TOSHIBA

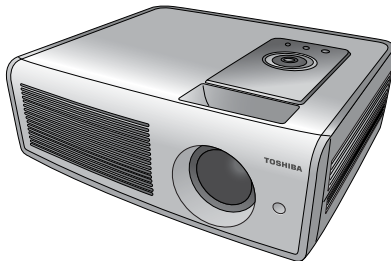*Owner's Manual*

Video Projector

TDP-MT700

SAFETY PRECAUTION

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

WARNING: Handling the cord on this product or cords associated with accessories sold with this product, will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

USA only

WARNING: This [product] contains mercury. Disposal of mercury may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

USA only

MODEL NAME: TDP-MT200

TRADE NAME: DATA PROJECTOR	MODEL NAME: TDP-MT200
FC℮ Tested To Comply With FCC Standards	
FOR HOME OR OFFICE USE	

FCC NOTICE: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

RESPONSIBLE PARTY: TOSHIBA AMERICA CONSUMER PRODUCTS, INC.

82 Totowa Road, Wayne, New Jersey, 07470

Phone: (973)628-8000

WARNING: Changes or modifications made to this equipment, not expressly approved by Toshiba, or parties authorized by Toshiba, could void the user's authority to operate the equipment.

USA only

Notice: This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

canada only

# IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.

DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

1. **Read Owner's Manual**
    After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.
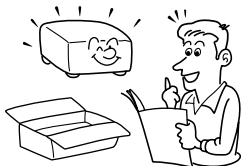
2. **Power Sources**
    This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

3. **Source of Light**
    Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes or sight.
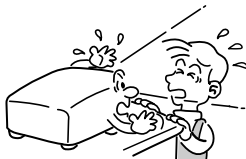
4. **Ventilation**
    Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

5. **Heat**
    The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
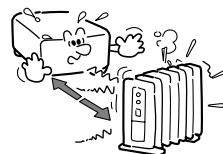
6. **Replacement Parts**
    When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
   (Replacement of the lamp only should be made by users.)

7. **Water and Moisture**
   Do not use this product near water.
   - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool and the like.

8. **Cleaning**
   Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a soft cloth for cleaning.
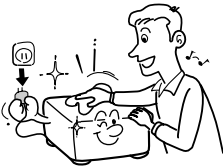
9. **Power-Cord Protection**
   Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from
   the product.

10. **Overloading**
    Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

11. **Do not use the product in a closed installation state.**
    Do not place the product in a box or in any other closed installation state. Otherwise it may overheat. This could result in a risk of fire.

12. **Lightning storms**
    For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges. However, while it is thundering or lightning, do not touch the apparatus and any connected cable and/or equipment. This will prevent you from receiving the electric shock by an electric surge.
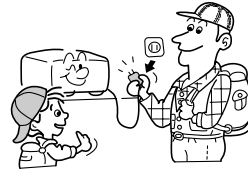
13. **Object and Liquid Entry**
    Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

14. **Do not place the product vertically**
    Do not use the product in the upright position to project the pictures at the ceiling, or any other vertical positions. It may fall down and dangerous.
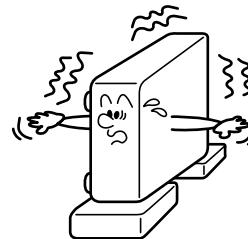
15. **Do not leave thermal-paper documents or easily deformed items on top of the unit or near the air exhaust for long periods of time.**
    The heat from the unit could erase the information on the thermal paper, or cause deformation or warping.

16. Stack Inhibited

Do not stack other equipment on this product or do not place this product on the other equipment. Top and bottom plates of this product develops heat and may give some undesirable damage to other unit.
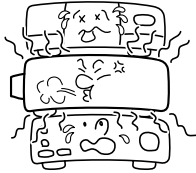
17. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

18. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

S3125A

19. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
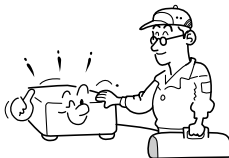
20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a) When the power-supply cord or plug is damaged.

b) If liquid has been spilled, or objects have fallen into the product.

c) If the product has been exposed to rain or water.

d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

e) If the product has been dropped or damaged in any way.

f) When the product exhibits a distinct change in performance - this indicates a need for service.

21. If glass components, including lens and lamp, should break, contact your dealer for repair service.

This product incorporates glass components, including a lens and a lamp. If such parts should break, please handle with care to avoid injury and contact your dealer for repair service. The broken pieces of glass may cause to injury. In the unlikely event of the lamp rupturing, thoroughly clean the area around the projector and discard any edible items placed in that area.
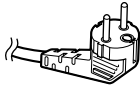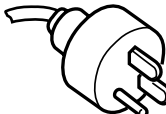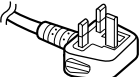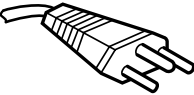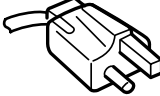
22. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

IMPORTANT SAFETY INSTRUCTIONS   5

POWER SUPPLY CORD SELECTION

If your line voltage is 220 to 240V, use one of the following types of cable.

Plug configuration	Plug type	Line voltage	Plug configuration	Plug type	Line voltage
	EURO	220 - 240V		Australian 240V 10A	200 - 240V
	UK	220 - 240V		Switzerland 240V 6A	200 - 240V
Use a 5A fuse which is approved by ASTA or BSI to BSI362. Always replace the fuse cover after changing the fuse.				North American 240V 15A	200 - 240V

IMPORTANT PRECAUTIONS

Save Original Packing Materials

The original shipping carton and packing materials will come in handy if you ever have to ship your projector. For maximum protection, repack the set as it was originally packed at the factory.

Moisture Condensation

Never operate this unit immediately after moving it from a cold location to a warm location. When the unit is exposed to such a change in temperature, moisture may condense on the crucial internal parts. To prevent the unit from possible damage, do not use the unit for at least 2 hours when there is an extreme or sudden change in temperature.

Place and Manner of Installation

- Do not place in hot locations, such as near heating equipment. Doing so could cause malfunction, and shorten the life of the projector.
- Avoid locations with oil or cigarette smoke. Doing so will dirty the optical parts, shortening their lives, and darkening the screen.
- Do not use the product vertically in any upright position or slantwise in an angle of 20 degrees or more.
- Using this instrument near a TV or radio may cause interference to the images or audio sound. If this happens, move it away from the TV or radio.
- Moving the projector from a low-temperature room to a high-temperature room may cause condensation on the lens or internal parts in the instrument. If you continue to use it in that situation, the malfunction may result. Ensure to wait until the condensation naturally disappears.
- In a high altitude location where air is thin, cooling efficiency is reduced so use it with the ambient temperature being lowered.

IMPORTANT PRECAUTIONS (Continued)

Avoid Volatile Liquid

Do not use volatile liquids, such as an insect spray, near the unit. Do not leave rubber or plastic products touching the unit for a long time. They will leave marks on the finish. If cleaning with a chemically saturated cloth, be sure to follow the product's precautions.

In the spaces provided below, record the Model and Serial No. located at the bottom of your projector.

Model No.   Serial No.

Retain this information for future reference.

EXEMPTION CLAUSES

- Toshiba Corporation bears no responsibility in the case of damages arising from natural disaster such as earthquakes, lightning, etc., fire not liable to Toshiba Corporation, operation, theft or mischief by third parties, other accidents, or use under abnormalconditions including erroneous or improper operation and other problems.
- Toshiba Corporation bears no responsibility for incidental damages (lost profit, work interruption, corruption or loss of the memory contents, etc.) arising from the use of or the inability to use this unit.
- Toshiba Corporation accepts no liability whatsoever for any damages arising from not having followed the descriptions in this Instruction Manual.
- Toshiba Corporation accepts no liability whatsoever for any damages arising from malfunctions arising from combination with equipment or software that is not related to Toshiba Corporation.

OTHER CAUTIONS AND INFORMATION

Copyrights

Showing or transmitting commercial imaging software or broadcast or cable-broad casting programs with the purpose of other than the personal and private viewing, including modifying images using the freeze or resize functions, or displaying with the varying aspect ratio of the images, could violate the direct or indirect copyrights of the imaging software or broadcast program, etc., if done without first consulting with the copyright holder. For this reason, please take appropriate measures before performing one of the actions listed above, including obtaining a license from the copyright holder.

