



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for HITACHI CP-S370. You'll find the answers to all your questions on the HITACHI CP-S370 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

**User manual HITACHI CP-S370**  
**User guide HITACHI CP-S370**  
**Operating instructions HITACHI CP-S370**  
**Instructions for use HITACHI CP-S370**  
**Instruction manual HITACHI CP-S370**

## HITACHI

Liquid Crystal Projector

### CP-S370W

#### USER'S MANUAL

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

#### BEDIENUNGSANLEITUNG

Bitte lesen 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

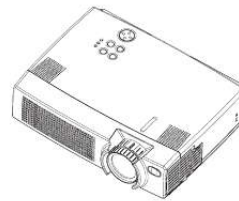
Vennligst les denne bruksanvisningen grundig for å være garantert driftssikker bruk.

#### INSTRUÇÕES DO PROPRIETÁRIO

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

#### TECHNICAL

#### REGULATORY NOTICES



ENGLISH

DEUTSCH

FRANÇAIS

ITALIANO

ESPAÑOL

NEDERLANDS

NORSK

PORTUGÊS

TECHNICAL



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**Manual abstract:**

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.....19 For "TECHNICAL" and "REGULATORY NOTICE", see the end of this manual. ENGLISH-1 ENGLISH USER'S 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. 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. Power Cord (US Type) Projector Power Cord (UK Type) Power Cord (Europe Type) CP-S370W USER'S MANUAL Please read this user's manual thoroughly to ensure correct usage through understanding. *BEDIENUNGSANLEITUNG* Bitte lesen 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. *NEDERLANDS ESPAÑOL ITALIANO FRANÇAIS DEUTSCH ENGLISH* Liquid Crystal Projector *BRUKERHÅNDBOK* Vennligst les denne bruksanvisningen 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* User's Manual (this manual) Safety Instructions *TECHNICAL PORTGÊS NORSK* RGB Cable Component Video Cable (with green lead) *STANDBY/ON* Mouse cable (PS/2) *VIDEO RGB KEYSTONE MENU SELECT MENU POSITION RESET MAGNIFY FREEZE VOLUME* Handle *MUTE OFF AUTO BLANK* Remote Controller containing Battery Carrying Bag *ENGLISH-2 BEFORE USE (continued)* Speaker Zoom Knob Focus Ring Handle Hook Power Switch Lens AC Inlet (to the Power Cord) Ventilation Openings (Intake) Foot Adjuster *FRONT/LEFT VIEW OF THE PROJECTOR* Lens Cap Remote Control Sensor Control Panel (Refer to P.9 "OPERATIONS") *STANDBY/ON* Button *KEYSTONE* Button *INPUT* Button *LAMP* Indicator *TEMP* Indicator *POWER* Indicator *RESET* Button *MENU* Button *Foot Adjuster* Button *Filter Cover* Air Filter and Intake for the Cooling Fan ( ) *REAR/RIGHT VIEW OF THE PROJECTOR* Ventilation Openings (exhaust) Terminal Panel (Refer below) Rear Foot Adjuster *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 *TERMINAL PANEL 1 AUDIO IN VIDEO IN S-VIDEO IN RGB IN* Remote Control Sensor *RGB IN 1* Terminal *RGB IN 2* Terminal *2 AUDIO 1 IN 2 AUDIO OUT* *USB RGB OUT CONTROL CONTROL* Terminal *RGB OUT* Terminal *USB* Terminal *ENGLISH-3 ENGLISH* Part Names *BEFORE USE (continued)* Part Names (continued) *VIDEO* Button *STANDBY/ON* Button *KEYSTONE* Button Button Used to operate the mouse shift function . *MENU MENU SELECT* *STANDBY/ON* *VIDEO* *RGB* *RGB* Button *MENU SELECT* Button Used to click the left mouse button. *KEYSTONE POSITION* Button *POSITION RESET* *RESET* Button Used to click the right mouse button. *MENU* Button *MAGNIFY* *MAGNIFY* *MAGNIFY OFF* Button Button Button *MAGNIFY FREEZE VOLUME VOLUME VOLUME* *MUTE* Button Button Button *MUTE OFF AUTO BLANK FREEZE* Button *BLANK* Button *AUTO* Button *Battery Holder* *REMOTE CONTROLLER* (Refer to P.9 "OPERATIONS") These functions works when the mouse control function is activated.

