

ELMO Training

Visual Presenter HV-5000XG

Objectives

- Discuss the functionality of ELMO options.
- Practice using the ELMO features.
- Brainstorm ways to integrate the ELMO into your classroom instruction.

Introduction

The Document Stand Camera is an overhead projector with a video camera mounted at the top of the unit. It is used to display any printed material, slides, negatives, or any 3-D object that can fit on the base.

The unit comes equipped with both overhead lights and base lighting. Both color and black/white images can be shown. Preset Zoom and Focus controls allow the presenter to make adjustments to the image being presented.

The Elmo projects overheads and transparencies to both the near and far sites. It contains adjustable camera, which allows the instructor to adjust the size of the document displayed.

Essential Information

The document camera is sometimes referred to as overhead camera, visual presenter, or Elmo presenter. All of these misnomers equate to a tool that allows the presenter to project printed materials, objects, and transparencies

Whiteboard

- When using the overhead camera as a writing surface, you will need to bring the paper or transparencies. NEVER use a permanent marker when writing on an overhead camera. Even if you're using paper to cover the surface, bleed through markings with a permanent marker will ruin the base of a visual presenter.
- When using the overhead presenter as a whiteboard, use a dark and thick marker on off-white or blue paper.

Printed Materials

- Overheads should be formatted horizontally.
- Fonts can be no smaller than 18 point. Anything smaller than this will be extremely difficult to see.
- Sans-Serif fonts work best. Helvetica and Geneva are two most popular.

- Avoid the colors red and orange.
- Graphs should be kept simple. Break complicated graphs into several individual examples. Using colors to identify differences help out as well.

Objects

- If objects have sharp or abrasive surfaces, it is courtesy to put down a cloth or towel so not to scratch the base of the ELMO presenter.

Photographs

- Both color and black and white photographs work well on visual presenters.
- Horizontal layout is most conducive for visual presenters but the use of ZOOM IN / ZOOM OUT will allow for details to be pointed out in vertically formatted photos.

Books and Magazines

- Books and magazines translate well into presentation camera. Use the ZOOM IN / ZOOM OUT allows sharper images.

Overhead Transparencies

- Overhead transparencies are projected much like they would be with the conventional overhead projectors.

A complete PDF and other resources can be found at our website:
www.pc.maricopa.edu/cc

Citation:

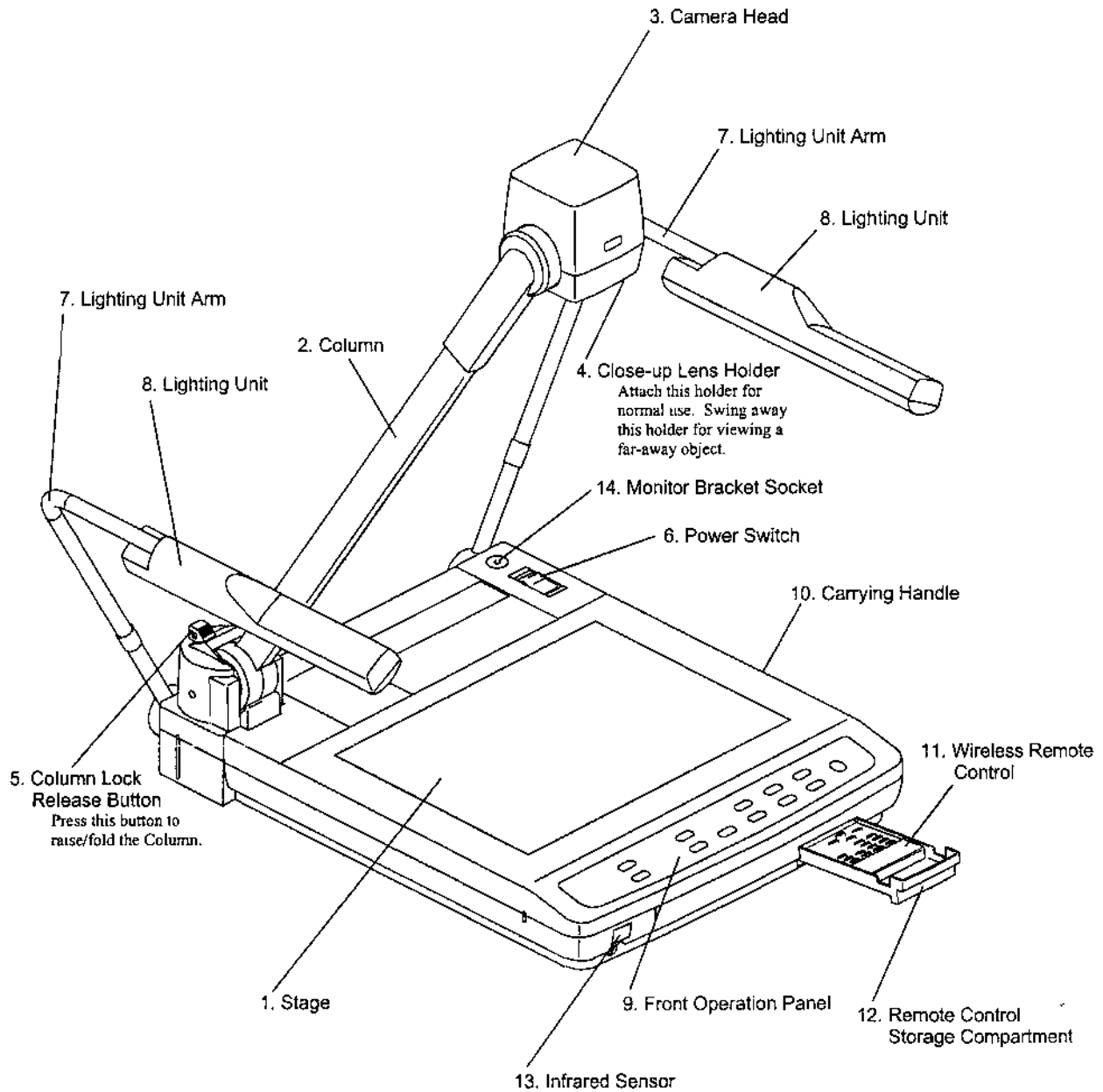
http://www.public-health.uiowa.edu/academics/distance_ed/resources/overheads.html