Disposal

This product contains substances which are harmful to humans and the environment.
- Solder used in the internal parts contains the lead.
- The lamp contains inorganic mercury.

Please dispose of this product or used lamps in accordance with local regulations.

Trademarks

- VGA, SVGA, XGA, SXGA, UXGA are trademarks or registered trademarks of International Business Machines Corporation.
- Digital Light Processing, Digital Micromirror Device and DMD are trademakes of Texas Instruments.
- Macintosh is a registered trademark of Apple Computer, Inc.
- Windows is a registered trademark of Microsoft Corporation in the U.S. and other countries.
- Adobe is a registered trademark and Acrobat Reader is a trademark of Adobe Systems Incorporated.

Notational Conventions Used in This Manual

- References to pages with related information are annotated as follows. For example, if making a reference to page 36: **p.36**
- The illustrations in this document are for reference purposes only and may not reflect your package exactly.

REMOTE CONTROL BATTERIES

- Do not reverse the polarity when inserting the battery.
- Do not recharge, heat, disassemble, short-circuit, or burn the battery.
- Do not use the battery beyond the expiration date indicated on the battery or leave a dead battery in the remote control.
- Do not mix batteries of different types, such as alkaline and manganese. Do not mix new and used batteries.

Using the batteries improperly may cause them to explode or leak and lead to burn or injury. If battery-leaking fluid contacts skin, wash the fluid off immediately with clean water and consult a doctor. If the fluid is spilt on an instrument, avoid contact and wipe it off using tissue paper.

(Dispose of the used tissue paper as flammable garbage after moistening with water.)

CONTENTS

Overview

Shipping contents

The projector is shipped with the cables required for connection to a video and PC equipment. Some of the items may not be available depending on the region. Please check with your place of purchase.

☞ Some of the accessories may vary from country to country.

|		
Projector	User's manual	Power cord
Remote control		Batteries
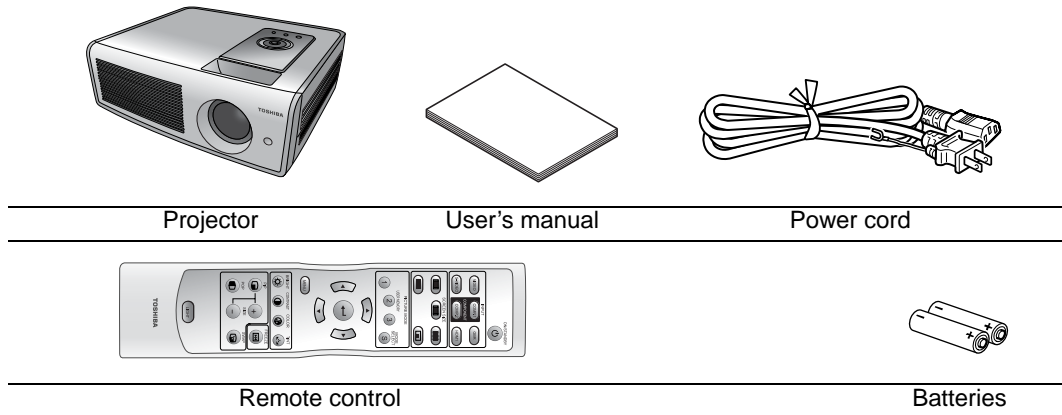
Optional accessories

1. HDMI cable
2. Ceiling mounting kit

Installing or replacing batteries

Push on the cover and slide it to open. Install two AAA batteries with the correct polarities, then close the cover.

☞ Notes on batteries

■ Before using the batteries, be sure to observe the Safety Precautions described in previous pages.

■ Avoid leaving the remote control and batteries in an excessive heat 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.
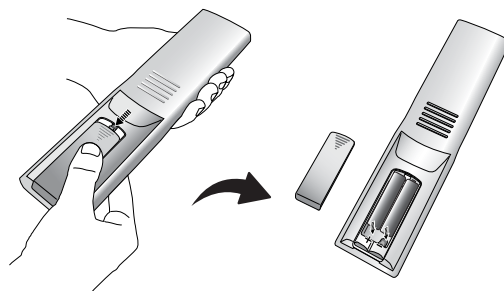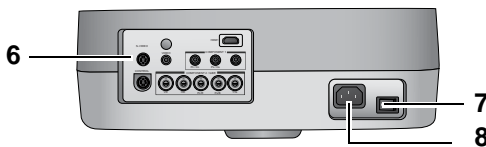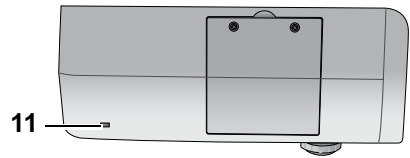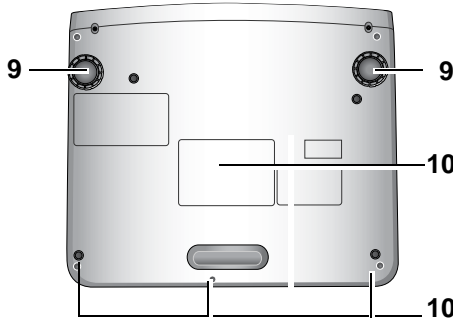
Projector exterior view

Front / Upper side
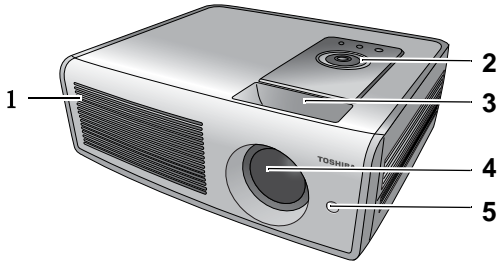
1. **Ventilation holes (exhaust)**
2. **Control panel**
3. **Focus ring and zoom ring**
4. **Projection lens**
5. **Front IR sensor**

Rear side

6. **Connector panel (See below.)**
7. **Main AC power switch**
8. **Power cord socket**

Bottom and left sides

9. **Front adjuster feet**
10. **Ceiling mounting holes**
11. **Kensington lock slot**

Connector panel
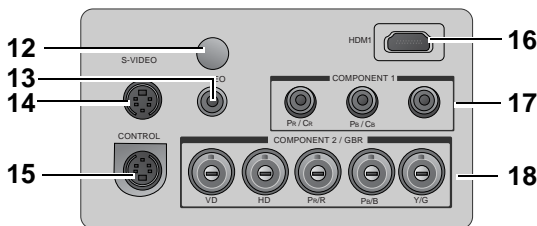
12. **Rear IR sensor**
13. **Composite Video input (RCA jack)**
14. **S-Video input (mini DIN 4-pin)**
15. **RS-232C control input (for servicing)**
16. **HDMI (High-Definition Multimedia Interface) input**
    Supports all-digital video source, such as a set-up box, DVD player, digital TV (DTV) or other digital AV equipment.

17. **Component video input (RCA jacks)**
    Supports DTV Y/PB/PR, DTV Y/CB/CR or DTV RGB video signal input.
18. **RGB/ HDTV input (BNC)**
    Supports DTV Y/PB/PR, DTV Y/CB/CR, or DTV RGB video signal input or PC signal input.

Controls and functions

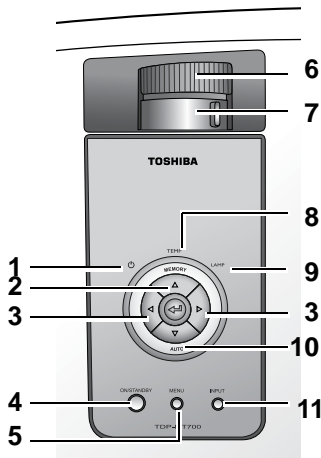## Control panel

5. MENU
Turns the on-screen display control menu on.
Exits and saves the menu settings.

6. Focus Ring p.21
Adjusts the focus of the projected image.

7. Zoom Ring p.21
Adjusts the size of the projected image

8. Temperature warning light p.32
Lights up or flashes red if the projector's temperature becomes too high.

9. LAMP indicator light p.32
Indicates the status of lamp.
Lights up or flashes red when the lamp has developed a problem. Please contact your dealer for assistance.

