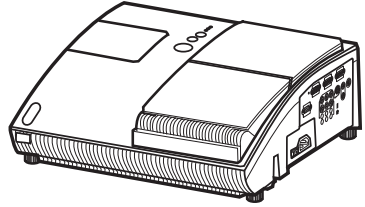


Projector

CP-A200

User's Manual (detailed) Operating Guide



Thank you for purchasing this projector.

▲ WARNING ▶ Before using this product, please read all manuals for this product. Be sure to read “Safety Guide” first. After reading them, store them in a safe place for future reference.

About this manual

Various symbols are used in this manual. The meanings of these symbols are described below.

▲ WARNING This symbol indicates information that, if ignored, could possibly result in personal injury or even death due to incorrect handling.

▲ CAUTION This symbol indicates information that, if ignored, could possibly result in personal injury or physical damage due to incorrect handling.

 Please refer to the pages written following this symbol.

NOTE • The information in this manual is subject to change without notice.
• The manufacturer assumes no responsibility for any errors that may appear in this manual.
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Projector

User's Manual - Safety Guide



Thank you for purchasing this projector.

⚠ WARNING • Before using, read these user's manuals of this projector to ensure correct usage through understanding. After reading, store them in a safe place for future reference. Incorrect handling of this product could possibly result in personal injury or physical damage. The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this projector.




- NOTE** • The information in this manual is subject to change without notice.
- The manufacturer assumes no responsibility for any errors that may appear in this manual.
 - The reproduction, transmission or use of this document or contents is not permitted without express written authority.

About The Symbols

Various symbols are used in this manual, the user's manual and on the product itself to ensure correct usage, to prevent danger to the user and others, and to prevent property damage. The meanings of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.

 WARNING	This symbol indicates information that, if ignored, could possibly result in personal injury or even death due to incorrect handling.
 CAUTION	This symbol indicates information that, if ignored, could result possibly in personal injury or physical damage due to incorrect handling.

Typical Symbols

-  This symbol indicates an additional warning (including cautions). An illustration is provided to clarify the contents.
-  This symbol indicates a prohibited action. The contents will be clearly indicated in an illustration or nearby (the symbol to the left indicates that disassembly is prohibited).
-  This symbol indicates a compulsory action. The contents will be clearly indicated in an illustration or nearby (the symbol to the left indicates that the power plug should be disconnected from the power outlet).

Safety Precautions

WARNING

Never use the projector if a problem should occur.

Abnormal operations such as smoke, strange odor, no image, no sound, excessive sound, damaged casing or elements or cables, penetration of liquids or foreign matter, etc. can cause a fire or electrical shock.

In such case, immediately turn off the power switch and then disconnect the power plug from the power outlet. After making sure that the smoke or odor has stopped, contact your dealer. Never attempt to make repairs yourself because this could be dangerous.

- The power outlet should be close to the projector and easily accessible.

Use special caution for children and pets.

Incorrect handling could result in fire, electrical shock, injury, burn or vision problem.

Use special caution in households where children and pets are present.

Do not insert liquids or foreign object.

Penetration of liquids or foreign objects could result in fire or electrical shock.

Use special caution in households where children are present.

If liquids or foreign object should enter the projector, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.

- Do not place the projector near water (ex. a bathroom, a beach, etc.).
- Do not expose the projector to rain or moisture. Do not place the projector outdoors.
- Do not place flower vases, pots, cups, cosmetics, liquids such as water, etc on or around the projector.
- Do not place metals, combustibles, etc on or around the projector.
- To avoid penetration of foreign objects, do not put the projector into a case or bag together with any thing except the accessories of the projector, signal cables and connectors.

Never disassemble and modify.

The projector contains high voltage components. Modification and/or disassembly of the projector or accessories could result in fire or electrical shock.

- Never open the cabinet.
- Ask your dealer to repair and clean insider.

Do not give the projector any shock or impact.

If the projector should be shocked and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.

If the projector is shocked, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.

Do not place the projector on an unstable surface.

If the projector should be dropped and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.

- Do not place the projector on an unstable, slant or vibrant surface such as a wobbly or inclined stand.
- Use the caster brakes placing the projector on a stand with casters.
- Do not place the projector in the side up position, the lens up position or the lens down position.
- In the case of a ceiling installation or the like, contact your dealer before installation.



Disconnect the plug from the power outlet.



Do not disassemble.



Safety Precautions (continued)

WARNING

Be cautious of High temperatures of the projector.

High temperatures are generated when the lamp is lit. It could result in fire or burn. Use special caution in households where children are present.

Do not touch about the lens, air fans and ventilation openings during use or immediately after use, to prevent a burn. Take care of ventilation.

- Keep a space of 30 cm or more between the sides and other objects such as walls.
- Do not place the projector on a metallic table or anything weak in heat.
- Do not place anything about the lens, air fans and ventilation openings of the projector.
- Never block the air fan and ventilation openings.
- Do not cover the projector with a tablecloth, etc.
- Do not place the projector on a carpet or bedding.



Never look through the lens or openings when the lamp is on.

The powerful light could adversely affect vision.

Use special caution in households where children are present.



Use only the correct power cord and the correct power outlet.

Incorrect power supply could result in fire or electrical shock.

- Use only the correct power outlet depending on the indication on the projector and the safety standard.
- The enclosed power cord must be used depending on the power outlet to be used.



Be cautious of the power cord connection.

Incorrect connection of the power cord could result in fire or electrical shock.

- Do not touch the power cord with a wet hand.
- Check that the connecting portion of the power cord is clean (with no dust), before using. Use a soft and dry cloth to clean the power plug.
- Insert the power plug into a power outlet firmly. Avoid using a loose, unsound outlet or contact failure.



Be sure to connect with ground wire.

Connect the ground terminal of AC inlet of this unit with the ground terminal provided at the building using the correct power cord; otherwise, fire or electric shock can result.

- Don't take the core of power cord away.



Surely connect the ground wire.

Safety Precautions (continued)

WARNING

Be careful in handling the light source lamp.

The projector uses a high-pressure mercury glass lamp made of glass. The lamp can break with a loud bang, or burn out. When the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury to escape from the projector's vent holes.

Please carefully read the section "Lamp".

Be careful in handling the power cord and external connection cables.

If you keep using a damaged the power cord or cables, it can cause a fire or electrical shock. Do not apply too much heat, pressure or tension to the power cord and cables.

If the power cord or cables is damaged (exposed or broken core wires, etc.), contact your dealer.

- Do not place the projector or heavy objects on the power cord and cables. Also, do not place a spread, cover, etc, over them because this could result in the inadvertent placing of heavy objects on the concealed power cord or cables.

- Do not pull the power cord and cables. When connecting and disconnecting the power cord or cables, do it with your hand holding the plug or connector.

- Do not place the cord near the heater.

- Avoid bending the power cord sharply.

- Do not attempt to work on the power cord.

Be careful in handling the battery of the remote control.

Incorrect handling of the battery could result in fire or personal injury. The battery may explode if not handled properly.

- Keep the battery away from children and pets. If swallowed consult a physician immediately for emergency treatment.

- Do not allow the battery in a fire or water.

- Avoid fire or high-temperature environment.

- Do not hold the battery with the metallic tweezers.

- Keep the battery in a dark, cool and dry place.

- Do not short circuit the battery.

- Do not recharge, disassemble or solder the battery.

- Do not give the battery a physical impact.

- Use only the battery specified in the other manual of this projector.

- Make sure the plus and minus terminals are correctly aligned when loading the battery.

- If you observe a leakage of the battery, wipe out the flower and then replace the battery. If the flower adheres your body or clothes, rinse well with water.

- Obey the local laws on disposing the battery.



Safety Precautions (continued)

CAUTION

Be careful in moving the projector.

Neglect could result in an injury or damage.

- Do not move the projector during use. Before moving, disconnect the power cord and all external connections, and close the slide lens door or attach the lens cap.
- Avoid any impact or shock to the projector.
- Do not drag the projector.
- For moving the projector, use the enclosed case or bag if provided.



Do not put anything on top of the projector.

Placing anything on the projector could result in loss of balance or falling, and cause an injury or damage. Use special caution in households where children are present.



Do not attach anything other than specified things to the projector.

Neglect could result in an injury or damage.

- Some projector has a screw thread in a lens part. Do not attach anything other than specified options (such as conversion lens) to the screw thread.



Avoid a smoky, humid or dusty place.

Placing the projector in a smoke, a highly humid, dusty place, oily soot or corrosive gas could result in fire or electrical shock.

- Do not place the projector near a smoky, humid or dusty place (ex. a smoking space, a kitchen, a beach, etc.). Do not place the projector outdoors.
- Do not use a humidifier near the projector.



Take care of the air filter to normal ventilate.

The air filter should be cleaned periodically. If the air filter becomes clogged by dust or the like, internal temperature rises and could cause malfunction. The projector may display the message such as "CHECK THE AIR FLOW" or turn off the projector, to prevent the internal heat level rising.

- When the indicators or a message prompts you to clean the air filter, clean the air filter as soon as possible.
- If the soiling will not come off the air filter, or it becomes damaged, replace the air filter.
- Use the air filter of the specified type only. Please order the air filter specified in the other manual of this projector to your dealer.
- When you replace the lamp, replace also the air filter. The air filter may be attached when you buy a replacement lamp for this projector.
- Do not turn on the projector without air filter.



Avoid a high temperature environment.

The heat could have adverse influence on the cabinet of the projector and other parts. Do not place the projector, the remote control and other parts in direct sunlight or near a hot object such as heater, etc.



Avoid Magnetism.

Manufacture strongly recommends to avoid any magnetic contact that is not shielded or protected on or near the projector itself. (ie., Magnetic Security Devices, or other projector accessory that contains magnetic material that has not been provided by the manufacture etc.) Magnetic objects may cause interruption of the projector's internal mechanical performance which may interfere with cooling fans speed or stopping, and may cause the projector to completely shut down.



Safety Precautions (continued)

CAUTION

Remove the power cord for complete separation.

- For safety purposes, disconnect the power cord if the projector is not to be used for prolonged periods of time.
- Before cleaning, turn off and unplug the projector. Neglect could result in fire or electrical shock.



Disconnect the plug from the power outlet.

Ask your dealer to cleaning inside of the projector about every year.

Accumulations of dust inside the projector cause result in fire or malfunction. Cleaning inside is more effective if performed before every humid periods such as rainy season.



- Do not clean inside yourself because it is dangerous.

NOTE

Do not give the remote control any physical impact.

A physical impact could cause damage or malfunction of the remote control.

- Take care not to drop the remote control.
- Do not place the projector or heavy objects on the remote control.

Take care of the lens.

- Close the slide lens door or attach the lens cap to prevent the lens surface being scratched when the projector is not used.
- Do not touch the lens to prevent fog or dirt of the lens that cause deterioration of display quality.
- Use commercially available lens tissue to clean the lens (used to clean cameras, eyeglasses, etc.). Be careful not to scratch the lens with hard objects.

Take care of the cabinet and the remote control.

Incorrect care could have adverse influence such as discoloration, peeling paint, etc.

- Use a soft cloth to clean the cabinet and control panel of the projector and the remote control. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth. Do not use undiluted detergent directly.
- Do not use an aerosol sprays, solvents, volatile substances or abrasive cleaner.
- Before using chemical wipes, be sure to read and observe the instructions.
- Do not allow long-term close contact with rubber or vinyl.

About bright spots or dark spots.

Although bright spots or dark spots may appear on the screen, this is a unique characteristic of liquid crystal displays, and such do not constitute or imply a machine defect.

Be careful of printing of the LCD panel.

If the projector continues projecting a still image, inactive images or 16:9 aspect images in case of 4:3 panel, etc., for long time, the LCD panel might possibly be printed.

Safety Precautions (continued)

NOTE

About consumables.

Lamp, LCD panels, polarizers and other optical components, and air filter and cooling fans have a different lifetime in each. These parts may need to be replaced after a long usage time.

- This product isn't designed for continuous use of long time. In the case of continuous use for 6 hours or more, or use for 6 hours or more every day (even if it isn't continuous), or repetitious use, the lifetime may be shortened, and these parts may need to be replaced even if one year has not passed since the beginning of using.
- Any inclining use beyond the adjustment range explained in these user's manuals may shorten the lifetimes of the consumables.

Before turning on the power, make the projector cool down adequately.

After turning the projector off, pushing the restart switch or interrupting of the power supply, make the projector cool down adequately. Operation in a high temperature state of the projector causes a damage of the electrode and un-lighting of the lamp.

Avoid strong rays.

Any strong ray (such as direct rays of the sun or room lighting) onto the remote control sensors could invalidate the remote control.

Avoid radio interference.

Any interfering radiation could cause disordered image or noises.

- Avoid radio generator such as a mobile telephone, transceiver, etc. around the projector.

About displaying characteristic.

The display condition of the projector (such as color, contrast, etc.) depends on characteristic of the screen, because the projector uses a liquid crystal display panel. The display condition can differ from the display of CRT.

- Do not use a polarized screen. It can cause red image.

Turn the power on/off in right order.

To prevent any trouble, turn on/off the projector in right order mentioned below unless specifying.

- Power on the projector before the computer or video tape recorder.
- Power off the projector after the computer or video tape recorder.

Take care not to fatigue your eyes.

Rest the eyes periodically.

Set the sound volume at a suitable level to avoid bothering other people.

- It is better to keep the volume level low and close the windows at night to protect the neighborhood environment.

Connecting with notebook computer

When connecting with notebook computer, set to valid the RGB external image output (setting CRT display or simultaneous display of LCD and CRT).

Please read instruction manual of the notebook for more information.

Lamp

WARNING



HIGH VOLTAGE



HIGH TEMPERATURE



HIGH PRESSURE

The projector uses a high-pressure mercury glass lamp. The lamp can **break with a loud bang, or burn out**, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, when the bulb bursts, it is possible for **shards of glass** to fly into the lamp housing, and for **gas containing mercury** to escape from the projector's vent holes.

About disposal of a lamp • This product contains a mercury lamp; do not put in trash. Dispose of in accord with environmental laws.

For lamp recycling, go to www.lamprecycle.org. (in USA)

For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).

For more information, call your dealer.



Disconnect
the plug from
the power
outlet

- If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your local dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself.
- If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to breathe the gas that comes out of the projector vents, or get it in your eyes or mouth.
- Before replacing the lamp, make sure the power switch is off and the power cable is not plugged in, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.



- Do not open the lamp cover while the projector is suspended from above. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.
- Do not use the projector with the lamp cover removed. At the lamp replacing, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.



- Use the lamp of the specified type only.
- If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or a service representative.
- Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
- Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

Regulatory Notices

FCC Statement Warning

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.

WARNING: 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.

INSTRUCTIONS TO USERS: This equipment complies with the requirements of FCC (Federal Communication Commission) equipment provided that the following conditions are met. Some cables have to be used with the core set. Use the accessory cable or a designated-type cable for the connection. For cables that have a core only at one end, connect the core to the projector.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For the Customers in CANADA

NOTICE: This Class B digital apparatus complies with Canadian ICES-003.

Warranty And After-Service

Unless seen any abnormal operations (mentioned with the first paragraph of WARNING in this manual), when a problem occurs with the equipment, first refer to the "Troubleshooting" section of the "Operating Guide", and run through the suggested checks. If this does not resolve the problem contact your dealer or service company. They will tell you what warranty condition is applied.

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Projector features

This product realizes the large projection image of various image signals, even if in a small space. This product can offer you convenience and various uses by the following features.

- ✓ The unique lens and mirror system realizes ultra short distance projection, which gives you more various way of use.
- ✓ The motorized lens door offers you very simple use of the projector.

Preparations

Contents of package

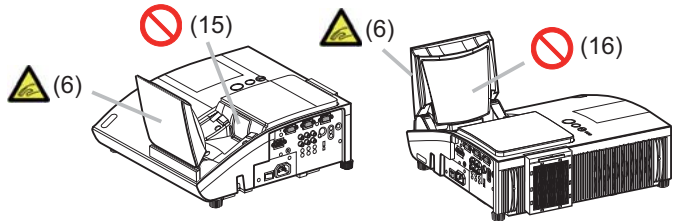
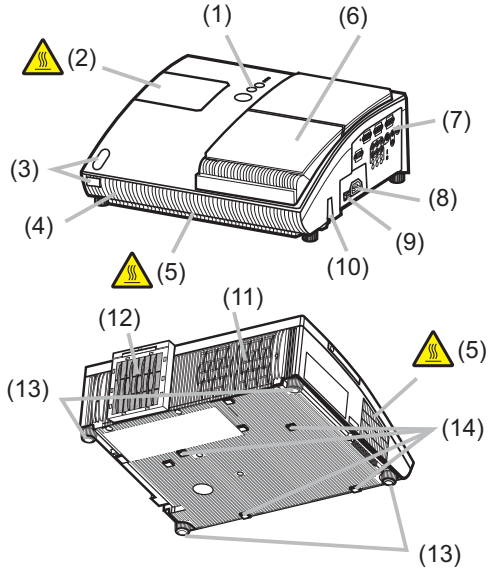
Please see the “Checking the contents” section in the **User’s Manual (concise)** which is a book. Your projector should come with the items shown there. Contact immediately your dealer if anything is missing.

NOTE • Keep the original packing materials, for future reshipment. Be sure to use the original packing materials when moving the projector. Use special caution for the lens.

Part names

Projector

- (1) Control buttons
(See the following page.)
- (2) Lamp cover (📖59)
- (3) Remote sensors (📖14)
- (4) Speaker (📖39)
- (5) Exhaust vents
- (6) Lens door (📖16, 17, 63)
- (7) Ports (📖5, 10)
- (8) AC inlet (📖12)
- (9) Power switch (📖16, 17)
- (10) Security bar (📖13)
- (11) Intake vents
- (12) Filter unit (📖61, 71)
- (13) Elevator feet (📖20)
- (14) Internal threads
These are threads for optional
mounting accessories.
- (15) Lens (📖16, 63, 71)
- (16) Mirror (📖16, 63)



⚠ WARNING ▶ Be careful not to pinch your finger with the lens door, to prevent an injury.
▶ Never look into the projection lens or mirror while the projection lamp lights, since the projection lamp ray may cause a trouble on your eyes.

⚠ CAUTION ▶ Do not touch the lamp cover or approach the exhaust vents while using the projector and for a while after use, to prevent a burn.
▶ Do not cover, block, or plug up the vents to keep normal ventilation. Do not place anything that can stick or be sucked to the vents, around the intake vents.

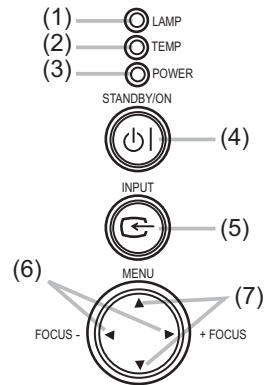
Control buttons

- (1) **LAMP** indicator (📖66, 67)
- (2) **TEMP** indicator (📖66, 67)
- (3) **POWER** indicator (📖16, 17, 66, 67)
- (4) **STANDBY/ON** button (📖16, 17)
- (5) **INPUT** button (📖18)

Buttons ◀/▶/▲/▼

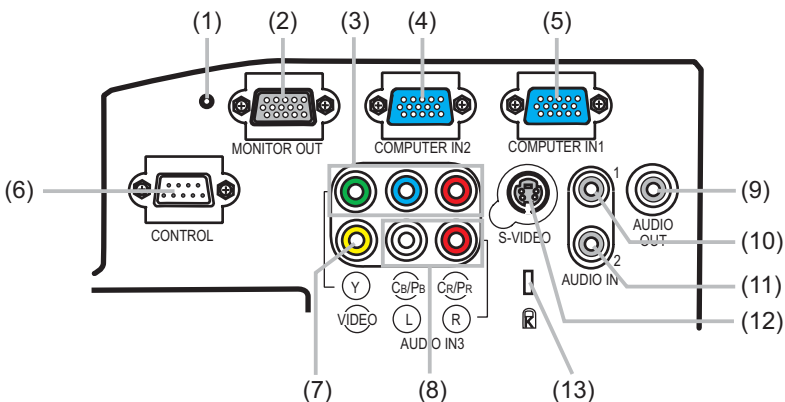
- (6) **FOCUS +/-** buttons
 - when no menu is displayed (📖21), or
 - Cursor ◀, ▶ buttons
 - when a menu is displayed (📖24).
- (7) **MENU** buttons
 - when no menu is displayed (📖24), or
 - Cursor ▲, ▼ buttons
 - when a menu is displayed (📖24).

The ◀/▶/▲/▼ buttons on the projector work only as the cursor buttons while the template is displayed (📖43).



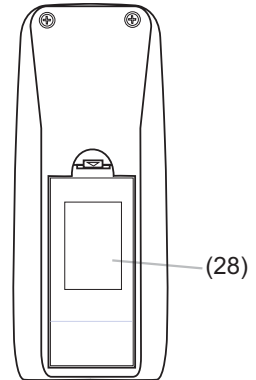
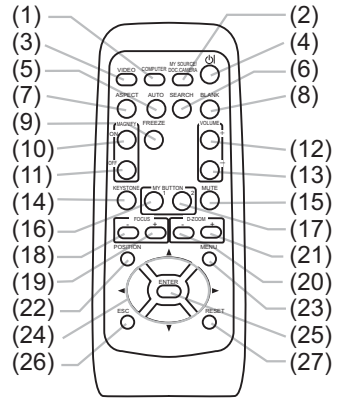
Ports (📖10, Technical's 3 to 6)

- (1) Shutdown switch (📖17, 67)
- (2) **MONITOR OUT** port (📖38)
- (3) **Y, Cb/Pb, Cr/Pr** (Component video) ports
- (4) **COMPUTER IN2** port
- (5) **COMPUTER IN1** port
- (6) **CONTROL** port
- (7) **VIDEO** port
- (8) **AUDIO IN3 (L,R)** ports (📖39)
- (9) **AUDIO OUT** port (📖39)
- (10) **AUDIO IN1** port (📖39)
- (11) **AUDIO IN2** port (📖39)
- (12) **S-VIDEO** port
- (13) Security slot (📖13)



Remote control

- (1) **COMPUTER** button (📖18)
- (2) **MY SOURCE/DOC.CAMERA** button (📖18, 46)
- (3) **VIDEO** button (📖18)
- (4) **STANDBY/ON** button (📖16, 17)
- (5) **AUTO** button (📖21)
- (6) **SEARCH** button (📖19)
- (7) **ASPECT** button (📖19)
- (8) **BLANK** button (📖23)
- (9) **FREEZE** button (📖23)
- (10) **MAGNIFY - ON** button (📖23)
- (11) **MAGNIFY - OFF** button (📖15, 23)
- (12) **VOLUME +** button (📖18)
- (13) **VOLUME -** button (📖15, 18)
- (14) **KEystone** button (📖22)
- (15) **MUTE** button (📖18)
- (16) **MY BUTTON - 1** button (📖46)
- (17) **MY BUTTON - 2** button (📖46)
- (18) **FOCUS -** button (📖21)
- (19) **FOCUS +** button (📖21)
- (20) **D-ZOOM -** button (📖20)
- (21) **D-ZOOM +** button (📖20)
- (22) **POSITION** button (📖20, 23)
- (23) **MENU** button (📖24, 25)
- (24) **▲/▼/◀/▶** cursor buttons (📖24, 25)
- (25) **ENTER** button (📖24, 25)
- (26) **ESC** button (📖15, 24, 25)
- (27) **RESET** button (📖15, 24, 25)
- (28) Battery cover (📖14)



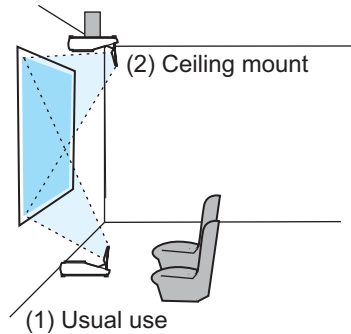
Back of
the remote control

Setting up

Arrangement

Install the projector in a stable, cool, dry and airy place, keeping a space of 30 cm or more between the sides of the projector and other objects such as walls.

Refer to the following to decide the projection style. For the case of installation in a special state such as ceiling mount, the specified mounting accessories and service may be required. Before installing the projector, consult your dealer about your installation.



- NOTE** • When installing the projector, confirm that there is nothing that blocks the projection light between the projector and the screen.
- When installing the projector, check that the remote sensors are not exposed to any strong ray (📖14).
 - Install the projector in the way specified in this manual. Otherwise the projection lamp may not light.

Arrangement (continued)

Refer to the following for the projection distance.

The values shown in the table are calculated for a full size screen: 1024 x 768.

Ⓐ: Screen size (diagonal)

Ⓑ1 Ⓑ2: Projection distance (±8%)

Ⓒ1 Ⓒ2: Screen height (±8%)

(1)

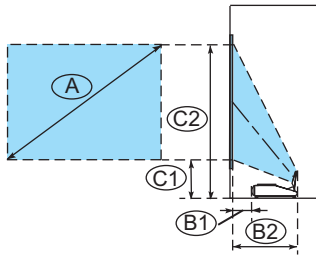


Table for 4:3 screen

Ⓐ	Ⓑ1		Ⓑ2		Ⓒ1		Ⓒ2	
inch	cm	inch	cm	inch	cm	inch	cm	inch
60	9.6	4	47.4	19	28.9	11	120.4	47
70	17.2	7	55.0	22	32.6	13	139.3	55
80	24.8	10	62.6	25	36.2	14	158.2	62
90	32.4	13	70.2	28	39.9	16	177.1	70
100	39.9	16	77.7	31	43.6	17	196.0	77

(2)

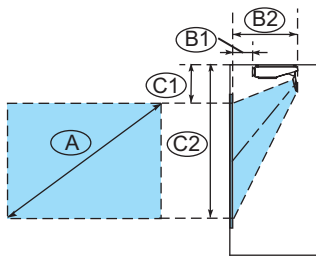


Table for 16:9 screen

Ⓐ	Ⓑ1		Ⓑ2		Ⓒ1		Ⓒ2	
inch	cm	inch	cm	inch	cm	inch	cm	inch
60	13.7	5	51.5	20	43.5	17	118.3	47
70	22.0	9	59.8	24	49.6	20	136.8	54
80	30.2	12	68.0	27	55.7	22	155.3	61
90	38.5	15	76.3	30	61.8	24	173.9	68
100	46.6	18	84.4	33	67.9	27	192.3	76

NOTE • It is recommended to adjust the screen size from 60 inch to 100 inch diagonal. The screen image adjusted out of this range, either smaller or larger, may be deteriorated.

• The screen position may be shifted after installation if the projector is suspended on a ceiling or somewhere, since the body of this projector is made of plastics. If readjustment is necessary, consult with your dealer or installer.

Arrangement (continued)

⚠ WARNING ► Place the projector in a stable horizontal position. If the projector falls or is knocked over it could cause injury and/or damage to the projector. Using a damaged projector could then result in fire and/or electric shock.

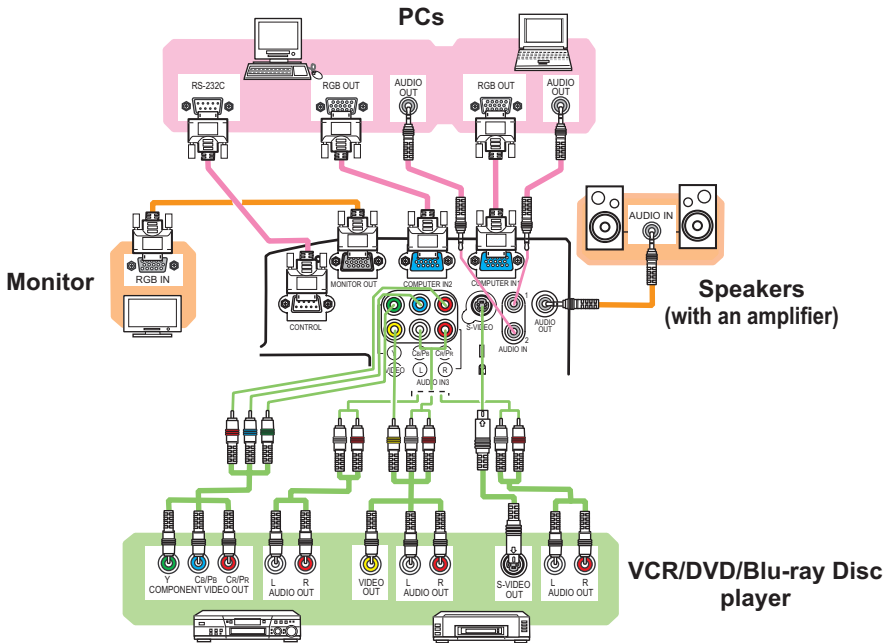
- Do not place the projector on an unstable, slanted or vibrational surface such as a wobbly or inclined stand.
- Do not place the projector on its side, front or rear position.
- Consult with your dealer before a special installation such as suspending from a ceiling or somewhere else.
- Place the projector in a cool place, and ensure that there is sufficient ventilation. The high temperature of the projector could cause fire, burns and/or malfunction of the projector.
- Do not stop-up, block or cover the projector's vents. Keep a space of 30 cm or more around the projector from other objects such as walls.
- Do not place or attach anything that would block the lens or vent holes.
- Do not place the projector on metallic thing or anything weak in heat.
- Do not place the projector on carpet, cushions or bedding.
- Do not place the projector in direct sunlight or near hot objects such as heaters.
- Do not place anything near the lens door, lens, mirror, vents. or on the top of the projector.
- Do not place anything that may be sucked into or stick to the vents on the rear and bottom of the projector. This projector has some intake vents on the rear and bottom.
- Do not place the projector anyplace where it may get wet. Getting the projector wet or inserting liquid into the projector could cause fire, electric shock and/or malfunction of the projector.
- Do not place the projector in a bathroom or the outdoors.
- Do not place anything containing liquid near the projector.

⚠ CAUTION ► Avoid placing the projector in smoky, humid or dusty place. Placing the projector in such places could cause fire, electric shock and/or malfunction of the projector.

- Do not place the projector near humidifiers, smoking spaces or a kitchen.
- Position the projector to prevent light from directly hitting the projector's remote sensor.

Connecting with your devices

Before connecting them, make sure that the devices are suitable to connect with this projector, and prepare the required signal cables and adapters. Consult your dealer if the accessory that is not included in this product is required. Refer to the following for connection. If you want to use the cable cover, see the Using the cable cover (13).



- ⚠ WARNING** ▶ Use only the accessories contained in this product or recommended by your dealer. Do not modify the projector or accessories.
- ▶ For the cable with a ferrite core only at one end, connect the end with the core to the projector. The cables may be required a specific length or a ferrite core by the regulations.
- ▶ Be careful not to damage the cables. Route the cables so that they are not likely to be walked on or pinched by items placed upon or against them.
- ⚠ CAUTION** ▶ Do not connect or disconnect the projector with devices while they are connected to a power supply, except for the cases directed by the manuals.
- ▶ Be careful not to set a connector into a wrong port or with a wrong way.

