Liquid Crystal Projector
dv410
Model No.217

USER'S MANUAL
Please read this user's manual thoroughly to ensure correct usage through understanding.

BEDIENUNGSANLEITUNG
Bitte lessen Sie diese Bedienungsanleitung zugunsten der korrekten Bedienung aufmerksam.

MANUEL D'UTILISATION
Nous vous recommandons de lire attentivement ce manuel pour bien assimiler le fonctionnement de l'appareil.

MANUALE D'ISTRUZIONI
Vi preghiamo voler leggere attentamente il manuale d'istruzioni in modo tale da poter comprendere quanto riportato ai fini di un corretto utilizzo del proiettore.

MANUAL DE USUARIO
Lea cuidadosamente este manual del usuario para poder utilizar correctamente el producto.

GEbruiksaanwijzing
Lees voor het gebruik alstublieft deze handleiding aandachtig door, om volledig profijt te hebben van de uitgebreide mogelijkheden.

BRUKERHÅNDBOK
Vennligst les denne bruksanvisningene grundig for å være garantert driftssikker bruk.

INSTRUÇÕES DO PROPRIETÁRIO
Para assegurar o uso correto do equipamento, por favor leia atentamente este manual do usuário.

TECHNICAL

REGULATORY NOTICES
Thank you for purchasing this liquid crystal projector.

WARNING • Please read the accompanying manual “Safety Guide” and this “USER’S MANUAL” thoroughly to ensure correct usage through understanding. After reading, store this instruction manual in a safe place for future reference.

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.

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For "TECHNICAL" and "REGULATORY NOTICE", see the end of this manual.
**FEATURES**

This liquid crystal projector is used to project various computer signals as well as NTSC / PAL / SECAM video signals onto a screen. Little space is required for installation and large images can easily be realized.

**Outstanding Brightness**
The UHB lamp and high-efficiency optical system assure a high level of brightness.

**Partial Magnification Function**
Interesting parts of images can be magnified for closer viewing.

**Distortion Correction Function**
Distortion-free images are quickly available.

**Extra-low Noise Function**
Acoustic noise level from the unit can be reduced.

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**BEFORE USE**

**Contents of Package**
Make sure all of the following items are included in the package. If anything is missing, please contact your dealer.

**NOTE** • Keep the original packing material for future reshipment.
Part Names

FRONT/LEFT VIEW OF THE PROJECTOR

Zoom Knob
Focus Ring
Remote Control Sensor
Lens
Foot Adjuster
Lens Cap

AC Inlet (to the Power Cord)
Power Switch
Foot Adjuster
Ventilation Openings (Intake)

CONTROL PANEL

STANDBY/ON Button
KEYSTONE Button
Foot Adjuster Button
Filter Cover (Air Filter and Intake for the Cooling Fan)

INPUT Button
LAMP Indicator
TEMP Indicator
POWER Indicator
RESET Button
MENU Button

Ventilation Openings (exhaust)

REAR/RIGHT VIEW OF THE PROJECTOR

Remote Control Sensor
DVI Terminal
RGB IN 1 Terminal
RGB IN 2 Terminal
CONTROL Terminal
RGB OUT Terminal
USB Terminal

TERMINAL PANEL

S-VIDEO Terminal
COMPONENT VIDEO Y Terminal
Cb/Pb Terminal
Cr/Pr Terminal
VIDEO IN Terminal
AUDIO IN R Terminal
AUDIO IN L Terminal
AUDIO IN 1 Terminal
AUDIO IN 2 Terminal
AUDIO OUT Terminal

Carrying Handle
Zoom Knob
Focus Ring
Remote Control Sensor
Lens
Foot Adjuster
Lens Cap
BEFORE USE (continued)

Part Names (continued)

STANDBY/ON Button
VIDEO Button
Disk Pad
AUTO Button
MENU Button
MENU SELECT Button
POSITION Button
MAGNIFY Button
BLANK Button
LASER Button
RGB Button
MOUSE / RIGHT Button
KEYSTONE Button
RESET Button
PinP Button
FREEZE Button
MUTE Button
VOLUME Button
REMOTE CONTROL TRANSMITTER
(Refer to P.9 "OPERATIONS")

These functions works when the mouse control function is activated. Remember, the POSITION, BLANK ON and MENU ON functions disable the mouse control function.

WARNING • The laser pointer of the remote control transmitter is used in place of a finger or rod. Never look directly into the laser beam outlet or point the laser beam at other people. The laser beam can cause vision problems.

CAUTION • Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTE • Keep the remote control transmitter away from children and pets.
• Do not give the remote control transmitter any physical impact. Take care not to drop.
• Do not place the heavy objects on the remote control transmitter.
• Do not wet the remote control transmitter or place it on any wet object.
• Do not place the remote control transmitter close to the cooling fan of the projector.
• Do not disassemble the remote control transmitter.
Loading the Batteries
Install the AA batteries into the remote control transmitter.

1. Remove the battery cover.
   Push the knob while lifting up the battery cover.

2. Load the batteries.
   Make sure the plus and minus poles are correctly oriented.

3. Close the battery cover.

NOTE
Replace the batteries when remote control transmitter operation becomes difficult.

CAUTION
• Use only the specified batteries with this remote control transmitter. Also, do not mix new and old batteries. This could cause in battery cracking or leakage, which could result in fire or personal injury.
• When loading the batteries, make sure the plus and minus terminals are correctly oriented as indicated in the remote control transmitter. Incorrect orientation could cause battery cracking or leakage, which could result in personal injury or pollution of the surrounding environment.
• When you dispose the battery, you should obey the law in the relative area or country.
• Keep the battery away from children and pets.
• When not to be used for an extended period, remove the batteries from the remote control transmitter.
Installation of the Projector and Screen

Refer to the drawing and table below for determining the screen size and projection distance.

The projection distances shown in the table below are for full size (1024 x 768 pixels).