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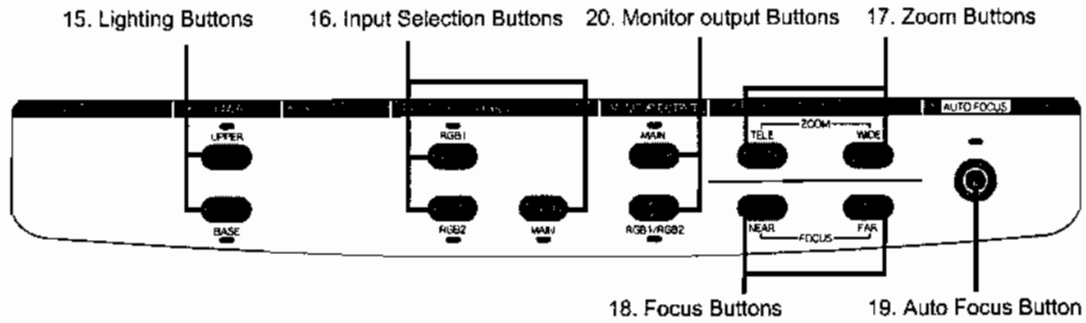
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1. PART NAMES AND FUNCTIONS

○ Appearance



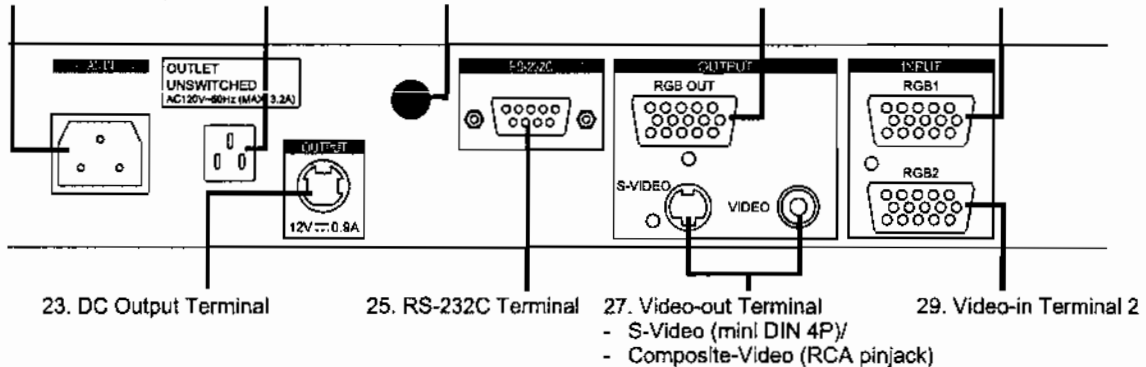
○ Front Operation Panel



| | Part Name | Function | Reference Page |
|----|-------------------------|--|--------------------|
| 15 | Lighting Buttons | To turn ON/OFF the lighting unit. | P.19 |
| 16 | Input Selection Buttons | To change the input line. | P.19 |
| 17 | Zoom Buttons | To change the image size. | P.22 |
| 18 | Focus Buttons | To adjust focus (powered). | P.23, P.24 |
| 19 | Auto Focus Button | To focus automatically. This is of one-shot auto focus system (FOCUSFREE). | P.23 |
| 20 | Monitor output Buttons | To select the signal to be output to the NTSC/PAL monitor. To change the Monitor output mode (NTSC/PAL) using the built-in camera button. | P.20, P.22 P.21 |