(continued on next page)

Connecting with your devices (continued)

NOTE • Be sure to read the manuals for devices before connecting them to the projector, and make sure that all the devices are suitable to be connected with this product. Before connecting to a PC, check the signal level, the signal timing, and the resolution.

- Some signal may need an adapter to input this projector.
- Some PCs have multiple screen display modes that may include some signals which are not supported by this projector.
- Although the projector can display signals with resolution up to UXGA (1600 X 1200), the signal will be converted to the projector's panel resolution before being displayed. The best display performance will be achieved if the resolutions of the input signal and the projector panel are identical.
- While connecting, make sure that the shape of the cable's connector fits the port to connect with. And be sure to tighten the screws on connectors with screws.
- When connecting a laptop PC to the projector, be sure to activate the PC's external RGB output. (Set the laptop PC to CRT display or to simultaneous LCD and CRT display.) For details on how this is done, please refer to the instruction manual of the corresponding laptop PC.
- When the picture resolution is changed on a PC depending on an input, automatic adjustment function may take some time and may not be completed. In this case, you may not be able to see a check box to select "Yes/No" for the new resolution on Windows. Then the resolution will go back to the original. It might be recommended to use other CRT or LCD monitors to change the resolution.
- In some cases, this projector may not display a proper picture or display any picture on screen. For example, automatic adjustment may not function correctly with some input signals. An input signal of composite sync or sync on G may confuse this projector, so the projector may not display a proper picture.

About Plug-and-Play capability

Plug-and-Play is a system composed of a PC, its operating system and peripheral equipment (i.e. display devices). This projector is VESA DDC 2B compatible. Plug-and-Play can be used by connecting this projector to a PC that is VESA DDC (display data channel) compatible.

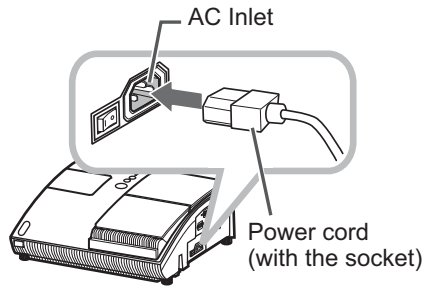
- Take advantage of this feature by connecting an computer cable to the **COMPUTER IN1** port (DDC 2B compatible). Plug-and-Play may not work properly if any other type of connection is attempted.
- Please use the standard drivers in your PC as this projector is a Plug-and-Play monitor.

Connecting with a power supply

Before connection, confirm that the power outlet is suitable for this projector and the power cord.

Then follow the procedure below for connection.

1. Insert the end of the power cord with the socket into the AC inlet of the projector.
2. Plug the other end of the power cord into a power outlet.



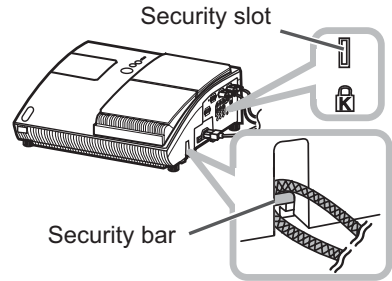
⚠ WARNING ► Be careful of operation for a power supply not to cause an electric shock or a fire.

- Do not handle the power cord with the wet hand.
- Use this product with only the type of power supply indicated on the projector.
- Use a power outlet that is close to the projector and easily accessible.
- Connect firmly the power cord not to result in loose connection. Do not use a loose or unsound power outlet.
- Do not overload the outlet, since overloading can result in a risk of fire or electric shock.
- Use only the power cord contained in this product unless it is damaged. If it is damaged, consult your dealer to get new one. Do not modify the power cord.

Using the security bar and slot

This projector has the security bar for a commercial anti-theft chain or wire up to 10 mm in diameter, and also the security slot for the Kensington lock.

For details, see the manual of the security tool.



NOTE • These are not provided as comprehensive theft preventions but supplemental measures.

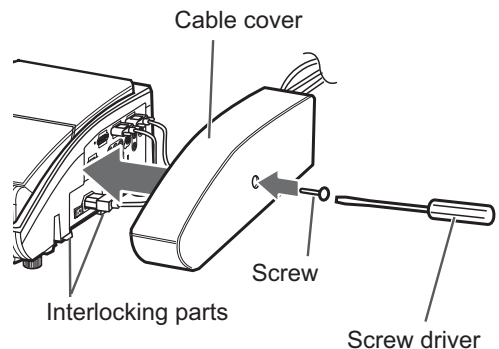
⚠ WARNING ► Do not place the anti-theft chain or wire near the projector's exhaust vents, since the chain or wire heated by the hot exhaust gas may cause a burn.

► Do not use the security bar or slot for the purpose of fall prevention, since these are not designed for it.

Using the cable cover

Utilize the cable cover as the guard and blind for the connecting parts.

1. Connect the signal cables and the power cord to the projector first.
2. Attach the cable cover to the projector, uniting the interlocking parts.
3. Tighten the screw to fix the cable cover.
4. Connect the other ends of the cables to other devices, and plug the power cord to the power outlet.



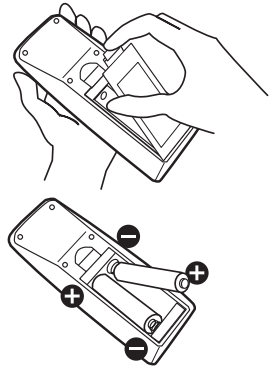
⚠ CAUTION ► Be careful not to pinch the cables in the cable cover, to prevent damage to the cables.

Remote control

Preparing for the remote control

The accessory remote control needs batteries. Use the batteries included in this product or two new batteries of the specified type: **HITACHI MAXELL**, part number **LR6** or **R6P**. Follow the following procedure.

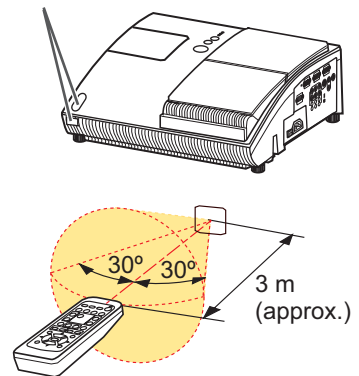
1. Remove the battery cover in the back of the remote control.
2. Put the batteries into the battery holder, according to the polarity markings (+) and (-) inside the holder.
3. Put the battery cover back to the former state.



NOTE • Try changing the batteries when the remote control malfunctions.

- This remote control works with the remote sensors on the projector using infrared light (Class 1 LED). The active sensor senses the remote control signal assigned within 60 degrees to right and left, and within 3 meters.
- The remote control signal reflected in the screen or the like may be available.
- Prevent the remote sensors from being hit by a strong ray. It may cause malfunction of the projector and remote control.

Remote sensors



⚠ WARNING ► Be careful of handling a battery, as a battery can cause explosion, cracking or leakage, which could result in a fire, an injury, and environment pollution.

- Use only the specified and new battery. Do not use a battery with damage, such as a scratch, a dent, rust or leakage. Do not mix a new battery with used one.
- When a battery leaked, wipe the leakage out well with a waste cloth. If the leakage adhered to your body, immediately rinse it well with water. When a battery leaked in the battery holder, replace the batteries after wiping the leakage out.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
- Do not work on a battery; for example recharging or soldering.
- Do not keep the batteries put into the remote control when the remote control is not used for a long while. Keep a battery in a dark, cool and dry place. Never expose a battery to a fire or water.
- Obey the local laws on disposing a battery.

Changing the frequency of remote control signal

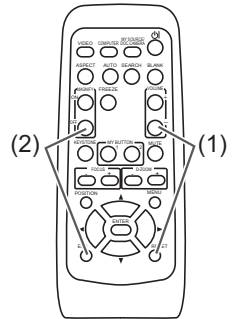
The accessory remote control has the two choices on signal frequency Mode 1:NORMAL and Mode 2:HIGH. If the remote control does not function properly, attempt to change the signal frequency.

In order to set the Mode, please keep pressing the combination of two buttons listed below simultaneously for about 3 seconds.

(1) Set to Mode 1:NORMAL... **VOLUME-** and **RESET** buttons

(2) Set to Mode 2:HIGH... **MAGNIFY OFF** and **ESC** buttons

Please remember that the REMOTE FREQ. in the SERVICE item of the OPTION menu (🔑49) of the projector to be controlled should be set to the same mode as the remote control.



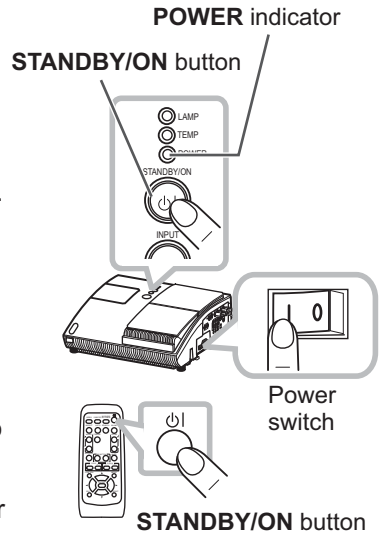
Power on/off

Turning on the power

Turn on the projector and the connected devices. Turn on the projector ahead of other connected devices, unless mentioned in the manuals.

For this projector, follow the procedure below.

1. Press the side marked "I" of the power switch, as the power-on position. The **POWER** indicator lights up in orange.
 - For a couple of seconds after the **POWER** indicator lights up, wait to use the control buttons (on the projector and remote control). The buttons may not work soon.
2. Confirm that there is nothing that the lens door hits while opening. Then, press the **STANDBY/ON** button (on the projector or remote control). The lens door opens, the projection lamp lights up, and the **POWER** indicator begins to blink green.



When the projector starts completely, the indicator will turn steady green.

To display the picture, select an input signal according to the section “Selecting an input signal” (📖18).

NOTE • When the DIRECT POWER ON of the OPTION menu is set to the TURN ON, and the power was turned off by the power switch last time, turning the power switch on makes the projection lamp light on without pushing the **STANDBY/ON** button (📖44).

• Install the projector in the way specified in this manual. Otherwise the projection lamp may not light.

⚠ **WARNING** ▶ Never look into the projection lens or mirror while the projection lamp lights, since the projection lamp ray may cause a trouble on your eyes.

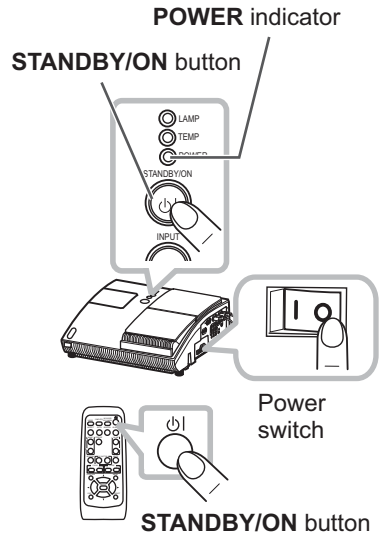
▶ Do not touch around the lamp cover and the exhaust vents during use or just after use, since it is too hot.

⚠ **CAUTION** ▶ Be careful not to pinch your finger with the lens door, as it may cause an injury.

Turn off the power

Turn the projector off after turning off the other connected devices, unless mentioned in the manuals. For this projector, follow the procedure below.

1. Press the **STANDBY/ON** button (on the projector or remote control).
The "Power off?" dialog appears on the screen for about 5 seconds.
2. Confirm that there is nothing that the lens door hits while closing.
Then press the **STANDBY/ON** button again while the message appears.
The projection lamp goes off, the lens door closes, and the **POWER** indicator begins to blink orange.
 - For cooling the projector down, wait for the **POWER** indicator to stop blinking and turn steady orange.
The projector can be turned off without waiting for cooling down. However, the manufacture recommends cooling the projector down enough.
Do not turn the projector on for about 10 minutes or more after turning it off to prevent shortening its life.
3. Press the side marked "O" of the power switch, as the power-off position.
The **POWER** indicator goes off.



When you will not use the projector for a long while, unplug and separate the power cord from the power outlet, for safety purposes.

NOTE • Use the shutdown switch (📖67) only when the projector is not turned off by normal procedure.
• Do not turn the projector on for about 10 minutes or more after turning it off. Turning the projector on again too soon could shorten the lifetime of some consumable parts of the projector.

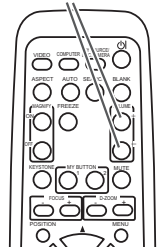
⚠ CAUTION ► Be careful not to pinch your finger with the lens door, to prevent an injury.
► Do not touch the lamp cover or approach the exhaust vents while using the projector and for a while after use, to prevent a burn.

Operating

Adjusting the volume

VOLUME+/- button

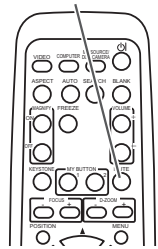
- Use the **VOLUME +/VOLUME -** buttons to adjust the volume.
 - A dialog will appear on the screen to aid you in adjusting the volume. If you do not do anything, the dialog will automatically disappear after a few seconds.
 - When \times is selected for current picture input port, the volume adjustment is disabled. Please see **AUDIO** item of **AUDIO** menu ([43](#)).
 - When the projector is in the standby mode, the volume can be adjusted if \times is not selected for the **AUDIO OUT STANDBY** of **AUDIO** ([43](#)).



Temporarily muting the sound

- Press **MUTE** button on the remote control.
 - A dialog will appear on the screen indicating that you have muted the sound. To restore the sound, press the **MUTE**, **VOLUME +** or **VOLUME -** button. Even if you do not do anything, the dialog will automatically disappear after a few seconds.
 - When \times is selected for current picture input port, the sound is always muted. Please see **AUDIO** item of **AUDIO** menu ([43](#)).
 - When the sound is muted while a signal from **VIDEO**(NTSC), **S-VIDEO**(NTSC), **COMPONENT**(480i@60), **COMPUTER IN1** (480i@60) or **COMPUTER IN2**(480i@60) port is selected, the C.C. (Closed Caption) is automatically activated if the **DISPLAY** item of the C.C. menu is set to **AUTO** and the input signal supports the C.C. feature ([58](#)).

MUTE button



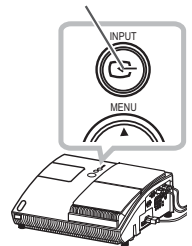
Selecting an input signal

- Press **INPUT** button on the projector.
 - Each time you press the button, the projector switches its input port from the current port as below.

COMPUTER IN 1 → COMPUTER IN 2
←

VIDEO ← S-VIDEO ← COMPONENT (Y, Cb/Pb, Cr/Pr)
←
 - While **TURN ON** is selected for **AUTO SEARCH** item in **OPTION** menu ([44](#)), the projector will keep checking the ports in above order repeatedly till an input signal is detected.

INPUT button

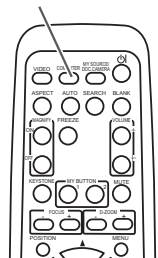


- Press **COMPUTER** button on the remote control.
 - Each time you press the button, the projector switches its input port from the current port as below.

COMPUTER IN 1 ↔ COMPUTER IN 2

- While **TURN ON** is selected for **AUTO SEARCH** item in **OPTION** menu, the projector will keep checking every port sequentially till an input signal is detected ([44](#)). If **COMPUTER** button is pushed when **VIDEO**, **S-VIDEO** or **COMPONENT** port is selected, the projector will check **COMPUTER IN1** port first.

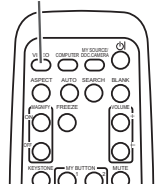
COMPUTER button



(continued on next page)

Selecting an input signal (continued)

VIDEO button



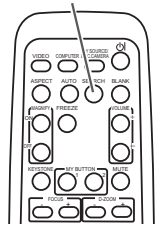
1. Press **VIDEO** button on the remote control.
 - Each time you press the button, the projector switches its input port from the current port as below.

COMPONENT (Y, C_B/P_B, C_R/P_R) → S-VIDEO → VIDEO

- While **TURN ON** is selected for **AUTO SEARCH** item in **OPTION** menu, the projector will keep checking every port sequentially till an input signal is detected (44). If **VIDEO** button is pushed when **COMPUTER IN1** or **COMPUTER IN2** port is selected, the projector will check **COMPONENT** port first.

Searching an input signal

SEARCH button



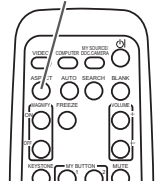
1. Press **SEARCH** button on the remote control.
 - The projector will start to check its input ports as below in order to find any input signals. When an input is found, the projector will stop searching and display the image. If no signal is found, the projector will return to the state selected before the operation.

COMPUTER IN 1 → COMPUTER IN 2
 VIDEO ← S-VIDEO ← COMPONENT (Y, C_B/P_B, C_R/P_R) ←

- While **TURN ON** is selected for **AUTO SEARCH** item in **OPTION** menu (44), the projector will keep checking the ports in above order repeatedly till an input signal is detected.

Selecting an aspect ratio

ASPECT button



1. Press **ASPECT** button on the remote control.
 - Each time you press the button, the projector switches the mode for aspect ratio in turn.

- **For a computer signal**
 NORMAL → 4:3 → 16:9 → 16:10

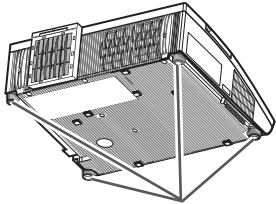
- **For a video signal, s-video signal or component video signal**
 4:3 → 16:9 → 14:9

- **For no signal**
 4:3 (fixed)

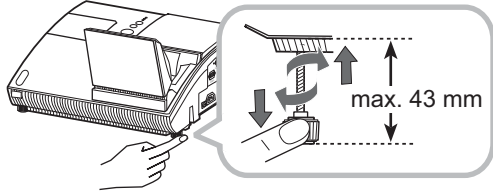
- **ASPECT** button does not work when no proper signal is inputted.
- **NORMAL** mode keeps the original aspect ratio setting.

Adjusting the projection position

This projector has four elevator feet in the bottom. Use them to adjust the projection position.



Elevator feet



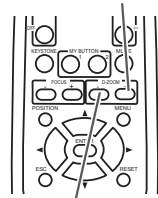
- ⚠ CAUTION**
- ▶ Do not lengthen the elevator feet to 43 mm or more. The foot lengthened exceeding the limit may come off from the projector, and result in an injury.
 - ▶ Tilt the projector with these elevating feet only.
 - ▶ Do not tilt the projector over 5 degrees, when it is suspended from a ceiling or somewhere.

Adjusting the zoom

Press the **D-ZOOM +** or **D-ZOOM –** button on the remote control to display D-ZOOM dialog on screen. Use the **D-ZOOM +** and **D-ZOOM –** buttons to adjust the picture size. To finish the operation, do not touch these buttons for a few seconds until the dialog is disappeared.

- If you want to expand a part of the image, use the magnify function (23).

D-ZOOM + button

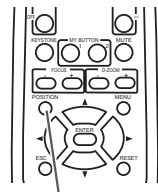


D-ZOOM – button

Adjusting the picture position

Press the **POSITION** button on the remote control while no menu is on screen, to display the D-SHIFT dialog on screen. Use the **▲**, **▼**, **◀** and **▶** buttons to adjust the picture position. Press the **POSITION** button again to finish this operation.

- This is a function to shift the position of the shrunken picture by the zoom function.
- The function is not available, if any menu is displayed on screen.
- The function is not available, if the D-ZOOM is adjusted to 100 (full screen) on its dialog.



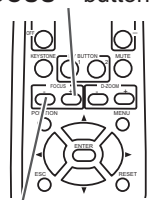
POSITION button

Adjusting the focus

Press the **FOCUS +** or **FOCUS –** button on the remote control, or **FOCUS +** or **FOCUS –** button on the projector (45) while no menu is on screen, to display the FOCUS box on screen. Use the **FOCUS +** and **FOCUS –** buttons to adjust the screen focus. After the focus adjustment, wait for a while until the FOCUS box is disappeared, if you want to display any other menu on screen by pushing the **MENU** button on the projector.

- The ◀/▶/▲/▼ buttons on the projector work only as the cursor buttons while the template is displayed (43).

FOCUS + button

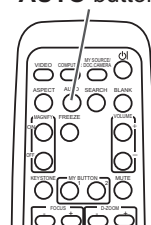


FOCUS – button

Using the automatic adjustment feature

1. Press **AUTO** button on the remote control.
 - Pressing this button performs the following.
 - **For a computer signal**
The vertical position, the horizontal position and the horizontal phase will be automatically adjusted. Make sure that the application window is set to its maximum size prior to attempting to use this feature. A dark picture may still be incorrectly adjusted. Use a bright picture when adjusting.
 - **For a video signal and s-video signal**
The video format best suited for the respective input signal will be selected automatically. This function is available only when the AUTO is selected for the VIDEO FORMAT item in the INPUT menu (34). The vertical position and horizontal position will be automatically set to the default.
 - **For a component video signal**
The vertical position, horizontal position and horizontal phase will be automatically set to the default.
- The automatic adjustment operation requires approx. 10 seconds. Also please note that it may not function correctly with some input. When this function is performed for a video signal, a certain extra such as a line may appear outside a picture.
- The items adjusted by this function may vary when the FINE or DISABLE is selected for the AUTO ADJUST item of the SERVICE item in the OPTION menu (47).

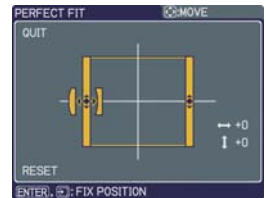
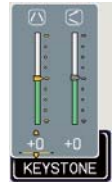
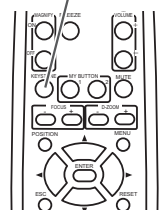
AUTO button



Correcting distortion

1. Press **KEYSTONE** button on the remote control. A dialog will appear on the screen to aid you in correcting the distortion. Even if you do not do anything, the dialog will automatically disappear after a few seconds.
2. Use the **▲/▼** cursor buttons to select **MANUAL** or **PERFECT FIT** operation, and press the **▶** button to perform the following.
 - (1) **MANUAL** displays a dialog for keystone correction. Use the **◀/▶** cursor buttons to select the direction to correct (▧ or ▨) then use the **▲/▼** buttons for adjustment. Even if you do not do anything, the dialog will automatically disappear after a few seconds.
 - (2) **PERFECT FIT** displays a dialog for adjusting the shape of the projected image in each of the corners and sides. Even if you do not do anything, the dialog will automatically disappear after about one minute.
 - 1) Choose a corner or side to adjust using the **▲/▼/◀/▶** buttons and press the **ENTER** or **INPUT** button.
 - 2) Adjust the distortion as below.
 - Use the **▲/▼/◀/▶** buttons to adjust the position of the corner.
 - Use the **▲/▼** buttons to adjust the distortion of the top or bottom side, after defining the adjusting position with the **◀/▶** buttons.
 - Use the **◀/▶** buttons to adjust the distortion of the left or right side, after defining the adjusting position with the **▲/▼** buttons.
 - Press the **ENTER** or **INPUT** button to exit the adjustment.
 - 3) To adjust another corner or side, follow the same procedure from 1) above. To reset the adjustment of all the corners and sides, select **RESET** with the **▲/▼** buttons and press the **ENTER** or **INPUT** button.

KEYSTONE button



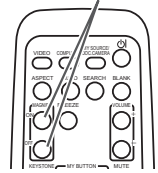
To close the dialog and complete this operation, press the **KEYSTONE** button again.

- While the distortion is adjusted with the **PERFECT FIT** function, keystone adjustment feature is unavailable. To correct the keystone distortion, reset the adjustment of all the corners and sides.
- The adjustable range of this function will vary among inputs. For some input, this function may not work well.
- When the zoom adjustment is set to the **TELE** (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full **WIDE** (wide-angle focus) whenever possible.
- One adjustment position common to the top and bottom sides can be set. Also, another adjustment position common to the left and right sides can be set.
- The distortion of the top and bottom sides can be adjusted only in the same direction, pincushion or barrel. The adjustment for the left and right sides is carried out in the same manner.
- This function will be unavailable when Transition Detector is on (54).

Using the magnify feature

1. Press the **ON** button of **MAGNIFY** on the remote control.
 - The "MAGNIFY" indication will appear on the screen and the projector will go into the MAGNIFY mode. When the **ON** button of **MAGNIFY** is pressed first after the projector is started, the picture will be zoomed twice. The indication will disappear in several seconds with no operation.
2. Use the **▲/▼** cursor buttons to adjust the zoom level. To move the zoom area, press the **POSITION** button in the MAGNIFY mode, then use the **▲/▼/◀/▶** cursor buttons to move the area. And to finalize the zoom area, press the **POSITION** button again.
 - To exit from the MAGNIFY mode and restore the screen to normal, press the **OFF** button of **MAGNIFY** on the remote control.
 - The projector automatically exits from the MAGNIFY mode when the input signal is changed or when the display condition is changed.
 - In the MAGNIFY mode, the keystone distortion condition may vary, it will be restored when the projector exits from the MAGNIFY mode.

MAGNIFY
ON/OFF button

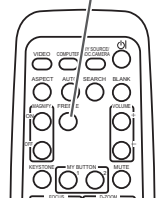


NOTE • The zoom level can be finely adjusted. Closely watch the screen to find the level you want.

Freezing the screen

1. Press the **FREEZE** button on the remote control.
 - The "FREEZE" indication will appear on the screen (however, the indication will not appear when the TURN OFF is selected for the MESSAGE item in the SCREEN menu (42)), and the projector will go into the FREEZE mode, which the picture is frozen. To exit the FREEZE mode and restore the screen to normal, press the **FREEZE** button again.
 - The projector automatically exits from the FREEZE mode when some control buttons are pressed.
 - If the projector continues projecting a still image for a long time, the LCD panel might possibly be burned in. Do not leave the projector in the FREEZE mode for too long.

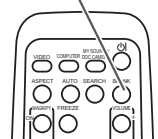
FREEZE button



Temporarily blanking the screen

1. Press **BLANK** button on the remote control.
 - The BLANK screen will be displayed instead of the screen of input signal. Please refer to BLANK item in SCREEN menu (40). To exit from the BLANK screen and return to the input signal screen, press **BLANK** button again.
 - The projector automatically exits from the BLANK mode when some control buttons are pressed.

BLANK button



NOTE • The sound is not connected with the BLANK screen function. If necessary, set the volume or mute first.

- If you want to make the screen blank and the sound muted at the same time, use AV Mute function that is required to be assigned to one of the MY BUTTON on the remote in advance (46).

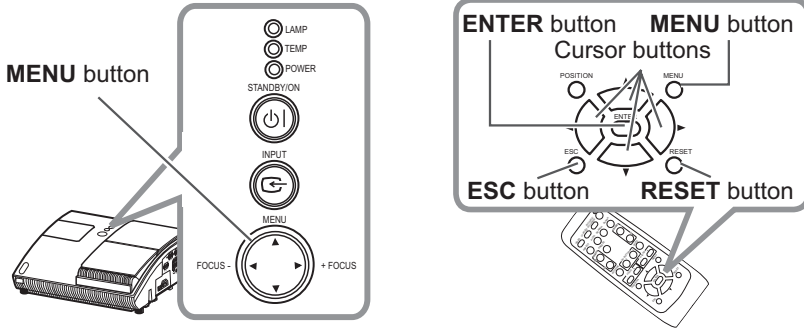
Using the menu function

This projector has the following menus:

PICTURE, IMAGE, INPUT, SETUP, AUDIO, SCREEN, OPTION, C.C. and EASY MENU.

EASY MENU consists of functions often used, and the other menus are classified into each purpose and brought together as the Advanced Menu.

Each of these menus is operated using the same methods. The basic operations of these menus are as follows.



1. Press the **MENU** button on the remote control or the projector.
The Advanced Menu or EASY MENU, which has priority just after powered on will appear.

If you want to move the menu position, use the cursor buttons after pressing the **POSITION** button. While the projector is displaying any menu, the **MENU** button on the projector works as the cursor buttons.

In the EASY MENU

2. If you want to change it to the Advanced Menu, select the Go to Advanced Menu...
3. Use the **▲/▼** cursor buttons to select an item to operate.
4. Use the **◀/▶** cursor buttons to operate the item.



EASY MENU

(continued on next page)

Using the menu function (continued)

In the Advanced Menu

2. Use the ▲/▼ cursor buttons to select a menu.
If you want to change it to the EASY MENU, select EASY MENU.
Then press the ► cursor button, or **ENTER** button to select an item. The lower layer menu of the selected item will appear.



Advanced Menu






3. Use the ▲/▼ cursor buttons to select an item to operate.
Then press the ► cursor button, or **ENTER** button to progress. The operation menu of the selected item will appear.
4. Use the ▲/▼ cursor buttons to operate the item.
 - Some functions cannot be performed when a certain input port is selected, or when a certain input signal is displayed.
 - When you want to reset the operation, press **RESET** button on the remote control during the operation. Note that some items (ex. LANGUAGE, H PHASE, VOLUME) cannot be reset.
 - In the Advanced Menu, when you want to return to the previous display, press the ◀ cursor button or **ESC** button on the remote control.
5. Press **MENU** button on the remote control again to close the menu and complete this operation. Even if you do not do anything, the dialog will automatically disappear after about 10 seconds.

EASY MENU

From the EASY MENU, items shown in the table below can be performed.

Select an item using the ▲/▼ cursor buttons. Then perform it according to the following table.