\( a \): Distance from the projector to the screen. (±10%)

### Table 1. Installation Reference

<table>
<thead>
<tr>
<th>Screen size [inches (m)]</th>
<th>( a ) [inches (m)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 (1.0)</td>
<td>Min. 62 (1.6)</td>
</tr>
<tr>
<td></td>
<td>Max. 82 (2.1)</td>
</tr>
<tr>
<td>60 (1.5)</td>
<td>Min. 94 (2.4)</td>
</tr>
<tr>
<td></td>
<td>Max. 123 (3.1)</td>
</tr>
<tr>
<td>80 (2.0)</td>
<td>Min. 127 (3.2)</td>
</tr>
<tr>
<td></td>
<td>Max. 164 (4.2)</td>
</tr>
<tr>
<td>100 (2.5)</td>
<td>Min. 160 (4.1)</td>
</tr>
<tr>
<td></td>
<td>Max. 205 (5.2)</td>
</tr>
<tr>
<td>120 (3.0)</td>
<td>Min. 192 (4.9)</td>
</tr>
<tr>
<td></td>
<td>Max. 246 (6.3)</td>
</tr>
<tr>
<td>150 (3.8)</td>
<td>Min. 241 (6.1)</td>
</tr>
<tr>
<td></td>
<td>Max. 308 (7.8)</td>
</tr>
<tr>
<td>200 (5.0)</td>
<td>Min. 323 (8.2)</td>
</tr>
<tr>
<td></td>
<td>Max. 411 (10.4)</td>
</tr>
</tbody>
</table>

**Angle Adjustment**

Use the foot adjusters on the bottom of the projector to adjust the projection angle. It is variable within 0˚ to 9˚ approximately.

1. Lift up the front side of the projector, and pressing the foot adjuster button, adjust the projection angle.
2. Release the button to lock at the desired angle.
3. Make the foot adjusters screw for fine adjustment. Do not force the adjusters to make screw. This could damage the adjusters or cause the lock to fail.

**CAUTION** • Do not release the foot adjuster button unless the projector is being held; otherwise, the projector could overturn or the fingers could get caught and cause personal injury.
Cabling
Refer to the table below for connecting each terminal of the projector to each device.

Table 2. Cabling

<table>
<thead>
<tr>
<th>Function</th>
<th>Terminal</th>
<th>Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGB input</td>
<td>RGB IN 1</td>
<td>Accessory or optional RGB cable with D-sub 15-pin shrink jack and inch thread screws</td>
</tr>
<tr>
<td></td>
<td>RGB IN 2</td>
<td>Accessory or optional RGB cable with D-sub 15-pin shrink jack and inch thread screws</td>
</tr>
<tr>
<td>RGB output</td>
<td>RGB OUT</td>
<td>Accessory or optional RGB cable with D-sub 15-pin shrink jack and inch thread screws</td>
</tr>
<tr>
<td>DVI input</td>
<td>DVI</td>
<td>Optional DVI cable with inch thread screws</td>
</tr>
<tr>
<td>Audio input (from the computer)</td>
<td>AUDIO IN 1 (interlocked with RGB IN 1 or DVI)</td>
<td>Optional audio cable with stereo mini jack</td>
</tr>
<tr>
<td></td>
<td>AUDIO IN 2 (interlocked with RGB IN 2)</td>
<td>Optional audio cable with stereo mini jack</td>
</tr>
<tr>
<td>PS/2 mouse control</td>
<td>CONTROL</td>
<td>Accessory PS/2 mouse cable</td>
</tr>
<tr>
<td>ADB mouse control</td>
<td></td>
<td>Optional ADB mouse cable</td>
</tr>
<tr>
<td>Serial mouse control</td>
<td></td>
<td>Optional Serial mouse cable</td>
</tr>
<tr>
<td>RS-232C communication</td>
<td></td>
<td>Optional RS-232C cable</td>
</tr>
<tr>
<td>USB mouse control</td>
<td>USB</td>
<td>Optional USB cable</td>
</tr>
<tr>
<td>S-video input</td>
<td>S-VIDEO IN</td>
<td>Accessory S-video cable with mini DIN 4-pin jack</td>
</tr>
<tr>
<td>Video input</td>
<td>VIDEO IN</td>
<td>Optional video/audio cable</td>
</tr>
<tr>
<td>Component video input</td>
<td>COMPONENT VIDEO Y</td>
<td>Accessory component video cable</td>
</tr>
<tr>
<td></td>
<td>COMPONENT VIDEO Cb/Pb</td>
<td>Accessory component video cable</td>
</tr>
<tr>
<td></td>
<td>COMPONENT VIDEO Cr/Pr</td>
<td>Accessory component video cable</td>
</tr>
<tr>
<td>Audio input (from video equipment)</td>
<td>AUDIO IN L</td>
<td>Optional video/audio cable or optional audio cable with RCA jack</td>
</tr>
<tr>
<td></td>
<td>AUDIO IN R</td>
<td>Optional video/audio cable or optional audio cable with RCA jack</td>
</tr>
<tr>
<td>Audio output</td>
<td>AUDIO OUT</td>
<td>Optional audio cable with stereo mini jack</td>
</tr>
</tbody>
</table>

**CAUTION** • Incorrect connecting could result in fire or electrical shock.
Please read this manual and the separate “Safety Guide”.
• Before connecting, turn off to all devices to be connected, except for the USB cable.
• The cables may have to be used with the core set to the projector side. Use the cables which are included with the projector or specified.

**NOTE** • Before connecting, read instruction manuals of the devices to be connected, and make sure that the projector is compatible with the device.
• Secure the screws on the connectors and tighten.
• For some RGB input modes, the optional Mac adapter is necessary.
• To select the DVI input, the computer may need some settings. See the manuals of the computer for details.
• Some computers may have multiple display screen modes. Use of some of these modes will not be possible with this projector.
• Refer to the “TECHNICAL” section for the pin assignment of connectors and RS-232C communication data.
• When the DVI terminal is used, the RGB OUT terminal may not function.
INSTALLATION (continued)

Power Connection
Use the correct one of the enclosed power cords depending on the power outlet to be used. Connect the AC inlet of the projector to the power outlet firmly by the power cord.

CAUTION • Be careful in handling the power cord according to instructions of the accompanying manual "Safety Guide" and this manual.
• Connect the power cord firmly. Avoid using a loose, unsound outlet or contact failure.

Example of system setup

- 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.

Plug & Play
This projector is VESA DDC 1/2B compatible. Plug & play is possible by connecting to a computer that is VESA DDC (Display Data Channel) compatible. Please use this function by connecting the accessory RGB cable with RGB IN 1 terminal (DDC 1/2B compatible), or by connecting an optional DVI cable with DVI terminal (DDC 2B compatible). Plug & play may not operate by other connecting.