10. AUTO ▼
Automatically determines the best picture timings for the displayed image.

11. INPUT p.26
Switches input sources sequentially.

1. POWER indicator light p. 32
Lights up or flashes when the projector is under operation.

2. MEMORY ▲ p. 23
Sequentially recalls settings saved in memory locations 1, 2, and 3.

3. ARROWS (◄/►)
When the on-screen menu is activated, the #2, #3, and #10 are used as directional arrows to select the desired menu items and to make adjustments.

4. ON/STANDBY p. 20 , p. 24 , p. 32
Press and hold this button to turn the projector on when it is in the standby mode. Or press this button twice to turn the unit off.

Remote control

☞ **Notes on remote control operation**

■ Make sure that there is nothing between the remote control and the IR sensor on the projector that might obstruct the infrared beam.

■ The effective range of the remote control is up to 8 meters from the front of the projector or 8 meters from the rear of the projector. The remote control must be held at an angle within 45 degrees of the projector's IR remote control sensor.

8 m | 22.5° / 22.5°
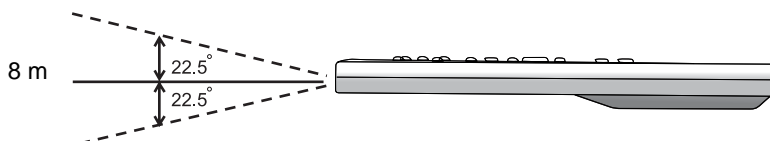
■ If the remote control stops working, or if its effective range decreases, replace the batteries with new ones.

■ The remote control may fail to operate if the infrared remote sensor is exposed to bright sunlight or fluorescent lighting.

■ In rare cases, ambient conditions could impede the operation of the remote control. If this happens, point the remote control at the main unit again, and repeat the operation.

■ Due to some functions are not available for certain input signals, an icon ⊘ will appear on the screen when the button press is not effective.
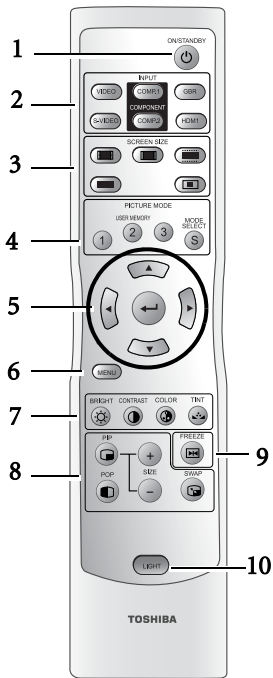
1. ON/STANDBY `p. 20` , `p. 24` , `p. 32`

Press and hold this button to turn the projector on when it is in the standby mode. Or press this button twice to turn the projector off.

2. INPUT buttons `p. 20`

Selects an input source to display on the projector.

3. SCREEN SIZE buttons `p.27`

Selects the image aspect ratio to suit the input signal.

4. PICTURE MODE selection buttons `p.23`

Restores settings saved in memory locations 1, 2, and 3 or restores the default modes for the current input source, Dynamic, Standard, Theater 1, or Theater 2.

5. Arrows (▲/◄/▼/►) `p.26`

Used to select the desired menu or to make adjustments.

⬅ Enter button `p.26`

Opens the selected items of the menu.

6. MENU `p.26`

Turns the on-screen display control menu on or off.

7. Picture quality adjustment buttons `p.26`

8. PIP and POP buttons `p.23`

To turn the PIP or POP function on or off, press the **PIP** or **POP** button. Adjust the size of the PIP image by pressing the + or - button. If you want to switch between the two windows, toggle **SWAP** so that you can adjust the image settings in the selected window.

9. FREEZE `p.26`

Pauses the image.

10. LIGHT

Turns the remote control's backlight on.

Positioning your projector

Choosing a location

Your projector is designed to be installed in one of four possible installation locations:
1. Floor in front of screen (Standard);
2. Ceiling in front of screen (Ceiling);
3. Floor at rear of screen (Rear); or
4. Ceiling at rear of screen (Rear Ceiling).

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.

I. Floor in front of screen:

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.
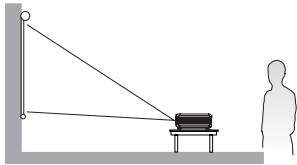
II. Ceiling in front of screen:

Select this location with the projector suspended from the ceiling in front of the screen.
Purchase the Projector Ceiling Mounting Kit from your dealer to mount your projector on the ceiling.
Set **Ceiling** in the **Setup** > **Projection Mode** menu after you turn the projector on.
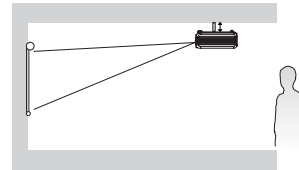
III. Floor at rear of screen:

Select this location with the projector placed near the floor behind the screen.
Note that a special rear projection screen is required.
Set **Rear** in the **Setup** > **Projection Mode** menu after you turn the projector on.
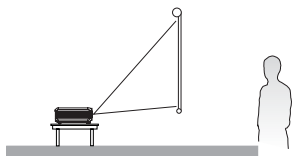
IV. Ceiling at rear of screen:

Select this location with the projector suspended from the ceiling behind the screen.
Note that a special rear projection screen and the Projector Ceiling Mounting Kit are required for this installation location.
Set **Rear Ceiling** in the **Setup** > **Projection Mode** menu after you turn the projector on.

Obtaining a preferred projected image size

The distance from the projector lens to the screen, the zoom setting, and the video format each factors in the projected image size. Separate tables of dimensions for both 16:9 and 4:3 screen ratios below have been provided to assist you in determining the ideal location for your projector.

1. Determine the aspect ratio of your screen, (16:9 or 4:3)?
2. Select the **Screen Size** you desire from the 16:9 ratio screen dimension table or 4:3 ratio screen dimension table bel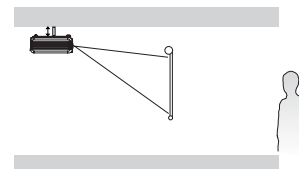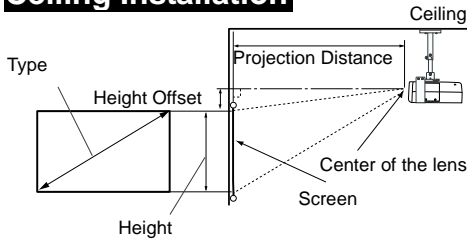ow, according to what screen type you have. Install the projector at a distance from the screen corresponding to between the **Min.** and **Max. Projection Distance** values in the table.
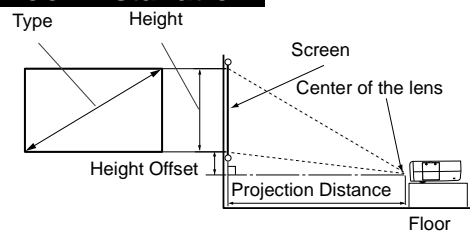3. Decide the exact height of your projector.

For example, if you are using a 16:9 screen with 80 inches diagonal, you are suggested to place your projector within a range between 2.34m to 3.18m from the screen. **The ideal height of your projector lens center will be level with the bottom or top side of the screen.**

