

TROUBLESHOOTING

In case of trouble, check the following before calling for service:

1. Are the connections made properly ?
2. Are you operating the unit properly, following the instructions ?

If the unit does not operate properly, check the items shown in the following table.

If any trouble cannot be solved by the recommendation below, malfunction of the internal circuitry is suspected; immediately unplug the AC power cord and contact your Marantz dealer or service center.

Symptom	Cause	Recommendation
Image is not displayed.	AC power cord is not connected correctly.	Connect the AC power cord correctly.
	Lamp cover is not closed correctly.	Close the cover correctly.
	Signal cable is not connected correctly.	Connect signal cable correctly.
	Selected input is incorrect.	Select the correct input source .
	The picture mute is active.	Press the MUTE key to release the mute.
Poor color.	Wrong video system is selected.	Select the correct video system: NTSC, PAL, or SECAM.
	Picture is not adjusted correctly.	Adjust the picture in the MENU mode.
Picture is too dark.	Lamp is nearing the end of its life.	Replace the lamp and reset lamp life.
	Contrast or brightness is not adjusted properly.	Adjust contrast or brightness properly.
Picture is not clear.	Picture is out of focus.	Adjust the focus.
	Condensation occurs on the lens.	Run the projector for about two hours.
Picture rolls.	Signal cable is not correctly connected.	Connect signal cable correctly.
The WARNING indicator lights in orange.	The internal temperature is unusually high.	Check to see that nothing is blocking the ventilation holes and leave off the projector for about an hour.
The WARNIG indicator blinks orange.	Lamp cover is not closed correctly.	Close the cover correctly.
	Worn out lamp.	Replace the lamp and reset lamp life.
	Lamp circuit failure. Problems inside the projector.	Take the projector to the Marantz dealer.
The Remote Controller does not work.	Batteries are exhausted.	Replace batteries.
	The distance to the projector is too far.	Reduce the distance between projector and remote control.
	IR sensor on projector is obstructed.	Remove any obstacles.
	The "EXTERNAL" position on the REMOTE CONTROLLER on the connector panel is selected.	Use MARANTZ REMOTE CONTROL or select INTERNAL.

Notes

- When the projector is installed on the ceiling and the WARNING indicator lights up or flashes, never open the lamp cover.
- Install a standard lamp.
- If the lamp still does not function after the replacement and initialization of the lamp life indicator, contact the dealer, or Service Center.

ON SCREEN MESSAGE

Use the list below to check the message displayed on the screen.

Message	Meaning	Recommendation
NO SIGNAL	No input signal.	Check the connection.
INVALID KEY	You have pressed the wrong key.	Press the appropriate key.
REPLACE LAMP!	The lamp has reached the end of its life.	Replace the lamp and reset lamp life.
OUT OF RANGE	This input signal cannot be projected as the frequency is out of the acceptable range of the projector.	Input a signal with in the range of the frequency.

SPECIFICATIONS

■ Optical characteristics

Panel	0.67inch Digital Micromirror Device 480,000 pixels (800 × 600 × 1)
Lamp	120W P-VIP Lamp
Lens	f: 28 to 33/ F: 3.0 to 3.3 1.2 times zoom lens
Projection size	4:3 screen 23 to 275 inches (diagonal measure)
Light output	700 ANSI lumen

■ INPUT/OUTPUT

VIDEO IN	RCA × 1 PAL-4.43 / SECAM / NTSC-3.58 Composite video 1.0V _{p-p} /75 Ohm
S-VIDEO IN	S-Connector × 1 PAL-4.43 / SECAM / NTSC-3.58 S-VIDEO
COMPONENT VIDEO IN	RCA × 3 Y, C _B /P _B , C _R /P _R
RGB IN	D-sub M 15 pin × 1 ANALOG RGB
REMOTE CONTROL IN	Mini jack type × 1
AC IN	3 Prong Grounding Type
Trig. Out	DC Jack × 1 POWER On: DC12V Output impedance 47 k ohm
REMOTE CONTROL OUT	Mini jack type × 1