NOTE • Plug & play is a system configured with peripheral equipment including a computer and display, and an operating system.
• This projector is recognized as a plug & play monitor. Use the standard display drivers.
• Plug & play may not operate by the computer to connect. Use the RGB IN 2 terminal if plug & play does not operate correctly.

NOTE

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OPERATIONS

Power ON
1. Check that the power cord is connected correctly.
2. Set the power switch to [1]. The standby mode is selected, and the POWER indicator is turned to orange.
3. Press the STANDBY/ON button on the control panel or the remote control transmitter. Warm-up begins and the POWER indicator blinks in green.
4. The POWER indicator ceases blinking and turns to green when power is on. Remove the lens cap.
5. Adjust picture size using the zoom knob.
6. Adjust focus using the focus ring.

Power OFF
1. Press the STANDBY/ON button on the control panel or the remote controller. Then, the message "Power off?" will appear on the screen, and the message will disappear by any operation or no operation for 5 seconds. During this message indication, press the STANDBY/ON button again. The projector lamp is extinguished and lamp cooling begins. The POWER indicator blinks orange during lamp cooling. Pressing the STANDBY/ON button has no effect while the POWER indicator is blinking.
2. The system assumes the Standby mode when cooling is complete, and the POWER indicator ceases blinking and changes to orange. Check that the indicator is orange and set the power switch to [O].
3. The POWER indicator is extinguished when power is off. Do not forget to attach the lens cap.

WARNING • Please read this manual, and the separate “Safety Guide” thoroughly before using the equipment. Always ensure that the equipment is used safely.

NOTE • Except in emergencies, follow the above-mentioned procedure for turning power off. Incorrect procedure will reduce the life of the projector lamp and LCD panel.
• To prevent any trouble, turn on/off the projector when the computer or video tape recorder is OFF. Providing a RS-232C cable is connected, turn on the computer before the projector.
• When a projector continues projecting the same image, the image may remain as an afterimage. Please do not project the image same for a long time.
### Basic Operation

The basic operations shown in Table 3 is performed from the supplied remote control transmitter or the projector control panel. Items indicated by (*) may be used from the control panel.

**Table 3. Basic Operation**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
</table>
| **INPUT SELECT**       | **Select Input Signal** (*): Press the INPUT button.  
                        | RGB IN 1 → RGB IN 2 → DVI → VIDEO IN → S-VIDEO IN → COMPONENT VIDEO → RGB IN 1  
                        | **Select RGB Input**: Press the RGB button.  
                        | VIDEO IN / S-VIDEO IN / COMPONENT VIDEO → RGB IN 1 / RGB IN 2 / DVI  
                        | RGB IN 1 → RGB IN 2 → DVI → RGB IN 1  
                        | **Select Video Input**: Press the VIDEO button.  
                        | RGB IN 1 / RGB IN 2 / DVI → VIDEO IN / S-VIDEO IN / COMPONENT VIDEO → RGB IN 1 / RGB IN 2 / DVI  
                        | RGB IN 1 / RGB IN 2 → DVI → RGB IN 1  
                        | - The selected signal name is displayed for approximately 3 seconds when the input signal is changed. |
| **POSITION**           | **Set/Clear Position Adjustment Mode**: Press the POSITION button.  
                        | The [ ] icon is displayed in the POSITION mode.  
                        | **Image Position Adjustment**: Press the , , and buttons in the POSITION mode.  
                        | • Valid only in the MAGNIFY mode with a video signal is input.  
                        | • After approximately 10 seconds of inactivity the [ ] icon is extinguished and the POSITION mode is cleared automatically.  
                        | • , , and buttons may operate as the mouse control button. Refer to page 4. |
| **RESET (*)**          | **Initialise Each Item**: Select an item and press the RESET button.  
                        | **Initialise Position Adjustment**: Press the RESET button and the POSITION mode. This function is valid only when RGB signal is input.  
                        | • Valid except for the VOLUME, LANGUAGE and H PHASE.  
                        | • The RESET button may operate as the mouse control button. Refer to page 4. |
| **MAGNIFY**            | **Set MAGNIFY Mode**: Press the MAGNIFY button.  
                        | **Move Magnified Area**: Run the POSITION in the MAGNIFY mode.  
                        | **Adjust Magnification**: Press the MAGNIFY / button in MAGNIFY mode.  
                        | **Clear MAGNIFY Mode**: Press the MAGNIFY button.  
                        | • The MAGNIFY mode is cleared by running or setting the AUTO, ASPECT, INPUT SELECT or VIDEO, or by changing the input signal. |
| **FREEZE**             | **Set/Clear FREEZE Mode**: Press the FREEZE button. The [ ] icon is displayed, and the image frozen, in the FREEZE mode.  
                        | • The FREEZE mode is cleared by running or setting POSITION, VOLUME, MUTE, Automatic Adjustment, BLANK ON/OFF, or MENU ON/OFF, or by changing the input signal.  
                        | • Do not forget to clear frozen static images. |

**NOTE**  
- Strong light and obstacles will interfere with operation of the remote control transmitter.
**OPERATIONS (continued)**

Items indicated by (*) may be used from the control panel.

**Table 3. Basic Operation (continued)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLUME</td>
<td><strong>Volume Adjustment</strong>: Press the VOLUME button. No sound is heard in the MUTE mode.</td>
</tr>
<tr>
<td>MUTE</td>
<td><strong>Set/Clear Mute Mode</strong>: Press the MUTE button. No sound is heard in the MUTE mode.</td>
</tr>
</tbody>
</table>
| AUTO         | **Automatic Adjustment at RGB Input**: Press the AUTO button. Horizontal position (H.POSIT), vertical position (V.POSIT), clock phase (H.PHASE), and horizontal size (H.SIZE) are automatically adjusted. Use with the window at maximum size in the application display. **Automatic Adjustment at Video Input**: Press the AUTO button. A signal type appropriate for the input signal is selected automatically. Valid only when AUTO is set for VIDEO on the menu.  
  • This operation requires approximately 10 seconds. It may not function correctly with some input signals. |
| BLANK ON/OFF | **Set/Clear Blank Mode**: Press the BLANK button. No image is displayed in the Blank mode. The screen color is as set in BLANK on the Image menu.       |
| MENU ON/OFF  | **Menu Display Start/Stop**: Press the MENU button.  
  • The menu display is terminated automatically after approximately 10 seconds of inactivity.  
  **Select Menu Type**: Press the MENU SELECT button. Allows the user to select the normal menu or the single menu. Only the selected item is displayed on the single menu, and other items are displayed with the △ and □ buttons as with the normal menu.  
  • Valid only when the Setup menu is used. Push the MENU SELECT button after selecting items such as “BRIGHTNESS”.  
  • The MENU SELECT button may operate as the mouse control button. Refer to page 4. |
| MENU SELECT  | **Select Mode of P.IN P. Display**: Press the PinP button. Small → Large → P.IN P. off (→ Small)  
  • Valid only at RGB IN 1, RGB IN 2 or DVI input.  
  **Set / Clear KEYSTONE Mode**: Press the KEYSTONE button.  
  **Select KEYSTONE Mode**: Press the △ / □ button in the KEYSTONE mode.  
  **Horizontal Adjust KEYSTONE**: Press the △ / □ button.  
  • The image may not be appeared properly when this function is activated on same input signals.  
  • The adjustable range of distortion correction will be different among input signals. |
## Setup Menu