Remember, the *POSITION, VOLUME, KEYSTONE, BLANK ON* and *MENU ON* functions disable the mouse control function. *NOTE* · Keep the remote controller away from children and pets. · Do not give the remote controller any physical impact. Take care not to drop. · Do not place the heavy objects on the remote controller. · Do not wet the remote controller or place it on any wet object. · Do not place the remote controller close to the cooling fan of the projector. · Do not disassemble the remote controller. *ENGLISH-4 BEFORE USE (continued)* Loading the Battery First Loading: In original packing, the battery is installed in the battery holder of the remote controller with protection film (the transparent film some of which is inside the battery folder). Pull out the protection film to load the battery.

"+" side Replacing: 1. See the reverse side of the remote controller. 2. Pinch the groove and pull out battery holder as the drawing right. 3. Remove the worn battery. 4. Install the new battery with "+" side facing. 5. Push in and click the battery holder.

Pull out Battery Holder *CAUTION* · Incorrect handling of the battery could result in fire or personal injury. The battery may explode if not handled properly.



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Be careful in handling the battery according to instructions of accompanying manual "SAFETY INSTRUCTIONS" and this manual. · Use the 3V micro lithium battery type no. CR2025 only. · When loading the battery, make sure the plus and minus terminals are correctly oriented as indicated in the remote controller. · 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 battery from the remote controller. NOTE Replace the batteries when remote control transmitter operation becomes difficult.

Fixing the Handle Fix the enclosed handle if you need. 1. Raise up the handle hook, and pass one end of the handle through the hole of handle hook. 2. Buckle the end of the handle, as the right drawing. 3. Fix the other end of the handle to the other handle hook in the same way. 2 1 CAUTION · Make sure the handle is fixed before carrying the projector with the handle. If the projector should be dropped from the handle should be off, it could result in an injury, and continued use could result in fire or electrical shock. Do not flourish the projector with the handle.

ENGLISH-5 ENGLISH INSTALLATION Installation of the Projector and Screen Refer to the drawing and table below for determining of the screen size and projection distance. The projection distances shown in the table below are for full size (800 x 600 dots). a: Distance from the projector to the screen. (±10%)

Table 1. Installation Reference Screen size [inches (m)] 40 (1.

0) 60 (1.5) 80 (2.0) 100 (2.5) 120 (3.0) 150 (3.

8) 200 (5.0) a [inches (m)] Min. 62 (1.6) 94 (2.4) 127 (3.2) 160 (4.1) 192 (4.9) 241 (6.1) 323 (8.2) Max.

82 (2.1) 123 (3.1) 164 (4.2) 205 (5.2) 246 (6.3) 308 (7.8) 411 (10.4) Top View a Side View CAUTION · Install the projector in a suitable environment according to instructions of the accompanying manual "SAFETY INSTRUCTIONS" and this manual. · When you fix this unit with a metal tool and the like, you must connect it with ground wire; otherwise, fire or electric shock can result. Connect the ground terminal of AC inlet of this unit with the ground terminal provided at O IN VIDEO IN S-VIDEO IN 1 RGB IN 2 AUDIO 1 IN 2 AUDIO OUT USB RGB OUT CONTROL S-Video Tape Recorder Computer (notebook type) Speaker with amplifier Computer (desktop type) NOTE · 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). 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.

ENGLISH-8 OPERATIONS STANDBY/ON Button POWER Indicator MENU SELECT STANDBY/ ON Button STANDBY/ON VIDEO RGB KEYSTONE MENU POSITION RESET Zoom Knob MAGNIFY FREEZE VOLUME MUTE OFF AUTO BLANK Focus Ring Power Switch Lens Cap Power ON 1. Check that the power cord is connected correctly. 2. Set the power switch to [ | ]. 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.

Open the slide lens door. 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 close the lens door. WARNING · Please read this manual, and the separate "SAFETY INSTRUCTIONS" 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. ENGLISH-9 ENGLISH OPERATIONS (continued) 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 Item Description Select Input Signal (\*) : Press the INPUT button.