■ GENERAL

Power requirement	AC 100-120 V / 220-240 V, 50 / 60 Hz
Power consumption	<200 W
Stand-by consumption	<6 W
Chassis isolation	Class- I

Safety

UL1950
CAN/CSA C22.1 No.1&950
EN60950, IEC65, IEC950
FCC Part-15 Class-A
EN55022 Class-A
CISPR22 Class-A

EMI/EMC

Dimensions	235(W) × 322(D) × 96(H)mm
Net weight	3 kg
Operating Temperature	5 to 35 °C
Operating humidity	30 to 85%
Storage Temperature	-20 to 60 °C
Storage humidity	30 to 85%

Accessories

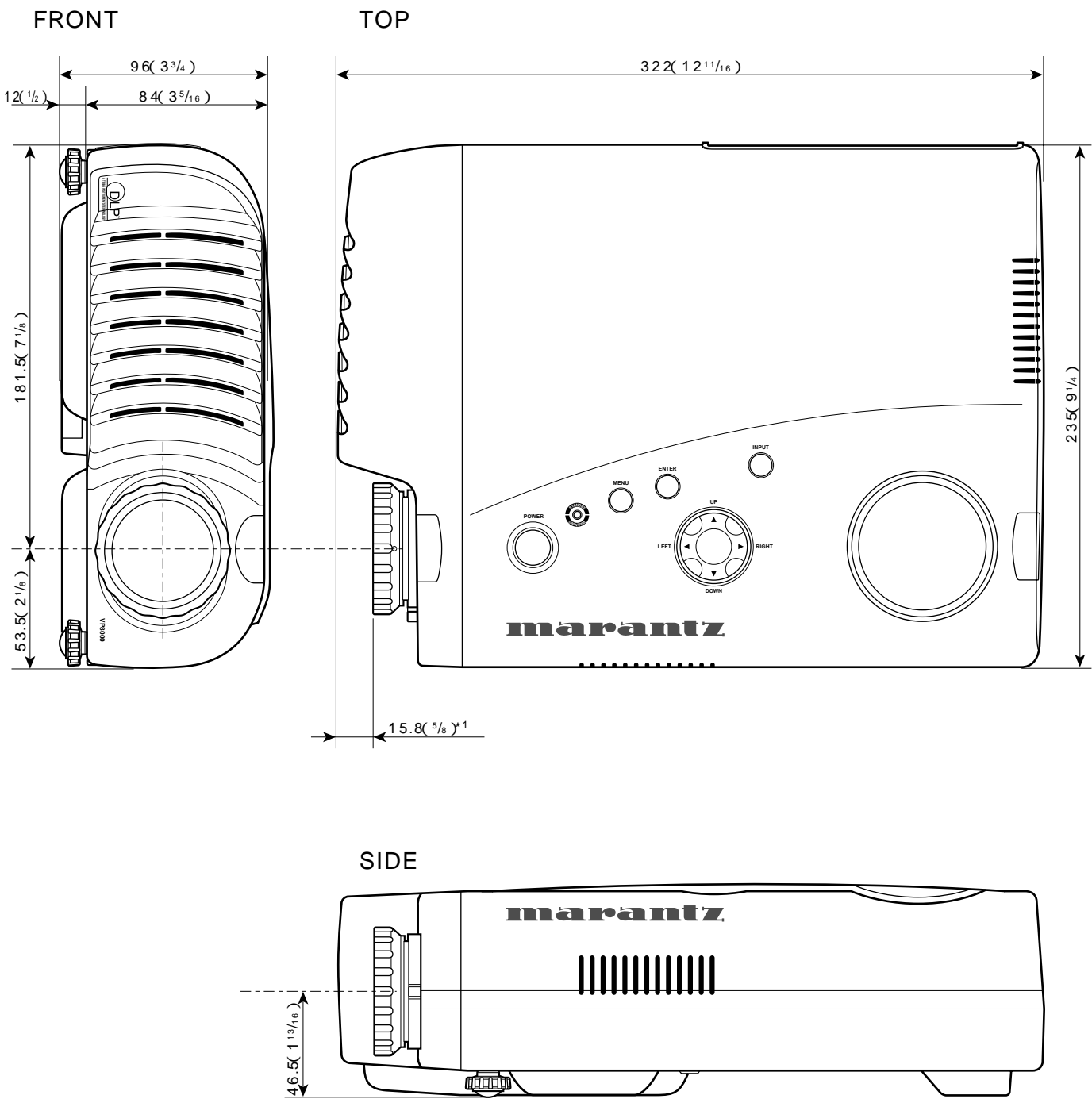
Lens cap × 1
Remote controller × 1
Batteries × 2
AC power code × 1
Owner's manual × 1
Adapter cable (Mini jack to RCA) × 1
Scart/RCA Audio Video cable × 1
(Europe only)