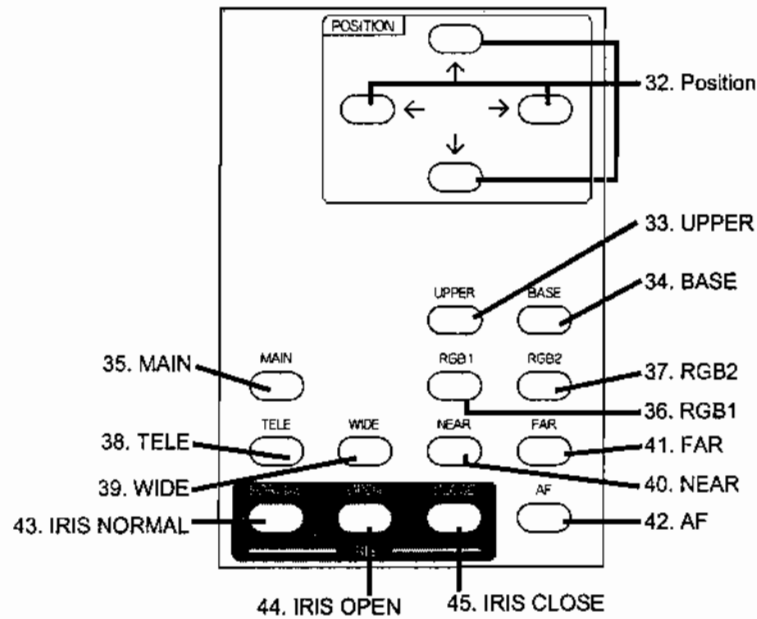
○ Rear Panel

21. Power Cord Receptacle 22. AC Outlet 24. Infrared Sensor 26. Analog RGB Output Terminal 28. Video-in Terminal 1



| | Part Name | Function | Reference Page |
|----|---|---|----------------|
| 21 | Power Cord Receptacle [AC IN] | Connected to the power cord. | |
| 22 | AC Outlet | To supply power up to 400W (Not interlocked with the power switch). | |
| 23 | DC Output Terminal [OUTPUT] | To output 12VDC. The LCD Color Monitor (LM-5011N) or ELMO Desk-top Presenter (HD-80XG) can be connected with the supplied DC cable. Note: Do not connect any equipment other than LM-5011N and HD-80XG. | |
| 24 | Infrared Sensor | The light receiver of the wireless remote control. When operating the Presenter from behind, aim the wireless remote control at this light receiver. | P.11 |
| 25 | RS-232C Terminal [RS-232C] | To connect a PC with an RS-232C cable to control the Presenter from the PC. | P.25 |
| 26 | Analog RGB Output Terminal [OUTPUT · RGB OUT] | To connect RGB input equipment, such as an LCD Projector and a Multi-SYNC Monitor, to output the image. | |
| 27 | Video-out Terminal [OUTPUT · S-VIDEO/VIDEO] S-Video (mini DIN 4P) Composite-Video (RCA pinjack) | To connect a NTSC/PAL conformable monitor, such as a TV monitor and the LCD Color Monitor (LM-5011N), to output the image. | |
| 28 | Video-in Terminal 1 [INPUT · RGB1] | Video signal from this terminal is output when input selection is set at RGB1. | P.19 |
| 29 | Video-in Terminal 2 [INPUT · RGB2] | Video signal from this terminal is output when input selection is set at RGB2. | P.19 |

○ Wireless Remote Control



| | Button Name | Function | Reference Page |
|----|--------------------|---|----------------|
| 32 | POSITION | To adjust the screen position and image size of the video output. | P.22 |
| 33 | UPPER | To turn ON/OFF the upper lighting unit. | P.19 |
| 34 | BASE | To turn ON/OFF the base lighting unit. | P.19 |
| 35 | MAIN | To select the image from the built-in camera. | P.19 |
| 36 | RGB1 | To select the RGB1 image input. | P.19 |
| 37 | RGB2 | To select the RGB2 image input. | P.19 |
| 38 | TELE | To zoom in. | P.22 |
| 39 | WIDE | To zoom out. | P.22 |
| 40 | NEAR | To move the focus near. | P.23, P.24 |
| 41 | FAR | To move the focus far. | P.23, P.24 |
| 42 | AF | To focus automatically. | P.23 |
| 43 | IRIS NORMAL | To iris automatically. | P.24 |
| 44 | IRIS OPEN | To open the iris manually. | P.24 |
| 45 | IRIS CLOSE | To close the iris manually. | P.24 |

2. WIRELESS REMOTE CONTROL

Point the infrared emitting part of the wireless remote control unit at the infrared sensor of the Presenter, located at the front, and the rear panel, and press the button for the desired function.

