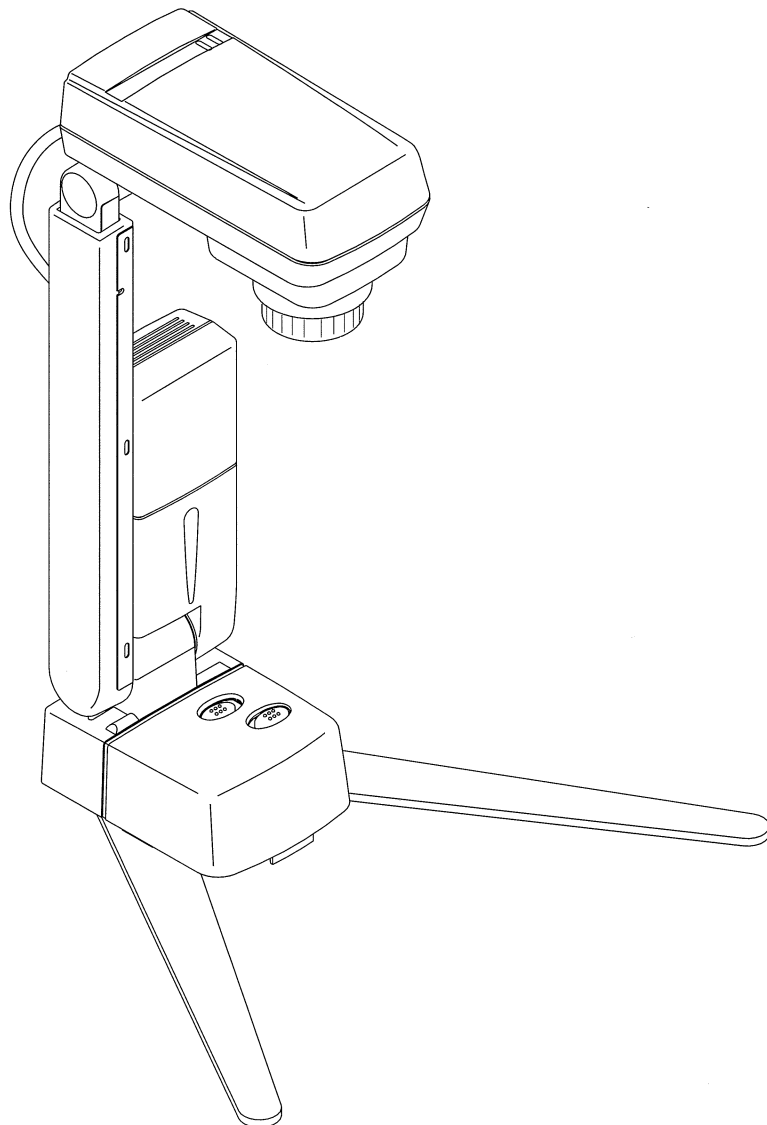


DESK-TOP PRESENTER

HD-80XG

INSTRUCTION MANUAL



IMPORTANT SAFEGUARDS

■ **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.

■ **Retain Instructions** – The safety and operating instructions should be retained for future reference.

■ **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.

■ **Follow Instructions** – All operating and use instructions should be followed.

■ **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

■ **Attachments** – Do not use attachments not recommended by the product manufacturer as they may cause hazards.

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

■ **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product.

■ **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

■ **Power Sources** – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

■ **Grounding or Polarization** – This product may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug (a plug having a third grounding pin). The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

■ **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

■ **Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

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

■ **A product and cart combination should be moved with care.**

Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



■ **Object and Liquid Entry** – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

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

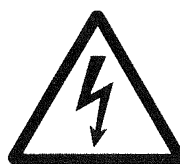
■ **Damage Requiring Service** – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance – this indicates a need for service.

■ **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

■ **Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

■ **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



SA 1965

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



SA 1966

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

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

USER-INSTALLER CAUTION: Your authority to operate this FCC verified equipment could be voided if you make changes or modifications not expressly approved by the party responsible for compliance to Part 15 of the FCC rules.