Installation for a 16:9 ratio screen

16:9 (widescreen) ratio screen dimension table

Screen Size			Projection Distance		Height Offset	
Type (inch) / (cm)	**Height** (inch) / (cm)	**Width** (inch) / (cm)	**Min.** (inch) / (cm)	**Max.** (inch) / (cm)	**Tele** (inch) / (cm)	**Wide** (inch) / (cm)
37 / 94	18.1 / 46	32.3 / 82	42.5 / 108	57.9 / 147	0 / 0	0 / 0
50 / 127	24.4 / 62	43.7 / 111	57.5 / 146	78.4 / 199	0 / 0	0 / 0
60 / 152	29.5 / 75	52.4 / 133	68.9 / 175	93.7 / 238	0 / 0	0 / 0
70 / 178	34.8 / 87	61.0 / 155	80.3 / 204	109.5 / 278	0 / 0	0 / 0
80 / 203	39.4 / 100	69.7 / 177	92.1 / 234	125.2 / 318	0 / 0	0 / 0
90 / 229	44.1 / 112	78.4 / 199	103.5 / 263	140.6 / 357	0 / 0	0 / 0
100 / 254	49.2 / 125	87.0 / 221	115.0 / 292	156.3 / 397	0 / 0	0 / 0
110 / 279	54.8 / 137	96.1 / 244	126.4 / 321	172.1 / 437	0 / 0	0 / 0
120 / 305	58.7 / 149	104.7 / 266	137.8 / 350	187.4 / 476	0 / 0	0 / 0
130 / 325	63.8 / 162	113.4 / 288	149.6 / 380	203.2 / 516	0 / 0	0 / 0
140 / 356	68.5 / 174	122.1 / 310	161.0 / 409	218.9 / 556	0 / 0	0 / 0
150 / 381	73.6 / 187	130.7 / 332	172.4 / 438	234.7 / 596	0 / 0	0 / 0
160 / 406	78.4 / 199	139.4 / 354	183.9 / 467	250.0 / 635	0 / 0	0 / 0
170 / 432	83.5 / 212	148.0 / 376	195.3 / 496	265.8 / 675	0 / 0	0 / 0
180 / 457	88.2 / 224	156.7 / 398	207.1 / 526	281.5 / 715	0 / 0	0 / 0
190 / 483	93.3 / 237	165.8 / 421	218.5 / 555	296.9 / 754	0 / 0	0 / 0
200 / 508	98.0 / 249	174.4 / 443	229.9 / 584	312.6 / 794	0 / 0	0 / 0
250 / 635	122.4 / 311	217.7 / 553	287.4 / 730	390.9 / 993	0 / 0	0 / 0
300 / 762	147.2 / 374	261.4 / 664	344.9 / 876	468.9 / 1191	0 / 0	0 / 0

☞ **The above numbers are approximate and may be slightly different from the actual measurements. Only the recommended screen sizes are listed. If the your screen size is not in the table above, please contact your dealer for assistance.**

An examination of the table reveals that you can place the projector lens in the range from 1.08 to 11.91m distance from the screen, which will give you a projected image from 0.82 x 0.46m to 6.64 x 3.74m full screen.

Installation for a 4:3 ratio screen

Ceiling Installation **Floor Installation**
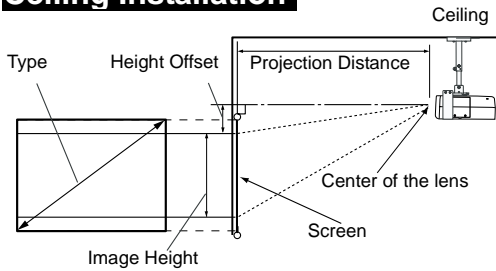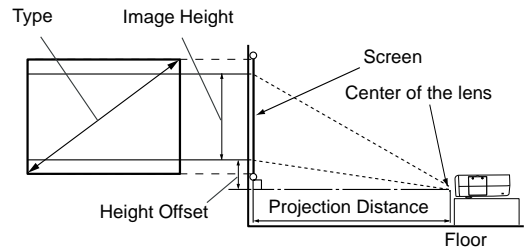
4:3 (standard) ratio screen dimension table:

Screen Size			Projection Distance		Height Offset		Image Height (inch) / (cm)
Type (inch) / (cm)	Height (inch) / (cm)	Width (inch) / (cm)	Min. (inch) / (cm)	Max. (inch) / (cm)	Tele (inch) / (cm)	Wide (inch) / (cm)	
37 / 94	22.1 / 56	29.5 / 75	39.0 / 99	53.2 / 135	0 / 0	0 / 0	16.5 / 42
50 / 127	29.9 / 76	40.2 / 102	52.8 / 134	71.7 / 182	0 / 0	0 / 0	22.4 / 57
60 / 152	35.8 / 91	48.0 / 122	63.0 / 160	85.8 / 218	0 / 0	0 / 0	27.2 / 69
70 / 178	42.1 / 107	55.9 / 142	73.62 / 187	100.4 / 255	0 / 0	0 / 0	31.5 / 80
80 / 203	48.0 / 122	64.2 / 163	84.3 / 214	114.6 / 291	0 / 0	0 / 0	35.8 / 91
90 / 229	53.9 / 137	72.1 / 183	94.9 / 241	128.7 / 327	0 / 0	0 / 0	40.6 / 103
100 / 254	59.8 / 152	79.9 / 203	105.1 / 267	143.3 / 364	0 / 0	0 / 0	44.9 / 114
110 / 279	66.1 / 168	88.2 / 224	115.8 / 294	157.5 / 400	0 / 0	0 / 0	49.6 / 126
120 / 305	72.1 / 183	96.1 / 244	126.4 / 321	171.7 / 436	0 / 0	0 / 0	53.9 / 137
130 / 325	78.0 / 198	103.9 / 264	137.0 / 348	186.2 / 473	0 / 0	0 / 0	58.7 / 149
140 / 356	83.9 / 213	111.8 / 284	147.2 / 374	200.4 / 509	0 / 0	0 / 0	63.0 / 160
150 / 381	90.2 / 229	120.1 / 305	157.9 / 401	214.6 / 545	0 / 0	0 / 0	67.3 / 171
160 / 406	96.1 / 244	128.0 / 325	168.5 / 428	229.1 / 582	0 / 0	0 / 0	72.1 / 183
170 / 432	102.0 / 259	135.8 / 345	179.1 / 455	243.3 / 618	0 / 0	0 / 0	76.4 / 194
180 / 457	107.9 / 274	144.1 / 366	189.3 / 481	257.9 / 655	0 / 0	0 / 0	81.1 / 206
190 / 483	114.2 / 290	152.0 / 386	200.0 / 508	272.1 / 691	0 / 0	0 / 0	85.4 / 217
200 / 508	120.1 / 305	159.8 / 406	210.6 / 535	286.2 / 727	0 / 0	0 / 0	90.2 / 229
250 / 635	150.0 / 381	200.0 / 508	263.0 / 668	357.9 / 909	0 / 0	0 / 0	112.6 / 286
300 / 762	180.0 / 457	239.0 / 610	315.8 / 802	429.5 / 1091	0 / 0	0 / 0	135.0 / 343

☞ **The above numbers are approximate and may be slightly different from the actual measurements. Only the recommended screen sizes are listed. If the your screen size is not in the table above, please contact your dealer for assistance.**

An examination of the table reveals that you can place the projector lens in the range from 0.99 to 10.91m distance from the screen, which will give you a projected image from 0.75 x 0.42m to 6.1 x 3.43m.

Connecting various equipment

You can connect the projector to any type of video equipment, such as a VCR, DVD player, digital tuner, cable or satellite box, video game console or digital camera. You can also connect it to a desktop or laptop PC or Apple Macintosh system.

The projector can connect multiple video equipment at the same time by using different cables. Make sure you select right signal input to display.

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

1. Turn off all equipment before making any connections.
2. Use the correct signal cables for each source.
3. Ensure the cables are firmly inserted.
4. Connect all audio signals to external speakers. This projector is not equipped with speakers.

☞ **In the connections shown below, only certain cables are included with the projector (see p.11). Other cables are commercially available from electronics stores.**

Connecting video inputs

Connecting HDMI devices

You are required to use a HDMI cable when making connection between the projector and HDMI devices. HDMI (High-Definition Multimedia 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.

HDMI device: DVD player, digital tuner, etc.

From audio output terminals

To audio input terminals

HDMI cable
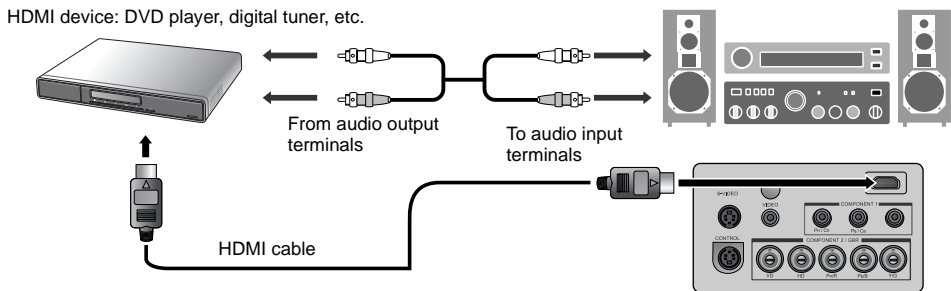
Connecting component-video devices

Be sure to match the corresponding colors between the cables and the terminals.

AV equipment: DVD player, digital tuner, etc.