Item	Description																							
ASPECT	Using the ◀/▶ buttons switches the mode for aspect ratio. See the ASPECT item in IMAGE menu (📄31).																							
D-ZOOM	Using the ◀/▶ buttons adjusts the zoom. See the D-ZOOM item in SETUP menu (📄36).																							
KEYSTONE 	Using the ◀/▶ buttons corrects the vertical keystone distortion. See KEYSTONE  item in SETUP menu (📄36).																							
KEYSTONE 	Using the ◀/▶ buttons corrects the horizontal keystone distortion. See the KEYSTONE  item in SETUP menu (📄36).																							
PERFECT FIT	Pressing the ▶ button displays the dialog for adjusting the shape of the projected image in each of the corners and sides. See the PERFECT FIT item in SETUP menu (📄37).																							
PICTURE MODE	Using the ◀/▶ buttons switches the picture mode. The picture modes are combinations of GAMMA and COLOR TEMP settings. Choose a suitable mode according to the projected source.																							
	<p>  </p> <table border="1"> <thead> <tr> <th></th> <th>COLOR TEMP</th> <th>GAMMA</th> </tr> </thead> <tbody> <tr> <td>NORMAL</td> <td>#2 MID DEFAULT</td> <td>#1 DEFAULT</td> </tr> <tr> <td>CINEMA</td> <td>#3 LOW DEFAULT</td> <td>#2 DEFAULT</td> </tr> <tr> <td>DYNAMIC</td> <td>#1 HIGH DEFAULT</td> <td>#3 DEFAULT</td> </tr> <tr> <td>BOARD(BLACK)</td> <td>#4 Hi-BRIGHT-1 DEFAULT</td> <td>#4 DEFAULT</td> </tr> <tr> <td>BOARD(GREEN)</td> <td>#5 Hi-BRIGHT-2 DEFAULT</td> <td>#4 DEFAULT</td> </tr> <tr> <td>WHITEBOARD</td> <td>#2 MID DEFAULT</td> <td>#5 DEFAULT</td> </tr> <tr> <td>DAYTIME</td> <td>#6 Hi-BRIGHT-3 DEFAULT</td> <td>#6 DEFAULT</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • When the combination of GAMMA and COLOR TEMP differs from pre-assigned modes above, the display on the menu for the PICTURE MODE is “CUSTOM”. Please refer to GAMMA (📄28) and COLOR TEMP (📄29) items in PICTURE menu. • When this function is performed, a certain extra such as a line may appear. 		COLOR TEMP	GAMMA	NORMAL	#2 MID DEFAULT	#1 DEFAULT	CINEMA	#3 LOW DEFAULT	#2 DEFAULT	DYNAMIC	#1 HIGH DEFAULT	#3 DEFAULT	BOARD(BLACK)	#4 Hi-BRIGHT-1 DEFAULT	#4 DEFAULT	BOARD(GREEN)	#5 Hi-BRIGHT-2 DEFAULT	#4 DEFAULT	WHITEBOARD	#2 MID DEFAULT	#5 DEFAULT	DAYTIME	#6 Hi-BRIGHT-3 DEFAULT
	COLOR TEMP	GAMMA																						
NORMAL	#2 MID DEFAULT	#1 DEFAULT																						
CINEMA	#3 LOW DEFAULT	#2 DEFAULT																						
DYNAMIC	#1 HIGH DEFAULT	#3 DEFAULT																						
BOARD(BLACK)	#4 Hi-BRIGHT-1 DEFAULT	#4 DEFAULT																						
BOARD(GREEN)	#5 Hi-BRIGHT-2 DEFAULT	#4 DEFAULT																						
WHITEBOARD	#2 MID DEFAULT	#5 DEFAULT																						
DAYTIME	#6 Hi-BRIGHT-3 DEFAULT	#6 DEFAULT																						

EASY MENU (continued)


Item	Description
BRIGHTNESS	Using the ◀/▶ buttons adjusts the brightness. See BRIGHTNESS item in PICTURE menu (📖28).
CONTRAST	Using the ◀/▶ buttons adjusts the contrast. See CONTRAST item in PICTURE menu (📖28).
COLOR	Using the ◀/▶ buttons adjusts the strength of whole color. See COLOR item in PICTURE menu (📖29).
TINT	Using the ◀/▶ buttons adjusts the tint. See TINT item in PICTURE menu (📖29).
SHARPNESS	Using the ◀/▶ buttons adjusts the sharpness. See SHARPNESS item in PICTURE menu (📖30).
WHISPER	Using the ◀/▶ buttons turns off/on the whisper mode. See WHISPER item in SETUP menu (📖37).
MIRROR	Using the ◀/▶ buttons switches the mode for mirror status. See MIRROR item in SETUP menu (📖37).
RESET	Performing this item resets all of EASY MENU items except FILTER TIME and LANGUAGE. Pressing the RESET button or the ▶ button displays a dialog. To reset, select RESET using the ▲ button performs resetting.
FILTER TIME	The usage time of the air-filter is shown in the menu. Performing this item resets the filter time which counts usage time of the air-filter. Pressing the RESET button or the ▶ button displays a dialog. To reset the filter time, select RESET using the ▲ button performs resetting. See FILTER TIME item in OPTION menu (📖45).
LANGUAGE	Using the ◀/▶ buttons changes the display language. See LANGUAGE item in SCREEN menu (📖40).
Go to Advanced Menu...	Select “Go to Advanced Menu...” on the menu, and press the ▶ or ENTER button to use the menu of PICTURE, IMAGE, INPUT, SETUP, AUDIO, SCREEN, OPTION or C.C..

PICTURE menu

From the PICTURE menu, items shown in the table below can be performed.


Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or **ENTER** button to execute the item. Then perform it according to the following table.



Item	Description
BRIGHTNESS	Using the ▲/▼ buttons adjusts the brightness. Light ⇄ Dark
CONTRAST	Using the ▲/▼ buttons adjusts the contrast. Strong ⇄ Weak
GAMMA	<p>Using the ▲/▼ buttons switches the gamma mode.</p> <p>#1 DEFAULT ⇄ #1 CUSTOM ⇄ #2 DEFAULT ⇄ #2 CUSTOM ⇕ #6 CUSTOM #3 DEFAULT ⇕ #6 DEFAULT #3 CUSTOM ⇕ #5 CUSTOM ⇄ #5 DEFAULT ⇄ #4 CUSTOM ⇄ #4 DEFAULT</p> <p>To adjust CUSTOM</p> <p>Selecting a mode whose name includes CUSTOM and then pressing the ► button or the ENTER button displays a dialog to aid you in adjusting the mode. This function is useful when you want to change the brightness of particular tones.</p>  <p>Choose an item using the ◀/▶ buttons, and adjust the level using the ▲/▼ buttons.</p> <p>You can display a test pattern for checking the effect of your adjustment by pressing the ENTER button. Each time you press the ENTER button, the pattern changes as below.</p> <p>No pattern ⇄ Gray scale of 9 steps ⇄ Ramp ⇄ Gray scale of 15 steps</p> <p>The eight equalizing bars correspond to eight tone levels of the test pattern (Gray scale of 9 steps), except the darkest in the left end. If you want to adjust the 2nd tone from left end on the test pattern use the equalizing adjustment bar "1". The darkest tone at the left end of the test pattern cannot be controlled with any of equalizing adjustment bar.</p> <ul style="list-style-type: none"> • When this function is performed, lines or other distortion may appear.

(continued on next page)

PICTURE menu (continued)

Item	Description
<p>COLOR TEMP</p>	<p>Using the ▲/▼ buttons switches the color temperature mode. #1 HIGH DEFAULT ⇔ #1 HIGH CUSTOM ⇔ #2 MID DEFAULT ⇕ #6 HI-BRIGHT-3 CUSTOM #2 MID CUSTOM ⇕ #6 HI-BRIGHT-3 DEFAULT #3 LOW DEFAULT ⇕ #5 HI-BRIGHT-2 CUSTOM #3 LOW CUSTOM ⇕ #5 HI-BRIGHT-2 DEFAULT ⇔ #4 HI-BRIGHT-1 CUSTOM ⇔ #4 HI-BRIGHT-1 DEFAULT</p> <p>To adjust CUSTOM</p> <p>Selecting a mode whose name includes CUSTOM and then pressing the ► button or the ENTER button displays a dialog to aid you in adjusting the OFFSET and GAIN of the selected mode.</p>  <p>OFFSET adjustments change the color intensity on the whole tones of the test pattern. GAIN adjustments mainly affect color intensity on the brighter tones of the test pattern.</p> <p>Choose an item using the ◀/▶ buttons, and adjust the level using the ▲/▼ buttons.</p> <p>You can display a test pattern for checking the effect of your adjustment by pressing the ENTER button. Each time you press the ENTER button, the pattern changes as below.</p> <p>No pattern ⇔ Gray scale of 9 steps ⇐ ⇐ Ramp ⇔ Gray scale of 15 steps</p> <ul style="list-style-type: none"> • When this function is performed, lines or other distortion may appear.
<p>COLOR</p>	<p>Using the ▲/▼ buttons adjusts the strength of whole color. Strong ⇔ Weak</p> <ul style="list-style-type: none"> • This item can be selected only for a video signal, s-video, or component video signal.
<p>TINT</p>	<p>Using the ▲/▼ buttons adjusts the tint. Greenish ⇔ Reddish</p> <ul style="list-style-type: none"> • This item can be selected only for a video signal, s-video, or component video signal.

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PICTURE menu (continued)


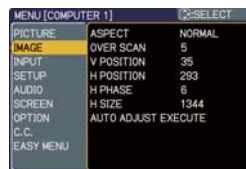
Item	Description
<p>SHARPNESS</p>	<p>Using the ▲/▼ buttons adjusts the sharpness. Strong ⇄ Weak</p> <ul style="list-style-type: none"> • There may be some noise and/or the screen may flicker for a moment when an adjustment is made. This is not a malfunction.
<p>MY MEMORY</p>	<p>This projector has 4 memories for adjustment data (for all the items of PICTURE menu). Selecting a function using the ▲/▼ buttons and pressing the ► or ENTER button performs each function.</p> <div style="text-align: center;">  </div> <p><u>LOAD-1, LOAD-2, LOAD-3, LOAD-4</u></p> <p>Performing a LOAD function loads the data from the memory linked in the number included in the function's name, and adjusts the picture automatically depending on the data.</p> <ul style="list-style-type: none"> • The LOAD functions whose linked memory has no data are skipped. • Remember that the current adjusted condition will be lost by loading data. If you want to keep the current adjustment, please save it before performing a LOAD function. • There may be some noise and the screen may flicker for a moment when loading data. This is not malfunction. • You can perform the LOAD function using MY BUTTONs. Please see MY BUTTON item in OPTION menu (46). <p><u>SAVE-1, SAVE-2, SAVE-3, SAVE-4</u></p> <p>Performing a SAVE function saves the current adjustment data into the memory linked in the number included in the function's name.</p> <ul style="list-style-type: none"> • Remember that the current data being stored of a memory will be lost by saving a new data into the memory.

IMAGE menu

From the IMAGE menu, items shown in the table below can be performed.

Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or **ENTER** button to execute the item. Then perform it according to the following table.



Item	Description
ASPECT	<p>Using the ▲/▼ buttons switches the mode for aspect ratio.</p> <p>For a computer signal NORMAL ⇔ 4:3 ⇔ 16:9 ⇔ 16:10 ↑—————↑</p> <p>For a Video signal, S-video signal or Component video signal 4:3 ⇔ 16:9 ⇔ 14:9 ↑—————↑</p> <p>For no signal 4:3 (fixed)</p> <ul style="list-style-type: none"> • The NORMAL mode keeps the original aspect ratio of the signal.
OVER SCAN	<p>Using the ▲/▼ buttons adjusts the over-scan ratio.</p> <p>Large (It reduces picture) ⇔ Small (It magnifies picture)</p> <ul style="list-style-type: none"> • This item can be selected only for a video, s-video and component video signal. • When this adjustment is too large, certain degradation may appear at the frame area of the picture. In such a case, please adjust small.
V POSITION	<p>Using the ▲/▼ buttons adjusts the vertical position.</p> <p>Up ⇔ Down</p> <ul style="list-style-type: none"> • Over-adjusting the vertical position may cause noise to appear on the screen. If this occurs please reset the vertical position to the default setting. <p>Pressing RESET button when V POSITION is selected will reset V POSITION to the default setting.</p> <ul style="list-style-type: none"> • When this function is performed on a video signal, s-video signal, or component video signal, the range of this adjustment depends on OVER SCAN (📖above) setting. It is not possible to adjust when OVER SCAN is set to 10.

(continued on next page)

IMAGE menu (continued)

Item	Description
<p>H POSITION</p>	<p>Using the ▲/▼ buttons adjusts the horizontal position. Left ⇄ Right</p> <ul style="list-style-type: none"> • Over-adjusting the horizontal position may cause noise to appear on the screen. If this occurs please reset the horizontal position to the default setting. Pressing RESET button when H POSITION is selected will reset H POSITION to the default setting. • When this function is performed on a video signal, s-video signal, or component video signal, the range of this adjustment depends on OVER SCAN (📖31) setting. It is not possible to adjust when OVER SCAN is set to 10.
<p>H PHASE</p>	<p>Using the ▲/▼ buttons adjusts the horizontal phase to eliminate flicker. Right ⇄ Left</p> <ul style="list-style-type: none"> • This item can be selected only for a computer signal or component video signal.
<p>H SIZE</p>	<p>Using the ▲/▼ buttons adjusts the horizontal size. Large ⇄ Small</p> <ul style="list-style-type: none"> • This item can be selected only for a computer signal. • When this adjustment is excessive, the picture may not be displayed correctly. In such a case, please reset the adjustment by pressing the RESET button during this operation.
<p>AUTO ADJUST EXECUTE</p>	<p>Executing this item performs the automatic adjustment feature.</p> <p>For a computer signal The vertical position, the horizontal position and the horizontal phase (📖32) will be automatically adjusted. Make sure that the application window is set to its maximum size prior to attempting to use this feature. A dark picture may still be incorrectly adjusted. Use a bright picture when adjusting.</p> <p>For a video signal and s-video signal The video format best suited for the respective input signal will be selected automatically. This function is available only when the AUTO is selected for the VIDEO FORMAT item in the INPUT menu (📖34). The vertical position and horizontal position will be automatically set to the default.</p> <p>For a component video signal The vertical position, horizontal position and horizontal phase will be automatically set to the default.</p> <ul style="list-style-type: none"> • The automatic adjustment operation requires approx. 10 seconds. Also please note that it may not function correctly with some input. When this function is performed for a video signal, a certain extra such as a line may appear outside a picture. • The items adjusted by this function may vary when the FINE or DISABLE is selected for the AUTO ADJUST item of the SERVICE item in the OPTION menu (📖47).

INPUT menu

From the INPUT menu, items shown in the table below can be performed.

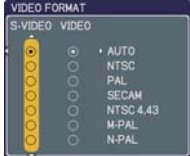
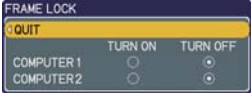

Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or **ENTER** button to execute the item. Then perform it according to the following table.



Item	Description
PROGRESSIVE	<p>Using the ▲/▼ buttons switches the progress mode. TV ⇄ FILM ⇄ TURN OFF ↑</p> <ul style="list-style-type: none"> • This function is performed only for an interlaced signal at the VIDEO or S-VIDEO input, and for 480i@60 or 576i@50 signal at the COMPONENT VIDEO input. • When TV or FILM is selected, the screen image will be sharp. FILM adapts to the 2-3 Pull-Down conversion system. But these may cause a certain defect (for example, jagged line) of the picture for a quick moving object. In such a case, please select TURN OFF, even though the screen image may lose the sharpness.
VIDEO NR	<p>Using the ▲/▼ buttons switches the noise reduction mode. HIGH ⇄ MID ⇄ LOW ↑</p> <ul style="list-style-type: none"> • This function is performed only for the VIDEO or S-VIDEO input, and for 480i@60 or 576i@50 signal at the COMPONENT VIDEO input. • When this function is excessive, it may cause a certain degradation of the picture.
COLOR SPACE	<p>Using the ▲/▼ buttons switches the mode for color space. AUTO ⇄ RGB ⇄ SMPTE240 ⇄ REC709 ⇄ REC601 ↑</p> <ul style="list-style-type: none"> • This item can be selected only for a computer signal or component video signal except SCART RGB signal. • The AUTO mode automatically selects the optimum mode. • The AUTO operation may not work well at some signals. In such a case, it might be good to select a suitable mode except AUTO.
COMPONENT	<p>Using the ▲/▼ buttons switches the function of the COMPONENT (Y, Cb/Pb, Cr/Pr) port. COMPONENT ⇄ SCART RGB</p> <p>When the SCART RGB is selected, COMPONENT (Y, Cb/Pb, Cr/Pr) and VIDEO ports will function as a SCART RGB port. A SCART cable is required for a SCART RGB input to the projector. For your reference, see the TECHNICAL part.</p>

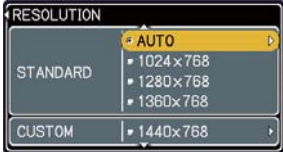
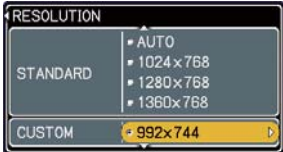
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INPUT menu (continued)

Item	Description
<p>VIDEO FORMAT</p>	<p>The video format for S-VIDEO port and VIDEO port can be set.</p> <p>(1) Use the ◀/▶ buttons to select the input port.</p> <p>(2) Using the ▲/▼ buttons switches the mode for video format.</p> <p>AUTO ⇄ NTSC ⇄ PAL ⇄ SECAM ↕ N-PAL ⇄ M-PAL ⇄ NTSC4.43 ↕</p> <ul style="list-style-type: none"> • This item is performed only for a video signal from VIDEO port or S-VIDEO port. • The AUTO mode automatically selects the optimum mode. • The AUTO operation may not work well for some signals. If the picture becomes unstable (e.g. an irregular picture, lack of color), please select the mode according to the input signal. 
<p>FRAME LOCK</p>	<p>Set the frame lock function on/off for each port.</p> <p>(1) Using the ▲/▼ buttons to select one of following ports.</p> <p>COMPUTER (IN)1 ⇄ COMPUTER (IN)2</p> <p>(2) Using the ◀/▶ buttons to turns the frame lock function on/off.</p> <p>TURN ON ⇄ TURN OFF</p> <ul style="list-style-type: none"> • This item can be performed only on a signal with a vertical frequency of 50 to 60 Hz. • When the TURN ON is selected, a moving pictures are displayed more smoothly. • This function may cause a certain degradation of the picture. In such a case, please select TURN OFF. 
<p>COMPUTER IN</p>	<p>The computer input signal type for COMPUTER IN1 and IN2 ports can be set.</p> <p>(1) Use the ◀/▶ buttons to select the input port to be set.</p> <p>COMPUTER (IN)1 ⇄ COMPUTER (IN)2</p> <p>(2) Use the ▲/▼ buttons to select the computer input signal type.</p> <p>AUTO ⇄ SYNC ON G OFF</p> <p>Selecting AUTO allows reception of sync on G signal.</p> <ul style="list-style-type: none"> • When AUTO is selected, the picture may be distorted with certain input signals. In such a case, remove the signal connector first and select SYNC ON G OFF on the menu, and then reconnect the signal. Refer to “Technical” on how to input a component video signal to the COMPUTER IN1 or IN2 port. 

(continued on next page)

INPUT menu (continued)

Item	Description
<p>RESOLUTION</p>	<p>The resolution for the COMPUTER IN1 and IN2 input signals can be set on this projector.</p> <p>(1) In the INPUT menu select the RESOLUTION using the ▲/▼ buttons and press the ► button. The RESOLUTION menu will be displayed.</p> <p>(2) In the RESOLUTION menu, select the resolution you wish to display using the ▲/▼ buttons. Selecting AUTO will set a resolution appropriate to the input signal.</p>  <p>(3) STANDARD Pressing the ► or ENTER button when selecting a STANDARD resolution will automatically adjust the horizontal and vertical positions, clock phase and horizontal size and automatically select an aspect ratio.</p> <p style="text-align: center;">STANDARD ↓ COMPUTER 1 1280x768 @60Hz</p> <p>(3) CUSTOM (3)-1 To set a custom resolution use the ▲/▼ buttons to select the CUSTOM and the CUSTOM RESOLUTION box will be displayed. Set the horizontal (HORZ) and vertical (VERT) resolutions using the ▲/▼ /◀/▶ buttons. It is not guaranteed to work this function properly on any resolutions.</p> <p style="text-align: center;">CUSTOM ↓ CUSTOM RESOLUTION (HORZ) × (VERT) ◀ 0 9 9 2 × 0 7 4 4 ▶ ◀ QUIT SET ▶</p> <p>(3)-2 To save the setting place the cursor on the right-most digit and press the ► button. The horizontal and vertical positions, clock phase and horizontal size will be automatically adjusted.</p> <p style="text-align: center;">COMPUTER 1 992x744 @60Hz</p> <p>(3)-3 To revert back to the previous resolution without saving changes place the cursor on the left-most digit and press the ◀ button. The screen will then return to the RESOLUTION menu displaying the previous resolution.</p>  <ul style="list-style-type: none"> • For some pictures, this function may not work well.

SETUP menu

From the SETUP menu, items shown in the table below can be performed.


Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or the **ENTER** button to execute the item. Then perform it according to the following table.



Item	Description
D-ZOOM	Using the ▲/▼ buttons adjusts the zoom. Large ⇔ Small
D-SHIFT V	Using the ▲/▼ buttons adjusts the vertical picture position. Up ⇔ Down <ul style="list-style-type: none"> The function is not available, if the D-ZOOM is adjusted to 100 (full screen) on its dialog.
D-SHIFT H	Using the ▲/▼ buttons adjusts the horizontal picture position. Right ⇔ Left <ul style="list-style-type: none"> The function is not available, if the D-ZOOM is adjusted to 100 (full screen) on its dialog.
KEYSTONE	Using the ▲/▼ buttons corrects the vertical keystone distortion. Shrink the top of the image ⇔ Shrink the bottom of the image <ul style="list-style-type: none"> The adjustable range of this function will vary among inputs. For some input, this function may not work well. When the zoom adjustment is set to the TELE (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full WIDE (wide-angle focus) whenever possible. This function will be unavailable when the Transition Detector is on (54) or the PERFECT FIT (37) is adjusted.
KEYSTONE	Using the ▲/▼ buttons corrects the horizontal keystone distortion. Shrink the right of the image ⇔ Shrink the left of the image <ul style="list-style-type: none"> The adjustable range of this function will vary among inputs. For some input, this function may not work well. When the zoom adjustment is set to the TELE (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full WIDE (wide-angle focus) whenever possible. This function will be unavailable when the Transition Detector is on (54) or the PERFECT FIT (37) is adjusted.

(continued on next page)

SETUP menu (continued)

Item	Description
<p>PERFECT FIT</p>	<p>This item allows you to adjust the shape of the projected image in each of the corners and sides.</p> <p>(1) Choose a corner or side to adjust using the ▲/▼/◀/▶ buttons and press the ENTER or INPUT button.</p> <p>(2) Adjust the distortion as below. Use the ▲/▼/◀/▶ buttons to adjust the position of the corner. Use the ▲/▼ buttons to adjust the distortion of the top or bottom side, after defining the adjusting position with the ◀/▶ buttons. Use the ◀/▶ buttons to adjust the distortion of the left or right side, after defining the adjusting position with the ▲/▼ buttons.</p> <p>(3) To adjust another corner or side, follow the same procedure from (1) above. To reset the adjustment of all the corners and sides, select RESET with the ▲/▼ buttons and press the ENTER or INPUT button.</p> <ul style="list-style-type: none"> • While the distortion is adjusted with the PERFECT FIT function, keystone adjustment feature is unavailable. To correct the keystone distortion, reset the adjustment of all the corners and sides. • The adjustable range of this correction will vary among inputs. For some input, this function may not work well. • One adjustment position common to the top and bottom sides can be set. Also, another adjustment position common to the left and right sides can be set. • The distortion of the top and bottom sides can be adjusted only in the same direction, pincushion or barrel. The adjustment for the left and right sides is carried out in the same manner. • This function will be unavailable when the Transition Detector is on (54).
<p>WHISPER</p>	<p>Using the ▲/▼ buttons turns off/on the whisper mode. NORMAL ⇄ WHISPER</p> <ul style="list-style-type: none"> • When WHISPER is selected, acoustic noise and screen brightness are reduced.
<p>MIRROR</p>	<p>Using the ▲/▼ buttons switches the mode for mirror status.</p> <div style="text-align: center;">  <p>NORMAL ⇄ H:INVERT ⇄ V:INVERT ⇄ H&V:INVERT</p> <p style="text-align: center;">↑—————↑</p> </div> <p>If the Transition Detector is TURN ON and MIRROR status is changed, Transition Detector Alarm (54) will be displayed when projector is restarted after the power switch is turned off.</p>

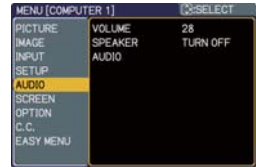
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SETUP menu (continued)

Item	Description
<p>STANDBY MODE</p>	<p>Using ▲/▼ buttons switches the standby mode setting between NORMAL and SAVING. NORMAL ⇔ SAVING</p> <p>When SAVING is selected, the power consumption in the standby mode is lowered with some functional restriction as below:</p> <ul style="list-style-type: none"> • When SAVING is selected, the communication control (RS-232C) is disabled except to turn the projector on while the projector is in the standby mode. • When SAVING is selected, AUDIO OUT STANDBY setting of AUDIO (p.39) is invalid, and no signal is output from AUDIO OUT ports in the standby mode.
<p>MONITOR OUT</p>	<p>The combination of a picture shown on screen and output from the MONITOR OUT port can be arranged in the menu. The picture coming into the port selected in the (2) is output to the MONITOR OUT port while an image from the port chosen in the (1) is on screen.</p> <p>(1) Choose a picture input port using ▲/▼ buttons.</p> <pre> QUIT ⇔ COMPUTER(IN)1 ⇔ COMPUTER(IN)2 ↑↓ STANDBY ↑↓ VIDEO ⇔ S-VIDEO ⇔ COMPONENT ← (Y, C_B/P_B, C_R/P_R) </pre> <ul style="list-style-type: none"> • Choose STANDBY, to select the output signal from the MONITOR OUT port in the standby mode. • While QUIT is selected, pressing the ◀ button returns to the previous menu. <p>(2) Select one of the COMPUTER IN ports using ◀/▶ buttons.</p> <p>Choosing the COMPUTER 1 allows the following choice.</p> <p>1 (COMPUTER IN1) ⇔ OFF</p> <p>Choosing the COMPUTER 2 allows the following choice.</p> <p>2 (COMPUTER IN2) ⇔ OFF</p> <p>Choosing other input or STANDBY allows the following choice.</p> <p>1 (COMPUTER IN1) ⇔ 2 (COMPUTER IN2) ⇔ OFF</p> <ul style="list-style-type: none"> • OFF disables the MONITOR OUT port.

AUDIO menu

From the AUDIO menu, items shown in the table below can be performed. Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or the **ENTER** button to execute the item. Then perform it according to the following table.

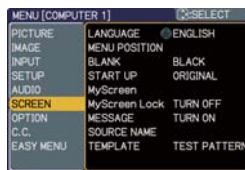


Item	Description
VOLUME	Using the ▲/▼ buttons adjusts the volume. High ⇄ Low
SPEAKER	Using the ▲/▼ buttons turns on/off the built-in speaker. TURN ON ⇄ TURN OFF When TURN OFF is selected, the built-in speaker does not work.
AUDIO	<p>The combination of a picture and audio input port can be arranged in the menu. The audio coming into the port selected in the (2) is output while an image from the port chosen in the (1) is on screen.</p> <p>(1) Choose a picture input port using the ▲/▼ buttons.</p> <p style="text-align: center;">QUIT ⇄ COMPUTER(IN)1 ⇄ COMPUTER(IN)2 ⇕ AUDIO OUT STANDBY ⇕ VIDEO ⇄ S-VIDEO ⇄ COMPONENT (Y, Cb/Pb, Cr/Pr)</p> <p>• Choose AUDIO OUT STANDBY, to select the audio output to the AUDIO OUT port in the standby mode. The built-in speaker does not work in the standby mode.</p> <p>• While QUIT is selected, pressing the ◀ button returns to the previous menu.</p> <p>(2) Select one of the AUDIO IN ports using ◀/▶ buttons.</p> <p style="text-align: center;">1 (AUDIO IN1) ⇄ 2 (AUDIO IN2) ⇄ 3 (AUDIO IN3) ⇄ ✕ ↑</p> <p>• ✕ disables the audio output.</p> <p>• When ✕ is selected to VIDEO(NTSC), S-VIDEO(NTSC), COMPONENT(480i@60), COMPUTER IN1(480i@60) and COMPUTER IN2(480i@60), the C.C.(Closed Caption) is automatically activated, if the C.C. is set to AUTO in the DISPLAY menu of the C.C. menu and the signal from the input port supports the C.C. feature (📺58).</p>

SCREEN menu


From the SCREEN menu, items shown in the table below can be performed.

Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or **ENTER** button to execute the item. Then perform it according to the following table.



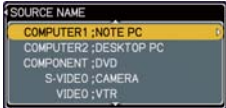

Item	Description								
LANGUAGE	Using the ▲/▼ buttons switches the OSD (On Screen Display) language. ENGLISH ⇄ FRANÇAIS ⇄ DEUTSCH ⇄ ESPAÑOL ⤴... (shown in the LANGUAGE dialog) ...⤵								
MENU POSITION	Using the ▲/▼/◀/▶ buttons adjusts the menu position. To quit the operation, press MENU button on the remote control or keep no operation for about 10 seconds.								
BLANK	Using the ▲/▼ buttons switches the mode for the BLANK screen. The BLANK screen is a screen for the temporarily blanking feature (42). It is displayed by pressing BLANK button. MyScreen ⇄ ORIGINAL ⇄ BLUE ⇄ WHITE ⇄ BLACK ⤴⤵		Feature	MyScreen	Screen can be registered by the MyScreen item (41).	ORIGINAL	Screen preset as the standard screen.	BLUE, WHITE, BLACK	Plain screens in each color.
	Feature								
MyScreen	Screen can be registered by the MyScreen item (41).								
ORIGINAL	Screen preset as the standard screen.								
BLUE, WHITE, BLACK	Plain screens in each color.								
START UP	Using the ▲/▼ buttons switches the mode for the start-up screen. The start-up screen is a screen displayed when no signal or an unsuitable signal is detected. MyScreen ⇄ ORIGINAL ⇄ TURN OFF ⤴⤵		Feature	MyScreen	Screen can be registered by the MyScreen item (41).	ORIGINAL	Screen preset as the standard screen.	TURN OFF	Plain black screen.
	Feature								
MyScreen	Screen can be registered by the MyScreen item (41).								
ORIGINAL	Screen preset as the standard screen.								
TURN OFF	Plain black screen.								

SCREEN menu (continued)

Item	Description
<p>MyScreen</p>	<p>This item allows you to capture an image for use as a MyScreen image which can be used as the BLANK screen and START UP screen. Display the image you want to capture before executing the following procedure.</p> <ol style="list-style-type: none"> 1. Selecting this item displays a dialog titled “MyScreen”. It will ask you if you start capturing an image from the current screen.  <p>Please wait for the target image to be displayed, and press the ENTER button when the image is displayed. The image will freeze and the frame for capturing will appear. To stop performing, press the RESET or ESC button.</p> 2. Using the ▲/▼/◀/▶ buttons adjusts the frame position. Please move the frame to the position of the image which you want to use. The frame may not be able to be moved for some input signals. To start registration, press the ENTER button. To restore the screen and return to the previous dialog, press the RESET or ESC button. Registration takes several minutes. When the registration is completed, the registered screen and the following message are displayed for several seconds: “MyScreen registration is finished.” If the registration failed, the following message is displayed: “A capturing error has occurred. Please try again.” <ul style="list-style-type: none"> • This function cannot be selected when the TURN ON is selected to the MyScreen Lock item (see below). • This function cannot be selected when TURN ON is selected to the MyScreen PASSWORD of SECURITY item in OPTION menu (see 51).
<p>MyScreen Lock</p>	<p>Using the ▲/▼ buttons turns on/off the MyScreen lock function. TURN ON ⇔ TURN OFF</p> <p>When the TURN ON is selected, the MyScreen item is locked. Use this function for protecting the current MyScreen.</p> <ul style="list-style-type: none"> • This function cannot be selected when TURN ON is selected to the MyScreen PASSWORD of SECURITY item in OPTION menu (see 51).