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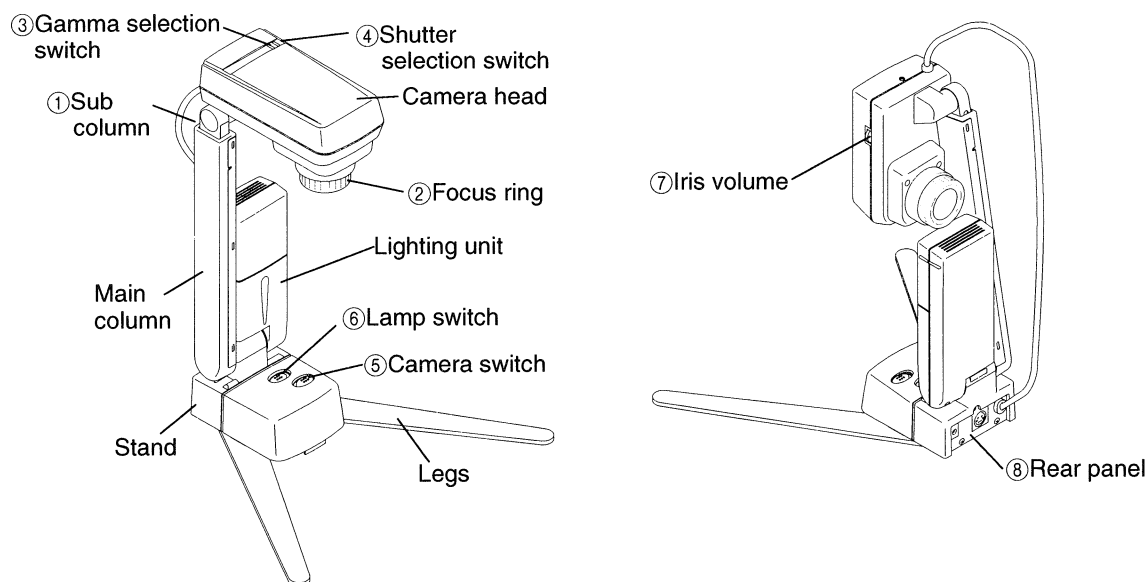
Thank you for purchasing the ELMO Desk-Top Presenter HD-80XG.

Carefully read this instruction manual before use to ensure proper operation. Please keep this manual in a convenient place for quick reference.

Handling Precautions

- Be sure to use the provided AC adapter.
- Cut off power supply and unplug the power cord when a thunder storm occurs during use.
- Disassembling or modifying the Presenter may result in electrical shock and machine malfunction. We are not responsible for any deterioration or failure of the Presenter caused by disassembling or modifying by the user.
- Connecting or disconnecting the power cord should be carried out while firmly holding the plug.
- If the Presenter is used for purposes other than specified, we cannot guarantee its performance, service life, or safety.
- Do not expose the Presenter to direct sunlight or leave it in close proximity to a heater. Doing so may cause discoloration, deformation, or mechanical problems.
- Set the Presenter in a place free from excessive humidity and dust, sea air, and strong vibration.
Use the Presenter in the following conditions:
 - Temperature: 0°C ~ 40°C (32°F ~104°F)
 - Humidity: 30% ~ 85% (No condensation allowed)
- Use only a soft, dry cloth for cleaning. Using benzine or thinner for cleaning may damage the coating or resin.
- Do not point the camera lens directly at the sun. Doing so may damage the camera.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

1 Part Names and Functions



	Name	Function
①	Sub column	Extends up and down to adjust the image size.
②	Focus ring	Turn this to adjust the focus.
③	Gamma selection switch	Switches the gamma settings. (See the MEMO.)
④	Shutter selection switch	Sets the shutter speed. (See the MEMO.)
⑤	Camera switch	Turns the camera on/off.
⑥	Lamp switch	Turns the lamp on/off. (See the MEMO.) (with the lamp on, the camera automatically changes to sens-up mode.)
⑦	Iris volume	If the image of the material to be viewed is too dark or too bright, turn this to adjust the brightness. (See the MEMO.)
⑧	Rear panel	To connect the cables.