From audio output terminals

To audio input terminals

Component cable
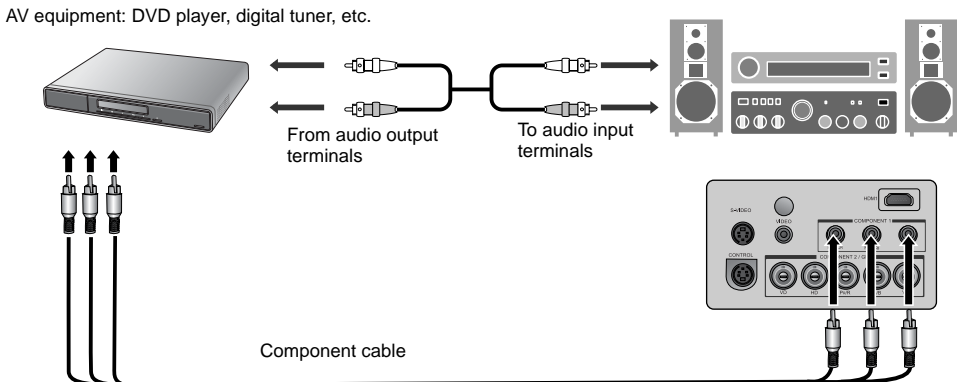
Connecting S-video or video devices

From audio output terminals

To audio input terminals

S-Video cable

Video cable
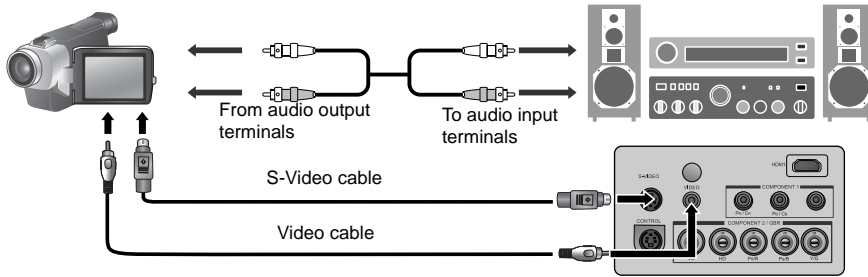
Connecting a computer

Connect the projector to a computer with a VGA-BNC cable.

Laptop or desktop computer

From audio output terminals

To audio input terminals

VGA-BNC cable
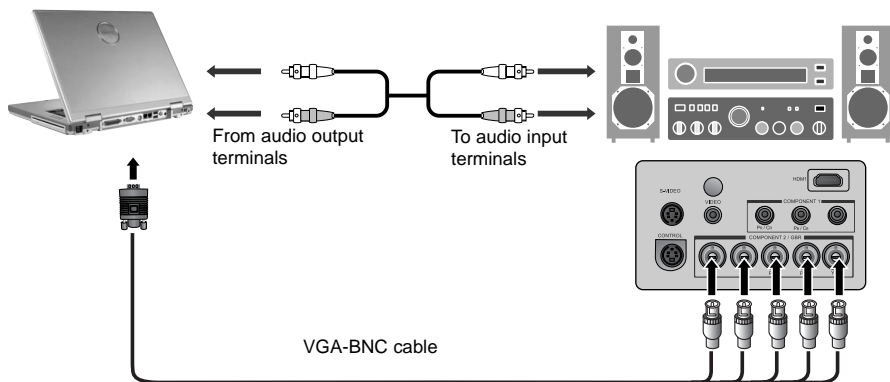
☞ **If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, please check that the video source is turned on and operating correctly. Also check that the signal cables have been connected correctly.**

☞ **Many laptops do not turn on their external video ports when connected to a projector. Usually a key combo 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 learn your laptop's key combination.**

Using the projector and remote control

Preparations

1. Turn all of the connected equipment on.
2. Remove the lens cap.

3. Plug the supplied power cord into the AC inlet on the rear of the projector and turn the main AC power switch on.
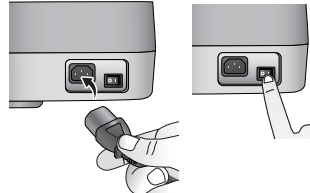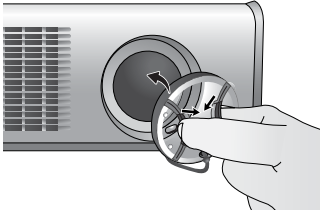
4. Plug the power cord into a wall socket and turn the wall switch on.

Turning the power on

Follow the steps below.

1. Make sure the Power light is orange after power has been applied and the main AC power switch is turned on.
2. Press and hold the **ON/STANDBY** button on the projector or remote control to turn the projector on.

☞ **The ON/STANDBY button may not work while the projector is warning up.**

3. The fans will be up and running. A start-up image shows on the screen for a few seconds.
4. "Searching…." will be displayed on the screen before the projector identifies the input signal. This message will remain on the screen until a valid signal is detected.
5. If the horizontal frequency of the input signal exceeds the range of the projector, a message reading " Unsupported timing" will be displayed on the screen. This message will remain on-screen until you change the input signal.
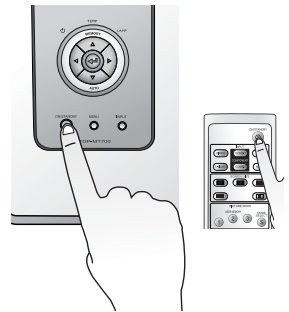
Switching input signals

The projector can be connected to multiple equipment at the same time. To sequentially select input signals, press one of the INPUT buttons on the remote control or **INPUT** on the projector.

■ When the projector is turned on, it will search for the input source you last selected.

■ If you need to use the PIP or POP function, refer to for advanced operation.
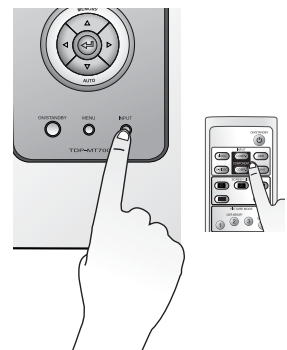
Adjust the image

Adjusting the angle height

There are two adjuster feet on the bottom of the projector. These adjuster feet change the image height and projection angle. To adjust the projector, you can screw the height adjuster feet to fine-tune the projection angle.

☞ **If the screen and the projector are not perpendicular to each other, the projected image becomes vertical trapezoidal. To correct this problem, adjust the value of Keystone in the Setup menu.**

Auto-adjusting the image

With one press of the Auto button on the projector, the built-in intelligent auto-adjustment function will re-adjust the values of Frequency and Clock to provide the best image quality.

The current source information will be displayed at the bottom right of the screen for 3 seconds.

☞ **The screen will be blank while Auto adjustment is functioning.**
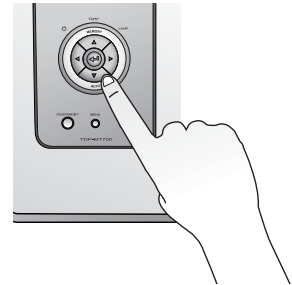
Fine-tuning the image size and clarity

1. Adjust the projected image to the size that you need using the zoom ring.

2. Then sharpen the image by rotating the focus ring.
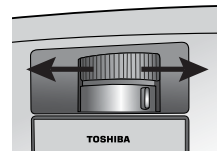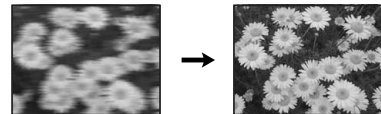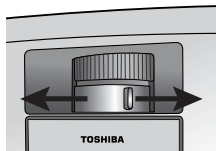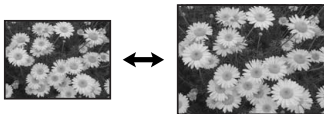
Optimizing the image

To optimize the image, use the remote control or on-screen menus. For the operation of on-screen menus, please refer to .

The following steps are optional. You do not need to follow every step. It depends on the image quality you desire.

1. Selecting a picture mode

Select a picture mode on the remote control, or in **Picture > Load Settings** menu. There are 4 preset modes available for each input. These modes are with preset values suitable for various projection purposes.