(continued on next page)

SCREEN menu (continued)

Item	Description
<p>MESSAGE</p>	<p>Using the ▲/▼ buttons turns on/off the message function. TURN ON ⇔ TURN OFF</p> <p>When the TURN ON is selected, the following message function works. “AUTO IN PROGRESS” while automatically adjusting “NO INPUT IS DETECTED” “SYNC IS OUT OF RANGE” “INVALID SCAN FREQ.” “Searching...” while searching for the input “Detecting...” while an input signal is detected</p> <p>The indication of the input signal displayed by changing The indication of the aspect ratio displayed by changing The indication of the PICTURE MODE displayed by changing The indication of the MY MEMORY displayed by changing The indication of the TEMPLATE displayed by changing The indication of "+++ FOCUS +++" displayed by changing The D-ZOOM dialog displayed by changing</p> <p>The indication of “FREEZE” and “II” while the projector is in the FREEZE mode.</p> <ul style="list-style-type: none"> • If the projector goes into the FREEZE mode while the TURN OFF is selected, the picture on screen is frozen without any messages, which is not a malfunction (📖23).
<p>SOURCE NAME</p>	<p>Each input port for this projector can have a name applied to it.</p> <p>(1) Use the ▲/▼ buttons on the SCREEN menu to select SOURCE NAME and press the ► button. The SOURCE NAME menu will be displayed.</p>  <p>(2) Use the ▲/▼ buttons on the SOURCE NAME menu to select the port to be named and press the ► button. Right side of the menu is blank until a name is specified. The SOURCE NAME dialog will be displayed.</p>  <p>(3) The current name will be displayed on the first line. Use the ▲/▼/◀/▶ buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The name can be a maximum of 16 characters.</p> <p>(4) To change an already inserted character, press the (▲) button to move the cursor to the first line, and use the ◀/▶ buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (3) above.</p> <p>(5) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button. To revert to the previous name without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button.</p>

(continued on next page)

SCREEN menu (continued)

Item	Description
TEMPLATE	<p>Using the ▲/▼ buttons switches the mode for the template screen. Press the ► button to display the selected template, and press the ◀ button to close the displayed screen (📖5).</p> <p>The last selected template is displayed when the MY BUTTON allocated to the TEMPLATE function is pressed (📖46).</p> <p>↵ TEST PATTERN ⇔ DOT-LINE1↵ DOT-LINE4 ⇔ DOT-LINE3 ⇔ DOT-LINE2</p> <ul style="list-style-type: none"> • To focus the picture, use the FOCUS+/- buttons on the remote control while the template is displayed (📖21).

OPTION menu

From the OPTION menu, items shown in the table below can be performed.


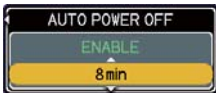
Select an item using the ▲/▼ cursor buttons, and press the ► cursor button or **ENTER** button to execute the item, except for the items LAMP TIME and FILTER TIME. Then perform it according to the following table.



Item	Description
<p>AUTO SEARCH</p>	<p>Using the ▲/▼ buttons turns on/off the automatic signal search function.</p> <p>TURN ON ⇔ TURN OFF</p> <p>When the TURN ON is selected, detecting no signal automatically cycles through input ports in the following order. The search is started from the current port. Then when an input is found, the projector will stop searching and display the image.</p> <p> </p>
<p>DIRECT POWER ON</p>	<p>Using the ▲/▼ buttons turns on/off the DIRECT POWER ON function.</p> <p>TURN ON ⇔ TURN OFF</p> <p>When set to the TURN ON, the lamp in projector will be automatically turned on without the usual procedure (16), only when the projector is supplied with the power after the power was cut while the lamp was on.</p> <ul style="list-style-type: none"> • This function does not work as long as the power has been supplied to the projector while the lamp is off. • After turning the lamp on by the DIRECT POWER ON function, if neither input nor operation is detected for about 30 minutes, the projector is turned off, even though the AUTO POWER OFF function (45) is disabled.

(continued on next page)

OPTION menu (continued)

Item	Description
<p>AUTO POWER OFF</p>	<p>Using the ▲/▼ buttons adjusts the time to count down to automatically turn the projector off. Long (max. 99 minutes) ⇔ Short (min. 0 minute = DISABLE)</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>When the time is set to 0, the projector is not turned off automatically. When the time is set to 1 to 99, and when the passed time with no-signal or an unsuitable signal reaches at the set time, the projector lamp will be turned off. If one of the projector's buttons or the remote control buttons is pressed or one of the commands (except get commands) is transmitted to the CONTROL port during the corresponding time, projector will not be turned off. Please refer to the section "Turning off the power" (117).</p>
<p>LAMP TIME</p>	<p>The lamp time is the usage time of the lamp, counted after the last resetting. It is shown in the OPTION menu. Pressing RESET button or the ► button displays a dialog. To reset the lamp time, select RESET using the ▲ button. RESET ⇔ CANCEL</p> <ul style="list-style-type: none"> • Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp. • For the lamp replacement, see the section "Replacing the lamp" (59).
<p>FILTER TIME</p>	<p>The filter time is the usage time of the air-filter, counted after the last resetting. It is shown in the OPTION menu. Pressing the RESET button or the ► button displays a dialog. To reset the filter time, select the RESET using the ▲ button. RESET ⇔ CANCEL</p> <ul style="list-style-type: none"> • Please reset the filter time only when you have cleaned or replaced the air-filter, for a suitable indication about the air-filter. • For the air-filter cleaning, see the section "Maintaining the air-filter" (61).


(continued on next page)

OPTION menu (continued)

Item	Description
<p>MY BUTTON</p>	<p>This item is to assign one of the following functions to MY BUTTON 1 and 2 on the remote control (6).</p> <p>Choose 1 or 2 on the MY BUTTON menu using the ◀/▶ button first. Then using the ▲/▼ buttons sets one of the following functions to the chosen button.</p> <ul style="list-style-type: none"> • COMPUTER1: Sets port to COMPUTER IN1. • COMPUTER2: Sets port to COMPUTER IN2. • COMPONENT: Sets port to COMPONENT (Y, Cb/PB, CR/PR) • S-VIDEO: Sets port to S-VIDEO. • VIDEO: Sets port to VIDEO. • INFORMATION: Displays the INPUT -INFORMATION- (49) (when an input signal is found) or nothing. <p>While the dialog is shown, pressing again the button closes the dialog.</p> <ul style="list-style-type: none"> • MY MEMORY: Loads one of adjustment data stored (30). <p>When more than one data are saved, the adjustment changes every time the MY BUTTON is pushed.</p> <p>When no data is saved in memory, the dialog "No saved data" appears.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">No saved data</p> <hr/> <p style="font-size: small;">Temporary condition</p> <p style="font-size: x-small;">MY BUTTON ; Recall saved parameters (MY MEMORY) ; Quit</p> </div> <p>When the current adjustment is not saved to memory, the dialog as shown in the right appears.</p> <p>If you want to keep the current adjustment, please press the ◀ button to quit. Otherwise loading a data will lose the current adjusted condition.</p> <ul style="list-style-type: none"> • PICTURE MODE: Changes the PICTURE MODE (26). • FILTER RESET: Displays the filter time reset confirmation dialog (45). • AV MUTE: Turns the picture and audio on/off. • TEMPLATE: Makes the template pattern selected to the TEMPLATE item (43) appear or disappear.
<p>MY SOURCE</p>	<p>Using ▲/▼ buttons selects the picture input port to be selected with pressing the MY SOURCE/DOC.CAMERA button on the remote control. Select the picture input that is connected with a document camera.</p> <p style="text-align: center;">COMPUTER (IN)1 ↔ COMPUTER (IN)2 ↷ ↷ VIDEO ↔ S-VIDEO ↔ COMPONENT ↷</p>
<p>SERVICE</p>	<p>Selecting this item displays the SERVICE menu.</p> <p>Select an item using the ▲/▼ buttons, and press the ▶ button or the ENTER button to execute the item.</p> <p style="text-align: center;">FAN SPEED ↔ AUTO ADJUST ↔ GHOST ↔ FILTER MESSAGE ↔ KEY LOCK ↔ FOCUS LOCK ↕ FACTORY RESET ↔ LENS DOOR LOCK ↕ INFORMATION ↔ REMOTE FREQ. ↔ REMOTE RECEIV. ↔ LENS DOOR CLOSE ↔ LENS DOOR OPEN</p>

(continued on next page)

OPTION menu (continued)

Item	Description
<p>SERVICE (continued)</p>	<p>KEY LOCK Using the ▲/▼ buttons turns on/off the key lock feature. When TURN ON is selected, the buttons on the projector except the STANDBY/ON button are locked. TURN ON ⇔ TURN OFF</p> <ul style="list-style-type: none"> • Please use to avoid a mischief and touching accidentally. This function does not have any effect on the remote control.
	<p>FOCUS LOCK Use the ▲/▼ buttons turns on/off the focus lock feature. When TURN ON is selected, the FOCUS +/- buttons on the remote and projector are disabled. TURN ON ⇔ TURN OFF</p> <ul style="list-style-type: none"> • Please use the function to avoid a mischief and touching accidentally.
	<p>LENS DOOR LOCK Use the ▲/▼ cursor buttons to turn on/off the LENS DOOR LOCK function. Set LENS DOOR LOCK to ON to keep the lens door open even when power is turned off. Follow cautions below when you set LENS DOOR LOCK to ON and keep the lens door open all the time.</p> <ul style="list-style-type: none"> • Do not apply excessive force on or allow impact to the lens door, as it incorporates a mirror. • Keep the projector out of the reach of children. • If the mirror is broken, the projected image will be distorted. Never touch a broken mirror. Close the lens door, and contact your dealer. <p>When the LENS DOOR LOCK is set to ON and the lens door is not open completely for some reason, the image may shift or have keystone distortion. In that case use the LENS DOOR OPEN function ( below) to open the lens door completely.</p>
	<p>LENS DOOR OPEN Use the LENS DOOR OPEN function to open the lens door if not open completely for some reason such as cleaning.</p>
	<p>LENS DOOR CLOSE Use the LENS DOOR CLOSE function to temporarily close the lens door when LENS DOOR LOCK is set to ON. Note that the lamp will be turned off when the lens door is closed. Press the STANDBY/ON button on the projector or the remote control to open the lens door and start the projector again.</p>


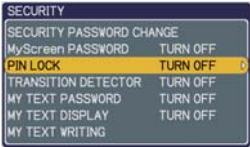



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OPTION menu (continued)

Item	Description
<p>SERVICE (continued)</p>	<p>REMOTE RECEIV.</p> <p>(1) Select a remote sensor using ▲/▼ buttons. 1:FRONT ⇔ 2:TOP</p> <p>(2) Switch it using the ENTER or INPUT button. <input type="checkbox"/> (off) ⇔ <input checked="" type="checkbox"/> (on)</p> <ul style="list-style-type: none"> • A sensor cannot be turned off when the other one is off. Always at least one sensor is on.
	<p>REMOTE FREQ.</p> <p>Use the ▲/▼ button to change the projector's remote sensor setting. 1:NORMAL ⇔ 2:HIGH</p> <p>Items with a checkmark are on. The factory default setting is for both 1:NORMAL and 2:HIGH to be on. If the remote control does not function correctly set this to either only 1 or only 2 (15).</p> <p>Neither can be turned off at the same time.</p>
	<p>INFORMATION</p> <p>Selecting this item displays a dialog titled "INPUT -INFORMATION-". It shows the information about the current input.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="368 826 521 900" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>INPUT -INFORMATION-</p> <p>COMPUTER 1 1024x768 @60Hz FRAME LOCK</p> </div> <div data-bbox="594 826 748 900" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>INPUT -INFORMATION-</p> <p>S-VIDEO PAL AUTO</p> </div> <div data-bbox="820 826 974 900" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>INPUT -INFORMATION-</p> <p>COMPONENT 1080i @60Hz</p> </div> </div> <ul style="list-style-type: none"> • The "FRAME LOCK" message on the dialog means the frame lock function is working (34). • This item can't be selected for no signal and sync out.
	<p>FACTORY RESET</p> <p>Selecting RESET using the button ▲ performs this function. By this function, all the items in all of menus will collectively return to the initial setting. Note that the items LAMP TIME, FILTER TIME, LANGUAGE and SECURITY settings are not reset.</p> <p>RESET ⇔ CANCEL</p>



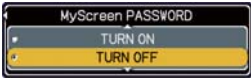
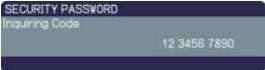
OPTION menu (continued)

Item	Description
<p>SECURITY</p>	<p>This projector is equipped with security functions. User registration is required before using the security functions. Please contact your local dealer.</p>
	<p>1. Using Security Features</p> <p>1.1 Inputting the PASSWORD</p> <p>1.1-1 Use the ▲/▼ buttons on the OPTION menu to select SECURITY and press the ► button. The ENTER PASSWORD box will be displayed.</p>  <p>The factory default PASSWORD is 5310. This PASSWORD can be changed (1.2 Changing the PASSWORD (below)).</p> <ul style="list-style-type: none"> It is strongly recommended the factory default PASSWORD to be changed as soon as possible. <p>1.1-2 Use the ▲/▼/◀/▶ buttons to enter the registered PASSWORD. Move the cursor to the right side of the ENTER PASSWORD box and press the ► button to display the SECURITY menu.</p>  <p>If an incorrect PASSWORD is input the ENTER PASSWORD box will be displayed again. If incorrect PASSWORD is input 3 times the projector will turn off. Afterwards the projector will turn off every time an incorrect PASSWORD is input.</p>
	<p>1.2 Changing the PASSWORD</p> <p>1.2-1 Use the ▲/▼ buttons on the SECURITY menu to select SECURITY PASSWORD CHANGE and press the ► button to display the ENTER NEW PASSWORD box.</p>  <p>1.2-2 Use the ▲/▼/◀/▶ buttons to enter the new PASSWORD.</p> <p>1.2-3 Move the cursor to the right side of the ENTER NEW PASSWORD box and press the ► button to display the NEW PASSWORD AGAIN box, enter the same PASSWORD again.</p>  <p>1.2-4 Move the cursor to the right side of the NEW PASSWORD AGAIN box and press the ► button and the NOTE NEW PASSWORD box will be displayed for about 20 seconds, please make note of the PASSWORD during this time.</p>  <p>Pressing the ENTER button will close the NOTE NEW PASSWORD box.</p>
	<ul style="list-style-type: none"> Please do not forget your PASSWORD.

(continued on next page)




OPTION menu (continued)

Item	Description
<p>SECURITY (continued)</p>	<p>1.3 If you have forgotten your PASSWORD</p> <p>1.3-1 Follow the procedure in 1.1-1 to display the ENTER PASSWORD box.</p> <p>1.3-2 While the ENTER PASSWORD box is displayed, press and hold the RESET button for about 3 seconds or press and hold the INPUT and ▶ buttons on the projector for about 3 seconds. The 10-digit Inquiring Code will be displayed.</p> <ul style="list-style-type: none"> • If there is no key input for about 55 seconds while the Inquiring Code is displayed the menu will close. If necessary repeat the process from 1.3-1. <p>1.3-3 Contact your dealer with the 10-digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.</p>
	<p>2. Using the MyScreen PASSWORD Function</p> <p>The MyScreen PASSWORD function can be used to prohibit access to the MyScreen function and prevent the currently registered MyScreen image from being overwritten.</p> <p>2.1 Turning on the MyScreen PASSWORD Function</p> <p>2.1-1 Use the ▲/▼ buttons on the SECURITY menu to select MyScreen PASSWORD and press the ▶ button to display the MyScreen PASSWORD on/off menu.</p> <p>2.2 Setting the PASSWORD</p> <p>2.2-1 Display the MyScreen PASSWORD on/off menu using the procedure in 2.1-1.</p> <p>2.2-2 Use the ▲/▼ buttons on the MyScreen PASSWORD on/off menu to select TURN ON. The ENTER PASSWORD box (small) will be displayed.</p> <p>2.2-3 Use the ▲/▼/◀/▶ buttons to enter the PASSWORD. Move the cursor to the right side of the ENTER PASSWORD box (small) and press the ▶ button to display the PASSWORD AGAIN box, enter the same PASSWORD again.</p>



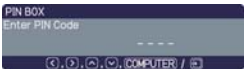
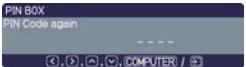
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OPTION menu (continued)

Item	Description
<p>SECURITY (continued)</p>	<p>2.2-4 Move the cursor to the right side of the PASSWORD AGAIN box and press the ► button to display the PASSWORD for about 20 seconds, please make note of the PASSWORD during this time.</p>  <p>Pressing the ENTER button will return to MyScreen PASSWORD on/off menu.</p> <p>When a PASSWORD is set for MyScreen:</p> <ul style="list-style-type: none"> • The MyScreen registration function (and menu) will be unavailable. • The MyScreen Lock menu will be unavailable. • The START UP setting will be locked on MyScreen (and the menu will be unavailable). <p>Turning the MyScreen PASSWORD off will allow normal operation of these functions.</p> <ul style="list-style-type: none"> • Please do not forget your MyScreen PASSWORD. <p>2.3 Turning the PASSWORD off</p> <p>2.3-1 Follow the procedure in 2.1-1 to display the MyScreen PASSWORD on/off menu.</p> <p>2.3-2 Select TURN OFF to display the ENTER PASSWORD box (large). Enter the registered PASSWORD and the screen will return to the MyScreen on/off menu.</p> <p>If an incorrect PASSWORD is input the menu will close. If necessary repeat the process from 2.3-1.</p> <p>2.4 If you have forgotten your PASSWORD</p> <p>2.4-1 Follow the procedure in 2.1-1 to display the MyScreen PASSWORD on/off menu.</p> <p>2.4-2 Select TURN OFF to display the ENTER PASSWORD box (large). The 10-digit Inquiring Code will be displayed inside the box.</p>  <p>2.4-3 Contact your dealer with the 10-digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.</p>
	<p>3. Using the PIN LOCK Function</p> <p>PIN LOCK is a function which prevents the projector from being used unless a registered Code is input.</p> <p>3.1 Registering the PIN Code</p> <p>3.1-1 Use the ▲/▼ buttons on the SECURITY menu to select PIN LOCK and press the ► button or the ENTER button to display the PIN LOCK on/off menu.</p> 

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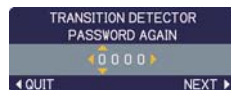
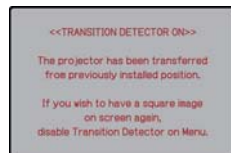
OPTION menu (continued)

Item	Description
SECURITY (continued)	<p>3.1-2 Use the ▲/▼ buttons on the PIN LOCK on/off menu to select TURN ON and the PIN BOX will be displayed.</p>  <p>3.1-3 Input a 4 part PIN Code using the ▲, ▼, ◀, ▶, COMPUTER and INPUT buttons. A PIN Code again box will appear. Reenter the same PIN Code. This will complete the PIN Code registration.</p> <ul style="list-style-type: none"> If there is no key input for about 55 seconds while the PIN BOX or the PIN Code again box are displayed the menu will close. If necessary repeat the process from 3.1-1. <p>Afterwards, anytime the projector is restarted after AC power is turned off the PIN BOX will be displayed. Enter the registered PIN Code. The projector can be used after entering the registered PIN Code. If an incorrect PIN Code is input the PIN BOX will be displayed again. If an incorrect PIN Code is input 3 times the projector will turn off. Afterwards the projector will turn off every time an incorrect PIN Code is input. The projector will also turn off if there is no key input for about 5 minutes while the PIN BOX is displayed. This function will activate only when the projector is started after AC power is turned off.</p> <ul style="list-style-type: none"> Please do not forget your PIN Code. <p>3.2 Turning Off the PIN LOCK Function</p> <p>3.2-1 Follow the procedure in 3.1-1 to display the PIN LOCK on/off menu. Use the ▲/▼ buttons to select TURN OFF and the PIN BOX will be displayed. Enter the registered PIN Code to turn the PIN LOCK function off. If an incorrect PASSWORD is input 3 times, the projector will be shut down.</p> <p>3.3 If you have forgotten your PIN Code</p> <p>3.3-1 While the PIN BOX is displayed, press and hold the RESET button for 3 seconds or press and hold the INPUT and ▶ buttons for 3 seconds. The 10-digit Inquiring Code will be displayed.</p> <ul style="list-style-type: none"> If it passes for about 5 minutes after the PIN BOX is displayed the projector will turn off. <p>3.3-2 Contact your dealer with the 10-digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.</p> 

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OPTION menu (continued)

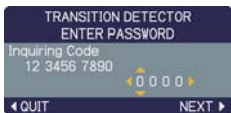
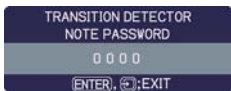
Item	Description
<p>SECURITY (continued)</p>	<p>4. Using the Transition Detector Function</p> <p>While the Transition Detector function is ON, when power switch is started to supply to the projector, it might react as below.</p> <ul style="list-style-type: none"> • Transition Detector alarm shown below might appear on screen, if the projector has been moved or re-installed. • Transition Detector alarm might appear on screen, if the MIRROR setting has been changed. • Keystone adjustment feature and the adjustment of the PERFECT FIT have been prohibited as long as the Transition Detector function is on. <p>4.1 Turning On the Transition Detector Function</p> <p>4.1-1 Use the ▲/▼ buttons on the SECURITY menu to select TRANSITION DETECTOR and press the ► or the ENTER button to display the TRANSITION DETECTOR on/off menu. Select TURN ON and the current angle and mirror setting will be recorded.</p> <ul style="list-style-type: none"> • This feature may not function properly if the projector is not in a stable position when TURN ON is selected. <p>4.1-2 When the projector is turned on, if this function is set to TURN ON and if the setting condition of the projector (normal use or ceiling mounted) or mirror setting is changed from previous record, the Transition Detector alarm will be displayed and the projector will not display the input image.</p> <p>Set the Transition Detector off in the SECURITY menu to display the input signal.</p> <p>If the Transition Detector alarm is displayed for about 5 minutes the lamp will turn off. This function will activate only when the projector is started after turning off the AC power.</p> <p>4.2 Setting the Transition Detector PASSWORD</p> <p>4.2-1 Use the ▲/▼ buttons on the SECURITY menu to select TRANSITION DETECTOR and press the ► or the ENTER button to display the TRANSITION DETECTOR on/off menu.</p> <p>4.2-2 Use the ▲/▼ buttons on the TRANSITION DETECTOR on/off menu to select TURN ON. The ENTER PASSWORD box (small) will be displayed.</p> <p>4.2-3 Use the ▲/▼/◀/▶ buttons to enter a PASSWORD. Move the cursor to the right side of the ENTER PASSWORD box (small) and press the ► button to display the PASSWORD AGAIN box, enter the same PASSWORD again.</p>



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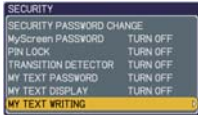
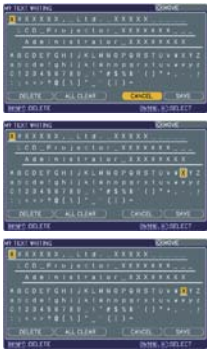
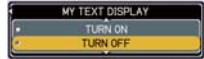


OPTION menu (continued)

Item	Description
<p>SECURITY (continued)</p>	<p>4.2-4 Move the cursor to the right side of the PASSWORD AGAIN box and press the ► button to display the PASSWORD for about 20 seconds, please make note of the PASSWORD during this time.</p> <p>Pressing the ENTER button will return to the TRANSITION DETECTOR on/off menu.</p> <ul style="list-style-type: none"> • Please do not forget your Transition Detector PASSWORD. <p>4.3 Setting the Transition Detector off</p> <p>4.3-1 Follow the procedure in 4.1-1 to display the TRANSITION DETECTOR on/off menu.</p> <p>4.3-2 Select TURN OFF to display the ENTER PASSWORD box (large). Enter the registered PASSWORD and the screen will return to the TRANSITION DETECTOR on/off menu. If an incorrect PASSWORD is input the menu will close. If necessary repeat the process from 4.3-1.</p> <p>4.4 If you have forgotten your PASSWORD</p> <p>4.4-1 Follow the procedure in 4.1-1 to display the TRANSITION DETECTOR on/off menu.</p>
	<p>4.4-2 Select TURN OFF to display the ENTER PASSWORD box (large). The 10-digit Inquiring Code will be displayed inside the box.</p> <p>4.4-3 Contact your dealer with the 10-digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.</p>



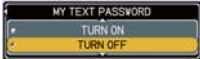





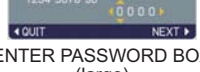
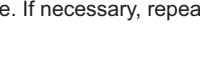

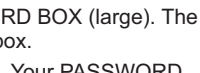
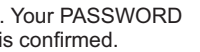
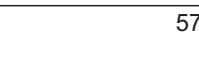
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OPTION menu (continued)

Item	Description
<p>SECURITY (continued)</p>	<p>5. Using the MY TEXT PASSWORD function This item allows you to display your own message (MY TEXT) on the START UP screen and INPUT-INFORMATION. It can be protected by a password to prevent it from being overwritten.</p> <p>5.1 Writing the MY TEXT</p> <p>(1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT WRITING menu and press the ► button. The MY TEXT WRITING dialog will be displayed.</p>  <p>(2) The current MY TEXT will be displayed on the first 3 lines. If not yet written, the lines will be blank. Use the ▲/▼/◀/▶ buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The MY TEXT can be input up to 24 characters on each line.</p> <p>(3) To change an already inserted character, press the ▲/▼ button to move the cursor to one of the first 3 lines, and use the ◀/▶ buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (2) above.</p> <p>(4) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button. To revert to the previous MY TEXT without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button.</p>  <ul style="list-style-type: none"> • The MY TEXT WRITING function is available only when the MY TEXT PASSWORD function is set to TURN OFF. <p>5.2 Displaying the MY TEXT</p> <p>(1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT DISPLAY menu and press the ► button to display the MY TEXT DISPLAY on/off menu.</p>  <p>MY TEXT DISPLAY on/off menu</p> <p>(2) Use the ▲/▼ buttons on the MY TEXT DISPLAY on/off menu to select on or off.</p> <p>TURN ON ⇔ TURN OFF</p> <p>When it is set TURN ON, the MY TEXT will be displayed on the START UP screen. Whichever is selected, the MY TEXT will be displayed on the INPUT-INFORMATION- when the INFORMATION on the SERVICE menu is chosen.</p>  <ul style="list-style-type: none"> • This function is available only when the MY TEXT PASSWORD function is set to the TURN OFF. 

(continued on next page)

OPTION menu (continued)






Item	Description	
SECURITY (continued)	5.3 Turning on the MY TEXT PASSWORD The MY TEXT PASSWORD function can prevent the MY TEXT from being overwritten.	
	5.3-1 Turning on the MY TEXT PASSWORD function	
	(1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT PASSWORD menu and press the ► button to display the MY TEXT PASSWORD on/off menu.	 MY TEXT PASSWORD
	5.3-2 Setting the MY TEXT PASSWORD	
	(1) Display the MY TEXT PASSWORD on/off menu using the procedure in 5.3-1	 ENTER PASSWORD BOX (small)
	(2) Use the ▲/▼ buttons on the MY TEXT PASSWORD menu to select TURN ON. The ENTER PASSWORD BOX (small) will be displayed.	 PASSWORD AGAIN BOX
	(3) Use the ▲/▼/◀/▶ buttons to enter the PASSWORD. Move the cursor to the right side of the ENTER PASSWORD BOX (small) and press the ► button to display the PASSWORD AGAIN BOX, and then enter the same PASSWORD again.	 NOTE PASSWORD BOX
	(4) Move the cursor to the right side of the PASSWORD AGAIN BOX and press ► button to display the PASSWORD for about 20 seconds, then please make note of the PASSWORD during this time.	 NOTE PASSWORD BOX
	Pressing the ENTER button on the remote control or INPUT button on the projector will return to the MY TEXT PASSWORD on/off menu. When the PASSWORD is set for the MY TEXT; <ul style="list-style-type: none"> • The MY TEXT DISPLAY menu will be unavailable, which can prohibit changing the DISPLAY setting. • The MY TEXT WRITING menu will be unavailable, which can prevent the MY TEXT from being overwritten. 	 ENTER PASSWORD BOX (large)
	5.3-3 Turning the MY TEXT PASSWORD off	
(1) Follow the procedure in 5.3-1 to display the MY TEXT PASSWORD on/off menu.	 ENTER PASSWORD BOX (large)	
(2) Select TURN OFF to display the ENTER PASSWORD BOX (large). Enter the registered PASSWORD and the screen will return to the MY TEXT PASSWORD on/off menu.	 ENTER PASSWORD BOX (large)	
If an incorrect PASSWORD is input, the menu will close. If necessary, repeat the process from 5.3-3(1)	 ENTER PASSWORD BOX (large)	
5.3.4 If you have forgotten your PASSWORD.		
(1) Follow the procedure in 5.3-1 to display the MY TEXT PASSWORD on/off menu.	 ENTER PASSWORD BOX (large)	
(2) Select TURN OFF to display the ENTER PASSWORD BOX (large). The 10 digit inquiring code will be displayed inside the box.	 ENTER PASSWORD BOX (large)	
(3) Contact your dealer with the 10 digit inquiring code. Your PASSWORD will be sent after your user registration information is confirmed.	 ENTER PASSWORD BOX (large)	

C.C. (Closed Caption) menu

The closed caption setting can be changed through C.C. menu in the advance menu. Please select the item that you will change using ▲/▼ cursor buttons.

• The C.C. (Closed Caption) is the function that displays a transcript or dialog of the audio portion of a video, files or other presentation or other relevant sounds. It is required to have NTSC format video or 480i@60 Component video source supporting C.C. feature to utilize this function.