The infrared sensor at the front can receive the infrared light if it comes from the wireless remote control within 7 meters at an angle of 30 degrees or less right and left. (5 degrees or less right and left for rear panel sensor.)

The sensitivity may be degraded when the Presenter is located under sunlight, or near inverter fluorescent lamps, or in any other unfavorable surroundings.

Depending on the conditions of fluorescent lamps, etc. the sensor may fail to receive the infrared light. In such a case, relocate the Presenter, or take other countermeasures.

○ Preparation

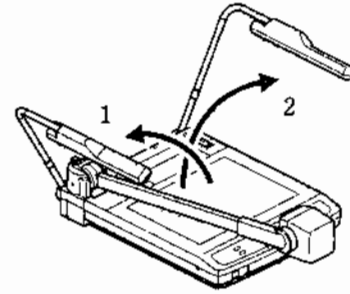
Remove the battery case cover by pressing downward on the [▼] mark part in the direction as indicated by the arrow. Install 2 pcs. of batteries (type R03, AAA) into the case in the direction as indicated there.

Notes:- Install the batteries with the right polarity.

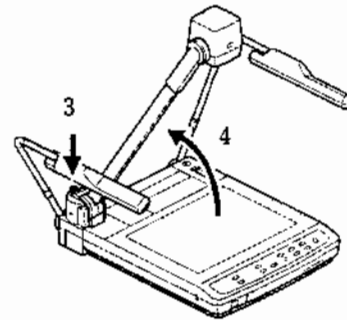
- Change the batteries once a year.
- The batteries supplied with the Presenter are only for use in initially confirming the operation of the Presenter. It is not guaranteed that these batteries can work effectively for the indicated period.

3. SETTING UP

- (1) Unfold the lighting unit arms fully until they come to the dead end. Unfold arm 1 and then arm 2 as illustrated.



- (2) Press the column lock release button, and raise the column until the column lock release button returns to the original position. Make sure that the column has been completely locked.



- (3) Rotate the camera head to direct the lens unit to the stage.
- (4) Plug the power cord into the power cord receptacle of the Presenter and the AC outlet.

4. OPERATION PROCEDURES

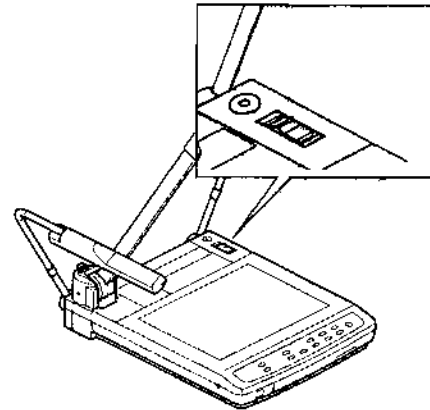
○ Simple steps for presenting printed material

(1) Turn ON the power switch.

Note: - Before turning ON the power switch, connection to the monitor should have been completed.

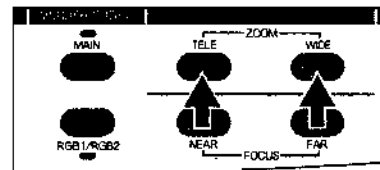
- The indication lamp (green LED) on the front operation panel shows the initial setting condition of each function of the Presenter.

- If the power switch is turned ON immediately after being turned OFF, the Presenter may not operate. For restarting, turn ON the power switch several seconds after turning OFF.

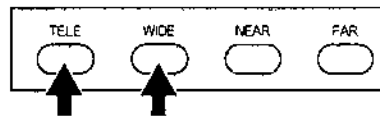


(2) Place the object on the stage. Adjust the image size according to the object size using the zoom buttons [TELE] and [WIDE] on the operation panel or wireless remote control, while watching the image on the monitor.

Front operation panel



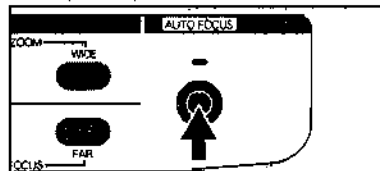
Wireless remote control



(3) Press the auto focus button [AF] on the front operation panel or remote control for focusing.