RGB IN 1 RGB IN 2 VIDEO IN S-VIDEO IN COMPONENT VIDEO ( RGB IN 1 ) Select RGB Input : Press the RGB button. INPUT SELECT VIDEO IN / S-VIDEO IN / COMPONENT VIDEO RGB IN 1 / RGB IN 2 RGB IN 1 RGB IN 2 ( RGB IN 1 ) Select Video Input : Press the VIDEO button. RGB IN 1 / RGB IN 2 VIDEO IN / S-VIDEO IN / COMPONENT VIDEO VIDEO IN S-VIDEO IN COMPONENT VIDEO ( VIDEO IN ) · The selected signal name is displayed for approximately 3 seconds when the input signal is changed. Set/Clear Position Adjustment Mode : Press the POSITION button. The [ ] icon is displayed in the POSITION mode. POSITION Image Position Adjustment: Press the POSITION mode. . , , and buttons in the · 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.



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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.

OFF · The MAGNIFY mode is cleared by running or setting the AUTO, ASPECT, INPUT SELECT or VIDEO, or by changing the input signal. Set/Clear FREEZE Mode : Press the FREEZE button. The [II] icon is displayed, and the image frozen, in the FREEZE mode. FREEZE · 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 · Use the remote control transmitter at a distance of approximately 5m from the sensor on the front of the projector, and within a range of 30° left-right. Strong light and obstacles will interfere with operation of the remote control transmitter. ENGLISH-10 OPERATIONS (continued) Table 3. Basic Operation (continued) Item VOLUME MUTE Description Volume Adjustment : Press the VOLUME / button. Set/Clear Mute Mode : Press the MUTE button.

No sound is heard in the MUTE mode. 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. AUTO 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 Display Start/Stop: Press the MENU button. MENU · The menu display is terminated automatically after approximately 10 seconds of ON/OFF (\*) 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. MENU SELECT · 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. Normal menu (MENU SELECT) SETUP INPUT IMAGE OPT. 0 -2 100 100 +1 800 0 0 BRIGHT CONTRAST V POSIT H POSIT H PHASE H SIZE COLOR BAL R COLOR BAL B ASPECT Single menu CONTRAST -2 KEYSTONE Set / Clear KEYSTONE Mode : Press the KEYSTONE (\*) Adjust KEYSTONE : Press the / button. button. ENGLISH-11 ENGLISH Items indicated by (\*) may be used from the control panel.

OPERATIONS (continued) 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 and buttons, and start operation. Use the Single menu to reduce menu size (see Table 3, MENU SELECT). SETUP INPUT IMAGE OPT. 0 -2 100 100 +1 800 0 0 SETUP INPUT IMAGE OPT. 0 +1 +1 0 0 0 SETUP INPUT IMAGE OPT. 0 +1 +1 0 0 0 BRIGHT CONTRAST V POSIT H POSIT H PHASE H SIZE COLOR BAL R COLOR BAL B ASPECT BRIGHT CONTRAST SHARPNESS COLOR TINT COLOR BAL R COLOR BAL B ASPECT BRIGHT CONTRAST COLOR H PHASE COLOR BAL R COLOR BAL B ASPECT RGB VIDEO/S-VIDEO COMPONENT Table 4. Setup Menu COMPONENT Item BRIGHT CONTRAST V POSIT H POSIT H PHASE Description Dark Light Weak Strong Down Up Left Right Left Right · Adjust to eliminate flicker. Small Large · 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.

RGB VIDEO S-VIDEO 480i 575i 480P 720P 1080i H SIZE SHARPNESS COLOR TINT Soft Light Red Clear Dark Green · Valid only when NTSC or NTSC 4.43 signal is received. COLOR BAL R Light COLOR BAL B Light ASPECT Dark Dark Select Image Aspect Ratio : 4:3[ ] 16:9[ ] Select Position of Image : ] is Press the button while 16:9[ ] selected. Center Down Up ( Center ) Select Image Aspect Ratio: 4:3[ ] 16:9[ ] 4:3small[ ] Select Position of Image : Press the button while 16:9[ ] / 4:3 small[ ] is selected. Center Down Up ( Center ) · 4:3 small may not be displayed correctly with some input signals.