Item	Description
<p>DISPLAY</p>	<p>Select Closed Caption DISPLAY setting from following options using ▲/▼ buttons.</p> <p>TURN OFF ⇄ TURN ON ⇄ AUTO</p>  <p>TURN OFF: Closed Caption is OFF TURN ON: Closed Caption is ON AUTO: Closed Caption automatically displays when the volume is muted.</p> <ul style="list-style-type: none"> • The caption is not displayed when the OSD menu is active. • The Closed Caption is the function to display the dialogue, narration, and / or sound effects of a television program or other video sources. The Closed Caption availability is depending upon broadcaster and/or content. • The caption is available if the video source is NTSC format and the video format selection is AUTO or NTSC on the INPUT menu, when either VIDEO or S-VIDEO is selected as input port. • The caption is also available if 480i@60 video signal is input from COMPONENT port, when it is selected as input port. • It may not work properly, depending on equipment or signal source. In this case, please turn off the Closed Caption. 
<p>MODE</p>	<p>Select Closed Caption MODE setting from following options using ▲/▼ buttons.</p> <p>CAPTIONS ⇄ TEXT</p> <p>CAPTIONS: Display Closed Caption TEXT: Display Text data, which is for additional information such as news reports or a TV program guide. The information covers the entire screen. Not all of the C.C. program has Text information.</p> 
<p>CHANNEL</p>	<p>Select Closed Caption CHANNEL from following options using ▲/▼ buttons.</p> <p>1 ⇄ 2 ⇄ 3 ⇄ 4</p>  <p>1: Channel 1, primary channel / language 2: Channel 2 3: Channel 3 4: Channel 4</p> <p>The channel data may vary, depending on the content. Some channel might be used for secondary language or empty.</p> 

Maintenance

Replacing the lamp

The projection lamp has finite product life that is different in each lamp. Please replace the lamp as soon as possible when the pictures appear dark, or when the color tone is poor. Using the lamp for long periods of time may make the lamp burned out or broken.

Preparation of a spare lamp and early replacement are recommended. To prepare the new lamp, call your dealer and tell the type number: **DT00893**

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for about 45 minutes as it is.

When the projector is mounted on a ceiling or somewhere over your head, or when the lamp may have been broken, be sure to refer replacement to your dealer or service person, since it may be dangerous.

Only in case of replacement by yourself, follow the following procedure.

2. Loosen the screw (marked by arrow) of the lamp cover, and then slide the lamp cover to the side to remove it.
3. Loosen the 2 screws (marked by arrows) of the lamp, and slowly pick up the lamp by the handles.
4. Insert the new lamp, with cautions not to touch the inside of the lamp house. When inserting, pay attention to the socket position first, and to the pins for positioning next.
5. Tighten firmly the 2 screws of the lamp that are loosened in the previous process to lock it in place.
6. Slide the lamp cover into place and firmly tighten the screw of the lamp cover.
7. Plug in and restart the projector (12, 16). Then, reset the lamp time (which is the time counter for the lamp use).

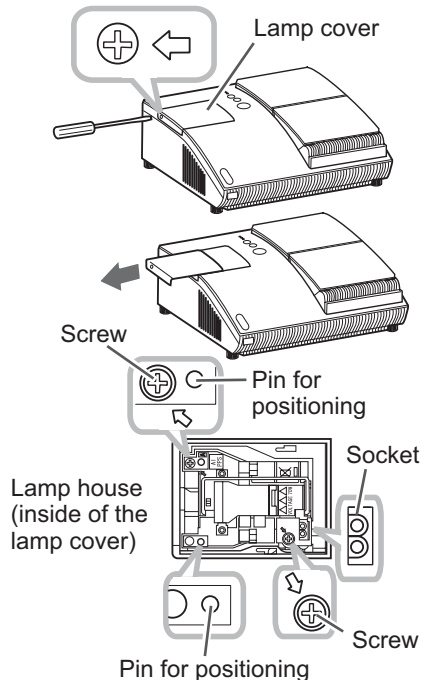
(1) Press the ▲ or ▼ button on the projector or the **MENU** button on the remote control. The "EASY MENU" appears.

(2) Point at the "Go to Advanced Menu ..." in the menu using the ▲ or ▼ button, then press the ► button. "MENU" appears.

(3) Pointed at the "OPTION" in the left column using the ▲ or ▼ button, then press the ► button. The cursor moves to the right column.

(4) Pointed at the "LAMP TIME" using the ▲ or ▼ button, then press the ► button. A dialog appears.

(5) Press the ▲ button to select the "RESET" on the dialog. It performs resetting the lamp time.



Replacing the lamp (continued)

NOTE • Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp.

⚠ HIGH VOLTAGE ⚠ HIGH TEMPERATURE ⚠ HIGH PRESSURE

⚠ WARNING ► The projector uses a high-pressure mercury glass lamp. The lamp can break with a loud bang, or burn out, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, if the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury and dust containing fine particles of glass to escape from the projector's vent holes.

About disposal of a lamp: This product contains a mercury lamp; do not put it in a trash. Dispose of it in accordance with environmental laws.

- For lamp recycling, go to www.lamprecycle.org (in the US).
- For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).

For more information, call your dealer.



- If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself.
- If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to inhale the gas or fine particles that come out from the projector's vent holes, and not to get them into your eyes or mouth.
- Before replacing the lamp, turn the projector off and unplug the power cord, then wait for at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.



- Never unscrew except the appointed (marked by an arrow) screw.
- Do not open the lamp cover while the projector is suspended from a ceiling or somewhere over your head. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.
- Do not use the projector with the lamp cover removed. At the lamp replacing, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.



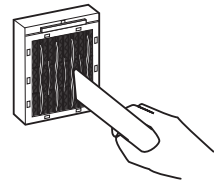
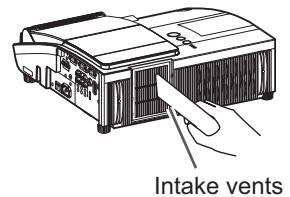
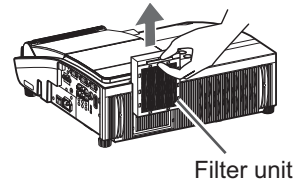
- Use only the lamp of the specified type. Use of a lamp that does not meet the lamp specifications for this model could cause a fire, damage or shorten the life of this product.
- If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or service representative.
- Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
- Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

Maintaining the air-filter

Please check and clean the air-filter periodically, for keeping normal ventilation. When the indicators or a message prompts you to clean the air-filter, comply with it as soon as possible.

When it is damaged or too soiled, replace the filter unit. To prepare the new filter unit, call your dealer and tell the type number: **UX35381**

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for a while as it is.
2. Use the vacuum cleaner on and around the filter unit.
3. Slide the filter unit upward to take it off from the projector.
4. Use the vacuum cleaner on the intake vents of the projector.
5. Use the vacuum cleaner on the cover side of the filter unit. Do not vacuum the air-filter directly, since the cleaner may inhale the air-filter. When the air-filter is damaged or too soiled, prepare the new filter unit.
6. Make sure that there is the air-filter inside, then slide the filter unit into place.
7. Plug in and restart the projector (📖12, 16).



Then, reset the filter time (which is the time counter for the air-filter use).

- (1) Press the ▲ or ▼ button on the projector or the **MENU** button on the remote control. The "EASY MENU" appears.
- (2) Point at the "FILTER TIME" in the menu using the ▲ or ▼ button, then press the ► button. A dialog appears.
- (3) Press the ▲ button to select the "RESET" on the dialog. It performs resetting the filter time.

(continued on next page)

Maintaining the air-filter (continued)

NOTE • A filter unit of specified type will come with the replacement lamp for this projector. Replacing the filter unit at the same time with the lamp is recommended.

- Please reset the filter time only when you have cleaned the air-filter, for a suitable indication about the air-filter.
- The projector may display the message such as “CHECK THE AIR FLOW” or turn off the projector, to prevent the internal heat level rising.

⚠ WARNING ► Before taking care of the air-filter, make sure the power switch is off and the power cable is not plugged in, then allow the projector to cool sufficiently. Taking care of the air-filter in a high temperature state of the projector could cause an electric shock, a burn or malfunction to the projector.

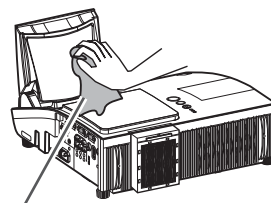
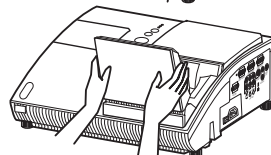
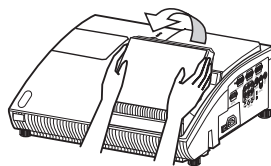
► Use only the air-filter unit of the specified type. Do not use the projector without the air-filter or the filter cover. It could result in a fire or malfunction to the projector.

► Clean the air-filter periodically. If the air-filter becomes clogged by dust or the like, internal temperatures rise and could cause a fire, a burn or malfunction to the projector.

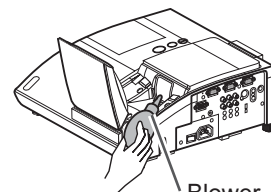
Caring for the mirror and lens

If the projection mirror or lens is flawed, soiled or fogged, it could cause deterioration of display quality. Please take care of the mirror and lens, being cautious of handling.

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for a while as it is.
2. The lens door can be opened manually. Please hold both side of the lens door and slowly open it until it is locked with clicking sound.
3. Wipe softly the mirror and lens with a cleaning cloth for lens on the market, being careful not to give any damage on the mirror and lens.
For around edge of the mirror and lens where might be difficult to be wiped out, please use an air blower for cameras on the market to clean up.
4. To close the lens door properly, please take the following procedure.
 - (1) Plug in the projector.
 - (2) Turn on the power switch.
 Even though the lens door starts to close, it might not be closed properly.
 - (3) Press the **STANDBY/ON** button, so that the lamp starts to light up.
 - (4) After the **POWER** indicator turns to steady green, press the **STANDBY/ON** button twice to turn off the projector.
 The lens door will close properly.



Cleaning cloth



Blower

NOTE • When the lens door is closed manually, it may not shut properly.
• The lens door may not close when the LENS DOOR LOCK setting is set to ON. Refer to the LENS DOOR LOCK function of the SERVICE item in the OPTION menu (48).

- ⚠ WARNING** ▶ Before caring for the projection mirror and lens, turn the projector off and unplug the power cord, then cool the projector sufficiently.
- ▶ Do not use a vacuum cleaner to clean the projection mirror or lens, since it might give some damage.
- ▶ Do not use cleaners or chemicals other than those specified in this manual. Especially the mirror has to be paid special attention, since these materials might give serious damage on the mirror.
- ⚠ CAUTION** ▶ Be careful not to pinch your finger with the lens door, to prevent an injury.

Other care

Inside of the projector

In order to ensure the safe use of your projector, please have it cleaned and inspected by your dealer about once every year.

Caring for the cabinet and remote control

Incorrect care could have adverse influence such as discoloration, peeling paint, etc.

1. Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
2. After making sure that the projector is cool adequately, lightly wipe with gauze or a soft cloth.
If the projector is extremely dirty, dip soft cloth in water or a neutral cleaner diluted in water, and wipe lightly after wringing well. Then, wipe lightly with a soft, dry cloth.

⚠ WARNING ▶ Before caring, make sure the power cord is not plugged in, and then allow the projector to cool sufficiently. The care in a high temperature state of the projector could cause a burn and/or malfunction to the projector.

▶ Never try to care for the inside of the projector personally. Doing is so dangerous.

▶ Avoid wetting the projector or inserting liquids in the projector. It could result in a fire, an electric shock, and/or malfunction to the projector.

- Do not put anything containing water, cleaners or chemicals near the projector.
- Do not use aerosols or sprays.

⚠ CAUTION ▶ Please take right care of the projector according to the following. Incorrect care could cause not only an injury but adverse influence such as discoloration, peeling paint, etc.

▶ Do not use cleaners or chemicals other than those specified in this manual.

▶ Do not polish or wipe with hard objects.

Troubleshooting

If an abnormal operation should occur, stop using the projector immediately.




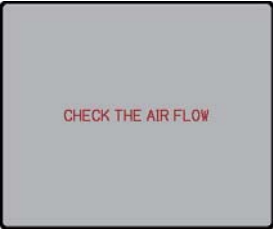

⚠ WARNING ▶ Never use the projector if abnormal operations such as smoke, strange odor, excessive sound, damaged casing or elements or cables, penetration of liquids or foreign matter, etc. should occur. In such cases, immediately turn off the power switch and then disconnect the power plug from the power outlet. After making sure that the smoke or odor has stopped, contact to your dealer or service company.

Otherwise if a problem occurs with the projector, the following checks and measures are recommended before requesting repair.

If this does not resolve the problem, please contact your dealer or service company. They will tell you what warranty condition is applied.

Related messages

When some message appears, check and cope with it according to the following table. Although these messages will be automatically disappeared around several minutes, it will be reappeared every time the power is turned on.

Message	Description
	<p>There is no input signal. Please confirm the signal input connection, and the status of the signal source.</p>
	<p>The horizontal or vertical frequency of the input signal is not within the specified range. Please confirm the specs for your projector or the signal source specs.</p>
	<p>An improper signal is input. Please confirm the specs for your projector or the signal source specs.</p>
	<p>The internal temperature is rising. Please turn the power off, and allow the projector to cool down at least 20 minutes. After having confirmed the following items, please turn the power ON again.</p> <ul style="list-style-type: none"> • Is there blockage of the air passage aperture? • Is the air-filter dirty? • Does the peripheral temperature exceed 35°C? <p>If the same indication is displayed after the remedy, please set FAN SPEED of the SERVICE item in the OPTION menu to HIGH.</p>
	<p>A note of precaution when cleaning the air-filter. Please immediately turn the power off, and clean or change the air-filter referring to the “Maintaining the air-filter” section of this manual. After you have cleaned or changed the air-filter, please be sure to reset the filter time (45, 61).</p>

Regarding the indicator lamps

When operation of the **LAMP**, **TEMP** and **POWER** indicators differs from usual, check and cope with it according to the following table.

POWER indicator	TEMP indicator	LAMP indicator	Description
<i>Lighting In Orange</i>	<i>Turned off</i>	<i>Turned off</i>	The projector is in a standby state. Please refer to the section "Power on/off".
<i>Blinking In Green</i>	<i>Turned off</i>	<i>Turned off</i>	The projector is warming up. Please wait.
<i>Lighting In Green</i>	<i>Turned off</i>	<i>Turned off</i>	The projector is in an on state. Ordinary operations may be performed.
<i>Blinking In Orange</i>	<i>Turned off</i>	<i>Turned off</i>	The projector is cooling down. Please wait.
<i>Blinking In Red</i>	<i>(discre- tionary)</i>	<i>(discre- tionary)</i>	The projector is cooling down. A certain error has been detected. Please wait until POWER indicator finishes blinking, and then perform the proper measure using the item descriptions below.
<i>Blinking In Red or Lighting In Red</i>	<i>Turned off</i>	<i>Lighting In Red</i>	The lamp does not light, and there is a possibility that interior portion has become heated. Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation of the following items, and then turn the power on again. <ul style="list-style-type: none"> • Is there blockage of the air passage aperture? • Is the air-filter dirty? • Does the peripheral temperature exceed 35°C? If the same indication is displayed after the remedy, please change the lamp referring to the section "Lamp".
<i>Blinking In Red or Lighting In Red</i>	<i>Turned off</i>	<i>Blinking In Red</i>	The lamp cover has not been properly fixed. Please turn the power off, and allow the projector to cool down at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp cover. After performing any needed maintenance, turn the power on again. If the same indication is displayed after the remedy, please contact your dealer or service company.
<i>Blinking In Red or Lighting In Red</i>	<i>Blinking In Red</i>	<i>Turned off</i>	The cooling fan is not operating. Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation that no foreign matter has become caught in the fan, etc., and then turn the power on again. If the same indication is displayed after the remedy, please contact your dealer or service company.
<i>Lighting In Red</i>	<i>Turned off</i>	<i>Turned off</i>	The lens door is not opened or closed properly. One of the followings has been happened. <ul style="list-style-type: none"> • The lens door is not opened properly, when the projector is turned on. • The lens door is not closed properly, when the projector is turned off. • The lens door position is shifted, while the projector is working. Restart the projector, after confirming that there is nothing that the lens door hits while opening or closing.

(continued on next page)

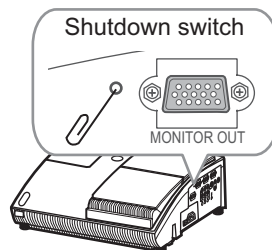
Regarding the indicator lamps (continued)

POWER indicator	TEMP indicator	LAMP indicator	Description
<i>Blinking In Red or Lighting In Red</i>	<i>Lighting In Red</i>	<i>Turned off</i>	<p>There is a possibility that the interior portion has become heated. Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation of the following items, and then turn the power on again.</p> <ul style="list-style-type: none"> • Is there blockage of the air passage aperture? • Is the air-filter dirty? • Does the peripheral temperature exceed 35°C? <p>If the same indication is displayed after the remedy, please set FAN SPEED of SERVICE item in OPTION menu to HIGH (☞47).</p>
<i>Lighting In Green</i>	<i>Simultaneous blinking in Red</i>		<p>It is time to clean the air-filter. Please immediately turn the power off, and clean or change the air-filter referring to the section “Maintaining the air-filter”. After cleaning or changing the air-filter, please be sure to reset the filter timer. After the remedy, reset the power to ON.</p>
<i>Lighting In Green</i>	<i>Alternative blinking in Red</i>		<p>There is a possibility that the interior portion has become overcooled. Please use the unit within the usage temperature parameters (5°C to 35°C). After the treatment, reset the power to ON.</p>

NOTE • When the interior portion has become overheated, for safety purposes, the projector is automatically shut down, and the indicator lamps may also be turned off. In such a case, disconnect the power cord, and wait at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp and lamp cover, and then turn the power on again.

Shutting the projector down

Only when the projector can not be turned off by usual procedure (☞17), please push the shutdown switch using a pin or similar, and disconnect the power plug from the power outlet. Before turning it on again, wait at least 10 minutes to make the projector cool down enough.



Resetting all settings

When it is hard to correct some wrong settings, the FACTORY RESET function of SERVICE item in OPTION menu (☞49) can reset all settings(except LANGUAGE, FILTER TIME, LAMP TIME, FILTER MESSAGE settings and etc.) to the factory default.

Phenomena that may be easy to be mistaken for machine defects

About the phenomenon confused with a machine defect, check and cope with it according to the following table.

Phenomenon	Cases not involving a machine defect	Reference page
Power does not come on.	The electrical power cord is not plugged in. Correctly connect the power cord.	12
	The main power source has been interrupted during operation such as by a power outage (blackout), etc. Please disconnect the power plug from the power outlet, and allow the projector to cool down at least 10 minutes, then turn the power on again.	12, 16
	Either there is no lamp and/or lamp cover, or either of these has not been properly fixed. Please turn the power off and disconnect the power plug from the power outlet, and allow the projector to cool down at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp and lamp cover, and then turn the power on again.	59
Neither sounds nor pictures are outputted.	The signal cables are not correctly connected. Correctly connect the connection cables.	10
	Signal source does not correctly work. Correctly set up the signal source device by referring to the manual of the source device.	–
	The input changeover settings are mismatched. Select the input signal, and correct the settings.	18, 19
	The BLANK function for pictures and the MUTE function for sounds are working. The BLANK and MUTE, or AV Mute may be active. Refer to the item “Sound does not come out” and “No pictures are displayed” on the next page to turn off the MUTE and BLANK functions.	18, 23

(continued on next page)

Phenomena that may be easy to be mistaken for machine defects (continued)

Phenomenon	Cases not involving a machine defect	Reference page
Sound does not come out.	<p>The signal cables are not correctly connected. Correctly connect the audio cables.</p>	10
	<p>The MUTE function is working. Restore the sound pressing MUTE or VOLUME+/- button on the remote control.</p>	18
	<p>The volume is adjusted to an extremely low level. Adjust the volume to a higher level using the menu function or the remote control.</p>	18
	<p>The AUDIO/SPEAKER setting is not correct. Correctly set the AUDIO/SPEAKER in AUDIO menu.</p>	39
No pictures are displayed.	<p>The lens door is not fully opened. Use the LENS DOOR OPEN function, or turn the projector off and on again.</p>	16, 17, 48, 63
	<p>The signal cables are not correctly connected. Correctly connect the connection cables.</p>	10
	<p>The brightness is adjusted to an extremely low level. Adjust BRIGHTNESS to a higher level using the menu function.</p>	27, 28
	<p>The computer cannot detect the projector as a plug and play monitor. Make sure that the computer can detect a plug and play monitor using another plug and play monitor.</p>	11
	<p>The BLANK screen is displayed. Press BLANK button on the remote control.</p>	23, 40

(continued on next page)

Phenomena that may be easy to be mistaken for machine defects (continued)

Phenomenon	Cases not involving a machine defect	Reference page
Video screen display freezes.	The FREEZE function is working. Press FREEZE button to restore the screen to normal.	23
Colors have a faded- out appearance, or Color tone is poor.	Color settings are not correctly adjusted. Perform picture adjustments by changing the COLOR TEMP, COLOR, TINT and/or COLOR SPACE settings, using the menu functions.	27, 29, 33
	COLOR SPACE setting is not suitable. Change the COLOR SPACE setting to AUTO, RGB, SMPTE240, REC709 or REC601.	33
Pictures appear dark.	The brightness and/or contrast are adjusted to an extremely low level. Adjust BRIGHTNESS and/or CONTRAST settings to a higher level using the menu function.	27, 28
	The whisper function is working. Select NORMAL for WHISPER item in the SETUP menu.	27, 37
	The lamp is approaching the end of its product lifetime. Replace the lamp.	59, 60
Pictures appear blurry.	Either the focus and/or horizontal phase settings are not properly adjusted. Adjust the focus using the focus ring, and/or H PHASE using the menu function.	21, 32
	The lens or mirror is dirty or misty. Clean the lens or mirror referring to the section "Caring for the lens".	63
The picture is distorted or shifted.	Projector is tilted inappropriately. Adjust the projector's elevator feet.	20
	Lens door is not completely open. Use the LENS DOOR OPEN function.	22
	The shape of picture is not corrected appropriately. Use the keystone correction or PERFECT FIT function.	22
RS-232C does not work.	The SAVING function is working. Select NORMAL for STANDBY MODE item in the SETUP menu.	38

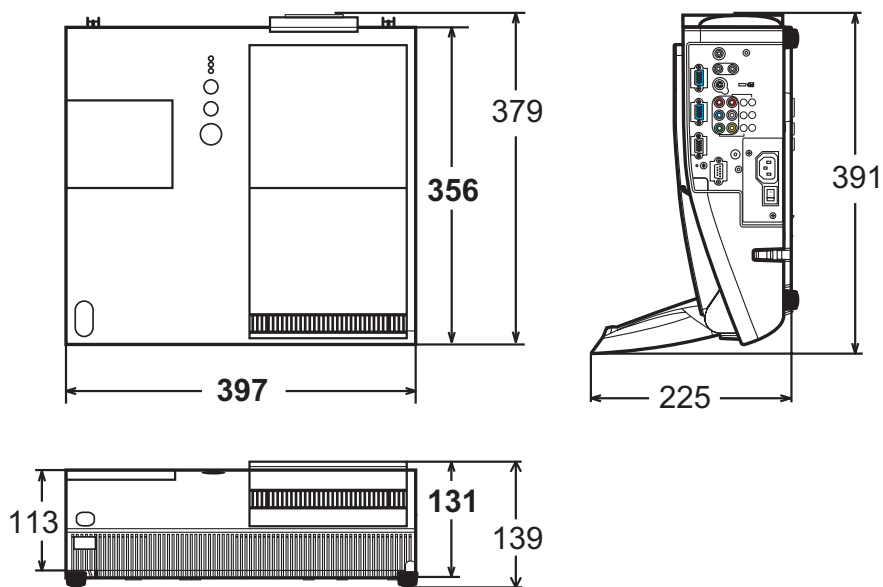
NOTE • Although bright spots or dark spots may appear on the screen, this is a unique characteristic of liquid crystal displays, and it does not constitute or imply a machine defect.

Specifications

Specifications

Item	Specifications
Product name	Liquid crystal projector
Liquid Crystal Panel	786,432 pixels (1024 horizontal x 768 vertical)
Lamp	230 W UHB
Audio output	7 W
Power supply	AC 100-120 V/3.6 A, AC 220-240 V/1.5 A
Power consumption	340 W
Temperature range	5~35°C (operating)
Ports	COMPUTER IN1 D-sub 15 pin mini x 1 COMPUTER IN2 D-sub 15 pin mini x 1 Y, C _B /P _B , C _R /P _R (Component video) RCA x 3 S-VIDEO mini DIN 4 pin x 1 VIDEO RCA x 1 MONITOR OUT D-sub 15 pin mini x 1 AUDIO IN1 Stereo mini x 1 AUDIO IN2 Stereo mini x 1 AUDIO IN3 (L, R) RCA x 2 AUDIO OUT Stereo mini x 1 CONTROL D-sub 9 pin x 1
Optional parts	Lamp: DT00893 Filter unit: UX35381 Soft case: CA100 * For more information, contact to your dealer.
Weight (mass)	5.8 kg (approx.)
Size	397 (W) x 131 (H) x 356 (D) mm *Excluding protrusions. Please refer to the following figure.

Specifications (continued)



[unit: mm]

User's Manual (concise)

Thank you for purchasing this product.

Please read the manuals for the product beforehand, in order to use the product safely and more effectively. To read the manuals in the CD, see the “15. Using the CD manual” (📖16).

⚠ WARNING

- Before using this product, be sure to read all the manuals for the product. Heed all the warnings and cautions in the manuals or on the product. Follow all the instructions in the manuals or on the product. Retain the manuals in a safe place for future reference.
- The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this projector.

Contents

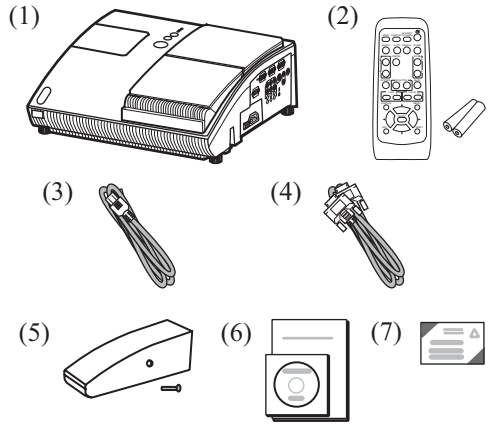


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1. Checking the contents

Check that all the following items are included. If any items are missing, tell your dealer soon.

- (1) Projector
- (2) Remote control with two batteries
- (3) Power cord
- (4) Computer cable
- (5) Cable cover with a screw
- (6) User's manuals (a booklet, a CD)
- (7) Security label



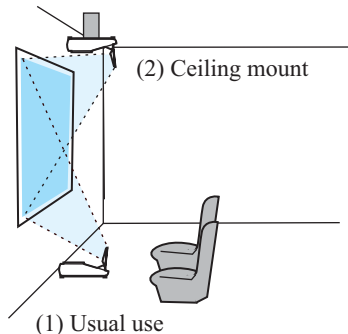
⚠ WARNING

- Keep the original packing materials, and use for transporting this product.

2. Arrangement

Install the projector in a stable, cool, dry and airy place, keeping a space of 30 cm or more between the sides of the projector and other objects such as walls.

Refer to the following to decide the projection style. For the case of installation in a special state such as ceiling mount, the specified mounting accessories and service may be required. Before installing the projector, consult your dealer about your installation.



NOTE

- When installing the projector, confirm that there is nothing that blocks the projection light between the projector and the screen.
- When installing the projector, check that the remote sensors are not exposed to any strong ray (☀7).
- Install the projector in the way specified in this manual. Otherwise the projection lamp may not light.

2. Arrangement (continued)

Refer to the following for the projection distance.

The values shown in the table are calculated for a full size screen: 1024 x 768.

Ⓐ: Screen size (diagonal)

Ⓑ1 Ⓑ2: Projection distance ($\pm 8\%$)

Ⓒ1 Ⓒ2: Screen height ($\pm 8\%$)

(1)

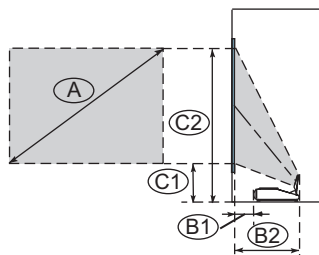


Table for 4:3 screen

Ⓐ	Ⓑ1		Ⓑ2		Ⓒ1		Ⓒ2	
inch	cm	inch	cm	inch	cm	inch	cm	inch
60	9.6	4	47.4	19	28.9	11	120.4	47
70	17.2	7	55.0	22	32.6	13	139.3	55
80	24.8	10	62.6	25	36.2	14	158.2	62
90	32.4	13	70.2	28	39.9	16	177.1	70
100	39.9	16	77.7	31	43.6	17	196.0	77

(2)

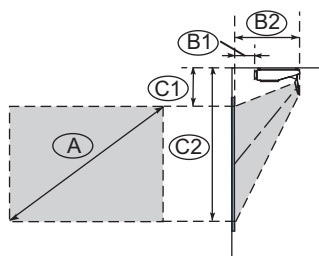


Table for 16:9 screen

Ⓐ	Ⓑ1		Ⓑ2		Ⓒ1		Ⓒ2	
inch	cm	inch	cm	inch	cm	inch	cm	inch
60	13.7	5	51.5	20	43.5	17	118.3	47
70	22.0	9	59.8	24	49.6	20	136.8	54
80	30.2	12	68.0	27	55.7	22	155.3	61
90	38.5	15	76.3	30	61.8	24	173.9	68
100	46.6	18	84.4	33	67.9	27	192.3	76

NOTE

- It is recommended to adjust the screen size from 60 inch to 100 inch diagonal. The screen image adjusted out of this range, either smaller or larger, may be deteriorated.

⚠ WARNING

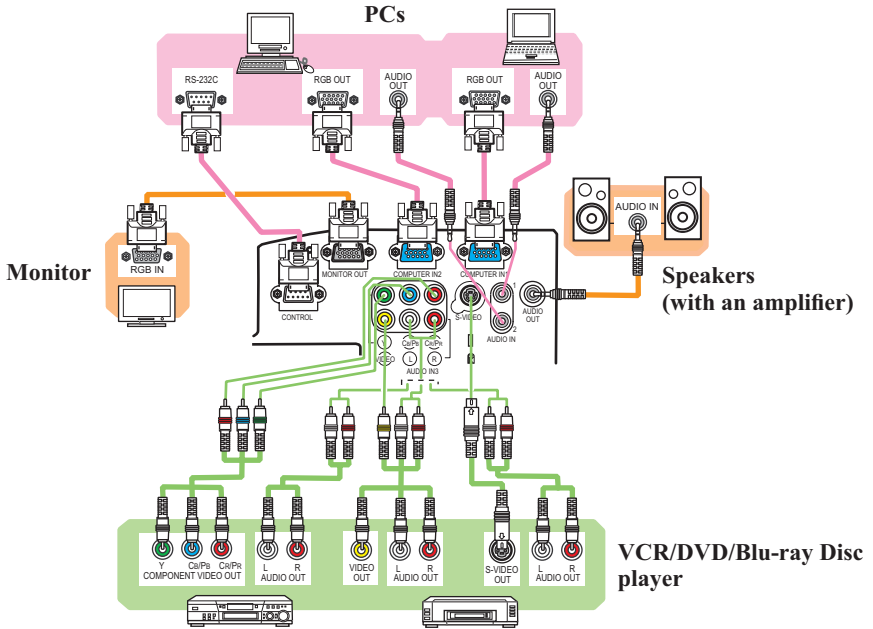
- Install the projector only under the specified condition using only the specified accessory, since others may cause hazards.
- Do not set the up projector while it is connected to a power supply, to prevent an electric shock and a fire.