The following adjustments and settings are possible when SETUP is selected at the top of the menu. Part of the Setup menu differs between RGB input and video input. Select an item with the \( \bullet \) and \( \bigcirc \) buttons, and start operation. Use the Single menu to reduce menu size (see Table 3, MENU SELECT).

### Table 4. Setup Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>RGB IN 1</th>
<th>RGB IN 2</th>
<th>DVI</th>
<th>VIDEO S-VIDEO</th>
<th>COMPONENT VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRIGHT</td>
<td><strong>Adjustment:</strong> Dark ( \bigcirc ) ↔ Light ( \bullet )</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>CONTRAST</td>
<td><strong>Adjustment:</strong> Weak ( \bigcirc ) ↔ Strong ( \bullet )</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>V POSIT</td>
<td><strong>Adjustment:</strong> Down ( \bigcirc ) ↔ Up ( \bullet )</td>
<td>✔️</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>H POSIT</td>
<td><strong>Adjustment:</strong> Left ( \bigcirc ) ↔ Right ( \bullet )</td>
<td>✔️</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>H PHASE</td>
<td><strong>Adjustment:</strong> Left ( \bigcirc ) ↔ Right ( \bullet ) • Adjust to eliminate flicker.</td>
<td>✔️</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>H SIZE</td>
<td><strong>Adjustment:</strong> Small ( \bigcirc ) ↔ Large ( \bullet ) • The image may not be displayed correctly if the horizontal size is excessive. In such cases, press the RESET button, and initialize the horizontal size.</td>
<td>✔️</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SHARPNESS</td>
<td><strong>Adjustment:</strong> Soft ( \bigcirc ) ↔ Clear ( \bullet )</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>COLOR</td>
<td><strong>Adjustment:</strong> Light ( \bigcirc ) ↔ Dark ( \bullet )</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>TINT</td>
<td><strong>Adjustment:</strong> Red ( \bigcirc ) ↔ Green ( \bullet ) • Valid only when NTSC or NTSC 4.43 signal is received.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>COLOR BAL R</td>
<td><strong>Adjustment:</strong> Light ( \bigcirc ) ↔ Dark ( \bullet )</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>COLOR BAL B</td>
<td><strong>Adjustment:</strong> Light ( \bigcirc ) ↔ Dark ( \bullet )</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

**ASPECT**

**Select Image Aspect Ratio:**

- Full \([ \bigcirc \]) \( \bigcirc \) ↔ 16:9 \([ \bigcirc \]) \( \bullet \)

**Select Position of Image:**

- Press the \( \bigcirc \) button while 16:9 \([ \bigcirc \]) is selected.
- Center → ( ) Down → ( ) Up ( → Center )

**Select Image Aspect Ratio:**

- 4:3 \([ \bigcirc \]) \( \bigcirc \) ↔ 16:9 \([ \bigcirc \]) \( \bigcirc \) ↔ 4:3 small \([ \bigcirc \])

**Select Position of Image:**

- Press the \( \bigcirc \) button while 16:9 \([ \bigcirc \]) / 4:3 small \([ \bigcirc \]) is selected.
- Center → ( ) Down → ( ) Up ( → Center )
  - 4:3 small cannot be selected with the input of 720p or 1080i component.
  - 4:3 small may not be displayed correctly with some input signals.
OPERATIONS (continued)

Input Menu
The following functions are available when INPUT is selected on the menu. Select an item with the  and  buttons, and start or stop operation with the  and  buttons. The function indicated (***) are effective on video input mode only, not on RGB input mode, except in the P.IN P. window on RGB input mode.

Table 5. Input Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
</table>
| AUTO | **Automatic Adjustment at RGB Input:** Select the EXECUTE with the  button. Horizontal position (H.POSIT), vertical position (V.POSIT), clock phase (H.PHASE), and horizontal size (H.SIZE) are automatically adjusted. Use with the window at maximum size in the application display.  
**Automatic Adjustment at Video Input:** Select the EXECUTE with the  button. A signal type appropriate for the input signal is selected automatically when EXECUTE is selected automatically. Valid only when AUTO is set for VIDEO on the menu.  
• This operation requires approximately 10 seconds. It may not function correctly with some input signals. Pressing the AUTO button in this case may correct this problem.  
• This function is the same as for the AUTO function in Basic operation. |
| RGB  | **Displays RGB Input Frequency:** Displays the horizontal and vertical sync signal frequencies for RGB input.  
• Valid only at RGB input. |
| VIDEO(***)| **Select Video Signal Type:** Select the signal type with the  and  buttons. Select NTSC, PAL, SECAM, NTSC4.43, M-PAL, or N-PAL as appropriate for the input signal. The selection of AUTO enables and executes the function AUTO (Automatic Adjustment at Video Input), except for the N-PAL input.  
• Use this function when the image becomes unstable (eg. the image becomes irregular, or lacks color) at VIDEO/S-VIDEO input.  
• Automatic Adjustment requires approximately 10 seconds. It may not function correctly with some input signals. Pressing the AUTO button in this case may correct this problem except for the N-PAL input.  
• For the COMPONENT VIDEO input, this function is not effective and the signal type is distinguished automatically. Refer to the item HDTV of the OPT. Menu for the signal of HDTV. |
| HDTV | **Select HDTV mode:** Select the 1035i mode or 1080i mode suitable for the input signal with the  /  button. |
OPERATIONS (continued)

Image Menu
The following adjustments and settings are available when IMAGE is selected on the menu. Select an item with the \( \uparrow / \downarrow \) buttons, and start or stop operation with the \( \leftarrow / \rightarrow \) buttons.