--- ENGLISH-12 OPERATIONS (continued) 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. SETUP AUTO RGB VIDEO HDTV INPUT IMAGE EXECUTE CANCEL OPT. Table 5.

Input Menu Item Description 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. 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. 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.

VIDEO (\*\*). · 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.



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HDTV Select HDTV mode: Select the 1035i mode or 1080i mode suitable for the input signal with the / button. · When the selected HDTV mode is incompatible with the input signal, the image may be incorrect (eg. the display position or color is incorrect). ENGLISH-13 ENGLISH Input Menu OPERATIONS (continued) Image Menu The following adjustments and settings are available when IMAGE is selected on the menu.

Select an item with the and buttons, and start or stop operation with the and buttons. SETUP INPUT IMAGE OPT. BLANK MIRROR START UP GAMMA COLOR TEMP Table 6. Image Menu Item BLANK MIRROR Description Select Blank Screen Color: Select color with the / button. · The image is cleared and the entire screen is displayed in the selected color, when BLANK mode is set with BLANK ON, or when there is no signal for 5 minutes. Select Mirror Status: Select mirror status with / button. button. button. START UP Setup Initial Screen Display: Select TURN ON with the Clear Initial Screen Display: Select TURN OFF with the · Note that if TURN OFF is selected the blank screen is displayed in blue when there is no signal. GAMMA COLOR TEMP Select Gamma mode: Select the gamma mode with the NORMAL CINEMA DYNAMIC Select Color Temperature: Select the color temperature mode with the LOW NORMAL / button.

/ button. ENGLISH-14 OPERATIONS (continued) SETUP INPUT IMAGE OPT. 16 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 and buttons. VOLUME MENU COLOR LANGUAGE AUTO OFF SYNC ON G WHISPER Table 7. Options Menu Item VOLUME MENU COLOR LANGUAGE Reduce Description Increase // button. button. Select Menu Background Color: Select with the Select Menu Display Language: Select with the AUTO OFF Set AUTO OFF: Set 1~99 minutes with the / button. @@Clear AUTO OFF: Select STOP (0 min.

) with the button. When STOP is selected the system does not enter the standby mode even if no signal is received. SYNC ON G Valid: Select TURN ON with the button. SYNC ON G Invalid: Select TURN OFF with the button. SYNC ON G · 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 / Crear 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. ENGLISH-15 ENGLISH Options Menu OPERATIONS (continued) 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. VOLUME BLANK MIRROR START UP MENU COLOR LANGUAGE AUTO OFF SYNC ON G WHISPER 16 Table 8. No Signal Menu Item Reduce VOLUME Description 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. Select Blank Screen Color: Select the color with the BLANK MIRROR / button. · When the blank mode is set with BLANK ON, by absence of a signal, or by input of a non-standard signal, the image is cleared and the complete screen is displayed in the selected color. Select Mirror Status: Select the mirror status with the / button. button. @@Select Menu Display Language: Select the language with the / button.

Set AUTO OFF: Set 1~99 minutes with the / button. @@Clear AUTO OFF: Select the STOP (0 min.) with the button. @@SYNC ON G Valid: Select the TURN ON with the button. @@@@When the WHISPER is selected, the WHISPER mode is active. @@@@The lamp may explode if handled at high temperatures. @@@@ · Also, do not use old lamp. This could also cause explosion of the lamp. @@If unsure contact your local service center. @@@@ @@@@See Table 9 of P.

20 and Table 10 of P.21. @@@@2. Prepare a new lamp. 3.

@@4. @@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 I 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. ENGLISH-18 MAINTENANCE (continued) 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. CAUTION · Switch power OFF and remove the power cord from the power outlet before beginning maintenance work. Please read the separate "SAFETY INSTRUCTIONS" 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.



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the power supply is switched OFF automatically to prevent the temperature rising inside the projector. 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 INSTRUCTIONS" thoroughly to ensure that maintenance is performed correctly. · Do not use detergents or chemicals other than those noted above (e.g. benzene or thinners).