- ■ Dynamic
- ■ Standard
- ■ Theater 1
- ■ Theater 2

You are also free to custom the picture settings by adjusting the functions provided in Picture menu and save those settings as USER MEMORY 1, 2, or 3. For more information, refer to .
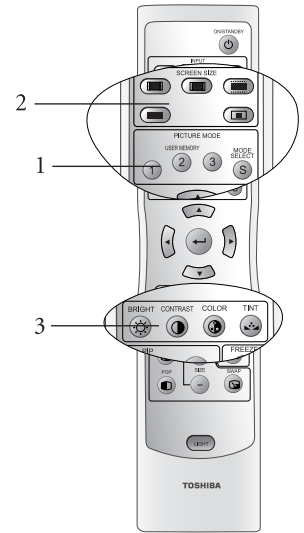
2. Selecting a Screen Size

The aspect ratio is the ratio of image width to image height. HDTV and most DVDs are 16:9, which is the default for this projector. Most TV shows are 4:3.

Change the image ratio using the SCREEN SIZE buttons on the remote control or in **Display** > **Screen Size** menu. Select an aspect ratio to suit the format of the video signal. There are five aspect ratios available:

☞ **In the pictures below, the black portions are inactive areas and the white portions are active areas.**

|	
1. **Full:** Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio. This mode is best for squeeze-signal video images.	4. **Theater Wide:** A 4:3 aspect ratio image is enlarged NON-linearly in horizontal direction to accommodate 16:9 full-screen display. This stretches only the right and left sides of the image; the central part is unchanged. This mode is best for 4:3-signal video images on the wide screen.
2. **4:3:** Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio. This mode is best for 4:3 -signal video images on the 4:3 size screen.	5. **Through:** One-to-one mapping is performed on the input signal without any scaling with the image displayed at the center of the screen.
3. **Zoom:** Enlarges an image with letterbox format to display it in full-screen format with a 16:9 aspect ratio. The upper and lower portions of the image are cropped. Use this setting for Cinema-scope and Vista video wide screen formats.	

3. Other adjustments

You can adjust Brightness, Contrast, Color, and Tint settings using the **Picture** menu or with the remote control. Refer to for more information.

☞ **Some picture adjustments are available only when certain input ports are in use. Unavailable adjustments are not shown on the screen.**

Personalizing the projector menu display

The On Screen Display (OSD) menus can be set according to your preferences. These settings will not affect the projection settings, operation, or performance.

• **Language** in **Setup** menu sets your familiar language for the on-screen menus.
• You can select projector's **Background Color** from grey, black, or blue in **Options** menu.
• **OSD Off (Secs)** in **Options** Menu sets the length of time the OSD will remain active after your last button press.
• **Sleep Timer (Min)** in **Options** menu sets the length of time the projector will auto shutdown.
• **OSD Position H** and **OSD Position V** in **Options** menu adjust the OSD position on the screen.

Saving and loading the video memory

■ Press the PICTURE MODE selection buttons on the remote control or **MEMORY** ▲ on the projector to recall the settings directly.
■ There are 3 user memories stored according to your preference.
■ For information about saving user memories, refer to .
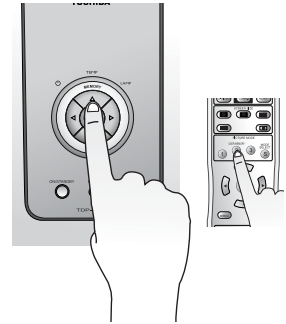
Using PIP (Picture-In-Picture) and POP (Picture-On-Picture) functions

There are two groups of inputs classified according to their display modes:
  Video Group: Video, and S-Video inputs.
  Graphic Group: Component 1, Component 2 (BNC), GBRHV (BNC), and HDMI inputs.

The PIP function allows the projector to display one input from the Graphic Group within one input from the Video Group (Graphic on Video), or display one input from Video Group within one input from the Graphic Group (Video on Graphic).

Video
Graphic

Video on Graphic
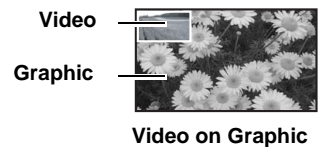
The POP function allows the projector to display one input from the Graphic Group and one input from the Video Group side by side (Video by Graphic or Graphic by Video).
If you want to view two images from 2 different input signals at the same time, refer to the following steps to display the second image.

Video
Graphic

Graphic by Video

1. Select one input source by pressing one of the INPUT buttons on the remote control.

2. Press **PIP** or **POP** button on the remote control.

3. Select the second signal input on the remote control.

4. You may press PIP or POP button repeatedly to choose the corresponding positions of the images.

5. Toggle the **SWAP** button on the remote control to switch the active window between the two windows. In the active window, you are allowed to change the input signal settings.

6. To adjust the size of the PIP window, press + or -.
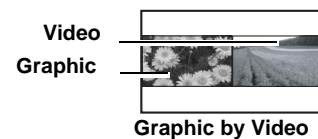
7. To adjust the position of the PIP window, press the ARROW buttons (▲/◄/▼/►).

8. To turn off the PIP or POP function, select **PIP Off** or **POP Off**.

PIP ---
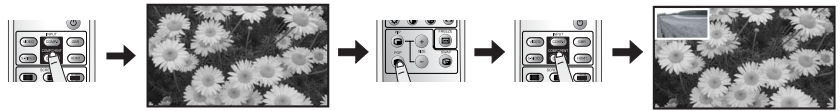
POP ---

■ If the selected input signal is not availble, the image will be black.

Pausing the picture

To pause the picture, press the **FREEZE** button on the remote control. Pressing the Freeze button again cancels the Freeze button.

■ The icon ⏮ will appear while Freeze is in effect.

■ Even if an image is frozen on the screen, the pictures are running on the video or other device. If the connected devices contain audio output function and it is activated, you can still hear the sound on-going.

■ If you are using this function on commercial video software or on a broadcast or cable broadcast except for the purpose of your private viewing and listening, it may infringe the copyright protected by the copyright laws.

Turning the power off

Follow the steps below.

1. Press the **ON/STANDBY** button on the projector or remote control and a warning message appears. To turn the projector off, press **ON/STANDBY** again.

2. The Power indicator light flashes green and the fans run for about two minutes to cool the lamp. The projector will not respond to any commands until the cooling process is complete.

3. Then, the Power indicator light is a steady orange once the cooling process has finished and fans stop.

4. If the projector will not be used for an extended period, turn the main power switch off and unplug the power cord from the power outlet.

■ If you accidentally press the **ON/STANDBY** button and do not want to turn off the power, wait until the confirmation message disappears.

Menus

Menu structure

Picture	Contrast
	Brightness
	Color
	Tint
	Filter
	Sharpness
	Extended Picture Setting
	Save Settings
	Load Settings

Color Temp	Lamp Native, Warm, Middle, Cool, User 1, User 2
Color Enhancement...	

To User's Memory 1	Red, Green, Blue, Yellow, White
To User's Memory 2	
To User's Memory 3	

Dynamic, Standard, Theater 1, Theater, User's Memory 1, User's Memory 2, User's Memory 3

Display	Screen Size	Full, 4:3, Zoom, Theater Wide, Through
	PIP	Off, Video, S-Video, Component 1, Component 2 (BNC), GBRHV (BNC), HDMI
	POP	Off, Video, S-Video, Component 1, Component 2 (BNC), GBRHV (BNC), HDMI
	PIP/POP Source Swap	
	PC & Component YPbPr Tuning	Frequency, Phase, H. Pos, V. Pos, Auto

Options	Background Color	Grey, Black, Blue
	OSD Off (Secs)	
	Sleep Timer (MIN)	
	OSD Position H	
	OSD Position V	
	Reset Settings	Load Default Of Current Menu Source. Are You Sure? No, Yes.

Setup	Language	English, Français, Español, Deutsch, Italiano, 日本語 , Português
	Projection Mode	Standard, Ceiling, Rear, Rear Ceiling
	Keystone	
	Altitude	Hight, Normal
	Video Mode...	Video Mode (Auto, Manual), NTSC, PAL, SECAM, PAL-N, PAL-M, PAL60, NTSC 4.43
	NTSC Mode...	NTSC Mode
	Test Pattern...	Grid, Color Bar
	Lamp...	Lamp Power
		Lamp Time
		Reset Lamp Timer

NTSC Mode	Japan, US

Lamp Power	High, Standard
Lamp Time	Lamp Hours
Reset Lamp Timer	Please Do This Only When You Change A New Lamp. Are You Sure? Yes, No

Advanced	White Balance Fine Tuning
	Faroudja TM Setting...