Note: The auto focus function works up to a height of approx. 10 cm above the stage surface.

Front operation panel

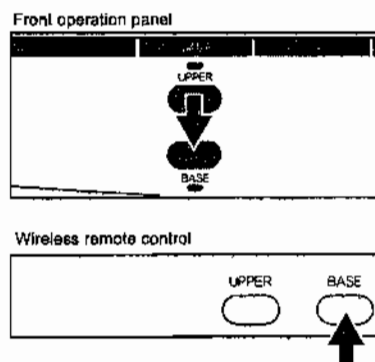


Wireless remote control

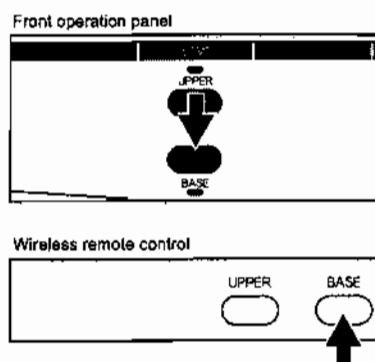


○ Simple steps for showing transparent material, such as overhead transparency

- (1) Press the base button **[BASE]** on the front operation panel or wireless remote control. The indicator of the base button **[BASE]** will blink, and the built-in baselight will light up.



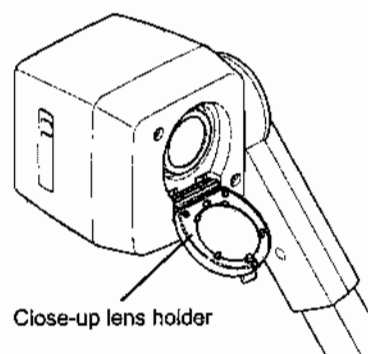
- (3) To turn OFF the baselight, press the base button **[BASE]** on the front operation panel or wireless remote control.



○ Using the main camera as a conventional video camera

Set the main camera head horizontally to shoot the objects, such as walls and distant views. To shoot distant objects, swing up the close-up lens holder.

Reference The focus can be achieved from 1.1m to ∞ .



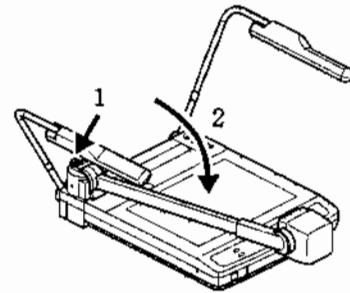
○ Storing the Presenter

Note: The Presenter can not be stored with the LCD monitor (optional) attached. Before storing, detach the LCD monitor (optional) and monitor bracket (optional), if connected.

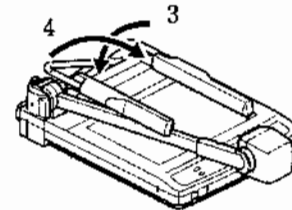
(1) Turn OFF the power switch, and unplug the power cord and the video cable.

(2) Press the column lock release button, and fold down the main column.

Note: The illustration shows the storage position of the column. Never apply excessive force to the column.



(3) Fold down the lighting unit arms 3 and 4. Be sure to fold down arm 3 first as per the illustration.



5. VARIOUS FUNCTIONS

○ Lighting

The upper lighting unit for presenting material such as printed matter and 3-D object, and the baselight for presenting transparent material, such as slide are built in the Presenter.

Depending on the material to be presented, press the button [UPPER] or [BASE] on the front operation panel or wireless remote control. The indication lamp will blink for a few seconds, and then the fluorescent lamp will light up.

To turn OFF the lamp, press the button for the respective lamp.

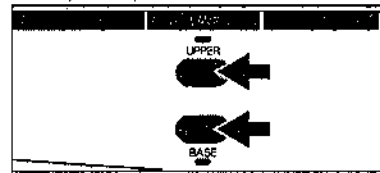
It has been so set before shipment that the lighting unit lights up when the power supply is turned ON.

Notes: - It is impossible to have the upper lighting unit and the baselight lit up together.

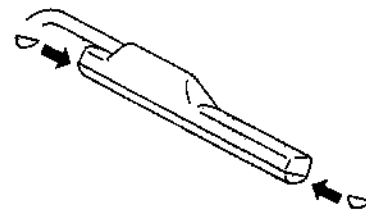
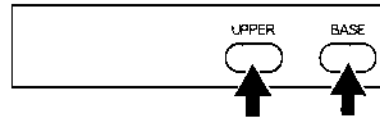
- When the lightness of the material surface is not sufficiently high or a 3-D object is presented, a sharp image with good color rendering can be obtained with the upper lighting unit.