· Do not use cleaning sprays. · Do not rub with hard materials, or tap the equipment. ENGLISH-19 ENGLISH Air Filter 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 Message CHANGE THE LAMP AFTER REPLACING LAMP, RESET THE LAMP TIME. (\*1) CHANGE THE LAMP AFTER REPLACING LAMP, RESET THE LAMP TIME. THE POWER WILL TURN OFF AFTER \*\* hr. (\*1) CHANGE THE LAMP AFTER REPLACING LAMP, RESET THE LAMP TIME. THE POWER WILL TURN OFF AFTER 0 hr. NO INPUT IS DETECTED ON \*\*\* Contents 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. 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. 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.

No input signal found. Check signal input connections and signal sources. 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. SYNC IS OUT OF RANGE ON \*\*\* 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. ENGLISH-20 TROUBLESHOOTING (continued) The POWER indicator, LAMP indicator, and TEMP indicator are lit and blank as follows. Take the appropriate measures. Table 10.

Indicators Message POWER LAMP TEMP indicator indicator indicator Lights orange Blinks green Lights green Blinks orange Blinks red Contents Turns off Turns off The Standby mode has been set. Turns off Turns off Warming up. Please wait. Turns off Turns off ON. Normal operation possible. Turns off Turns off Cooling. Please wait. Cooling. Please wait. The error is found.

Take the appropriate measures when the POWER indicator ceases blinking 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 Turns off 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. - Blinks /Lights red Lights red Blinks /Lights red Blinks red Turns off 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. 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. The interior of the equipment is too hot. Switch power OFF, and wait for 20 minutes until the equipment Blinks cools.

Check whether the ventilation openings are blocked, Turns off Lights red whether the air filter is dirty, or whether the ambient temperature /Lights red exceeds 35 °C. Then switch power ON again. Contact your dealer if the same problem occurs again. The interior of the equipment is too cool. Lights Blinks Blinks Check whether the ambient temperature is below 0°C.

Contact your dealer if the same problem occurs when the ambient temperature is green red red 0~35°C. Blinks Turns off /Lights red Blinks red 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. ENGLISH-21 ENGLISH Indicators Message 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 Symptom The power is not turned on. Possible cause The main power switch is not turned on. The power cord is disconnected. The input is not correctly set.

Remedy Turn on the main power switch. Plug the power cord into an AC power outlet. Use the projector or remote control transmitter to set. Connect correctly. Connect correctly. Press VOLUME on the remote control or display the menu screen and adjust the volume. Press the MUTE Connect correctly. button. Page 8,9 10 7,8 7,8 11,15 11 7,8 12 9 12 12 17 15 9,12 No video or audio. No signal input.

The projector is not correctly connected. Video is present but The volume is set to minimum. no audio. Mute is turned on. The projector is not correctly connected.

Audio is present but The brightness adjustment knob Select BRIGHT with the MENU button and the press the button. is rotated fully clockwise. no video. The lens cap is still attached. Colors are pale and Color density and color color matching is matching are not correctly poor. adjusted. Remove the lens cap. Adjust the video. Brightness and contrast are not Adjust the video. correctly adjusted. Images are dark. The lamp is nearing the end of its service life. WHISPER mode is set. Video is blurred. Focus or H PHASE is out of adjustment.

Replace with a new lamp. Clear WHISPER mode. Adjust the focus or H PHASE. ENGLISH-22 SPECIFICATIONS Table 12. Specifications Item Product name Liquid crystal panel Lens Lamp Speaker Power supply Power consumption Temperature range Size Weight (mass) 1 RGB signal input RGB IN 2 AUDIO IN VIDEO IN 1 2 Panel size Drive system Pixels Liquid crystal projector 2.



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3 cm (0.9 type) TFT active matrix 480,000 pixels (800 horizontal x 600 vertical) Zoom lens F=1.7 ~ 2.1 f=36.8 ~ 47.

8 mm 200 W UHB 1.0W+1.0W (stereo) AC100 ~ 120V, 3.3A / AC220 ~ 240V, 1.4A 310W 0 ~ 35°C (Operating) 298 (W) x 94.

6 (H) x 228 (D) mm 3.25 kg Video: Analog 0.7Vp-p, 75 terminator (positive) H/V. sync.: TTL level (positive/negative) Composite sync.