⚠ CAUTION

- Do not block the vents on the projector. Do not place anything such as a piece of paper that can stick to the intake vents, around the projector. Do not place or attach anything that would block the lens or vent holes.

3. Connecting with your devices

Before connecting them, make sure that the devices are suitable to connect with this projector, and prepare the required signal cables and adapters. Consult your dealer if the accessory that is not included in this product is required. Refer to the following for connection. If you want to use the cable cover, see the paragraph “6. Using the cable cover” (📖6) beforehand.



⚠️ WARNING

- Use only the accessories contained in this product or recommended by your dealer. Do not modify the projector or accessories.
- For the cable with a ferrite core only at one end, connect the end with the core to the projector. The cables may be required a specific length or a ferrite core by the regulations.
- Be careful not to damage the cables. Route the cables so that they are not likely to be walked on or pinched by items placed upon or against them.

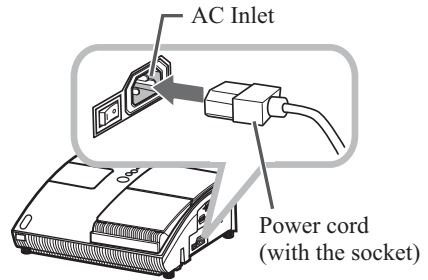
⚠️ CAUTION

- Do not connect or disconnect the projector with devices while they are connected to a power supply, except for the cases directed by the manuals.
- Be careful not to set a connector into a wrong port or with a wrong way.

4. Connecting with a power supply

Before connection, confirm that the power outlet is suitable for this projector and the power cord. Then follow the procedure below for connection.

1. Insert the end of the power cord with the socket into the AC inlet of the projector.
2. Plug the other end of the power cord into a power outlet.



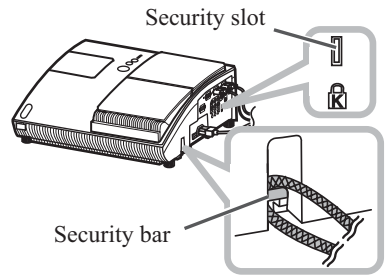
⚠ WARNING

- Be careful of operation for a power supply not to cause an electric shock or a fire.
- Do not handle the power cord with the wet hand.
- Use this product with only the type of power supply indicated on the projector.
- Use a power outlet that is close to the projector and easily accessible.
- Connect firmly the power cord not to result in loose connection. Do not use a loose or unsound power outlet.
- Do not overload the outlet, since overloading can result in a risk of fire or electric shock.
- Use only the power cord contained in this product unless it is damaged. If it is damaged, consult your dealer to get new one. Do not modify the power cord.

5. Using the security bar and slot

This projector has the security bar for a commercial anti-theft chain or wire up to 10 mm in diameter, and also the security slot for the Kensington lock.

For details, see the manual of the security tool.



NOTE

- These are not provided as comprehensive theft preventions but supplemental measures.

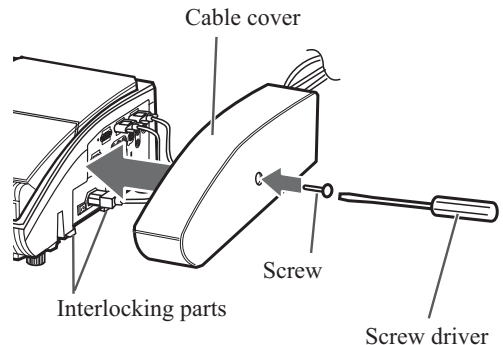
⚠ WARNING

- Do not place the anti-theft chain or wire near the projector's exhaust vents, since the chain or wire heated by the hot exhaust gas may cause a burn.
- Do not use the security bar or slot for the purpose of fall prevention, since these are not designed for it.

6. Using the cable cover

Utilize the cable cover as the guard and blind for the connecting parts.

1. Connect the signal cables and the power cord to the projector first.
2. Attach the cable cover to the projector, uniting the interlocking parts.
3. Tighten the screw to fix the cable cover.
4. Connect the other ends of the cables to other devices, and plug the power cord to the power outlet.



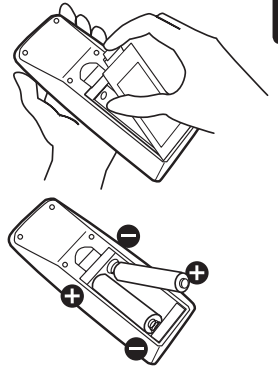
⚠ CAUTION

- Be careful not to pinch the cables in the cable cover, to prevent damage to the cables.

7. Preparing for the remote control

The accessory remote control needs batteries. Use the batteries included in this product or two new batteries of the specified type: **HITACHI MAXELL**, part number **LR6** or **R6P**. Follow the following procedure.

1. Remove the battery cover in the back of the remote control.
2. Put the batteries into the battery holder, according to the polarity markings (+) and (-) inside the holder.
3. Put the battery cover back to the former state.

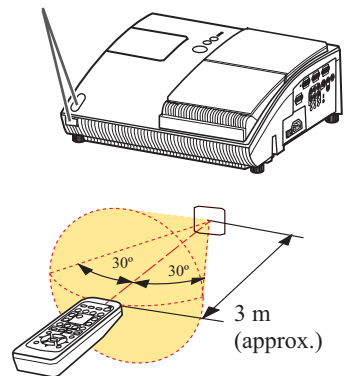


ENGLISH

NOTE

- Try changing the batteries when the remote control malfunctions.
- This remote control works with the remote sensors on the projector using infrared light (Class 1 LED). The active sensor senses the remote control signal assigned within 60 degrees to right and left, and within 3 meters. For details, see the **Operating Guide** in the CD.
- Prevent the remote sensors from being hit by a strong ray. It may cause malfunction of the projector and remote control.

Remote sensors



⚠ WARNING

- Be careful of handling a battery, as a battery can cause explosion, cracking or leakage, which could result in a fire, an injury, and environment pollution.
- Use only the specified and new battery. Do not use a battery with damage, such as a scratch, a dent, a rust or leakage. Do not mix a new battery with used one.
- When a battery leaked, wipe the leakage out well with a waste cloth. If the leakage adhered to your body, immediately rinse it well with water. When a battery leaked in the battery holder, replace the batteries after wiping the leakage out.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
- Do not work on a battery; for example recharging or soldering.
- Do not keep the batteries put into the remote control when the remote control is not used for a long while. Keep a battery in a dark, cool and dry place. Never expose a battery to a fire or water.
- Obey the local laws on disposing a battery.

8. Starting the projector

Turn on the projector and the connected devices. Turn on the projector ahead of other connected devices, unless mentioned in the manuals.

For this projector, follow the procedure below.

1. Press the side marked “I” of the power switch, as the power-on position.

The **POWER** indicator lights up in orange.

NOTE

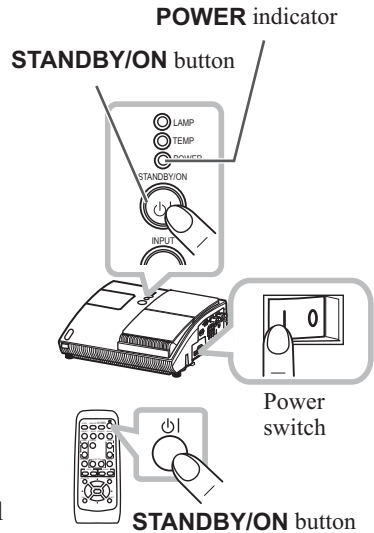
- For a couple of seconds after the power indicator lights up, wait to use the control buttons (on the projector and remote control). The buttons may not work soon.

2. Confirm that there is nothing that the lens door hits while opening.

Then, press the **STANDBY/ON** button (on the projector or remote control).

The lens door opens, the projection lamp lights up, and the **POWER** indicator begins to blink green.

When the projector starts completely, the indicator will turn steady green.



NOTE

- This projector has the DIRECT POWER ON function. For details, see the Operating Guide in the CD.
- Install the projector in the way specified in this manual. Otherwise the projection lamp may not light.

⚠ WARNING

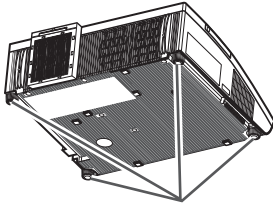
- Never look into the projection lens or mirror while the projection lamp lights, since the projection lamp ray may cause a trouble on your eyes.

⚠ CAUTION

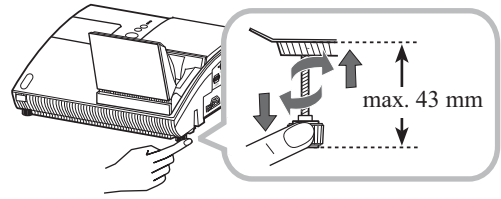
- Be careful not to pinch your finger with the lens door, as it may cause an injury.

9. Adjusting the projection position

This projector has four elevator feet in the bottom. Use them to adjust the projection position.



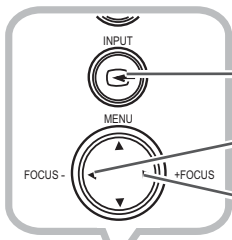
Elevator feet



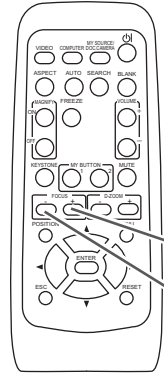
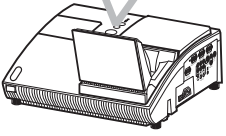
⚠ CAUTION

■ Do not lengthen the elevator feet to 43 mm or more. The foot lengthened exceeding the limit may come off from the projector, and result in an injury.

10. Operation



INPUT button
FOCUS - button
FOCUS + button



FOCUS + button
FOCUS - button

Displaying and switching the image

Press the **INPUT** button on the projector to display the image from one of active input ports.

Each time you press the button, the port is switched in turn, when two or more signals are inputted.

Focusing

Use the **FOCUS +** and **FOCUS -** buttons on the projector or remote control to adjust the screen focus.

10. Operation (continued)

Selecting an aspect ratio

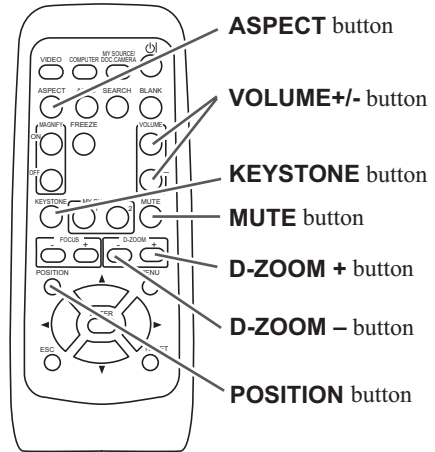
Each time you press the **ASPECT** button on the remote control, it switches the aspect ratio of the image, in turn.

Zooming

Use the **D-ZOOM +** and **D-ZOOM -** buttons on the remote control to adjust the screen size.

Adjusting the picture position

After pressing the **POSITION** button on the remote control, use the **▲**, **▼**, **◀** and **▶** buttons. Press the **POSITION** button again to finish this operation.



Correcting distortion

Press the **KEYSTONE** button on the remote control. A dialog will appear on the screen to aid you in correcting the distortion.

Use the **▲/▼** cursor buttons to select, **MANUAL** or **PERFECT FIT** operation, and press the **▶** button to perform the following.

MANUAL displays a dialog for keystone correction.

PERFECT FIT displays a dialog for adjusting the shape of the projected image in each of the corners and sides.

Use the cursor buttons according to the dialog, checking the image.

Press the **KEYSTONE** button again to finish this operation.

Adjusting the volume

Use the **VOLUME +/-** buttons to adjust the volume.

Muting the sound

Press the **MUTE** button on the remote control. To restore the sound, press the **MUTE** or **VOLUME +/-** button.

NOTE

- For details, see the Operating Guide in the CD.

⚠ CAUTION

- If you wish to have a blank screen while the projector's lamp is on, use the **BLANK** function. (See the “Operating Guide” in the CD.) Any other method of blocking the projection light, such as attaching something to the lens or placing something in front of the lens, may cause the damage to the projector.

11. Turning the projector off

Turn the projector off after turning off the other connected devices, unless mentioned in the manuals. For this projector, follow the procedure below.

1. Press the **STANDBY/ON** button (on the projector or remote control).
The “Power off?” dialog appears on the screen for about 5 seconds.
2. Confirm that there is nothing that the lens door hits while closing.
Then press the **STANDBY/ON** button again while the message appears.
The projection lamp goes off, the lens door closes, and the **POWER** indicator begins to blink orange.

NOTE

- For cooling the projector down, wait for the **POWER** indicator to stop blinking and turn steady orange.
The projector can be turned off without waiting for cooling down. However, the manufacture recommends cooling the projector down enough.
Do not turn the projector on for about 10 minutes or more after turning it off to prevent shortening its life.

3. Press the side marked “O” of the power switch, as the power-off position.
The **POWER** indicator goes off.

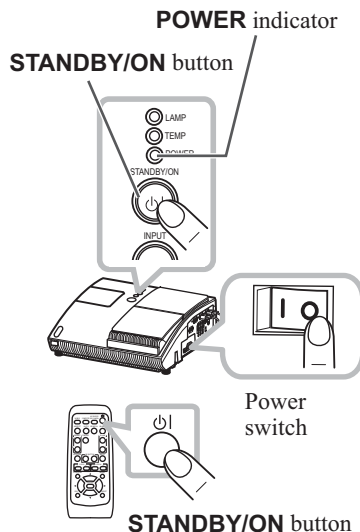
When you will not use the projector for a long while, unplug and separate the power cord from the power outlet, for safety purposes.

NOTE

- This projector has the AUTO POWER OFF function. For details, see the Operating Guide in the CD.

⚠ CAUTION

- Be careful not to pinch your finger with the lens door, to prevent an injury.
- Do not touch the lamp cover or approach the exhaust vents while using the projector and for a while after use, to prevent a burn.



12. Replacing the lamp

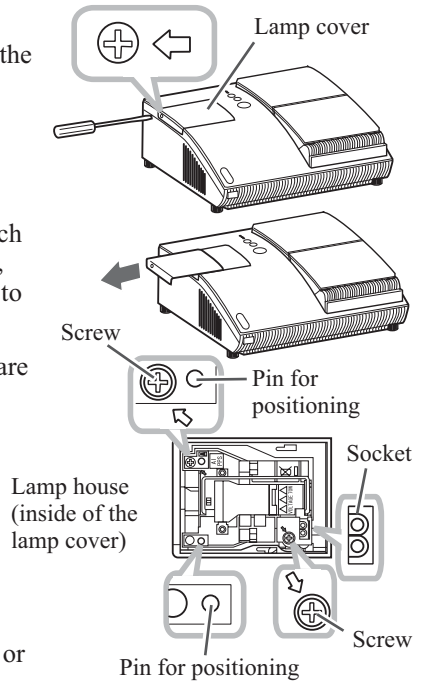
The projection lamp has finite product life that is different in each lamp. Please replace the lamp as soon as possible when the pictures appear dark, or when the color tone is poor. Using the lamp for long periods of time may make the lamp burned out or broken. Preparation of a spare lamp and early replacement are recommended. To prepare the new lamp, call your dealer and tell the type number: **DT00893**

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for about 45 minutes as it is.

When the projector is mounted on a ceiling or somewhere over your head, or when the lamp may have been broken, be sure to refer replacement to your dealer or service person, since it may be dangerous.

Only in case of replacement by yourself, follow the following procedure.

2. Loosen the screw (marked by arrow) of the lamp cover, and then slide the lamp cover to the side to remove it.
3. Loosen the 2 screws (marked by arrows) of the lamp, and slowly pick up the lamp by the handles.
4. Insert the new lamp, with cautions not to touch the inside of the lamp house. When inserting, pay attention to the socket position first, and to the pins for positioning next.
5. Tighten firmly the 2 screws of the lamp that are loosened in the previous process to lock it in place.
6. Slide the lamp cover into place and firmly tighten the screw of the lamp cover.
7. Plug in and restart the projector. (p.5, 8)
Then, reset the lamp time (which is the time counter for the lamp use).

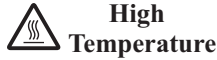


- (1) Press the ▲ or ▼ button on the projector or the **MENU** button on the remote control. The “EASY MENU” appears.
- (2) Point at the “Go to Advanced Menu ...” in the menu using the ▲ or ▼ button, then press the ► button. “MENU” appears.
- (3) Pointed at the “OPTION” in the left column using the ▲ or ▼ button, then press the ► button. The cursor moves to the right column.
- (4) Pointed at the “LAMP TIME” using the ▲ or ▼ button, then press the ► button. A dialog appears.
- (5) Press the ▲ button to select the “RESET” on the dialog. It performs resetting the lamp time.

NOTE

- Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp.

 **WARNING**



■ The projector uses a high-pressure mercury glass lamp. The lamp can break with a loud bang, or burn out, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, if the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury and dust containing fine particles of glass to escape from the projector's vent holes.

About disposal of a lamp: This product contains a mercury lamp; do not put it in a trash. Dispose of it in accordance with environmental laws.

- For lamp recycling, go to www.lamprecycle.org (in the US).
- For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).

For more information, call your dealer.

-
- If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself.



- If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to inhale the gas or fine particles that come out from the projector's vent holes, and not to get them into your eyes or mouth.
- Before replacing the lamp, turn the projector off and unplug the power cord, then wait for at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.



-
- Never unscrew except the appointed (marked by an arrow) screw.
 - Do not open the lamp cover while the projector is suspended from a ceiling or somewhere over your head. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.
 - Do not use the projector with the lamp cover removed. At the lamp replacing, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.



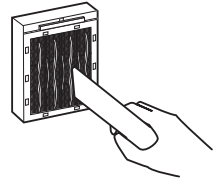
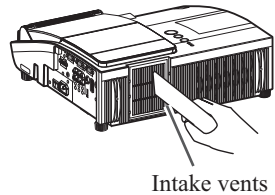
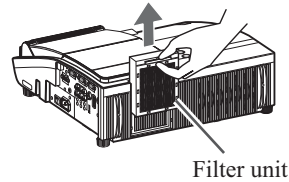
-
- Use only the lamp of the specified type. Use of a lamp that does not meet the lamp specifications for this model could cause a fire, damage or shorten the life of this product.
 - If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or service representative.
 - Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
 - Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

13. Maintaining the air-filter

Please check and clean the air-filter periodically, for keeping normal ventilation. When the indicators or a message prompts you to clean the air-filter, comply with it as soon as possible.

When it is damaged or too soiled, replace the filter unit. To prepare the new filter unit, call your dealer and tell the type number: **UX35381**

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for a while as it is.
2. Use the vacuum cleaner on and around the filter unit.
3. Slide the filter unit upward to take it off from the projector.
4. Use the vacuum cleaner on the intake vents of the projector.
5. Use the vacuum cleaner on the cover side of the filter unit. Do not vacuum the air-filter directly, since the cleaner may inhale the air-filter. When the air-filter is damaged or too soiled, prepare the new filter unit.
6. Make sure that there is the air-filter inside, then slide the filter unit into place.
7. Plug in and restart the projector. (5, 8)



Then, reset the filter time (which is the time counter for the air-filter use).

- (1) Press the ▲ or ▼ button on the projector or the **MENU** button on the remote control. The “EASY MENU” appears.
- (2) Point at the “FILTER TIME” in the menu using the ▲ or ▼ button, then press the ► button. A dialog appears.
- (3) Press the ▲ button to select the “RESET” on the dialog. It performs resetting the filter time.

NOTE

- A filter unit of specified type will come with the replacement lamp for this projector. Replacing the filter unit at the same time with the lamp is recommended.
- Please reset the filter time only when you have cleaned the air-filter, for a suitable indication about the air-filter.

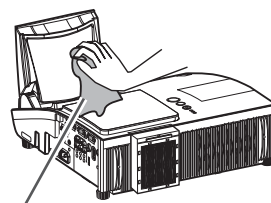
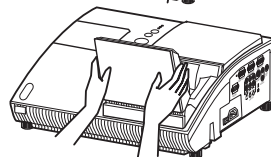
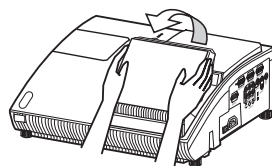
⚠ WARNING

- Before caring for the air-filter, turn the projector off and unplug the power cord, then cool the projector sufficiently.
- Use only the filter unit of the specified type. Do not use the projector with the air-filter removed.

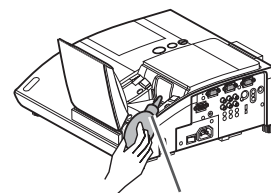
14. Caring for the mirror and lens

If the projection mirror or lens is flawed, soiled or fogged, it could cause deterioration of display quality. Please take care of the mirror and lens, being cautious of handling.

1. Turn the projector off and unplug the power cord from the power outlet. And cool the projector down by leaving it for a while as it is.
2. The lens door can be opened manually. Please hold both side of the lens door and slowly open it until it is locked with clicking sound.
3. Wipe softly the mirror and lens with a cleaning cloth for lens on the market, being careful not to give any damage on the mirror and lens. For around edge of the mirror and lens where might be difficult to be wiped out, please use an air blower for cameras on the market to clean up.
4. To close the lens door properly, please take the following procedure.
 - (1) Plug in the projector.
 - (2) Turn on the power switch.
Even though the lens door starts to close, it might not be closed properly.
 - (3) Press the **STANDBY/ON** button, so that the lamp starts to light up.
 - (4) After the **POWER** indicator turns to steady green, press the **STANDBY/ON** button twice to turn off the projector.
The lens door will close properly.



Cleaning cloth



Blower

NOTE

- When the lens door is closed manually, it may not shut properly.
- The lens door may not close when the **LENS DOOR LOCK** function of the **SERVICE** item in the **OPTION** menu is set to **ON**. For more information, please see the “Operating Guide” on the CD.

⚠ WARNING

- Before caring for the projection mirror and lens, turn the projector off and unplug the power cord, then cool the projector sufficiently.
- Do not use a vacuum cleaner to clean the projection mirror or lens, since it might give some damage.
- Do not use cleaners or chemicals other than those specified in this manual. Especially the mirror has to be paid special attention, since these materials might give serious damage on the mirror.

⚠ CAUTION

- Be careful not to pinch your finger with the lens door, to prevent an injury.

15. Using the CD manual

The detailed manuals for this product are written into the included CD titled “User’s Manual (detailed)”. Before using the CD, please read the following to ensure the proper use.

System requirements

The system for using the CD requires the following.

Windows®:	OS: Microsoft® Windows® 98, Windows® 98SE, Windows NT®4.0, Windows® Me, Windows® 2000/Windows® XP or later CPU: Pentium® processor 133MHz / Memory:32MB or more
Macintosh®:	OS: Mac OS® 10.2 or later CPU: PowerPC® / Memory:32MB or more
CD-ROM drive:	4x CD-ROM drive
Display:	256 color / 640x480 dots resolution
Applications:	Microsoft® Internet Explorer®4.0 and Adobe® Acrobat® Reader® 4.0 or later

How to use the CD

1. Insert CD into PC’s CD-ROM drive.

Windows®:	In a while, Web browser automatically starts. Start up window comes up.
Macintosh®:	(1) Double-click on the “ Projectors ” icon appeared on the desktop screen. (2) When “main.html” file is clicked, Web browser will start and Initial window will appear.

2. Click the model name of your projector first, and then click language you want from the displayed list. The user’s manual will open.

⚠ CAUTION

- Only use the CD in a computer’s CD drive. The CD is designed for PC use only. Never insert the CD into a non-computer CD player. Inserting the CD into an incompatible CD drive may produce a loud noise, which in turn may result in damage to ears and speakers.
- After using CD, please put it into CD case and keep it. Please keep the CD neither in direct sunlight nor in a high temperature and high humidity environment.

NOTE

- The information in the CD is subject to change without notice.
- No responsibility is taken for any obstacle and defect to hardware and software of your PC as a result of the use of the CD.
- All or any part of the information in the CD must not be copied, reproduced or republished without notice to our company.

16. Regulatory notices

About Electro-Magnetic Interference

In European Union

This is a Class A product in European Union.

WARNING: This is a Class A product in European Union. This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

In CANADA

This Class B digital apparatus complies with Canadian ICES-003.

In the US, and other places where the FCC regulations are applicable

Declaration of Conformity

Trade name	HITACHI
Model Number	CP-A200
Responsible Party	Hitachi America, Ltd.
Address	900 Hitachi way, Chula Vista, CA 91914-3556 U.S.A.
Telephone Number	+1 -800-225-1741

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.

INSTRUCTIONS TO USERS: This equipment complies with the requirements of FCC (Federal Communication Commission) equipment provided that the following conditions are met. Some cables have to be used with the core set. Use the accessory cable or a designated-type cable for the connection. For cables that have a core only at one end, connect the core to the projector.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Information for users applicable in European Union countries



The mark is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).

The mark indicates the requirement NOT to dispose the equipment including any spent or discarded batteries or accumulators as unsorted municipal waste, but use the return and collection systems available.

If the batteries or accumulators included with this equipment, display the chemical symbol Hg, Cd, or Pb, then it means that the battery has a heavy metal content of more than 0.0005% Mercury or more than, 0.002% Cadmium, or more than 0.004% Lead.

17. Warranty and after-service

If an abnormal operation (such as smoke, strange odor or excessive sound) should occur, stop using the projector immediately. Otherwise if a problem occurs with the projector, first refer to the “Troubleshooting” of the Operating Guide in the CD and run through the suggested checks.

If this does not resolve the problem, please contact your dealer or service company. They will tell you what warranty condition is applied.

Please check the following web address where you may find the latest information for this projector.

<http://www.hitachi.us/digitalmedia>

or

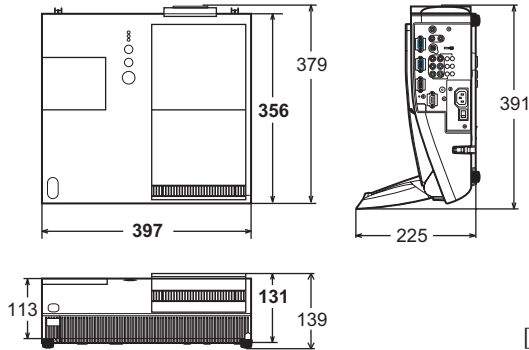
<http://www.hitachidigitalmedia.com>

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18. Specifications

Item	Specifications
Product name	Liquid crystal projector
Liquid Crystal Panel	786,432 pixels (1024 horizontal x 768 vertical)
Lamp	230 W UHB
Audio output	7 W
Power supply	AC 100-120 V/3.6 A, AC 220-240 V/1.5 A
Power consumption	340 W
Temperature range	5~35°C (operating)
Ports	COMPUTER IN1..... D-sub 15 pin mini x 1 COMPUTER IN2..... D-sub 15 pin mini x 1 Y, Cb/Pb, Cr/Pr (Component video)..... RCA x 3 S-VIDEO..... mini DIN 4 pin x 1 VIDEO..... RCA x 1 MONITOR OUT..... D-sub 15 pin mini x 1 AUDIO IN1..... Stereo mini x 1 AUDIO IN2..... Stereo mini x 1 AUDIO IN3 (L, R)..... RCA x 2 AUDIO OUT..... Stereo mini x 1 CONTROL..... D-sub 9 pin x 1
Optional parts	Lamp: DT00893 Filter unit: UX35381 Soft case: CA100 * For more information, contact to your dealer.
Weight (mass)	5.8 kg (approx.)
Size	397 (W) x 131 (H) x 356 (D) mm (See below.)



Projector

CP-A200

User's Manual (detailed)

Technical

Example of PC signal

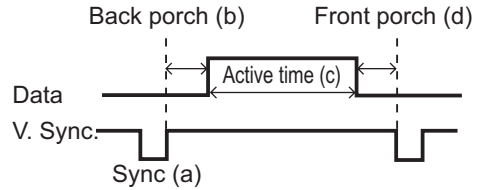
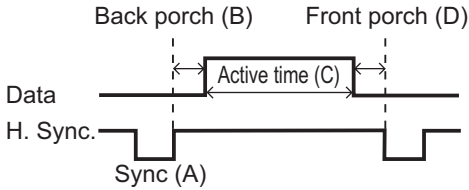
Resolution (H x V)	H. frequency (kHz)	V. frequency (Hz)	Rating	Signal mode
720 x 400	37.9	85.0	VESA	TEXT
640 x 480	31.5	59.9	VESA	VGA (60Hz)
640 x 480	37.9	72.8	VESA	VGA (72Hz)
640 x 480	37.5	75.0	VESA	VGA (75Hz)
640 x 480	43.3	85.0	VESA	VGA (85Hz)
800 x 600	35.2	56.3	VESA	SVGA (56Hz)
800 x 600	37.9	60.3	VESA	SVGA (60Hz)
800 x 600	48.1	72.2	VESA	SVGA (72Hz)
800 x 600	46.9	75.0	VESA	SVGA (75Hz)
800 x 600	53.7	85.1	VESA	SVGA (85Hz)
832 x 624	49.7	74.5		Mac 16" mode
1024 x 768	48.4	60.0	VESA	XGA (60Hz)
1024 x 768	56.5	70.1	VESA	XGA (70Hz)
1024 x 768	60.0	75.0	VESA	XGA (75Hz)
1024 x 768	68.7	85.0	VESA	XGA (85Hz)
1152 x 864	67.5	75.0	VESA	1152 x 864 (75Hz)
1280 x 960	60.0	60.0	VESA	1280 x 960 (60Hz)
1280 x 1024	64.0	60.0	VESA	SXGA (60Hz)
1280 x 1024	80.0	75.0	VESA	SXGA (75Hz)
1280 x 1024	91.2	85.0	VESA	SXGA (85Hz)
1600 x 1200	75.0	60.0	VESA	UXGA (60Hz)
1280 x 768	47.7	60.0	VESA	W-XGA (60Hz)
1400 x 1050	65.3	60.0	VESA	SXGA+ (60Hz)
1280 x 800	49.7	60.0	VESA	1280 x 800 (60Hz)

- NOTE** • Be sure to check jack type, signal level, timing and resolution before connecting this projector to a PC.
- Some PCs may have multiple display screen modes. Use of some of these modes will not be possible with this projector.
 - Depending on the input signal, full-size display may not be possible in some cases. Refer to the number of display pixels above.
 - Although the projector can display signals with resolution up to UXGA (1600x1200), the signal will be converted to the projector's panel resolution before being displayed. The best display performance will be achieved if the resolutions of the input signal and projector panel are identical.
 - Automatic adjustment may not function correctly with some input signals.
 - The image may not be displayed correctly when the input sync signal is a composite sync or a sync on G.