MEMO

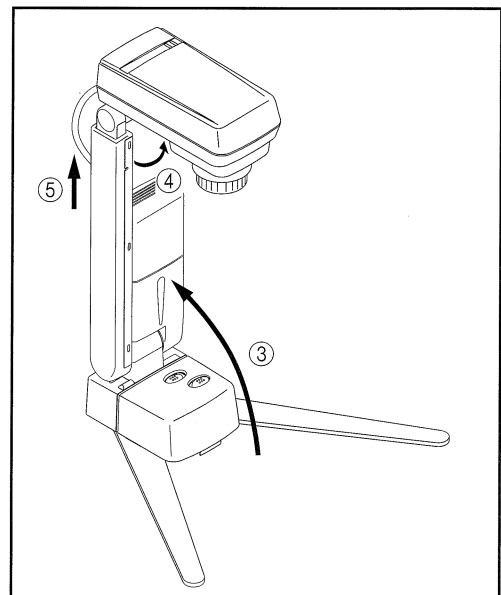
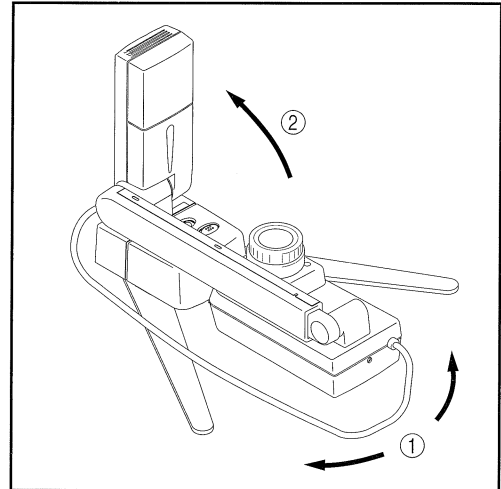
- It is recommended that when turning ON the unit, the Iris volume is set to the center click position.
- Gamma selection is used for adjusting the luminance shade with the device to connect RGB output to. Generally, it is recommended to use ON when connecting to the CRT monitor; use OFF when connecting to the LCD projector. The luminance shade may not match depending on the type of projector. Use ON in such a case.
- In an area where power frequency is 50Hz, using the unit with the flicker correction switch set to [60] may cause flickering due to illumination of AC power discharge tube, such as a fluorescent or a mercury lamp.
Using the unit with the flicker correction switch set to [50] may reduce the flickering. This switch is factory-set to 60 Hz.
- The lighting unit is provided for auxiliary illumination under a darkened room. It also lessens a shadow cast by the camera head. Turning ON the lamp switch increases the sensitivity automatically (sens-up mode.) At the sens-up mode, it creates images with more residual images if the subject is fast-moving. It may also increase the image noise.
- When the iris volume is fully opened or closed, the auto iris may not properly function. In such a case, adjust the iris volume.
- As auto iris generates some difference in level between the normal mode and the sens-up mode, adjust the iris volume accordingly depending on the usage mode.
- Do not photograph the outdoor (too bright subject) with the lamp switch left in the "ON" position, or the iris may take a hunting motion.

2 Setting Up

2-1 Setting up the HD-80XG

❶ As shown in the figures:

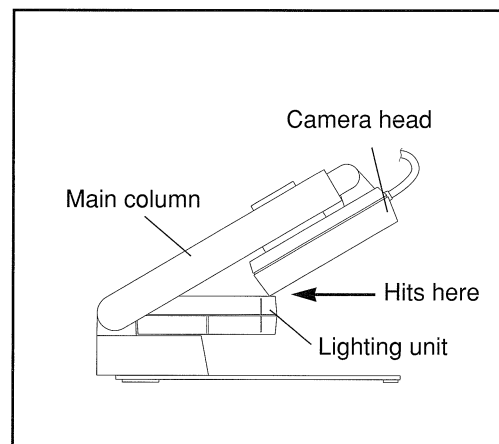
- ① Spread the folded legs.
- ② Raise the lighting unit.
- ③, ④ Raise the main column, and the camera head.
- ⑤ Extend the sub column.