TTL level D-sub 15-pin shrink jack Specification 200mVrms, 50 k (max. 3.0Vp-p) Stereo mini jack 1.0Vp-p, 75 terminator RCA jack Brightness signal: 1.0Vp-p, 75 terminator Color signal: 0.286Vp-p (NTSC, burst signal), 75 terminator 0.300Vp-p (PAL/SECAM, burst signal), 75 terminator Mini DIN 4-pin jack S-VIDEO IN Video signal input Y COMPONENT CB/CR 0.7 Vp-p, 75 Terminator (Positive) VIDEO 1.0 Vp-p, 75 Terminator (Positive) PB/PR 0.7 Vp-p, 75 Terminator (Positive) L R AUDIO IN 200mVrms, 50 k (max.

3.0Vp-p) RCA jack Video: Analog 0.7Vp-p, 75 output impedance (positive) H/V. sync.: TTL level (positive/negative) Composite sync.: TTL level D-sub 15-pin shrink jack 200mVrms, output impedance 1 k (max. 3.0Vp-p) Stereo mini jack Signal output RGB OUT AUDIO OUT Control functions CONTROL USB D-sub 15-pin shrink plug USB jack (B type) Lamp: DT00431 Air Filter: MU01421 \* For others, consult your dealer. Optional Parts NOTE · This specifications are subject to change without notice. ENGLISH-23 ENGLISH 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. ENGLISH-24 TECHNICAL Dimension Diagram 298 76 54 241.5 228 94.

6 76.5 Unit : mm Signal Connector Pin Assignment 1. D-sub 15-pin Shrink Connector (RGB IN 1/RGB IN 2/RGB OUT) Pin No 1 2 3 4 5 6 7 8 Signal Video input Red Video input Green Video input Blue Ground Ground Red Ground Green Ground Blue Pin No 9 10 11 12 13 14 Ground RGB IN 1: SDA(DDC) RGB IN 2: RGB OUT: H. sync./ Composite sync.

Vertical sync Signal 15 Pin No Signal RGB IN 1: SCL(DDC) RGB IN 2: RGB OUT: - '# ' & % \$ # " ! 2. Mini Din 4-pin Connector (S-VIDEO) Pin No 1 2 3 4 Signal Color: 0.286Vp-p (NTSC, burst signal), 75 terminator 0.300Vp-p (PAL/SECAM, burst signal), 75 terminator Brightness: 1.0Vp-p, 75 terminator Ground Ground TECHNICAL - 1 TECHNICAL TECHNICAL (continued) Example of computer signal Resolution HxV 640 x 350 640 x 400 720 x 400 640 x 480 640 x 480 640 x 480 640 x 480 640 x 480 800 x 600 800 x 600 800 x 600 800 x 600 800 x 600 832 x 624 1024 x 768 1024 x 768 1024 x 768 1152 x 864 1280 x 960 1280 x 1024 1280 x 1024 fH (kHz) 37.9 37.9 37.9 31.5 35.0 37.

9 37.5 43.3 35.2 37.9 48.1 46.9 53.7 49.7 48.4 56.

5 60.0 68.7 67.5 60.0 64.

0 80.0 fV (Hz) 85.1 85.1 85.0 59.

9 66.7 72.8 75.0 85.0 56.3 60.3 72.2 75.0 85.1 74.

5 60.0 70.1 75.0 85.0 75.0 60.0 60.0 75.0 VESA Rating VESA VESA VESA VESA Signal mode VGA-1 VGA-2 TEXT VGA (60Hz) Mac 13" mode VGA (72Hz) VGA (75Hz) VGA (85Hz) SVGA (56Hz) SVGA (60Hz) SVGA (72Hz) SVGA (75Hz) SVGA (85Hz) Mac 16" mode XGA (60Hz) XGA (70Hz) XGA (75Hz) XGA (85Hz) SXGA (75Hz) SXGA (60Hz) SXGA (60Hz) SXGA (75Hz) Zoom out Zoom out Zoom out Zoom out Zoom out Zoom out Zoom out Zoom out Zoom out Zoom out Display mode Zoom in Zoom in Zoom in Zoom in Zoom in Zoom in Zoom in Zoom in NOTE · Some computers may have multiple display screen modes. Use of some of these modes will not be possible with this projector. · Be sure to check jack type, signal level, timing and resolution before connecting this projector to a computer. · Depending on the input signal, full-size display may not be possible in some cases. Refer to the number of display pixels above. · The image may not be displayed correctly when the input sync. signal

is "Composite Sync. " or "Sync. on G". TECHNICAL - 2 TECHNICAL (continued) Initial set signals The following signals are used for the initial settings. The signal timing of some computer models may be different. In such case, refer to adjust the V.