- To reduce glare, attach enclosed stickers, as shown, to the outside ends, of toplights.

Front operation panel



Wireless remote control



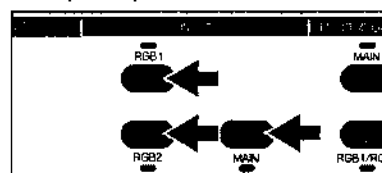
○ Input selection

The respective images from two different AV sources, such as PC and ELMO Presenter [HD-80XG], connected to Video-in Terminal 1 [INPUT] [RGB1] and Video-in Terminal 2 [INPUT] [RGB2] respectively, can be alternately presented on the Monitor by simply selecting the AV source by pressing the input selection button without changing cable connections.

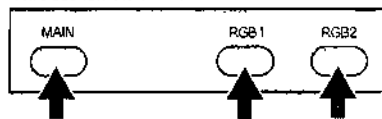
Press the input selection button [RGB1] / [RGB2] on the front operation panel or wireless remote control.

When the built-in camera button [MAIN] on the front operation panel or wireless remote control is pressed, the image by the built-in camera is resumed.

Front operation panel



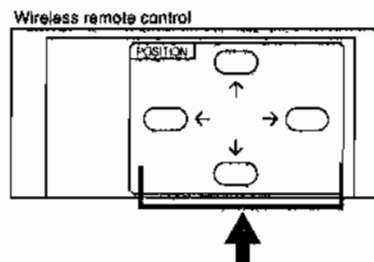
Wireless remote control



○ Position adjustment

To adjust the display position of the image outputted on the NTSC/PAL monitor.
Press the buttons **[POSITION]** ([↑], [↓], [←], [→]) to adjust the image to the proper position.

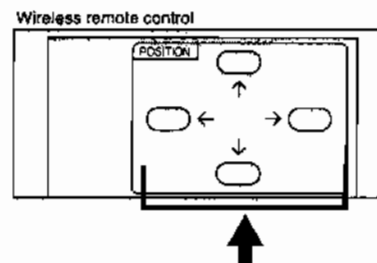
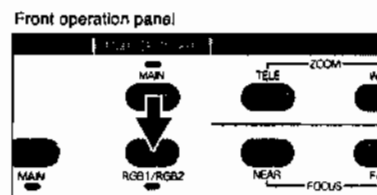
- Notes:**
- The adjusted position is memorized in the Presenter.
 - However, if the frequency of the signal to be inputted into the external input terminal [RGB1] or [RGB2], readjust the position.
 - The image from the built-in camera cannot be adjusted.



○ Image size adjustment

To adjust the display size of the image outputted on the NTSC/PAL monitor.
Press position buttons **[POSITION]** ([↑], [↓], [←], [→]) on the wireless remote control while holding down the monitor output buttons **[RGB1/RGB2]** on the front operation panel to adjust the display size of the image to the proper size.

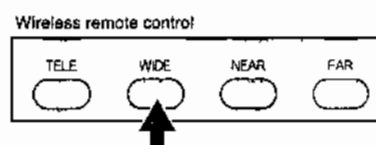
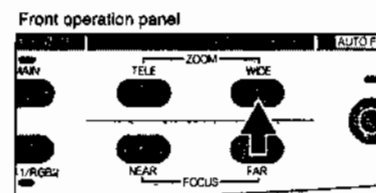
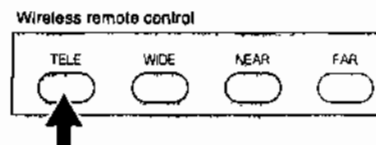
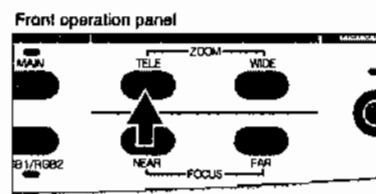
- Notes:**
- When the image size is adjusted, the image center may be displaced. If the image center is displaced, execute the position adjustment to correct the displacement of the image center.
 - The adjusted position is memorized in the Presenter.
 - However, if the frequency of the signal to be inputted into the external input terminal [RGB1] or [RGB2], readjust the position.
 - The image from the built-in camera cannot be adjusted.



○ Zoom

Press the zoom button **[TELE]** on the front operation panel or wireless remote control, and the image will gradually be enlarged.

Press the zoom button **[WIDE]** on the front operation panel or wireless remote control, and the image will be gradually reduced.