Table 6. Image Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLANK</strong></td>
<td>Select Blank Screen: Select the screen in case of the BLANK mode with the ( \uparrow / \downarrow ) button. The selected one (Desk Top, ORIGINAL or one colors) is displayed when the BLANK mode is ON. Desk Top is a mode that the customer-customized screen is displayed. This is the blue screen at the factory setting. Refer to the description of Desk Top below. ORIGINAL is a mode that the factory fixed screen is displayed. • When Desk Top or ORIGINAL is selected, the screen is going to the black after several minutes.</td>
</tr>
<tr>
<td><strong>START UP</strong></td>
<td>Select Start Up Screen: Select the screen in case of no signal input with the ( \uparrow / \downarrow ) button. The selected one (Desk Top, ORIGINAL or TURN OFF) is displayed when no signal is input. Desk Top is a mode that the customer-customized screen is displayed. This is the blue screen at the factory setting. Refer to the description of Desk Top below. ORIGINAL is a mode that the factory fixed screen is displayed. TURN OFF displays the blue screen. • When Desk Top or ORIGINAL is selected, the screen is going to the black after several minutes.</td>
</tr>
<tr>
<td>Desk Top</td>
<td>Set Desk Top Mode: Select the EXECUTE with the ( \uparrow ) button to display the Desk Top menu and set the Desk Top mode for BLANK and START UP functions. ESC clears and closes the menu box. NORM. is default of the Desk Top menu. FREEZE freezes the image and displays the frame to capture. Press the ( \uparrow ) button after freeze to go to the Desk Top Capture Position mode. In the Desk Top Capture Position mode, the buttons ( \leftarrow / \rightarrow ) allow to move the frame to capture. After adjusting the position, press the KEYSTONE button to go to the Desk Top Display Size mode. To cancel freezing and return to the NORM. of the Desk Top menu, press the RESET button. In the Desk Top Display Size mode, select the magnification x1, x2 or FULL with the button ( \leftarrow / \rightarrow ). After selecting the magnification, press the KEYSTONE button to go to the CAPT. mode and start capturing. To return to the Desk Top Capture Position mode, press the RESET button. CAPT. executes a capturing the image. It requires about 20 seconds. After capturing, the captured image will be displayed for about 10 seconds.</td>
</tr>
<tr>
<td><strong>MIRROR</strong></td>
<td>Select Mirror Status: Select mirror status with ( \uparrow / \downarrow ) button.</td>
</tr>
</tbody>
</table>
| **P. IN P. POSIT** | Select Position of P. in P. Display : Press the \( \uparrow \) or \( \downarrow \) button. \( \leftarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow 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\leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow \left
**OPERATIONS (continued)**

**Options Menu**
The following adjustments and settings are available when OPT. is selected on the menu. Select an item with the `>` and `<` buttons, and start or stop operation with the `X` and `Y` buttons.

### Table 7. Options Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLUME</td>
<td>Reduce <code>&lt;</code> ↔ <code>&gt;</code> Increase</td>
</tr>
<tr>
<td>MENU COLOR</td>
<td>Select Menu Background Color: Select with the <code>&gt;</code> / <code>&lt;</code> button.</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>Select Menu Display Language: Select with the <code>&gt;</code> / <code>&lt;</code> button.</td>
</tr>
</tbody>
</table>
| AUTO OFF     | **Set AUTO OFF:** Set 1–99 minutes with the `>` / `<` button. The system automatically enters the standby mode when a signal is not received for the set time.  
**Clear AUTO OFF:** Select STOP (0 min.) with the `X` button. When STOP is selected the system does not enter the standby mode even if no signal is received. |
| SYNC ON G    | **SYNC ON G Valid:** Select TURN ON with the `>` button.                                                                                    
**SYNC ON G Invalid:** Select TURN OFF with the `X` button.  
• May not be displayed correctly with some input signals when SYNC ON G is valid. In such cases, remove the signal connector so that no signal is received, set SYNC ON G to invalid, and reconnect the signal. |
| WHISPER      | **Set / Create WHISPER Mode:** Press the `>` / `<` button. When the WHISPER is selected, the WHISPER mode is active. In the WHISPER mode, acoustic noise level from the unit is reduced, and brightness level on screen is a little lower. |
| IR REMOTE    | **Select Remote Control Sensor:** Select the sensors to activate along the menu with the `>` / `<` button. Use this function if the remote does not work stably. The ambient light may affect the remote. |

![Options Menu Diagram]
## No Signal Menu

The same adjustments and settings are available as with the Image and Options menus when the MENU button is pressed during display of the "NO INPUT IS DETECTED ON ***" or "SYNC IS OUT OF RANGE ON ***" message while no signal is received. Select an item with the and buttons, and start or stop operation with the and buttons.

### Table 8. No Signal Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLUME</td>
<td>Reduce ↔ Increase. When this function is used, audio input is automatically switched to video. The audio input can be switched by moving the DISK PAD left and right during the display of the volume adjustment bar. The volume adjustment bar is displayed by pressing VOLUME button.</td>
</tr>
<tr>
<td>BLANK</td>
<td>Select Blank Screen: Select the screen in case of the BLANK mode with the button. The selected one (Desk Top, ORIGINAL or one colors) is displayed when the BLANK mode is ON. Desk Top is a mode that the customer-customized screen is displayed. This is the blue screen at the factory setting. Refer to the description of Desk Top below. ORIGINAL is a mode that the factory fixed screen is displayed. When Desk Top or ORIGINAL is selected, the screen is going to the black after several minutes.</td>
</tr>
<tr>
<td>START UP</td>
<td>Select Start Up Screen: Select the screen in case of no signal input with the button. The selected one (Desk Top, ORIGINAL or TURN OFF) is displayed when no signal is input. Desk Top is a mode that the customer-customized screen is displayed. This is the blue screen at the factory setting. Refer to the description of Desk Top below. ORIGINAL is a mode that the factory fixed screen is displayed. TURN OFF displays the blue screen. When Desk Top or ORIGINAL is selected, the screen is going to the black after several minutes.</td>
</tr>
<tr>
<td>MIRROR</td>
<td>Select Mirror Status: Select the mirror status with the button.</td>
</tr>
<tr>
<td>MENU COLOR</td>
<td>Select Menu Background Color: Select the color with the button.</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>Select Menu Display Language: Select the language with the button.</td>
</tr>
<tr>
<td>AUTO OFF</td>
<td>Set AUTO OFF: Set 1~99 minutes with the button. The system automatically enters the standby mode when a signal is not received for the set time. Clear AUTO OFF: Select the STOP (0 min.) with the button. When the STOP is selected the system does not enter the standby mode even if no signal is received.</td>
</tr>
<tr>
<td>SYNC ON G</td>
<td>SYNC ON G Valid: Select the TURN ON with the button. May not be displayed correctly with some input signals when the SYNC ON G is valid. In such cases, remove the signal connector so that no signal is received, set the SYNC ON G to invalid, and reconnect the signal.</td>
</tr>
<tr>
<td>WHISPER</td>
<td>Set / Clear WHISPER Mode: Press the button. When the WHISPER is selected, the WHISPER mode is active. In the WHISPER mode, acoustic noise level from the unit is reduced, and brightness level on screen is a little lower. Select Remote Control Sensor: Select the sensors to activate along the menu with the button. Use this function if the remote does not work stably. The ambient light may affect the remote.</td>
</tr>
<tr>
<td>IR REMOTE</td>
<td>☐: active  ☐: inactive</td>
</tr>
</tbody>
</table>
MAINTENANCE