POSIT and H.POSIT of the menu. Back porch b DATA HSYNC Front porch d Display interval c DATA VSYNC Back porch b Front porch d Display interval c

Sync a Sync a Horizontal signal timing (µs) a 2.0 2.0 2.0 3.8 2.1 1.3 2.0 1.

6 2.0 3.2 2.4 1.6 1.1 1.1 2.1 1.8 1.2 1.

0 1.2 1.0 1.0 1.1 b 3.

0 3.0 3.0 1.9 3.2 3.

8 3.8 2.2 3.6 2.2 1.3 3.2 2.7 3.9 2.5 1.

9 2.2 2.2 2.4 2.9 2.3 1.8 c 20.3 20.3 20.3 25.

4 21.2 20.3 20.3 17.8 22.

2 20.0 16.0 16.2 14.2 14.

5 15.8 13.7 13.0 10.8 10.7 11.9 11.9 9.5 d 1.0 1.

0 1.0 0.6 2.1 1.0 0.5 1.6 0.7 1.0 1.1 0.

3 0.6 0.6 0.4 0.3 0.

2 0.5 0.6 0.9 0.4 0.

1 Computer / Signal VGA-1 (85Hz) VGA-2 (85Hz) TEXT VGA (60Hz) Mac 13" mode VGA (72Hz) VGA (75Hz) VGA (85Hz) SVGA (56Hz) SVGA (60Hz) SVGA (72Hz) SVGA (75Hz) SVGA (85Hz) Mac 16" mode XGA (60Hz) XGA (70Hz) XGA (75Hz) XGA (85Hz) 1152x864 (75Hz) 1280x960 (60Hz) 1280x1024 (60Hz) 1280x1024 (75Hz) Vertical signal timing (lines) a 3 3 3 2 3 3 3 2 4 6 3 3 3 6 3 3 3 3 3 3 3 3 3 3 b 60 41 42 33 39 28 16 25 22 23 23 21 27 39 29 29 28 36 32 36 38 38 c 350 400 480 480 480 480 480 480 600 600 600 600 600 624 768 768 768 768 864 960 1024 1024 d 32 1 1 10 3 9 1 1 1 1 37 1 1 1 3 3 1 1 1 1 1

1 Computer / Signal VGA-1 (85Hz) VGA-2 (85Hz) TEXT VGA (60Hz) Mac 13" mode VGA (72Hz) VGA (75Hz) VGA (85Hz) SVGA (56Hz) SVGA (60Hz) SVGA (72Hz) SVGA (75Hz) SVGA (85Hz) Mac 16" mode XGA (60Hz) XGA (70Hz) XGA (75Hz) XGA (85Hz) 1152x864 (75Hz) 1280x960 (60Hz) 1280x1024 (60Hz) 1280x1024 (75Hz) TECHNICAL - 3 TECHNICAL TECHNICAL (continued) Connection to the Mouse Control 1. PS/2, ADB or Serial Mouse (1) Turn off the projector and computer, and connect the two units with the appropriate cable. For PS/2 mouse control (for IBM and compatible), use the enclosed mouse cable. For others, consult your dealer. (2) Disconnect the USB cable from the projector if it is connected. Then turn on the projector. (3) Turn on the computer. (4) Start the mouse function. If the mouse has not been started, reboot the computer (soft reboot or reboot buttons). Refer to the descriptions of "DISC PAD" and "MOUSE/RIGHT button" of page 4.

2. USB Mouse (1) Connect the projector and computer with a suitable commercially available USB cable. Consult your dealer to get the cable, if you need.

*(2) Start the mouse function. Refer to the descriptions of "DISC PAD" and "MOUSE/RIGHT button" of page 4. NOTE · Before connecting, read the instruction manuals of the devices to be connected. · In the case of notebook type computers with an internal pointing device, the mouse control function will not work unless the internal pointing device is disabled. In such case, disable the internal pointing device and change the BIOS setting to select an external mouse before the operations described in (1) to (4) above.*



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