CAUTION: Storage should be done in the reverse order of the setup. If, after folding the lighting unit, you fold the main column and try to fold the camera head, the lighting unit prevents you from doing so.

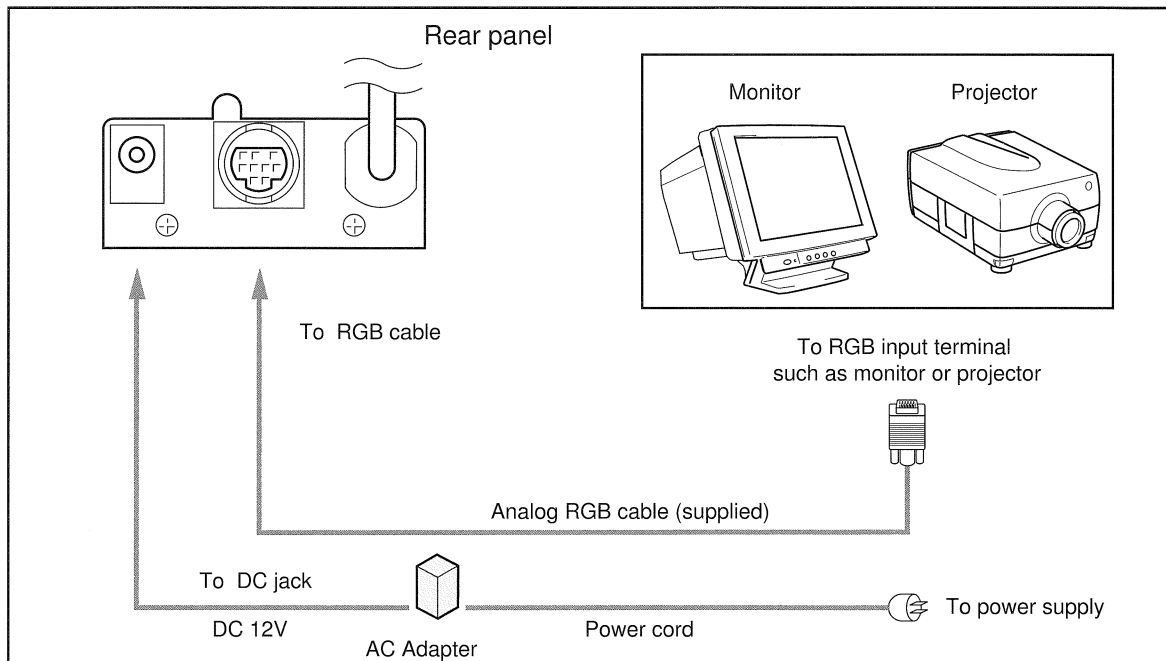
- ❷ Connect the AC adapter to the DC jack at the rear panel, and connect the power cord to the AC adapter and to the outlet.

CAUTION: When carrying the unit, do not hold by the cord or apply shock.



2-2 Connection to your projector or monitor

Connect each output terminal on the rear panel and the input terminals on the data projector or PC monitor with the cables.



CAUTION:

- Hold the plug of the connection cable when connecting.
- Turn OFF all devices before connecting.



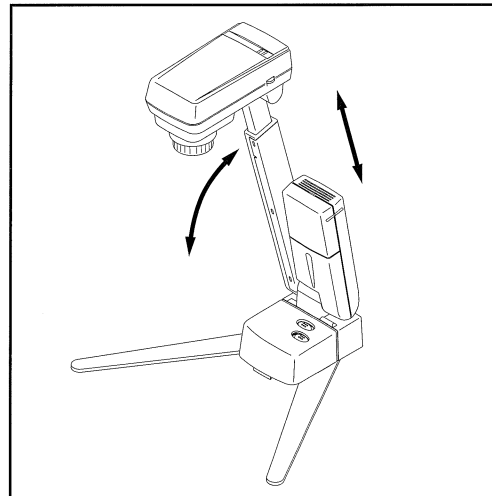
MEMO

- Video (NTSC/PAL, etc) monitor can not be used with the HD-80XG.
- It is recommended to use the monitor/projector of 1,024 x 768 resolutions or greater.