Lamp

Contact your dealer before replacing the lamp.
For the optional lamp, see the item “Optional Parts” of the Table 12.
Before replacing the lamp, switch power OFF, remove the power cord from the power outlet, and
wait approximately 45 minutes until the lamp has cooled. The lamp may explode if handled at high
temperatures.

WARNING A mercury lamp used in this LCD projector is made of glass and has high
internal pressure. The mercury lamp can burst with a big noise due to deterioration
resulting from a shock, crack and passage of time, and can end its service life in unlit
condition. Lamps also have a considerably different service life and can sometimes end up
in burst or turn to unlit condition soon after use. Furthermore, when the lamp is blown up,
glass fragments can get scattered around the lamp house and some gas containing mercury
inside the lamp can leak out of the projector’s air vent.
• Handle the lamp with utmost care as it can burst during use if subjected to a shock or
impact or if scratched or cracked.
• Probability for the burst will increase if the lamp is used for extended period of time or
used exceeding the period of replacement. You are advised to follow instructions for lamp
replacement as soon as they are given (Refer to Table 9 of Page 20, Table 10 of Page 21).
Avoid any reuse of an old lamp (used lamp) since such reuse can result in burst.
• In case the lamp gets blown up in a short period of time after use, some electrical failures
or troubles other than the lamp itself may be suspected as causes. Under such
circumstances, consult the store where you purchased it or a service company.
• Should the lamp burst (accompanied by a big bursting noise), perform ventilation
sufficiently, and exercise maximum caution not to inhale any gas out of the projector’s air
vent or not to let it enter your eyes or mouth.
• Should the lamp burst (accompanied by a big bursting noise), make absolutely sure to
unplug the power cord from the outlet and ask the store where you bought the lamp for
immediate replacement. You should not engage in cleanup or replacement of the lamp by
yourself since scattered glass fragments can damage the inside of projector or can result in
personal injury when you handle it.
• When you dispose of any used lamps, be sure to observe and follow local ordinances and
regulations of the area or district where they are subjected to disposal. Generally speaking,
the lamps are treated similarly as glasses and bottles in most cases, but there are areas or
districts where lamps are classified as a separate collection, and so be sure to use caution.
• Never use the lamp in a state where the lamp cover is removed.

Lamp Life
Projector lamps have a finite life. The image will become darker, and hues will become weaker,
after a lamp has been used for a long period of time.
Replace the lamp if the LAMP indicator is red, or the CHANGE THE LAMP message appears
when the projector is switched ON. See Table 9 of P.20 and Table 10 of P.21.

NOTE • The LAMP indicator is also red when the lamp unit reaches high temperature. Before
replacing the lamp, switch power OFF, wait approximately 20 minutes, and switch power ON again.
If the LAMP indicator is still red, replace the lamp.
MAINTENANCE (continued)

Replacing the Lamp

1. Switch the projector OFF, remove the power cord from the power outlet, and wait at least 45 minutes for the unit to cool.
2. Prepare a new lamp.
3. Check that the projector has cooled sufficiently, and gently turn it upside down.
4. Loosen the two screws as shown in the diagram, and remove the lamp cover.
5. Loosen the three screws, and gently remove the lamp while holding the grips. Touching the inside of the lamp case may result in uneven coloring.
6. Install the new lamp and tighten the three screws firmly. Also steadily push the opposite side of the screwed lamp into the unit.
7. Replace the lamp cover in position and tighten the two screws firmly.
8. Gently turn the projector right-side up.

**CAUTION** • Ensure that screws are tightened properly. Screws not tightened fully may result in injury or accidents.
• Do not use the projector with the lamp cover removed.

Resetting the Lamp Timer
Reset the lamp timer after replacing the lamp. When the lamp has been replaced after the LAMP indicator is red, or the CHANGE THE LAMP message is displayed, complete the following operation within ten minutes of switching power ON. The power will be turned off automatically in over 10 minutes.

1. Switch power ON, and press the RESET button, for approximately three seconds. The ‘LAMP xxxx hr’ message will appear on the lamp timer on the bottom of the screen.
2. Press the MENU button on the remote control transmitter, or the RESET button on the control panel, while the lamp timer is displayed. The ‘LAMP xxxx □ → 0 ■ CANCEL’ message will then appear.
3. Press the [ ] and select 0, and wait until the timer display is cleared.

**NOTE** • Do not reset the lamp timer without replacing the lamp. Reset the lamp timer always when replacing the lamp. The message functions will not operate properly if the lamp timer is not reset correctly.
MAINTENANCE (continued)

Air Filter

Cleaning the air Filter
The air filter should be cleaned as described below at intervals of approximately 100 hours.
1. Switch the projector power supply OFF, and remove the power cord from the power outlet.
2. Clean the air filter with a vacuum cleaner.

Replacing the Air Filter
Replace the air filter if contamination cannot be removed, or if it is damaged.
1. Remove the filter cover.
2. Remove the old filter.
3. Set the new filter and the filter cover.

Other Maintenance

Maintenance Inside the Equipment
For safety reasons, ensure that the equipment is cleaned and checked by the dealer once every two years. Maintaining the equipment by yourself is dangerous.