■ Timing chart

System	Resolution	V(Hz)	H(kHz)	Scan
NTSC	768 × 240	59.94	15.734	I
PAL/SECAM	960 × 287.5	50.0	15.625	I
HDTV	1920 × 517.5	60.0	33.750	I
HDTV	1920 × 540	60.0	33.750	I
HDTV	1920 × 540	59.94	33.716	I
VESA#900601	800 × 600	56.250	35.156	N
VESA#900602	800 × 600	60.317	37.879	N
VESA#900603A	800 × 600	72.188	48.077	N
VESA TIMING	800 × 600	75.000	46.875	N

Specifications may be subject to change without any notice.

DIMENSIONS



Unit : mm (inches)

*1 It depends on the focus adjustment position and the zoom adjustment position.

COUNTRY	COMPANY	ADDRESS
AUSTRALIA	Scan audio Pty. Ltd.	4 Station Street, Thornleigh NSW 2120, Australia
AUSTRIA	Huber & Prohaska GmbH	Taborstraße 95 / Ladestraße 1, Gebäude Hangartner, A-1200 Wien, Austria
BELGIUM	Van der Heyden Audio N.V.	Brusselbaan 278, 9320 Erembodegem, Belgium
BULGARIA	Ariescommerce GmbH	Makedonia Blvd. 16, 1606 Sofia, Bulgaria
CANADA	Lenbrook Industries Limited	633 Granite Court, Pickering, Ontario
CYPRUS	Empire Hifi systems Ltd.	P.O. Box 5604, Nicosia, Cyprus
CZECH REPUBLIC	Audio International	Fugnerova 1, 67801 Blansko, Czech Republic
DENMARK	Hi-Fi Klubben Denmark	Aboulewarden 1, DK-8000 Arhus C., Denmark
DUBAI	V.V.& SONS	P.O. Box 105, Dubai, U.A.E.
ESTONIA	Audio International Baltic	Lo Hu 12, EE0026 Tallin, Estonia
F.Y.R.O.M.	T.P. KODI	ul.Cedomir Kantargiev 21a, Skopje, Former Yugoslavian Republic of Macedonia
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LATVIA	Ace Ltd.	61, LacPlesa Str., Riga LV 1011, Latvia
LEBANON	AZ Electronics S.A., 1,	P.O. Box 11 2833, Beirut, Lebanon
LITHUANIA	A Accapella Ltd.	Ausros, Vartu G5, Pasazo Skg., 2001 Vilnius, Lithuania
MALAYSIA	Wo Kee Hong Electronics Sdn. Bhd.	102 Jalan SS 21/35, Damansara Utama, 47400 Petaling Jaya, Selangordarul Ehsan, Malaysia
MALTA	Doneo Co Ltd.	78 The Strand, Sliema SLM07, Malta
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NETHERLANDS	Marantz Trading	A division of Marantz Europe B.V., Building SFF-2, P.O. Box 80002, 5600 JB Eindhoven, The Netherlands
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PROFESSIONAL U.S.A.	Marantz Professional Products	Distributed by: Superscope Technologies Inc., 1000 Corporate Blvd. Ste.D, Aurora, Illino
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RUSSIA	Trade Company SV	Bld. 2, 7 Montazhnaya Street, 107497 Moscow, Russia
SAUDI ARABIA	Ultimate Fidelity	Sameria Comm. Center, Roadah Dist., P.O. Box 7760, Jeddah 21472, Saudi Arabia
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