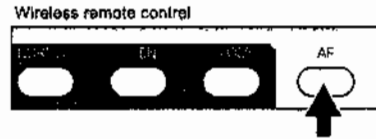
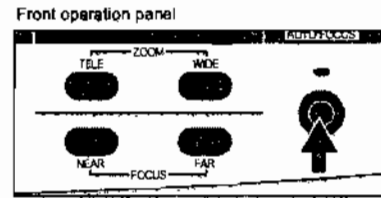


○ Focus

● Auto Focus

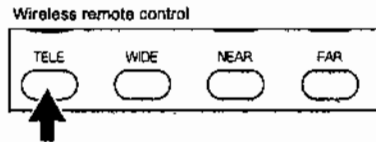
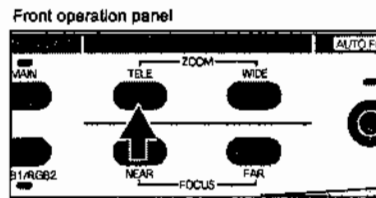
To operate Auto-Focus, press the auto focus button [AF] on the front operation panel or wireless remote control, and the Auto-Focus will be activated.

While the auto-focus is in operation, the indication lamp blinks until the object is brought into focus.



The Presenter features a one-push auto focus function. Once focusing is completed, the auto focus function is released, and the focused position maintains unchanged. (FOCUSFREE)

To obtain sharper image, zoom in on the object in the auto-focus mode while pressing the zoom button [TELE] on the front operation panel or wireless remote control.



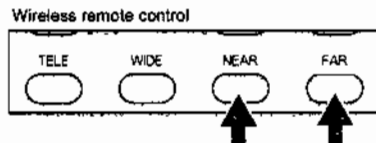
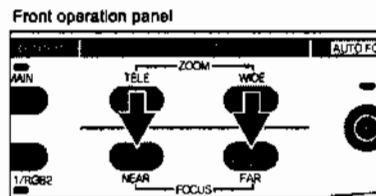
However, the objects listed below may not be brought into focus in the auto focus mode. In these cases, use the manual focus mode.

- Objects bearing little contrast
- Objects with fine repeated patterns, such as lateral stripes and cross stripes
- Objects glittering or reflecting strong light
- Objects with bright background, or excessive contrast
- Objects in a dark picture plane
- Objects located near and far away at the same time
- Objects in motion

If the focus button [NEAR] or [FAR] on the front operation panel or wireless remote control is pressed during the auto focus, the auto focus will be released.

Notes: - The auto focus functions up to approx. 10cm above the stage surface.

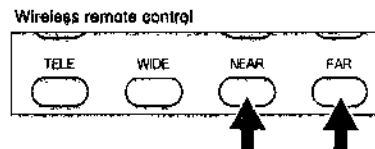
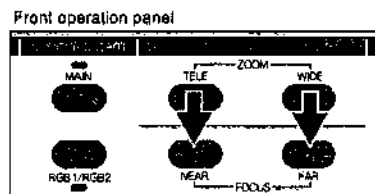
- If the camera head gets heavy shock by accident, there is a possibility of out of focus. In such a case, once turn the power OFF and then re-set to ON.
- It may take some time to bring the camera into focus in the auto focus mode. Roughly bring the camera into focus manually and then press the auto focus button [AF].



● Powered Manual Focus

To focus on any part of the material, such as 3-D material, press the focus button **[NEAR]** or **[FAR]** on the front operation panel or wireless remote control.

Note: The manual focus works up to approx. 10cm above the stage surface.



○ Iris

The iris can be manually adjusted.

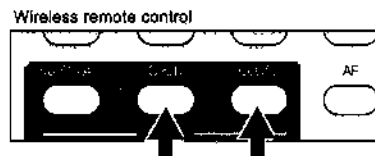
To open the iris, press the manual iris button **[OPEN]**.

To close the iris, press the manual iris button **[CLOSE]**.

In the manual mode, the iris is fixed and does not vary according to the change in the lightness of the object.

The initial setting is "auto iris."

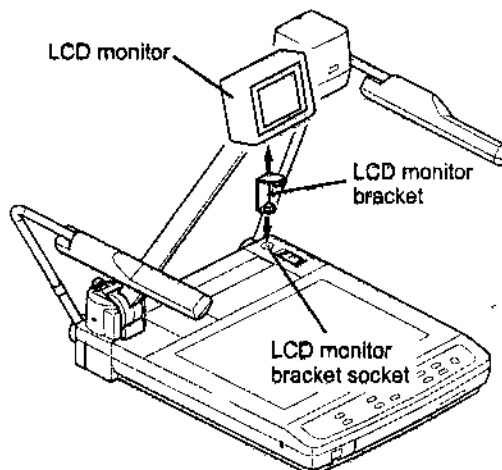
Note: If the screen looks dark, press the iris open button **[OPEN]** on the wireless remote control to adjust the brightness of the screen.