Initial set signals

Initial set signals

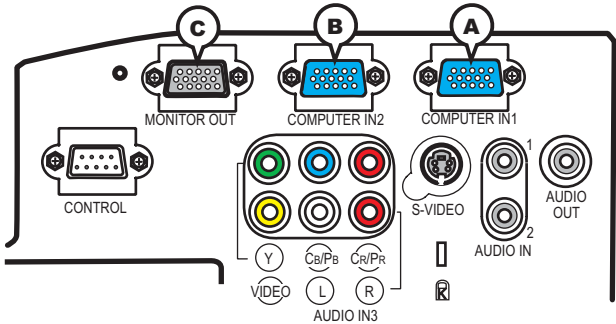
The following signals are used for the initial settings. The signal timing of some PC models may be different. In such case, adjust the items V POSITION and H POSITION in IMAGE Menu.



computer Signal	Horizontal signal timing (μ s)			
	(A)	(B)	(C)	(D)
TEXT	2.0	3.0	20.3	1.0
VGA (60Hz)	3.8	1.9	25.4	0.6
VGA (72Hz)	1.3	4.1	20.3	0.8
VGA (75Hz)	2.0	3.8	20.3	0.5
VGA (85Hz)	1.6	2.2	17.8	1.6
SVGA (56Hz)	2.0	3.6	22.2	0.7
SVGA (60Hz)	3.2	2.2	20.0	1.0
SVGA (72Hz)	2.4	1.3	16.0	1.1
SVGA (75Hz)	1.6	3.2	16.2	0.3
SVGA (85Hz)	1.1	2.7	14.2	0.6
Mac 16" mode	1.1	3.9	14.5	0.6
XGA (60Hz)	2.1	2.5	15.8	0.4
XGA (70Hz)	1.8	1.9	13.7	0.3
XGA (75Hz)	1.2	2.2	13.0	0.2
XGA (85Hz)	1.0	2.2	10.8	0.5
1152 x 864 (75Hz)	1.2	2.4	10.7	0.6
1280 x 960 (60Hz)	1.0	2.9	11.9	0.9
SXGA (60Hz)	1.0	2.3	11.9	0.4
SXGA (75Hz)	1.1	1.8	9.5	0.1
SXGA (85Hz)	1.0	1.4	8.1	0.4
UXGA (60Hz)	1.2	1.9	9.9	0.4
W-XGA (60Hz)	1.7	2.5	16.0	0.8
1280 x 800 (60Hz)	1.6	2.4	15.3	0.8

computer Signal	Vertical signal timing (lines)			
	(a)	(b)	(c)	(d)
TEXT	3	42	400	1
VGA (60Hz)	2	33	480	10
VGA (72Hz)	3	28	480	9
VGA (75Hz)	3	16	480	1
VGA (85Hz)	3	25	480	1
SVGA (56Hz)	2	22	600	1
SVGA (60Hz)	4	23	600	1
SVGA (72Hz)	6	23	600	37
SVGA (75Hz)	3	21	600	1
SVGA (85Hz)	3	27	600	1
Mac 16" mode	3	39	624	1
XGA (60Hz)	6	29	768	3
XGA (70Hz)	6	29	768	3
XGA (75Hz)	3	28	768	1
XGA (85Hz)	3	36	768	1
1152 x 864 (75Hz)	3	32	864	1
1280 x 960 (60Hz)	3	36	960	1
SXGA(60Hz)	3	38	1024	1
SXGA (75Hz)	3	38	1024	1
SXGA (85Hz)	3	44	1024	1
UXGA (60Hz)	3	46	1200	1
W-XGA (60Hz)	3	23	768	1
1280 x 800 (60Hz)	3	24	800	1

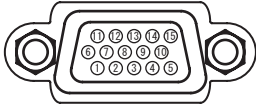
Connection to the ports



A) COMPUTER IN1, B) COMPUTER IN2, C) MONITOR OUT

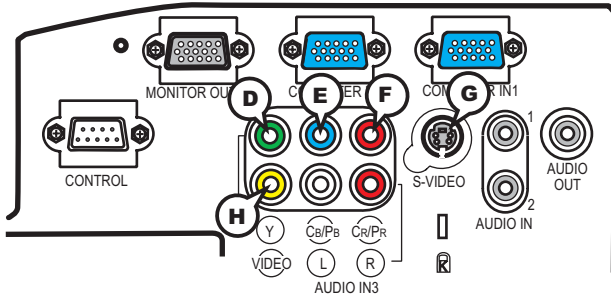
D-sub 15pin mini shrink jack

- Video signal: RGB separate, Analog, 0.7Vp-p, 75Ω terminated (positive)
- H/V. sync. signal: TTL level (positive/negative)
- Composite sync. signal: TTL level



Pin	Signal	Pin	Signal
1	Video Red	10	Ground
2	Video Green	11	(No connection)
3	Video Blue	12	A): SDA (DDC data)
4	(No connection)		B), C): (No connection)
5	Ground	13	H. sync / Composite sync.
6	Ground Red	14	V. sync.
7	Ground Green	15	A): SCL (DDC clock)
8	Ground Blue		B), C): (No connection)
9	(No connection)	-	-

Connection to the ports (continued)



ⓓ Y, ⓔ C_B/P_B, ⓕ C_R/P_R (component video)

RCA jack x3

- System: 480i@60, 480p@60, 576i@50, 576p@50, 720p@50/60, 1080i@50/60, 1080p@50/60

Port	Signal
Y	Component video Y, $1.0 \pm 0.1V_{p-p}$, 75Ω terminator with composite sync
C _B /P _B	Component video C _B /P _B , $0.7 \pm 0.1V_{p-p}$, 75Ω terminator
C _R /P _R	Component video C _R /P _R , $0.7 \pm 0.1V_{p-p}$, 75Ω terminator

ⓖS-VIDEO

Mini DIN 4pin jack

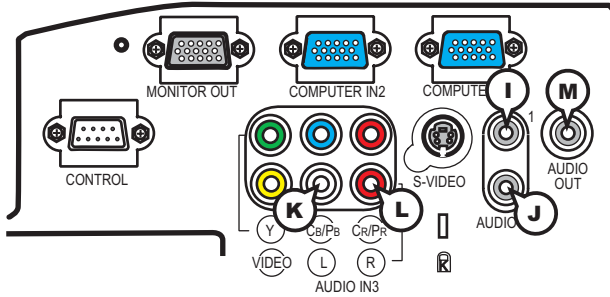


Pin	Signal
1	Color signal $0.286V_{p-p}$ (NTSC, burst), 75Ω terminator Color signal $0.300V_{p-p}$ (PAL/SECAM, burst) 75Ω terminator
2	Brightness signal, $1.0V_{p-p}$, 75Ω terminator
3	Ground
4	Ground

ⓓVIDEO

RCA jack

- System: NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43, PAL(60)
- $1.0 \pm 0.1V_{p-p}$, 75Ω terminator



ⓐAUDIO IN1, ⓑAUDIO IN2

Ø3.5 stereo mini jack

- 200 mVrms 47kΩ terminator

AUDIO IN3 ⓑL, ⓑR

RCA jack x2

- 200 mVrms 47kΩ terminator

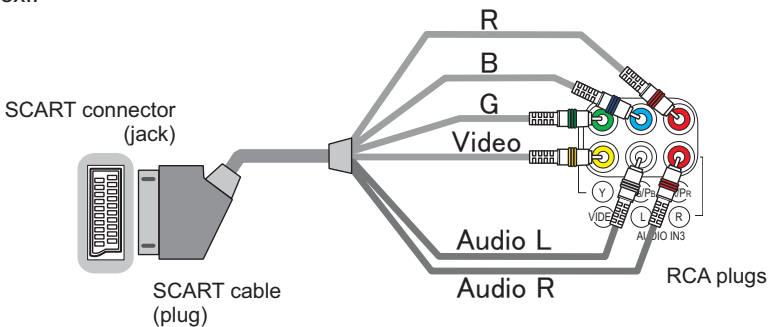
ⓓAUDIO OUT

Ø3.5 stereo mini jack

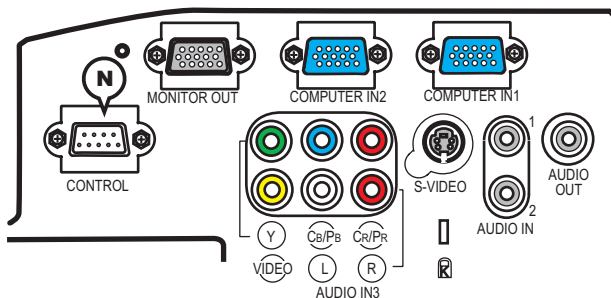
- 200 mVrms 1kΩ output impedance

To input SCART RGB signal;

ex.:



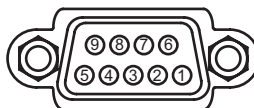
To input SCART RGB signal to the projector, use a SCART to RCA cable. Connect the plugs refer to above ex.. For more reference, please consult your dealer.



NCONTROL

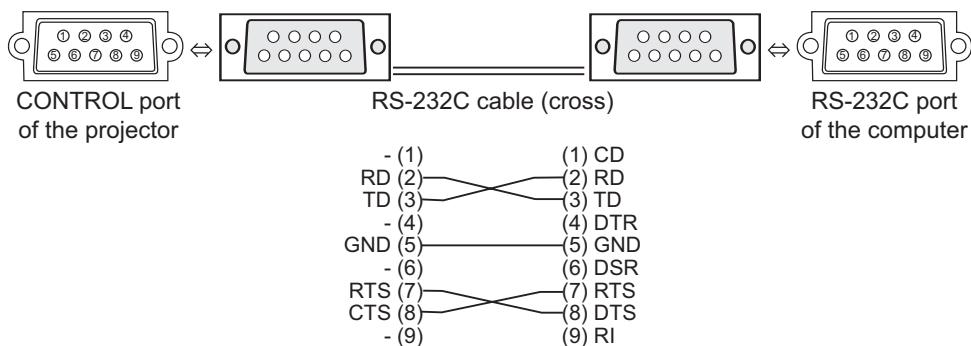
D-sub 9pin plug

• About the details of RS-232C communication, please refer to the following page.



Pin	Signal	Pin	Signal	Pin	Signal
1	(No connection)	4	(No connection)	7	RTS
2	RD	5	Ground	8	CTS
3	TD	6	(No connection)	9	(No connection)

RS-232C Communication



Connecting the cable

1. Turn off the projector and the computer.
2. Connect the CONTROL port of the projector with a RS-232C port of the computer by a RS-232C cable (cross). Use the cable that fulfills the specification shown in the previous page.
3. Turn the computer on, and after the computer has started up turn the projector on.

Communications setting

19200bps, 8N1

1. Protocol

Consist of header (7 bytes) + command data (6 bytes)

2. Header

BE + EF + 03 + 06 + 00 + CRC_low + CRC_high

CRC_low: Lower byte of CRC flag for command data

CRC_high: Upper byte of CRC flag for command data

3. Command data

Command data chart

byte_0	byte_1	byte_2	byte_3	byte_4	byte_5
Action		Type		Setting code	
low	high	low	high	low	high

Action (byte_0 - 1)

Action	Classification	Content
1	Set	Change setting to desired value.
2	Get	Read projector internal setup value.
4	Increment	Increment setup value by 1.
5	Decrement	Decrement setup value by 1.
6	Execute	Run a command.

Requesting projector status (Get command)

- (1) Send the following request code from the PC to the projector.
Header + Command data ('02H' + '00H' + type (2 bytes) + '00H' + '00H')
- (2) The projector returns the response code '1DH' + data (2 bytes) to the PC.

Changing the projector settings (Set command)

- (1) Send the following setting code from the PC to the projector.
Header + Command data ('01H' + '00H' + type (2 bytes) + setting code (2 bytes))
- (2) The projector changes the setting based on the above setting code.
- (3) The projector returns the response code '06H' to the PC.

Using the projector default settings (Reset Command)

- (1) The PC sends the following default setting code to the projector.
Header + Command data ('06H' + '00H' + type (2 bytes) + '00H' + '00H')
- (2) The projector changes the specified setting to the default value.
- (3) The projector returns the response code '06H' to the PC.

Increasing the projector setting value (Increment command)

- (1) The PC sends the following increment code to the projector.
Header + Command data ('04H' + '00H' + type (2 bytes) + '00H' + '00H')
- (2) The projector increases the setting value on the above setting code.
- (3) The projector returns the response code '06H' to the PC.

Decreasing the projector setting value (Decrement command)

- (1) The PC sends the following decrement code to the projector.
Header + Command data ('05H' + '00H' + type (2 bytes) + '00H' + '00H')
- (2) The projector decreases the setting value on the above setting code.
- (3) The projector returns the response code '06H' to the PC.

When the projector cannot understand the received command

When the projector cannot understand the received command, the error code '15H' is sent back to the PC.

Sometimes the projector cannot properly receive the command. In such a case, the command is not executed and the error code '15H' is sent back to the PC. If this error code is returned, send the same command again.

When the projector cannot execute the received command.

When the projector cannot execute the received command, the error code '1CH' + 'xxxxH' is sent back to the PC.

When the data length is greater than indicated by the data length code, the projector ignore the excess data code. Conversely when the data length is shorter than indicated by the data length code, an error code will be returned to the PC.

- NOTE** • Operation cannot be guaranteed when the projector receives an undefined command or data.
- Provide an interval of at least 40ms between the response code and any other code.
 - The projector outputs test data when the power supply is switched ON, and when the lamp is lit. Ignore this data.
 - Commands are not accepted during warm-up.

RS-232C communication command table

Names	Operation Type	Header				Command Data				
						CRC	Action	Type	Setting Code	
Power	Set	Turn off	BE EF	03 06 00	2A D3	01 00	00 60	00 00		
		Turn on	BE EF	03 06 00	BA D2	01 00	00 60	01 00		
	Get	BE EF	03 06 00	19 D3	02 00	00 60	00 00			
		[Example return]	00 00 [Off]	01 00 [On]	02 00 [Cool down]					
Input Source	Set	COMPUTER1	BE EF	03 06 00	FE D2	01 00	00 20	00 00		
		COMPUTER2	BE EF	03 06 00	3E D0	01 00	00 20	04 00		
		COMPONENT	BE EF	03 06 00	AE D1	01 00	00 20	05 00		
		S-VIDEO	BE EF	03 06 00	9E D3	01 00	00 20	02 00		
		VIDEO	BE EF	03 06 00	6E D3	01 00	00 20	01 00		
	Get	BE EF	03 06 00	CD D2	02 00	00 20	00 00			
Error Status	Get	BE EF	03 06 00	D9 D8	02 00	20 60	00 00			
		[Example return]	00 00 [Normal]	01 00 [Cover error]	02 00 [Fan error]	03 00 [Lamp error]	04 00 [Temp error]	05 00 [Air flow error]	06 00 [Cold error]	07 00 [Filter error]
BRIGHTNESS	Get	BE EF	03 06 00	89 D2	02 00	03 20	00 00			
	Increment	BE EF	03 06 00	EF D2	04 00	03 20	00 00			
	Decrement	BE EF	03 06 00	3E D3	05 00	03 20	00 00			
BRIGHTNESS Reset	Execute	BE EF	03 06 00	58 D3	06 00	00 70	00 00			
CONTRAST	Get	BE EF	03 06 00	FD D3	02 00	04 20	00 00			
		Increment	BE EF	03 06 00	9B D3	04 00	04 20	00 00		
		Decrement	BE EF	03 06 00	4A D2	05 00	04 20	00 00		
CONTRAST Reset	Execute	BE EF	03 06 00	A4 D2	06 00	01 70	00 00			
PICTURE MODE	Set	NORMAL	BE EF	03 06 00	23 F6	01 00	BA 30	00 00		
		CINEMA	BE EF	03 06 00	B3 F7	01 00	BA 30	01 00		
		DYNAMIC	BE EF	03 06 00	E3 F4	01 00	BA 30	04 00		
		BOARD(BLACK)	BE EF	03 06 00	E3 EF	01 00	BA 30	20 00		
		BOARD(GREEN)	BE EF	03 06 00	73 EE	01 00	BA 30	21 00		
		WHITEBOARD	BE EF	03 06 00	83 EE	01 00	BA 30	22 00		
	DAYTIME	BE EF	03 06 00	E3 C7	01 00	BA 30	40 00			
	Get	BE EF	03 06 00	10 F6	02 00	BA 30	00 00			
		[Example return]	00 00 [NORMAL]	01 00 [CINEMA]	04 00 [DYNAMIC]	10 00 [CUSTOM]	20 00 [BOARD(BLACK)]	21 00 [BOARD(GREEN)]	22 00 [WHITEBOARD]	40 00 [DAY TIME]
GAMMA	Set	#1 DEFAULT	BE EF	03 06 00	07 E9	01 00	A1 30	20 00		
		#1 CUSTOM	BE EF	03 06 00	07 FD	01 00	A1 30	10 00		
		#2 DEFAULT	BE EF	03 06 00	97 E8	01 00	A1 30	21 00		
		#2 CUSTOM	BE EF	03 06 00	97 FC	01 00	A1 30	11 00		
		#3 DEFAULT	BE EF	03 06 00	67 E8	01 00	A1 30	22 00		
		#3 CUSTOM	BE EF	03 06 00	67 FC	01 00	A1 30	12 00		
		#4 DEFAULT	BE EF	03 06 00	F7 E9	01 00	A1 30	23 00		
		#4 CUSTOM	BE EF	03 06 00	F7 FD	01 00	A1 30	13 00		
		#5 DEFAULT	BE EF	03 06 00	C7 EB	01 00	A1 30	24 00		
		#5 CUSTOM	BE EF	03 06 00	C7 FF	01 00	A1 30	14 00		
	#6 DEFAULT	BE EF	03 06 00	57 EA	01 00	A1 30	25 00			
#6 CUSTOM	BE EF	03 06 00	57 FE	01 00	A1 30	15 00				
	Get	BE EF	03 06 00	F4 F0	02 00	A1 30	00 00			

(continued on next page)

RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
User Gamma Pattern	Set	Off	BE EF	03	06 00	FB FA	01 00	80 30	00 00
		9 steps gray scale	BE EF	03	06 00	6B FB	01 00	80 30	01 00
		15 steps gray scale	BE EF	03	06 00	9B FB	01 00	80 30	02 00
		Ramp	BE EF	03	06 00	0B FA	01 00	80 30	03 00
		Get	BE EF	03	06 00	C8 FA	02 00	80 30	00 00
User Gamma Point 1		Get	BE EF	03	06 00	08 FE	02 00	90 30	00 00
		Increment	BE EF	03	06 00	6E FE	04 00	90 30	00 00
		Decrement	BE EF	03	06 00	BF FF	05 00	90 30	00 00
User Gamma Point 1 Reset		Execute	BE EF	03	06 00	58 C2	06 00	50 70	00 00
User Gamma Point 2		Get	BE EF	03	06 00	F4 FF	02 00	91 30	00 00
		Increment	BE EF	03	06 00	92 FF	04 00	91 30	00 00
		Decrement	BE EF	03	06 00	43 FE	05 00	91 30	00 00
User Gamma Point 2 Reset		Execute	BE EF	03	06 00	A4 C3	06 00	51 70	00 00
User Gamma Point 3		Get	BE EF	03	06 00	B0 FF	02 00	92 30	00 00
		Increment	BE EF	03	06 00	D6 FF	04 00	92 30	00 00
		Decrement	BE EF	03	06 00	07 FE	05 00	92 30	00 00
User Gamma Point 3 Reset		Execute	BE EF	03	06 00	E0 C3	06 00	52 70	00 00
User Gamma Point 4		Get	BE EF	03	06 00	4C FE	02 00	93 30	00 00
		Increment	BE EF	03	06 00	2A FE	04 00	93 30	00 00
		Decrement	BE EF	03	06 00	FB FF	05 00	93 30	00 00
User Gamma Point 4 Reset		Execute	BE EF	03	06 00	1C C2	06 00	53 70	00 00
User Gamma Point 5		Get	BE EF	03	06 00	38 FF	02 00	94 30	00 00
		Increment	BE EF	03	06 00	5E FF	04 00	94 30	00 00
		Decrement	BE EF	03	06 00	8F FE	05 00	94 30	00 00
User Gamma Point 5 Reset		Execute	BE EF	03	06 00	68 C3	06 00	54 70	00 00
User Gamma Point 6		Get	BE EF	03	06 00	C4 FE	02 00	95 30	00 00
		Increment	BE EF	03	06 00	A2 FE	04 00	95 30	00 00
		Decrement	BE EF	03	06 00	73 FF	05 00	95 30	00 00
User Gamma Point 6 Reset		Execute	BE EF	03	06 00	94 C2	06 00	55 70	00 00
User Gamma Point 7		Get	BE EF	03	06 00	80 FE	02 00	96 30	00 00
		Increment	BE EF	03	06 00	E6 FE	04 00	96 30	00 00
		Decrement	BE EF	03	06 00	37 FF	05 00	96 30	00 00
User Gamma Point 7 Reset		Execute	BE EF	03	06 00	D0 C2	06 00	56 70	00 00
User Gamma Point 8		Get	BE EF	03	06 00	7C FF	02 00	97 30	00 00
		Increment	BE EF	03	06 00	1A FF	04 00	97 30	00 00
		Decrement	BE EF	03	06 00	CB FE	05 00	97 30	00 00
User Gamma Point 8 Reset		Execute	BE EF	03	06 00	2C C3	06 00	57 70	00 00

(continued on next page)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
COLOR TEMP	Set	HIGH	BE EF	03	06 00	0B F5	01 00	B0 30	03 00
		CUSTOM-1 (HIGH)	BE EF	03	06 00	CB F8	01 00	B0 30	13 00
		MID	BE EF	03	06 00	9B F4	01 00	B0 30	02 00
		CUSTOM-2 (MID)	BE EF	03	06 00	5B F9	01 00	B0 30	12 00
		LOW	BE EF	03	06 00	6B F4	01 00	B0 30	01 00
		CUSTOM-3 (LOW)	BE EF	03	06 00	AB F9	01 00	B0 30	11 00
		Hi-BRIGHT-1	BE EF	03	06 00	3B F2	01 00	B0 30	08 00
		CUSTOM-4 (Hi-BRIGHT-1)	BE EF	03	06 00	FB FF	01 00	B0 30	18 00
		Hi-BRIGHT-2	BE EF	03	06 00	AB F3	01 00	B0 30	09 00
		CUSTOM-5 (Hi-BRIGHT-2)	BE EF	03	06 00	6B FE	01 00	B0 30	19 00
		Hi-BRIGHT-3	BE EF	03	06 00	5B F3	01 00	B0 30	0A 00
CUSTOM-6 (Hi-BRIGHT-3)	BE EF	03	06 00	9B FE	01 00	B0 30	1A 00		
	Get	BE EF	03	06 00	C8 F5	02 00	B0 30	00 00	
COLOR TEMP GAIN R	Get	BE EF	03	06 00	34 F4	02 00	B1 30	00 00	
	Increment	BE EF	03	06 00	52 F4	04 00	B1 30	00 00	
	Decrement	BE EF	03	06 00	83 F5	05 00	B1 30	00 00	
COLOR TEMP GAIN R Reset	Execute	BE EF	03	06 00	10 C6	06 00	46 70	00 00	
COLOR TEMP GAIN G	Get	BE EF	03	06 00	70 F4	02 00	B2 30	00 00	
	Increment	BE EF	03	06 00	16 F4	04 00	B2 30	00 00	
	Decrement	BE EF	03	06 00	C7 F5	05 00	B2 30	00 00	
COLOR TEMP GAIN G Reset	Execute	BE EF	03	06 00	EC C7	06 00	47 70	00 00	
COLOR TEMP GAIN B	Get	BE EF	03	06 00	8C F5	02 00	B3 30	00 00	
	Increment	BE EF	03	06 00	EA F5	04 00	B3 30	00 00	
	Decrement	BE EF	03	06 00	3B F4	05 00	B3 30	00 00	
COLOR TEMP GAIN B Reset	Execute	BE EF	03	06 00	F8 C4	06 00	48 70	00 00	
COLOR TEMP OFFSET R	Get	BE EF	03	06 00	04 F5	02 00	B5 30	00 00	
	Increment	BE EF	03	06 00	62 F5	04 00	B5 30	00 00	
	Decrement	BE EF	03	06 00	B3 F4	05 00	B5 30	00 00	
COLOR TEMP OFFSET R Reset	Execute	BE EF	03	06 00	40 C5	06 00	4A 70	00 00	
COLOR TEMP OFFSET G	Get	BE EF	03	06 00	40 F5	02 00	B6 30	00 00	
	Increment	BE EF	03	06 00	26 F5	04 00	B6 30	00 00	
	Decrement	BE EF	03	06 00	F7 F4	05 00	B6 30	00 00	
COLOR TEMP OFFSET G Reset	Execute	BE EF	03	06 00	BC C4	06 00	4B 70	00 00	
COLOR TEMP OFFSET B	Get	BE EF	03	06 00	BC F4	02 00	B7 30	00 00	
	Increment	BE EF	03	06 00	DA F4	04 00	B7 30	00 00	
	Decrement	BE EF	03	06 00	0B F5	05 00	B7 30	00 00	
COLOR TEMP OFFSET B Reset	Execute	BE EF	03	06 00	C8 C5	06 00	4C 70	00 00	

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
COLOR	Get	BE EF	03	06 00	B5 72	02 00	02 22	00 00	
	Increment	BE EF	03	06 00	D3 72	04 00	02 22	00 00	
	Decrement	BE EF	03	06 00	02 73	05 00	02 22	00 00	
COLOR Reset	Execute	BE EF	03	06 00	80 D0	06 00	0A 70	00 00	
TINT	Get	BE EF	03	06 00	49 73	02 00	03 22	00 00	
	Increment	BE EF	03	06 00	2F 73	04 00	03 22	00 00	
	Decrement	BE EF	03	06 00	FE 72	05 00	03 22	00 00	
TINT Reset	Execute	BE EF	03	06 00	7C D1	06 00	0B 70	00 00	
SHARPNESS	Get	BE EF	03	06 00	F1 72	02 00	01 22	00 00	
	Increment	BE EF	03	06 00	97 72	04 00	01 22	00 00	
	Decrement	BE EF	03	06 00	46 73	05 00	01 22	00 00	
SHARPNESS Reset	Execute	BE EF	03	06 00	C4 D0	06 00	09 70	00 00	
MY MEMORY Load	Set	1	BE EF	03	06 00	0E D7	01 00	14 20	00 00
		2	BE EF	03	06 00	9E D6	01 00	14 20	01 00
		3	BE EF	03	06 00	6E D6	01 00	14 20	02 00
		4	BE EF	03	06 00	FE D7	01 00	14 20	03 00
MY MEMORY Save	Set	1	BE EF	03	06 00	F2 D6	01 00	15 20	00 00
		2	BE EF	03	06 00	62 D7	01 00	15 20	01 00
		3	BE EF	03	06 00	92 D7	01 00	15 20	02 00
		4	BE EF	03	06 00	02 D6	01 00	15 20	03 00
PROGRESSIVE	Set	TURN OFF	BE EF	03	06 00	4A 72	01 00	07 22	00 00
		TV	BE EF	03	06 00	DA 73	01 00	07 22	01 00
		FILM	BE EF	03	06 00	2A 73	01 00	07 22	02 00
	Get	BE EF	03	06 00	79 72	02 00	07 22	00 00	
VIDEO NR	Set	LOW	BE EF	03	06 00	26 72	01 00	06 22	01 00
		MID	BE EF	03	06 00	D6 72	01 00	06 22	02 00
		HIGH	BE EF	03	06 00	46 73	01 00	06 22	03 00
	Get	BE EF	03	06 00	85 73	02 00	06 22	00 00	
ASPECT	Set	4:3	BE EF	03	06 00	9E D0	01 00	08 20	00 00
		16:9	BE EF	03	06 00	0E D1	01 00	08 20	01 00
		16:10	BE EF	03	06 00	3E D6	01 00	08 20	0A 00
		14:9	BE EF	03	06 00	CE D6	01 00	08 20	09 00
		NORMAL	BE EF	03	06 00	5E DD	01 00	08 20	10 00
Get	BE EF	03	06 00	AD D0	02 00	08 20	00 00		

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
					CRC	Action	Type	Setting Code	
OVER SCAN	Get	BE EF	03	06 00	91 70	02 00	09 22	00 00	
	Increment	BE EF	03	06 00	F7 70	04 00	09 22	00 00	
	Decrement	BE EF	03	06 00	26 71	05 00	09 22	00 00	
OVER SCAN Reset	Execute	BE EF	03	06 00	EC D9	06 00	27 70	00 00	
V POSITION	Get	BE EF	03	06 00	0D 83	02 00	00 21	00 00	
	Increment	BE EF	03	06 00	6B 83	04 00	00 21	00 00	
	Decrement	BE EF	03	06 00	BA 82	05 00	00 21	00 00	
V POSITION Reset	Execute	BE EF	03	06 00	E0 D2	06 00	02 70	00 00	
H POSITION	Get	BE EF	03	06 00	F1 82	02 00	01 21	00 00	
	Increment	BE EF	03	06 00	97 82	04 00	01 21	00 00	
	Decrement	BE EF	03	06 00	46 83	05 00	01 21	00 00	
H POSITION Reset	Execute	BE EF	03	06 00	1C D3	06 00	03 70	00 00	
H PHASE	Get	BE EF	03	06 00	49 83	02 00	03 21	00 00	
	Increment	BE EF	03	06 00	2F 83	04 00	03 21	00 00	
	Decrement	BE EF	03	06 00	FE 82	05 00	03 21	00 00	
H SIZE	Get	BE EF	03	06 00	B5 82	02 00	02 21	00 00	
	Increment	BE EF	03	06 00	D3 82	04 00	02 21	00 00	
	Decrement	BE EF	03	06 00	02 83	05 00	02 21	00 00	
H SIZE Reset	Execute	BE EF	03	06 00	68 D2	06 00	04 70	00 00	
AUTO ADJUST	Execute	BE EF	03	06 00	91 D0	06 00	0A 20	00 00	
COLOR SPACE	Set	AUTO	BE EF	03	06 00	0E 72	01 00	04 22	00 00
		RGB	BE EF	03	06 00	9E 73	01 00	04 22	01 00
		SMPTE240	BE EF	03	06 00	6E 73	01 00	04 22	02 00
		REC709	BE EF	03	06 00	FE 72	01 00	04 22	03 00
		REC601	BE EF	03	06 00	CE 70	01 00	04 22	04 00
	Get	BE EF	03	06 00	3D 72	02 00	04 22	00 00	
COMPONENT	Set	COMPONENT	BE EF	03	06 00	4A D7	01 00	17 20	00 00
		SCART RGB	BE EF	03	06 00	DA D6	01 00	17 20	01 00
	Get	BE EF	03	06 00	79 D7	02 00	17 20	00 00	
C-VIDEO FORMAT	Set	AUTO	BE EF	03	06 00	A2 70	01 00	11 22	0A 00
		NTSC	BE EF	03	06 00	C2 74	01 00	11 22	04 00
		PAL	BE EF	03	06 00	52 75	01 00	11 22	05 00
		SECAM	BE EF	03	06 00	52 70	01 00	11 22	09 00
		NTSC4.43	BE EF	03	06 00	62 77	01 00	11 22	02 00
		M-PAL	BE EF	03	06 00	C2 71	01 00	11 22	08 00
		N-PAL	BE EF	03	06 00	32 74	01 00	11 22	07 00
Get	BE EF	03	06 00	31 76	02 00	11 22	00 00		
S-VIDEO FORMAT	Set	AUTO	BE EF	03	06 00	E6 70	01 00	12 22	0A 00
		NTSC	BE EF	03	06 00	86 74	01 00	12 22	04 00
		PAL	BE EF	03	06 00	16 75	01 00	12 22	05 00
		SECAM	BE EF	03	06 00	16 70	01 00	12 22	09 00
		NTSC4.43	BE EF	03	06 00	26 77	01 00	12 22	02 00
		M-PAL	BE EF	03	06 00	86 71	01 00	12 22	08 00
		N-PAL	BE EF	03	06 00	76 74	01 00	12 22	07 00
Get	BE EF	03	06 00	75 76	02 00	12 22	00 00		