Cleaning the Lens
Gently wipe the lens with lens cleaning paper. Do not touch the lens with your hands.

Cleaning the Cabinet and Remote control transmitter
Gently wipe with a soft cloth. If dirt and stains etc. are not easily removed, use a soft cloth dampened with water, or water and a neutral detergent, and wipe dry with a soft, dry cloth.

CAUTION • Switch power OFF and remove the power cord from the power outlet before beginning maintenance work. Please read the separate “Safety Guide” thoroughly to ensure that maintenance is performed correctly.
• Replace the air filter if contamination cannot be removed, or if it is damaged. Contact your dealer in such case. For the optional air filter, see the item “Option Parts” of the Table 12.
• Do not use the equipment with the air filter removed.
• When the air filter is clogged with dust etc. the power supply is switched OFF automatically to prevent the temperature rising inside the projector.

NOTE • When this projector is brought into a warm room from a cold outdoor, condensation can take place on the projection lens and mirror inside, blurring the screen and reducing your eyesight, but do not worry. The condensation will disappear and the screen will return to a normal condition no sooner than the projector acclimates to the surrounding temperature.
# TROUBLESHOOTING

## OSD Message
The messages as described below may appear on the screen at power ON. Take the appropriate measures when such messages appears.

## Table 9. OSD Messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE THE LAMP AFTER REPLACING LAMP, RESET THE LAMP TIME.</td>
<td>The usage time of lamp will be reaching 2000 hr shortly. It is recommended to replace the lamp soon. Prepare a new lamp as a replacement.</td>
</tr>
<tr>
<td>(*1)</td>
<td></td>
</tr>
<tr>
<td>THE POWER WILL TURN OFF AFTER ** hr.</td>
<td>The usage time of lamp will be reaching 2000 hr shortly. It is recommended to replace the lamp within ** hours. It might be happened that the lamp is cut off before ** hr by any chance. Power will be switched OFF automatically in ** hours. Replace the lamp as shown in P.17~18 “Lamp”. Always reset the lamp timer after replacing the lamp.</td>
</tr>
<tr>
<td>(*1)</td>
<td></td>
</tr>
<tr>
<td>CHANGE THE LAMP AFTER REPLACING LAMP, RESET THE LAMP TIME.</td>
<td>The usage time of lamp is about to reach. Power will be switched OFF in a few minutes. Switch power OFF immediately and replace the lamp as shown in P.17~18 “Lamp”. Always reset the lamp timer after replacing the lamp.</td>
</tr>
</tbody>
</table>

| NO INPUT IS DETECTED ON ***                                           | No input signal found. Check signal input connections and signal sources.                                                                  |

| SYNC IS OUT OF RANGE ON ***                                           | The horizontal or vertical frequency of the input signal is not within the specified range. Check the specifications of the equipment and the signal source. |

| CHECK THE AIR FLOW                                                    | The internal temperature has risen. Switch power OFF, and wait 20 minutes until the equipment cools. Check the following and Switch power ON again. * Are the ventilation openings blocked. * Is the air filter dirty. * Is the ambient temperature in excess of 35°C. |

**NOTE**  
(*1) This message is cleared automatically after approximately three minutes, and appears every time power is switched ON.  
(*2) The unit has a function to turn the power off which will be active when the usage time reaches 2000 hr. However the life of lamp might be much different among lamps, so that it might be happened that a lamp is cut off before the function is active.
Troubleshooting (continued)

Indicators Message
The POWER indicator, LAMP indicator, and TEMP indicator are lit and blank as follows. Take the appropriate measures.

Table 10. Indicators Message

<table>
<thead>
<tr>
<th>POWER indicator</th>
<th>LAMP indicator</th>
<th>TEMP indicator</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lights orange</td>
<td>Turns off</td>
<td>Turns off</td>
<td>The Standby mode has been set.</td>
</tr>
<tr>
<td>Blinks green</td>
<td>Turns off</td>
<td>Turns off</td>
<td>Warming up. Please wait.</td>
</tr>
<tr>
<td>Lights green</td>
<td>Turns off</td>
<td>Turns off</td>
<td>ON. Normal operation possible.</td>
</tr>
<tr>
<td>Blinks orange</td>
<td>Turns off</td>
<td>Turns off</td>
<td>Cooling. Please wait.</td>
</tr>
<tr>
<td>Blinks red</td>
<td>-</td>
<td>-</td>
<td>The error is found. Take the appropriate measures when the POWER indicator ceases blinking</td>
</tr>
<tr>
<td>Blinks/Lights red</td>
<td>Lights red</td>
<td>Turns off</td>
<td>Lamp is not lit. The interior of the equipment may be too hot. Switch power OFF, wait 20 minutes until the equipment cools, and check whether the ventilation openings are blocked, whether the air filter is dirty, or whether the ambient temperature exceeds 35 °C. And switch power ON again. Replace the lamp if the same problem occurs.</td>
</tr>
<tr>
<td>Blinks/Lights red</td>
<td>Blinks red</td>
<td>Turns off</td>
<td>Lamp or lamp cover is not found, or hasn’t been fitted in correctly. Switch power OFF, and wait for 45 minutes until the equipment cools. Check fitting of the lamp and lamp cover, and switch power ON again. Contact your dealer if the same problem occurs again.</td>
</tr>
<tr>
<td>Blinks/Lights red</td>
<td>Turns off</td>
<td>Blinks red</td>
<td>The cooling fan is not operating. Switch power OFF, and wait for 20 minutes until the equipment cools. Check for foreign matters in the fan, and switch power ON again. Contact your dealer if the same problem occurs again.</td>
</tr>
<tr>
<td>Blinks/Lights red</td>
<td>Turns off</td>
<td>Lights red</td>
<td>The interior of the equipment is too hot. Switch power OFF, and wait for 20 minutes until the equipment cools. Check whether the ventilation openings are blocked, whether the air filter is dirty, or whether the ambient temperature exceeds 35 °C. Then switch power ON again. Contact your dealer if the same problem occurs again.</td>
</tr>
<tr>
<td>Lights green</td>
<td>Blinks red</td>
<td>Blinks red</td>
<td>The interior of the equipment is too cool. Check whether the ambient temperature is below 0°C. Contact your dealer if the same problem occurs when the ambient temperature is 0~35°C.</td>
</tr>
</tbody>
</table>

NOTE When the internal temperature becomes excessive power is switched OFF automatically for safety reasons, and the indicator is extinguished. Set the power switch to [O] and wait for 20 minutes until the equipment has cooled sufficiently.
TROUBLESHOOTING (continued)

Symptom
Before requesting repair, check in accordance with the following chart. If the situation cannot be corrected, then contact your dealer.