○ LCD monitor bracket socket

The LCD monitor bracket socket is used for attaching an LCD monitor (optional) with an LCD monitor bracket (optional).

For the connection method and cables, refer to the instruction manual of the LCD monitor.



○ Table of the communication commands

| Function | Command | Parameter | Data | Comments |
|--|---------|---|------|--|
| Auto Focus | AF | 0 | ■■■ | Command to execute the one-step auto focus. |
| Focus adjustment | FO | + (NEAR) - (FAR) 0 (STOP) | ■■■ | Command to adjust the focus. |
| Zoom adjustment | ZO | + (TELE) - (WIDE) 0 (STOP) | ■■■ | Command to adjust the Zoom. |
| Iris adjustment | IR | + (OPEN) - (CLOSE) 0 (STOP) 1 (AUTO) | ■■■ | Command to adjust the Iris. |
| Lighting selection | PL | 0 (OFF) 1 (BASE) 0 (UPPER) | ■■■ | Command to select the Lighting. |
| Input selection | AV | 0 (MAIN) 1 (RGB1) 2 (RGB2) | ■■■ | Command to select the Input. |
| Monitor output selection | MO | 0 (MAIN) 1 (RGB1) 2 (RGB2) | ■■■ | Command to switch the monitor output. |
| TV mode switching | TV | 0 (NTSC) 1 (PAL) | ■■■ | Command to switch the TV mode of the monitor output. |
| Monitor output screen position and size adjustment | PM | 0 (STOP) 1 (Position rightward move) 2 (Position leftward move) 3 (Position upward move) 4 (Position downward move) 5 (Horizontal size expansion) 6 (Horizontal size compression) 7 (Vertical size expansion) 8 (Vertical size compression) | ■■■ | Command to adjust the position and size of the monitor screen. |
| Local lockout | LL | 0 (OFF) 1 (ON) | ■■■ | Command to invalidate the switches on the front operation panel and wireless remote control. |
| Default | DF | 0 | ■■■ | Command to reset to the initialized mode. |
| Status request | QS | 0 2 | ■■■ | Command to inquire the status of the equipment. |
| ROM version | QR | 0 | ■■■ | Command to refer to the ROM version. |

Note: "■■■" in the data column means that SPACE [20H] should be transmitted twice.

7. TROUBLESHOOTING HINTS

| Symptom | Possible cause/countermeasure |
|---|---|
| No Images on TV monitor | <ul style="list-style-type: none"> · Cable is not properly connected to the video-in terminal of monitor. · The power cord is disconnected from the wall AC outlet. · The plug is disconnected from the power cord receptacle of the Presenter. · The power switch is not turned ON. · Zoom is set at TELE to display only white/black part of the material. · The switch is turned ON immediately after it is turned OFF. In this case, the Presenter may not start. Wait several seconds after turning OFF the power switch, and then turn ON the power switch. |
| Out of focus | <ul style="list-style-type: none"> · The object is too close to the lens. Check if it does not stand higher than 10cm above the stage surface. · Zoom is set at TELE after focusing at WIDE angle. Focus on the point of max. TELE. · In the auto-focus, focusing is difficult in some cases. |
| The monitor doesn't display Video-output image normally | <ul style="list-style-type: none"> · Try switching NTSC/PAL setting of the main unit. If you connect a PAL-set (monitor output setting) main unit to an NTSC-only monitor, you might not get normal images (with vertical/horizontal eye-soring lines, or no color, etc.). Switch the monitor output setting from PAL to NTSC, referring to "NTSC/PAL switching" on P.21. |
| The lamp is not quickly turned ON | <ul style="list-style-type: none"> · For protection purposes, the lamp is turned ON after preheating for 2 seconds. This is not a fault. |
| Image is too dark | <ul style="list-style-type: none"> · The ambient light is not sufficient. Press the upper lighting unit button [UPPER] to turn ON the upper lamp. |
| Moire pattern appears on the screen image | <ul style="list-style-type: none"> · This is caused by the interference fringe between the meshed pattern of the object and the CCD elements. This is normal. This may be reduced by changing the projecting range. · Vertical stripes may appear on the liquid crystal projector screen. This can be reduced by manually adjusting the dot clock frequency on the projector side. (Refer to P.13) |
| Brightness tone is off the setting | <ul style="list-style-type: none"> · This may be reduced by switching the gamma setting. |

If the trouble still remains after checking the above, consult your dealer or an authorized ELMO service center.