Color Temp. Info.	Lamp Native, Warm, Middle, Cool, User 1, User 2
RGB Curve...	Red Gamma, Green Gamma, Blue Gamma
RGB Gain	Red Gain, Green Gain, Blue Gain
RGB Offset	Red Offset, Green Offset, Blue Offset
Store Color Temperature To User1	
Store Color Temperature To User2	

Truelife TM
Noise Reduction

Using the menus

The projector is equipped with on-screen display (OSD) menus
for making various adjustments and settings.
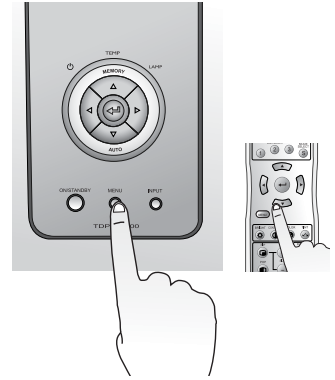There are several OSD languages provided for your selection.
Refer to for more information about .
The following example describes how to select a desired OSD
language.

1. Press the **MENU** button to turn the on-screen
   menu on.

2. Use ◄ or ► to highlight **Setup** and press
   MENU.

3. Use ▲ or ▼ to select **Keystone**.

4. Adjust keystone values by pressing
   ◄ or ►.

5. Press the **MENU** button twice* to
   leave and save the settings.

   ***The first press leads you back to the sub-
   menu and the second press closes the on-
   screen menu.**

Picture menu

The functions provided in this menu are aiming to adjust image quality by yourself. Before making
adjustments, you are suggested to choose a desired preset mode in this menu which has set some
certain values in order to meet different lighting environment and presentation purposes.

1. **Contrast**: Adjusts the degree of difference
   between dark and light in the image. The
   higher the value, the greater the contrast.

   -30   50   +70

2. **Brightness**: Adjusts the brightness of the
   image. The higher the value, the brighter the
   image. And lower the value, the darker the
   image. Adjust this control so the black areas of
   the image appear as black and that detail in the
   dark areas is visible.

   -30   50   +70

3. **Color**: Increase or decrease the color intensity of the image. The higher the value, the more vivid and brighter the color.

4. **Tint**: Adjusts the color tones of the image. The higher the value, the more greenish the picture becomes. The lower the value, the more purplish the picture becomes.

5. **Filter**: Turn the video and data filters on or off. Filters can reduce noise in the picture to produce a sharper image. The higher the setting, the less the noise.

6. **Sharpness**: Adjusts the picture sharpness. The higher the value, the sharper the picture.

7. **Extended Picture Setting**
   ■ Color Temp: You can choose a preferred color temperature from among Lamp Native, Warm, Middle, Cool, User 1, and User 2. Refer to for more information about storing the Color Temperature User 1 and 2.
   ■ Color Enhancement
      Red: Adjusts red hues independently. The higher the setting, the greater the intensity of red color in the image.
      Green: Adjusts green hues independently. The higher the setting, the greater the intensity of green color in the image.
      Blue: Adjusts blue hues independently. The higher the setting, the greater the intensity of blue color in the image.
      Yellow: Adjusts yellow hues independently. The higher the setting, the greater the intensity of yellow color in the image.
      White: Adjusts white peaking.

8. **Save Settings**: There are three video memories in which users can store settings, including all of the items in the **Picture** menu. Each input source can store up to 3 sets of user memories.
   ■ To store the settings:

   i.) Adjusts the items in the **Picture** menu to desired values.

   ii.) Select **Save Settings**, press ◉ .

   iii.) Select To User's Memory 1, To User's Memory 2, or To User's Memory 3 and press ◉ to store the settings.
   iv.) To leave the OSD, press **MENU**.

9. **Load Settings**: Loads the settings from one of three User Memories or the default settings, Dynamic, Standard, Therter 1, or Theater 2.

Display menu

Use this menu to set the way that the projector displays the picture.

1. **Screen Size**: There are a few aspect ratios that can be selected for different video signals.

2. **PIP:** Selects a second input signal for displaying a second image.

3. **POP:** Selects a second input signal for displaying a second image.

4. **PIP/POP Source Swap**: Sets an active window from the two images in order to make any adjustments for it.

5. **PC & Component YPbPr Tuning**: The following settings are only available with a PC or DTV RGB signal selected.
   ■ Frequency: Adjusts the frequency of the sampling clock that captures the input signal.
   ■ Phase: Adjusts the phase of the clock.
   ■ H. Pos.: Adjusts the horizontal position of the image.
   ■ V. Pos.: Adjusts the vertical position of the image.

■ Auto: Adjusts the phase, and frequency automatically.

Options menu

In this menu, global settings for the projector can be made.

1. **Background Color**: Allows you to choose the color of the background screen that will be displayed when there is no input signal detected.

2. **OSD Off (Secs)**: Sets the length of time the OSD will remain active after your last button press. The range is from 5 to 60 seconds.

3. **Sleep Timer (Min)**: Sets the auto-shutdown timer. The timer can be set to a value between 10 minutes and 3 hours.

4. **OSD Position H**: Adjusts the horizontal position of the OSD.

5. **OSD Position V**: Adjusts the vertical position of the OSD.

6. **Reset Settings**: Returns all settings to the factory preset values.

Setup menu

This menu contains items necessary for basic image setup.

1. **Language**: Sets the language for the OSD menus. There are seven languages available, English, French, Spanish, German, Italian, Japanese, and Portuguese.

2. **Projection Mode**: The projector can be installed on a ceiling or behind a screen, or with one or more mirrors. There are four settings for choice. Contact your dealer for the ceiling mount bracket if you need to install the projector on a ceiling.

3. **Keystone**: Corrects for trapezoidal distortion resulting from the angle of projection. It can provide correction of up to ± 12 degrees.

4. **Altitude**: This item is designed for those who use the projector in extreme environments, like high temperature or high. We recommend you select **High** when your environment is higher than 3000 feet, or is hotter than 40°C.
   Operation with **High** selected may caused a higher decibel operating noise level because of increased fan speed necessary to improve over-all cooling system and performance.

   If you use the projector under other extreme environments excluding the above, it may display auto shut-down symptoms, which is designed to protect your projector from over-heating. In cases like this, you should switch to **High** to solve these symptoms. However, this is not to state that this projector can operate under any and all harsh and extreme environments.

5. **Video Mode**: The projector is able to automatically identify the type of input signal, if you set Auto under **Video Mode**. If it fails, set **Manual** and select one system from the list.

6. **NTSC Mode**: If your residential area is using NTSC system, set the your locaton as Japan or US.

7. **Test Pattern**: It will be displayed with the aspect ratio setting made using the Screen Size function of the DISPLAY menu. Use this pattern when installing the projector, even if there is no input signal. Use it to adjust the image size and the focus.

8. **Lamp**
   ■ Lamp power: Sets **High** or **Standard** as the power type of your projection. Selecting **High** enables the projector with brighter projection images than selecting **Standard**.
   ■ Lamp Time: Shows the total time of the lamp has been used.
   ■ Reset Lamp Timer: Resets the lamp timer. This should only be done after the lamp has been replaced.

Advanced menu

1. **White Balance Fine Tuning**: Adjusts the white color.

■ Color temperature information: shows the current color temperature.

☞ ***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.

■ RGB Curve...--- Adjusts the display characteric of Red, Green, and Blue.

■ RGB Gain... --- Adjusts the contrast levels of Red, Green, and Blue.

■ RGB Offset... --- Adjusts the brightness levels of Red, Green, and Blue.

To store Color Temperature to User 1 and 2:

i.) Open the **Advanced** menu and select **White Balance Fine Tuning > RGB Gain**, press ⏺.

ii.) Press ▲ or ▼ to select the item to be changed and adjust the value with ◄ or ► button.

iii.) Press **MENU** to leave and save the settings.

iv.) Repeat steps ii and iii to set RGB Offset, and RGB Curve values.

v.) Select and enter "Store Color Temperature to User 1" or "Store Color Temperature to User 2" to save the settings which are made above.

vi.) Press **MENU** to leave and save the settings.

☞ **To make the color temperature higher**

Set the value of B Gain greater, and the value of R Gain smaller.

☞ **To make the color temperature lower**

Set the value of R Gain greater, and the value of B Gain smaller.

2. Faroudja TM Setting

■ **Truelife TM: Ehance uneven edges, for example, without highlighting outlines on skins.**

■ **Noise Reduce**: Reduces electrical image noise. The higher the setting, the less the noise.