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
					CRC	Action	Type	Setting Code	
FRAME LOCK – COMPUTER1	Set	TURN OFF	BE EF	03	06 00	3B C2	01 00	50 30	00 00
		TURN ON	BE EF	03	06 00	AB C3	01 00	50 30	01 00
	Get	BE EF	03	06 00	08 C2	02 00	50 30	00 00	
FRAME LOCK – COMPUTER2	Set	TURN OFF	BE EF	03	06 00	0B C3	01 00	54 30	00 00
		TURN ON	BE EF	03	06 00	9B C2	01 00	54 30	01 00
	Get	BE EF	03	06 00	38 C3	02 00	54 30	00 00	
COMPUTER IN1	Set	AUTO	BE EF	03	06 00	CE D6	01 00	10 20	03 00
		SYNC ON G OFF	BE EF	03	06 00	5E D7	01 00	10 20	02 00
	Get	BE EF	03	06 00	0D D6	02 00	10 20	00 00	
COMPUTER IN2	Set	AUTO	BE EF	03	06 00	32 D7	01 00	11 20	03 00
		SYNC ON G OFF	BE EF	03	06 00	A2 D6	01 00	11 20	02 00
	Get	BE EF	03	06 00	F1 D7	02 00	11 20	00 00	
D-ZOOM	Get	BE EF	03	06 00	D0 D0	02 00	0A 30	00 00	
	Increment	BE EF	03	06 00	B6 D0	04 00	0A 30	00 00	
	Decrement	BE EF	03	06 00	67 D1	05 00	0A 30	00 00	
D-ZOOM Reset	Execute	BE EF	03	06 00	98 C9	06 00	70 70	00 00	
D-SHIFT V	Get	BE EF	03	06 00	2C D1	02 00	0B 30	00 00	
	Increment	BE EF	03	06 00	4A D1	04 00	0B 30	00 00	
	Decrement	BE EF	03	06 00	9B D0	05 00	0B 30	00 00	
D-SHIFT V Reset	Execute	BE EF	03	06 00	A8 C8	06 00	74 70	00 00	
D-SHIFT H	Get	BE EF	03	06 00	58 D0	02 00	0C 30	00 00	
	Increment	BE EF	03	06 00	3E D0	04 00	0C 30	00 00	
	Decrement	BE EF	03	06 00	EF D1	05 00	0C 30	00 00	
D-SHIFT H Reset	Execute	BE EF	03	06 00	54 C9	06 00	75 70	00 00	
KEYSTONE V	Get	BE EF	03	06 00	B9 D3	02 00	07 20	00 00	
	Increment	BE EF	03	06 00	DF D3	04 00	07 20	00 00	
	Decrement	BE EF	03	06 00	0E D2	05 00	07 20	00 00	
KEYSTONE V Reset	Execute	BE EF	03	06 00	08 D0	06 00	0C 70	00 00	
KEYSTONE H	Get	BE EF	03	06 00	E9 D0	02 00	0B 20	00 00	
	Increment	BE EF	03	06 00	8F D0	04 00	0B 20	00 00	
	Decrement	BE EF	03	06 00	5E D1	05 00	0B 20	00 00	
KEYSTONE H Reset	Execute	BE EF	03	06 00	98 D8	06 00	20 70	00 00	
PERFECT FIT	Set	Disable	BE EF	03	06 00	FE 88	01 00	20 21	00 00
		Enable	BE EF	03	06 00	6E 89	01 00	20 21	01 00
	Get	BE EF	03	06 00	CD 88	02 00	20 21	00 00	
PERFECT FIT Left Top corner -H	Get	BE EF	03	06 00	31 89	02 00	21 21	00 00	
	Increment	BE EF	03	06 00	57 89	04 00	21 21	00 00	
	Decrement	BE EF	03	06 00	86 88	05 00	21 21	00 00	
PERFECT FIT Left Top corner -V	Get	BE EF	03	06 00	75 89	02 00	22 21	00 00	
	Increment	BE EF	03	06 00	13 89	04 00	22 21	00 00	
	Decrement	BE EF	03	06 00	C2 88	05 00	22 21	00 00	
PERFECT FIT Right Top corner -H	Get	BE EF	03	06 00	89 88	02 00	23 21	00 00	
	Increment	BE EF	03	06 00	EF 88	04 00	23 21	00 00	
	Decrement	BE EF	03	06 00	3E 89	05 00	23 21	00 00	

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Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
PERFECT FIT Right Top corner -V	Get	BE EF	03	06 00	FD 89	02 00	24 21	00 00	
	Increment	BE EF	03	06 00	9B 89	04 00	24 21	00 00	
	Decrement	BE EF	03	06 00	4A 88	05 00	24 21	00 00	
PERFECT FIT Left Bottom corner -H	Get	BE EF	03	06 00	01 88	02 00	25 21	00 00	
	Increment	BE EF	03	06 00	67 88	04 00	25 21	00 00	
	Decrement	BE EF	03	06 00	B6 89	05 00	25 21	00 00	
PERFECT FIT Left Bottom corner -V	Get	BE EF	03	06 00	45 88	02 00	26 21	00 00	
	Increment	BE EF	03	06 00	23 88	04 00	26 21	00 00	
	Decrement	BE EF	03	06 00	F2 89	05 00	26 21	00 00	
PERFECT FIT Right Bottom corner -H	Get	BE EF	03	06 00	B9 89	02 00	27 21	00 00	
	Increment	BE EF	03	06 00	DF 89	04 00	27 21	00 00	
	Decrement	BE EF	03	06 00	0E 88	05 00	27 21	00 00	
PERFECT FIT Right Bottom corner -V	Get	BE EF	03	06 00	AD 8A	02 00	28 21	00 00	
	Increment	BE EF	03	06 00	CB 8A	04 00	28 21	00 00	
	Decrement	BE EF	03	06 00	1A 8B	05 00	28 21	00 00	
PERFECT FIT all corners Reset	Execute	BE EF	03	06 00	D5 8A	06 00	29 21	00 00	
PERFECT FIT Left side distortion	Get	BE EF	03	06 00	31 97	02 00	41 21	00 00	
	Increment	BE EF	03	06 00	57 97	04 00	41 21	00 00	
	Decrement	BE EF	03	06 00	86 96	05 00	41 21	00 00	
PERFECT FIT Right side distortion	Get	BE EF	03	06 00	75 97	02 00	42 21	00 00	
	Increment	BE EF	03	06 00	13 97	04 00	42 21	00 00	
	Decrement	BE EF	03	06 00	C2 96	05 00	42 21	00 00	
PERFECT FIT distortion position V	Get	BE EF	03	06 00	89 96	02 00	43 21	00 00	
	Increment	BE EF	03	06 00	EF 96	04 00	43 21	00 00	
	Decrement	BE EF	03	06 00	3E 97	05 00	43 21	00 00	
PERFECT FIT Top side distortion	Get	BE EF	03	06 00	FD 97	02 00	44 21	00 00	
	Increment	BE EF	03	06 00	9B 97	04 00	44 21	00 00	
	Decrement	BE EF	03	06 00	4A 96	05 00	44 21	00 00	
PERFECT FIT Bottom side distortion	Get	BE EF	03	06 00	01 96	02 00	45 21	00 00	
	Increment	BE EF	03	06 00	67 96	04 00	45 21	00 00	
	Decrement	BE EF	03	06 00	B6 97	05 00	45 21	00 00	
PERFECT FIT distortion position H	Get	BE EF	03	06 00	45 96	02 00	46 21	00 00	
	Increment	BE EF	03	06 00	23 96	04 00	46 21	00 00	
	Decrement	BE EF	03	06 00	F2 97	05 00	46 21	00 00	
PERFECT FIT all sides Reset	Execute	BE EF	03	06 00	3D 96	06 00	47 21	00 00	
WHISPER	Set	NORMAL	BE EF	03	06 00	3B 23	01 00	00 33	00 00
		BRIGHT	BE EF	03	06 00	AB 22	01 00	00 33	01 00
	Get	BE EF	03	06 00	08 23	02 00	00 33	00 00	
MIRROR	Set	NORMAL	BE EF	03	06 00	C7 D2	01 00	01 30	00 00
		H:INVERT	BE EF	03	06 00	57 D3	01 00	01 30	01 00
		V:INVERT	BE EF	03	06 00	A7 D3	01 00	01 30	02 00
		H&V:INVERT	BE EF	03	06 00	37 D2	01 00	01 30	03 00
	Get	BE EF	03	06 00	F4 D2	02 00	01 30	00 00	
STANDBY MODE	Set	NORMAL	BE EF	03	06 00	D6 D2	01 00	01 60	00 00
		SAVING	BE EF	03	06 00	46 D3	01 00	01 60	01 00
	Get	BE EF	03	06 00	E5 D2	02 00	01 60	00 00	

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
MONITOR OUT - COMPUTER1	Set	COMPUTER1	BE EF	03	06 00	3E F4	01 00	B0 20	00 00
		TURN OFF	BE EF	03	06 00	CE B5	01 00	B0 20	FF 00
	Get	BE EF	03	06 00	0D F4	02 00	B0 20	00 00	
MONITOR OUT - VIDEO	Set	COMPUTER1	BE EF	03	06 00	C2 F5	01 00	B1 20	00 00
		COMPUTER2	BE EF	03	06 00	02 F7	01 00	B1 20	04 00
		TURN OFF	BE EF	03	06 00	32 B4	01 00	B1 20	FF 00
	Get	BE EF	03	06 00	F1 F5	02 00	B1 20	00 00	
MONITOR OUT - S-VIDEO	Set	COMPUTER1	BE EF	03	06 00	86 F5	01 00	B2 20	00 00
		COMPUTER2	BE EF	03	06 00	46 F7	01 00	B2 20	04 00
		TURN OFF	BE EF	03	06 00	76 B4	01 00	B2 20	FF 00
	Get	BE EF	03	06 00	B5 F5	02 00	B2 20	00 00	
MONITOR OUT - COMPUTER2	Set	COMPUTER2	BE EF	03	06 00	CE F7	01 00	B4 20	04 00
		TURN OFF	BE EF	03	06 00	FE B4	01 00	B4 20	FF 00
	Get	BE EF	03	06 00	3D F5	02 00	B4 20	00 00	
MONITOR OUT - COMPONENT	Set	COMPUTER1	BE EF	03	06 00	F2 F4	01 00	B5 20	00 00
		COMPUTER2	BE EF	03	06 00	32 F6	01 00	B5 20	04 00
		TURN OFF	BE EF	03	06 00	02 B5	01 00	B5 20	FF 00
	Get	BE EF	03	06 00	C1 F4	02 00	B5 20	00 00	
MONITOR OUT - STANDBY	Set	COMPUTER1	BE EF	03	06 00	2A F7	01 00	BF 20	00 00
		COMPUTER2	BE EF	03	06 00	EA F5	01 00	BF 20	04 00
		TURN OFF	BE EF	03	06 00	DA B6	01 00	BF 20	FF 20
	Get	BE EF	03	06 00	19 F7	02 00	BF 20	00 00	
VOLUME- COMPUTER1	Get	BE EF	03	06 00	CD CC	02 00	60 20	00 00	
	Increment	BE EF	03	06 00	AB CC	04 00	60 20	00 00	
	Decrement	BE EF	03	06 00	7A CD	05 00	60 20	00 00	
VOLUME- COMPUTER2	Get	BE EF	03	06 00	FD CD	02 00	64 20	00 00	
	Increment	BE EF	03	06 00	9B CD	04 00	64 20	00 00	
	Decrement	BE EF	03	06 00	4A CC	05 00	64 20	00 00	
VOLUME- COMPONENT	Get	BE EF	03	06 00	01 CC	02 00	65 20	00 00	
	Increment	BE EF	03	06 00	67 CC	04 00	65 20	00 00	
	Decrement	BE EF	03	06 00	B6 CD	05 00	65 20	00 00	
VOLUME-S-VIDEO	Get	BE EF	03	06 00	75 CD	02 00	62 20	00 00	
	Increment	BE EF	03	06 00	13 CD	04 00	62 20	00 00	
	Decrement	BE EF	03	06 00	C2 CC	05 00	62 20	00 00	
VOLUME-VIDEO	Get	BE EF	03	06 00	31 CD	02 00	61 20	00 00	
	Increment	BE EF	03	06 00	57 CD	04 00	61 20	00 00	
	Decrement	BE EF	03	06 00	86 CC	05 00	61 20	00 00	
VOLUME - AUDIO OUT STANDBY	Get	BE EF	03	06 00	D9 CF	02 00	6F 20	00 00	
	Increment	BE EF	03	06 00	BF CF	04 00	6F 20	00 00	
	Decrement	BE EF	03	06 00	6E CE	05 00	6F 20	00 00	
MUTE	Set	TURN ON	BE EF	03	06 00	D6 D2	01 00	02 20	01 00
		TURN OFF	BE EF	03	06 00	46 D3	01 00	02 20	00 00
	Get	BE EF	03	06 00	75 D3	02 00	02 20	00 00	
SPEAKER	Set	TURN ON	BE EF	03	06 00	FE D4	01 00	1C 20	01 00
		TURN OFF	BE EF	03	06 00	6E D5	01 00	1C 20	00 00
	Get	BE EF	03	06 00	5D D5	02 00	1C 20	00 00	

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
					CRC	Action	Type	Setting Code	
AUDIO-COMPUTER1	Set	AUDIO1	BE EF	03	06 00	6E DC	01 00	30 20	01 00
		AUDIO2	BE EF	03	06 00	9E DC	01 00	30 20	02 00
		AUDIO3	BE EF	03	06 00	0E DD	01 00	30 20	03 00
		Turn off	BE EF	03	06 00	FE DD	01 00	30 20	00 00
	Get	BE EF	03	06 00	CD DD	02 00	30 20	00 00	
AUDIO-COMPUTER2	Set	AUDIO1	BE EF	03	06 00	5E DD	01 00	34 20	01 00
		AUDIO2	BE EF	03	06 00	AE DD	01 00	34 20	02 00
		AUDIO3	BE EF	03	06 00	3E DC	01 00	34 20	03 00
		Turn off	BE EF	03	06 00	CE DC	01 00	34 20	00 00
	Get	BE EF	03	06 00	FD DC	02 00	34 20	00 00	
AUDIO-COMPONENT	Set	AUDIO1	BE EF	03	06 00	A2 DC	01 00	35 20	01 00
		AUDIO2	BE EF	03	06 00	52 DC	01 00	35 20	02 00
		AUDIO3	BE EF	03	06 00	C2 DD	01 00	35 20	03 00
		Turn off	BE EF	03	06 00	32 DD	01 00	35 20	00 00
	Get	BE EF	03	06 00	01 DD	02 00	35 20	00 00	
AUDIO-S-VIDEO	Set	AUDIO1	BE EF	03	06 00	D6 DD	01 00	32 20	01 00
		AUDIO2	BE EF	03	06 00	26 DD	01 00	32 20	02 00
		AUDIO3	BE EF	03	06 00	B6 DC	01 00	32 20	03 00
		Turn off	BE EF	03	06 00	46 DC	01 00	32 20	00 00
	Get	BE EF	03	06 00	75 DC	02 00	32 20	00 00	
AUDIO-VIDEO	Set	AUDIO1	BE EF	03	06 00	92 DD	01 00	31 20	01 00
		AUDIO2	BE EF	03	06 00	62 DD	01 00	31 20	02 00
		AUDIO3	BE EF	03	06 00	F2 DC	01 00	31 20	03 00
		Turn off	BE EF	03	06 00	02 DC	01 00	31 20	00 00
	Get	BE EF	03	06 00	31 DC	02 00	31 20	00 00	
AUDIO OUT STANDBY	Set	AUDIO1	BE EF	03	06 00	7A DF	01 00	3F 20	01 00
		AUDIO2	BE EF	03	06 00	8A DF	01 00	3F 20	02 00
		AUDIO3	BE EF	03	06 00	1A DE	01 00	3F 20	03 00
		Turn off	BE EF	03	06 00	EA DE	01 00	3F 20	00 00
	Get	BE EF	03	06 00	D9 DE	02 00	3F 20	00 00	
REMOTE RECEIVE. FRONT	Set	Off	BE EF	03	06 00	FF 32	01 00	00 26	00 00
		On	BE EF	03	06 00	6F 33	01 00	00 26	01 00
	Get	BE EF	03	06 00	CC 32	02 00	00 26	00 00	
REMOTE RECEIVE. TOP	Set	Off	BE EF	03	06 00	47 33	01 00	02 26	00 00
		On	BE EF	03	06 00	D7 32	01 00	02 26	01 00
	Get	BE EF	03	06 00	74 33	02 00	02 26	00 00	
REMOTE FREQ. NORMAL	Set	Off	BE EF	03	06 00	FF 3D	01 00	30 26	00 00
		On	BE EF	03	06 00	6F 3C	01 00	30 26	01 00
	Get	BE EF	03	06 00	CC 3D	02 00	30 26	00 00	
REMOTE FREQ. HIGH	Set	Off	BE EF	03	06 00	03 3C	01 00	31 26	00 00
		On	BE EF	03	06 00	93 3D	01 00	31 26	01 00
	Get	BE EF	03	06 00	30 3C	02 00	31 26	00 00	

(continued on next page)

RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
LANGUAGE (* See the bottom of this page.)	Set	ENGLISH	BE EF	03	06 00	F7 D3	01 00	05 30	00 00
		FRANÇAIS	BE EF	03	06 00	67 D2	01 00	05 30	01 00
		DEUTSCH	BE EF	03	06 00	97 D2	01 00	05 30	02 00
		ESPAÑOL	BE EF	03	06 00	07 D3	01 00	05 30	03 00
		ITALIANO	BE EF	03	06 00	37 D1	01 00	05 30	04 00
		NORSK	BE EF	03	06 00	A7 D0	01 00	05 30	05 00
		NEDERLANDS	BE EF	03	06 00	57 D0	01 00	05 30	06 00
		日本語	BE EF	03	06 00	37 D4	01 00	05 30	08 00
		PORTUGUÊS	BE EF	03	06 00	C7 D1	01 00	05 30	07 00
		简体中文	BE EF	03	06 00	A7 D5	01 00	05 30	09 00
		繁體中文	BE EF	03	06 00	37 DE	01 00	05 30	10 00
		한글	BE EF	03	06 00	57 D5	01 00	05 30	0A 00
		SVENSKA	BE EF	03	06 00	C7 D4	01 00	05 30	0B 00
		РУССКИЙ	BE EF	03	06 00	F7 D6	01 00	05 30	0C 00
		SUOMI	BE EF	03	06 00	67 D7	01 00	05 30	0D 00
		POLSKI	BE EF	03	06 00	97 D7	01 00	05 30	0E 00
		TÜRKÇE	BE EF	03	06 00	07 D6	01 00	05 30	0F 00
		فارسی	BE EF	03	06 00	A7 DA	01 00	05 30	1D 00
		اللغة العربية	BE EF	03	06 00	37 DB	01 00	05 30	1C 00
		ไทย	BE EF	03	06 00	07 D9	01 00	05 30	1B 00
		DANSK	BE EF	03	06 00	A7 DF	01 00	05 30	11 00
		ČESKY	BE EF	03	06 00	57 DF	01 00	05 30	12 00
		MAGYAR	BE EF	03	06 00	C7 DE	01 00	05 30	13 00
		ROMÂNĂ	BE EF	03	06 00	F7 DC	01 00	05 30	14 00
		SLOVENSKI	BE EF	03	06 00	67 DD	01 00	05 30	15 00
		HRVATSKI	BE EF	03	06 00	97 DD	01 00	05 30	16 00
		LIETUVIŲ	BE EF	03	06 00	F7 D9	01 00	05 30	18 00
		EESTI	BE EF	03	06 00	67 D8	01 00	05 30	19 00
		LATVIEŠU	BE EF	03	06 00	97 D8	01 00	05 30	1A 00
		ΕΛΛΗΝΙΑ	BE EF	03	06 00	07 DC	01 00	05 30	17 00
		PORTUGUÊS BRASILEIRO	BE EF	03	06 00	57 DA	01 00	05 30	1E 00
			Get	BE EF	03	06 00	C4 D3	02 00	05 30
MENU POSITION H	Get	BE EF	03	06 00	04 D7	02 00	15 30	00 00	
	Increment	BE EF	03	06 00	62 D7	04 00	15 30	00 00	
	Decrement	BE EF	03	06 00	B3 D6	05 00	15 30	00 00	
MENU POSITION H Reset	Execute	BE EF	03	06 00	DC C6	06 00	43 70	00 00	
MENU POSITION V	Get	BE EF	03	06 00	40 D7	02 00	16 30	00 00	
	Increment	BE EF	03	06 00	26 D7	04 00	16 30	00 00	
	Decrement	BE EF	03	06 00	F7 D6	05 00	16 30	00 00	
MENU POSITION V Reset	Execute	BE EF	03	06 00	A8 C7	06 00	44 70	00 00	
BLANK	Set	MyScreen	BE EF	03	06 00	FB CA	01 00	00 30	20 00
		ORIGINAL	BE EF	03	06 00	FB E2	01 00	00 30	40 00
		BLUE	BE EF	03	06 00	CB D3	01 00	00 30	03 00
		WHITE	BE EF	03	06 00	6B D0	01 00	00 30	05 00
		BLACK	BE EF	03	06 00	9B D0	01 00	00 30	06 00
	Get	BE EF	03	06 00	08 D3	02 00	00 30	00 00	

*Your projector may not support all of these language.
Please check the LANGUAGE menu to find the supported languages.

RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
BLANK On/Off	Set	TURN OFF	BE EF	03	06 00	FB D8	01 00	20 30	00 00
		TURN ON	BE EF	03	06 00	6B D9	01 00	20 30	01 00
	Get	BE EF	03	06 00	C8 D8	02 00	20 30	00 00	
START UP	Set	MyScreen	BE EF	03	06 00	CB CB	01 00	04 30	20 00
		ORIGINAL	BE EF	03	06 00	0B D2	01 00	04 30	00 00
		TURN OFF	BE EF	03	06 00	9B D3	01 00	04 30	01 00
	Get	BE EF	03	06 00	38 D2	02 00	04 30	00 00	
MyScreen LOCK	Set	TURN OFF	BE EF	03	06 00	3B EF	01 00	C0 30	00 00
		TURN ON	BE EF	03	06 00	AB EE	01 00	C0 30	01 00
	Get	BE EF	03	06 00	08 EF	02 00	C0 30	00 00	
MESSAGE	Set	TURN OFF	BE EF	03	06 00	8F D6	01 00	17 30	00 00
		TURN ON	BE EF	03	06 00	1F D7	01 00	17 30	01 00
	Get	BE EF	03	06 00	BC D6	02 00	17 30	00 00	
TEMPLATE	Set	TEST PATTERN	BE EF	03	06 00	43 D9	01 00	22 30	00 00
		DOT-LINE1	BE EF	03	06 00	D3 D8	01 00	22 30	01 00
		DOT-LINE2	BE EF	03	06 00	23 D8	01 00	22 30	02 00
		DOT-LINE3	BE EF	03	06 00	B3 D9	01 00	22 30	03 00
	DOT-LINE4	BE EF	03	06 00	83 DB	01 00	22 30	04 00	
Get	BE EF	03	06 00	70 D9	02 00	22 30	00 00		
TEMPLATE On/Off	Set	TURN OFF	BE EF	03	06 00	BF D8	01 00	23 30	00 00
		TURN ON	BE EF	03	06 00	2F D9	01 00	23 30	01 00
	Get	BE EF	03	06 00	8C D8	02 00	23 30	00 00	
AUTO SEARCH	Set	TURN OFF	BE EF	03	06 00	B6 D6	01 00	16 20	00 00
		TURN ON	BE EF	03	06 00	26 D7	01 00	16 20	01 00
	Get	BE EF	03	06 00	85 D6	02 00	16 20	00 00	
AUTO ON	Set	TURN OFF	BE EF	03	06 00	3B 89	01 00	20 31	00 00
		TURN ON	BE EF	03	06 00	AB 88	01 00	20 31	01 00
	Get	BE EF	03	06 00	08 89	02 00	20 31	00 00	
AUTO OFF	Get	BE EF	03	06 00	08 86	02 00	10 31	00 00	
	Increment	BE EF	03	06 00	6E 86	04 00	10 31	00 00	
	Decrement	BE EF	03	06 00	BF 87	05 00	10 31	00 00	
LAMP TIME	Get	BE EF	03	06 00	C2 FF	02 00	90 10	00 00	
LAMP TIME Reset	Execute	BE EF	03	06 00	58 DC	06 00	30 70	00 00	
FILTER TIME	Get	BE EF	03	06 00	C2 F0	02 00	A0 10	00 00	
FILER TIME Reset	Execute	BE EF	03	06 00	98 C6	06 00	40 70	00 00	
MY BUTTON-1	COMPUTER1	BE EF	03	06 00	3A 33	01 00	00 36	00 00	
	COMPUTER2	BE EF	03	06 00	FA 31	01 00	00 36	04 00	
	COMPONENT	BE EF	03	06 00	6A 30	01 00	00 36	05 00	
	S-VIDEO	BE EF	03	06 00	5A 32	01 00	00 36	02 00	
	VIDEO	BE EF	03	06 00	AA 32	01 00	00 36	01 00	
	INFORMATION	BE EF	03	06 00	FA 3E	01 00	00 36	10 00	
	MY MEMORY	BE EF	03	06 00	9A 3F	01 00	00 36	12 00	
	PICTURE MODE	BE EF	03	06 00	0A 3E	01 00	00 36	13 00	
	FILTER RESET	BE EF	03	06 00	3A 3C	01 00	00 36	14 00	
	AV MUTE	BE EF	03	06 00	AA 38	01 00	00 36	19 00	
	TEMPLATE	BE EF	03	06 00	CA 39	01 00	00 36	1B 00	
	Get	BE EF	03	06 00	09 33	02 00	00 36	00 00	

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RS-232C communication (continued)

Names	Operation Type	Header				Command Data			
						CRC	Action	Type	Setting Code
MY BUTTON-2		COMPUTER1	BE EF	03	06 00	C6 32	01 00	01 36	00 00
		COMPUTER2	BE EF	03	06 00	06 30	01 00	01 36	04 00
		COMPONENT	BE EF	03	06 00	96 31	01 00	01 36	05 00
		S-VIDEO	BE EF	03	06 00	A6 33	01 00	01 36	02 00
		VIDEO	BE EF	03	06 00	56 33	01 00	01 36	01 00
		INFORMATION	BE EF	03	06 00	06 3F	01 00	01 36	10 00
		MY MEMORY	BE EF	03	06 00	66 3E	01 00	01 36	12 00
		PICTURE MODE	BE EF	03	06 00	F6 3F	01 00	01 36	13 00
		FILTER RESET	BE EF	03	06 00	C6 3D	01 00	01 36	14 00
		AV MUTE	BE EF	03	06 00	56 39	01 00	01 36	19 00
		TEMPLATE	BE EF	03	06 00	36 38	01 00	01 36	1B 00
	Get	BE EF	03	06 00	F5 32	02 00	01 36	00 00	
MY SOURCE	Set	COMPUTER1	BE EF	03	06 00	FA 38	01 00	20 36	00 00
		COMPUTER2	BE EF	03	06 00	3A 3A	01 00	20 36	04 00
		COMPONENT	BE EF	03	06 00	AA 3B	01 00	20 36	05 00
		S-VIDEO	BE EF	03	06 00	9A 39	01 00	20 36	02 00
		VIDEO	BE EF	03	06 00	6A 39	01 00	20 36	01 00
	Get	BE EF	03	06 00	C9 38	02 00	20 36	00 00	
MAGNIFY		Get	BE EF	03	06 00	7C D2	02 00	07 30	00 00
		Increment	BE EF	03	06 00	1A D2	04 00	07 30	00 00
		Decrement	BE EF	03	06 00	CB D3	05 00	07 30	00 00
H Position at Magnify		Get	BE EF	03	06 00	C8 D7	02 00	10 30	00 00
		Increment	BE EF	03	06 00	AE D7	04 00	10 30	00 00
		Decrement	BE EF	03	06 00	7F D6	05 00	10 30	00 00
V Position at Magnify		Get	BE EF	03	06 00	34 D6	02 00	11 30	00 00
		Increment	BE EF	03	06 00	52 D6	04 00	11 30	00 00
		Decrement	BE EF	03	06 00	83 D7	05 00	11 30	00 00
FREEZE	Set	NORMAL	BE EF	03	06 00	83 D2	01 00	02 30	00 00
		FREEZE	BE EF	03	06 00	13 D3	01 00	02 30	01 00
		Get	BE EF	03	06 00	B0 D2	02 00	02 30	00 00
CLOSED CAPTION DISPLAY	Set	TURN OFF	BE EF	03	06 00	FA 62	01 00	00 37	00 00
		TURN ON	BE EF	03	06 00	6A 63	01 00	00 37	01 00
		AUTO	BE EF	03	06 00	9A 63	01 00	00 37	02 00
		Get	BE EF	03	06 00	C9 62	02 00	00 37	00 00
CLOSED CAPTION MODE	Set	CAPTIONS	BE EF	03	06 00	06 63	01 00	01 37	00 00
		TEXT	BE EF	03	06 00	96 62	01 00	01 37	01 00
		Get	BE EF	03	06 00	35 63	02 00	01 37	00 00
CLOSED CAPTION CHANNEL	Set	1	BE EF	03	06 00	D2 62	01 00	02 37	01 00
		2	BE EF	03	06 00	22 62	01 00	02 37	02 00
		3	BE EF	03	06 00	B2 63	01 00	02 37	03 00
		4	BE EF	03	06 00	82 61	01 00	02 37	04 00
		Get	BE EF	03	06 00	71 63	02 00	02 37	00 00

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