Table 11. Symptom

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The power is not turned on.</td>
<td>The main power switch is not turned on.</td>
<td>Turn on the main power switch.</td>
<td>8,9</td>
</tr>
<tr>
<td></td>
<td>The power cord is disconnected.</td>
<td>Plug the power cord into an AC power outlet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The main power was disconnected during operation by the power failure and so on.</td>
<td>Turn off the projector with the main power switch (set the power switch to [O]), and wait for about 20 minutes. When the equipment has cooled enough, turn power on.</td>
<td>9</td>
</tr>
<tr>
<td>No video or audio.</td>
<td>The input is not correctly set.</td>
<td>Use the projector or remote control transmitter to set.</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>No signal input.</td>
<td>Connect correctly.</td>
<td>7,8</td>
</tr>
<tr>
<td>Video is present but no audio.</td>
<td>The projector is not correctly connected.</td>
<td>Connect correctly.</td>
<td>7,8</td>
</tr>
<tr>
<td></td>
<td>The volume is set to minimum.</td>
<td>Press VOLUME on the remote control or display the menu screen and adjust the volume.</td>
<td>11,15</td>
</tr>
<tr>
<td></td>
<td>Mute is turned on.</td>
<td>Press the MUTE button.</td>
<td>11</td>
</tr>
<tr>
<td>Audio is present but no video.</td>
<td>The projector is not correctly connected.</td>
<td>Connect correctly.</td>
<td>7,8</td>
</tr>
<tr>
<td></td>
<td>The brightness adjustment knob is rotated fully clockwise.</td>
<td>Select BRIGHT with the MENU button and the press the button.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>The lens cap is still attached.</td>
<td>Remove the lens cap.</td>
<td>9</td>
</tr>
<tr>
<td>Colors are pale and color matching is poor.</td>
<td>Color density and color matching are not correctly adjusted.</td>
<td>Adjust the video.</td>
<td>12</td>
</tr>
<tr>
<td>Images are dark.</td>
<td>Brightness and contrast are not correctly adjusted.</td>
<td>Adjust the video.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>The lamp is nearing the end of its service life.</td>
<td>Replace with a new lamp.</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>WHISPER mode is set.</td>
<td>Clear WHISPER mode.</td>
<td>15</td>
</tr>
<tr>
<td>Video is blurred.</td>
<td>Focus or H PHASE is out of adjustment.</td>
<td>Adjust the focus or H PHASE.</td>
<td>9,12</td>
</tr>
</tbody>
</table>
## Table 12. Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Liquid crystal projector</td>
</tr>
<tr>
<td><strong>Liquid crystal panel</strong></td>
<td>Panel size: 2.3 cm (0.9 type)</td>
</tr>
<tr>
<td></td>
<td>Drive system: TFT active matrix</td>
</tr>
<tr>
<td></td>
<td>Pixels: 786,432 pixels (1024 horizontal x 768 vertical)</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>Zoom lens F=1.7 ~ 2.1 f=36.8 ~ 47.8 mm</td>
</tr>
<tr>
<td><strong>Lamp</strong></td>
<td>250 W UHB</td>
</tr>
<tr>
<td><strong>Speaker</strong></td>
<td>1.0W+1.0W (stereo)</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>AC100 ~ 120V, 4.5A / AC220 ~ 240V, 1.9A</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>410W</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>0 ~ 35°C (Operating)</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>360 (W) x 106 (H) x 256.5 (D) mm</td>
</tr>
<tr>
<td><strong>Weight (mass)</strong></td>
<td>4.5 kg</td>
</tr>
</tbody>
</table>

| **RGB signal input**      | Video: Analog 0.7Vp-p, 75Ω terminator (positive)   |
|                           | H/V. sync.: TTL level (positive/negative)          |
|                           | Composite sync.: TTL level                         |
|                           | D-sub 15-pin shrink jack                           |
| **DVI**                   | TMDS, DC: 150~1200 mV / AC: 1.56 Vp-p             |
|                           | TTL Level (Positive/Negative)                      |
| **AUDIO IN**              | RGB1: 200mVrms, 50 kΩ (max. 3.0Vp-p)               |
|                           | RGB2: Stereo mini jack                             |

| **Video signal input**    | 1.0Vp-p, 75Ω terminator                            |
|                           | RCA jack                                           |
| **S-VIDEO IN**            | Brightness signal: 1.0Vp-p, 75Ω terminator          |
|                           | Color signal: 0.286Vp-p (NTSC, burst signal),75Ω terminator |
|                           | 0.300Vp-p (PAL/SECAM, burst signal),75Ω terminator |
|                           | Mini DIN 4-pin jack                                |
| **COMPONENT VIDEO**       | Y: 1.0 Vp-p, 75 Ω Terminator (Positive)           |
|                           | CB/Cr: 0.7 Vp-p, 75 Ω Terminator (Positive)       |
|                           | PB/Pr: 0.7 Vp-p, 75 Ω Terminator (Positive)       |
| **AUDIO IN**              | L: 200mVrms, 50 kΩ (max. 3.0Vp-p)                  |
|                           | R: RCA jack                                        |

| **Signal output**         | Video: Analog 0.7Vp-p, 75Ω output impedance (positive) |
|                           | H/V. sync.: TTL level (positive/negative)            |
|                           | Composite sync.: TTL level                          |
|                           | D-sub 15-pin shrink jack                            |
| **AUDIO OUT**             | 200mVrms, output impedance 1 kΩ (max. 3.0Vp-p)      |
|                           | Stereo mini jack                                    |

| **Control functions**     | D-sub 15-pin shrink plug                            |
| **USB**                   | USB jack (B type)                                   |
| **Optional Parts**        | Lamp: EK0288044010 (DT00471)                        |
|                           | Air Filter: EK0288011150 (NJ06131)                  |
|                           | * For others, consult your dealer.                  |

**NOTE** • This specifications are subject to change without notice.
WARRANTY AND AFTER-SERVICE

If a problem occurs with the equipment, first refer to the P.20 “TROUBLESHOOTING” section 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.