Additional information

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 if other parts needs replacing.

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 cord, and leave it several minutes to cool completely.
1.   Use a canister of compressed air to remove dust. (Available from building hardware or photographic suppliers.)
2.   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 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 whilst the projector is switched on or is still hot from previous use.**

Cleaning the projector case

Before you attempt to clean the case, turn the projector off, unplug the power cord, and leave it several minutes to cool completely.
1.   To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.
2.   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:
1.   Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to the Spec. page in this manual or consult your dealer about the range.
2.   Retract the adjuster feet.
3.   Remove the batteries from the remote control.
4.   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. When you carry the projector yourself, please use a soft carry case.

Replacing the lamp (Contact your dealer for assistance)

⚠ **The lamp mat be very hot. Allow the projector to cool for at least 45 minutes before replacing the lamp. This lamp contains mercury. Consult your local hazardous waste regulations to dispose of this lamp in a proper manner.**
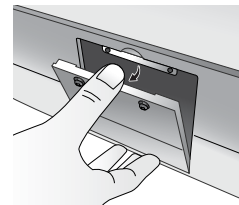
1.   Turn the power off and disconnect the projector from the wall socket. Turn off all connected equipment and disconnect all other cables.
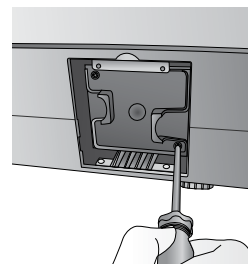
2. Loosen the screws on the lamp cover.

☞ **The lamp door is located at the left side of the projector.**
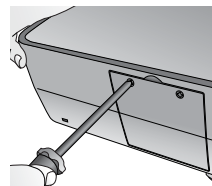
3. Remove the lamp cover.

4. Loosen the screws that hold the lamp to the projector. If the screws are not loosened completely, they could injure your fingers. It is strongly recommended that you use a magnetic-head screwdriver to retain the screw should it come loose

5. Slowly pull the lamp out of the projector.

☞ **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 hands into the projector after the lamp is removed. If you touch the optical components inside, it could cause color unevenness and distortion of the projected images.**
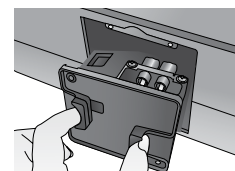
6. Insert a new lamp. Make sure it is securely in place.

7. Tighten the screws securing the lamp box.

8. Re-install the lamp cover.

9. Tighten the screws on the lamp cover.

☞ **Do not over tighten the screws.**

☞ **Loose screws may cause a bad connection, which could result in malfunction.**

10. Turn the power on and go into **Setup > Lamp > Reset Lamp Timer** menu to reset the lamp time.

☞ **Do not turn the power on with the lamp cover removed.**

☞ **Whenever the lamp is replaced, reset the total lamp operation time.**

☞ **Do not reset if the lamp is not replaced as this could cause damage.**

Indicators

There are three indicators which show the status of the projector. Check the following for information about the indicator lights. If there is anything wrong, turn the projector off and contact your dealer.

When the projector is in a normal state, ...

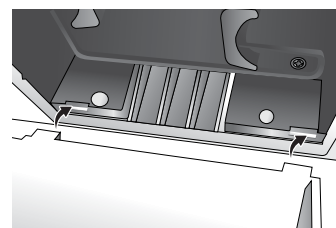| POWER	TEMP	LAMP	STATE	REMARK
Orange			Standby mode.	
Flashing orange			The projector is powering up.	Cannot turn the projector off.
Green	Off	Off	The projector is under normal operation.	
Flashing green			(1) The projector needs 110 seconds to cool down as it was abnormally shut down without the normal cooling down process. **Or** (2) The projector needs to cool for 110 seconds after the power is turned off.	Cannot turn the projector on.

When the projector is in an abnormal state, ...

POWER	TEMP	LAMP	STATE	REMARK
Orange	Off	Red	(1) The lamp has exceeded its usage life. **Or** (2) The lamp is not properly attached or is damaged.	Solution: • Install a new lamp. • Please contact your dealer for assistance.
Orange	Red	Off	The dust filter is seriously clogged with dust. The projector is going to shut down.	Solution: • Install a new filter.
Orange	Red	Off	The internal temperature is too high. • The intake ventilation or the exhaust ventilation is blocked. • The projector may be in a poorly ventilated location. • The ambient temperature may be too high.	Solution: • Make sure that the ventilation holes are not blocked. • Relocate the projector. • Stop using the projector until the ambient temperature falls within the specified range. The maximum operating temperature is specified as 40°C / 104°F.
Orange	Flashing red	Flashing red	The fans are not working.	Solution: • Check if the power supply is stable. • Check if there is object stuck in the fans. • Contact your dealer.

Troubleshooting

Problem	Cause	Remedy
The projector does not turn on.	There is no power from the power cord.	Plug the power cord into the AC inlet on the rear of the projector, and plug the power cord into to the power outlet. If the power outlet has a switch, make sure that it is switched on. **p. 20**
	The power switch is not in the on position.	Put the power switch in the on position. **p. 20**
	Attempting to turn the projector on again during the cooling process.	Wait until the cooling down process has completed.
	The lamp cover is not securely attached.	Correctly attach the lamp cover. **p. 30**
No picture.	The video source is not turned on or connected correctly.	Turn the video source on and check that the signal cable is connected correctly. **p. 18**
	The projector is not correctly connected to the input source device.	Check the connection. **p. 18**
	The input signal has not been correctly selected.	Select the correct input signal with the INPUT buttons on the remote control or **INPUT** on the projector. **p. 20**
Image is unstable.	The connection cables are not securely connected to the projector or the signal source.	Correctly connect the cables to the appropriate terminals. **p. 18**
Picture is blurred.	The projection lens is not correctly focused.	Adjust the focus of the lens using the focus ring. **p. 21**
	The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of this unit if necessary. **p. 21**
	The lens cap is still attached to the lens	Remove the lens cap. **p. 20**
Remote control does not work correctly	The batteries are out of power.	Replace both of the batteries with new ones. **p. 11**
	There is an obstacle between the remote control and the projector.	Remove the obstacle. **p. 13**
	You are too far away from the projector.	Stand within 8 meters (26.2 feet) of the projector. **p. 13**

Specifications

☞ **All specifications are subject to change without notice.**

Optical characteristics

Projection system	Single-chip DLP^{TM} system.
DMD chip	0.8" DMD W_Pal (1280 x 720)
Lens	1.37-times zoom ratio, F/# 2.4 ~ 2.8, f = 24 ~ 32
Projection size	0.94 m to 7.62 m / 37 to 300 inches
Lamp	250W

Electrical characteristics

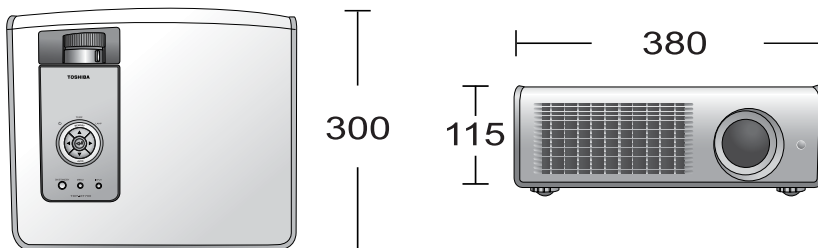|	
Color system	NTSC / PAL-M / PAL-N / PAL 60 / SECAM
Resolution	XGA, SVGA, VGA, Macintosh®, HDTV (1080i, 720p, 576p, 576i, 480p, 480i)
Max. number of display colors	16,770,000 colors (full color display)

Input

Video, S-Video, Component (Y/ CB/ CR, Y/ PB/ PR)
RS-232C, RGBHV, HDMI

General characteristics

Dimensions	380 mm x 300 mm x 115 mm (L x W x H)
Weight	10 lbs / 7.6 kg
Power	VAC 100 - 240V, 4.0 A, 50 / 60 Hz (Automatic)
Power consumption	Max 320 W
Operating temperature	0 °C to 40 °C at sea level
Operating humidity	10% - 90% (without condensation)
Operating altitude	6000 feet at 30°C, 6000 - 10000 feet at max. 23°C
Storage temperature	-10°C- 60°C / 14°F to 140°F
Storage humidity	10% - 90%

Dimensions

Unit: mm