3 Operation Procedures

■ When viewing material

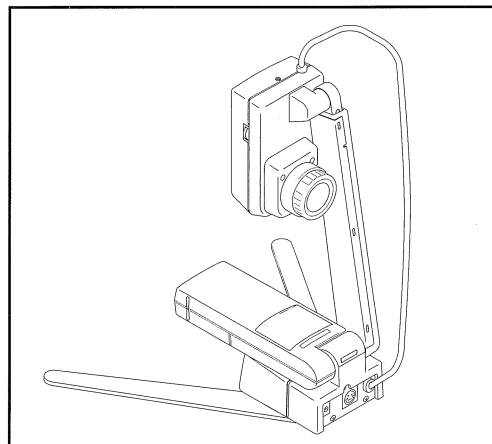
- ❶ Turn ON the camera switch. The HD-80XG is now ready for viewing with your projector or monitor.
- ❷ Place a material to be viewed (an object) under the camera lens, and adjust the distance or angle between the camera head and the object to determine the viewing range. Extending the sub column allows a wider range of viewing.
- ❸ If the image of the object is not properly bright, turn the iris volume to adjust the brightness. Turn the focus ring to adjust the focus.



■ When viewing object in upright position

As illustrated, tilt the camera head toward the main column side, and redirect the camera lens so that the back side can be projected.

CAUTION: Keep the cable away from the shooting area.



■ When using the lighting unit

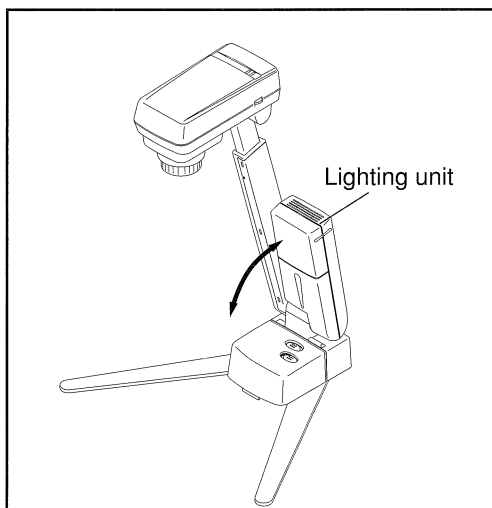
Turn ON the lamp switch, and then adjust the angle of the lighting unit.



- Even when the camera switch is OFF, the lamp can light up with the lamp switch.
- Turning ON the lamp switch increases the sensitivity automatically.

CAUTION:

- When turning the columns or the lighting unit, hold the stand by hand.
- Be careful not to have your finger or the like pinched between the main column or lighting unit and the stand.



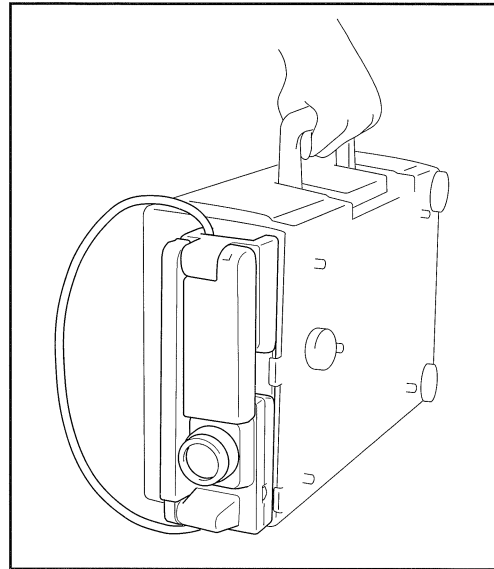
4 Connecting to ELMO LCD Data Projector

4-1 Storing with ELMO LCD data projector (EDP-6100 / EDP-3600)

You can store the unit at the rear section of ELMO LCD data projector (EDP-6100 / EDP-3600).

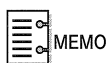
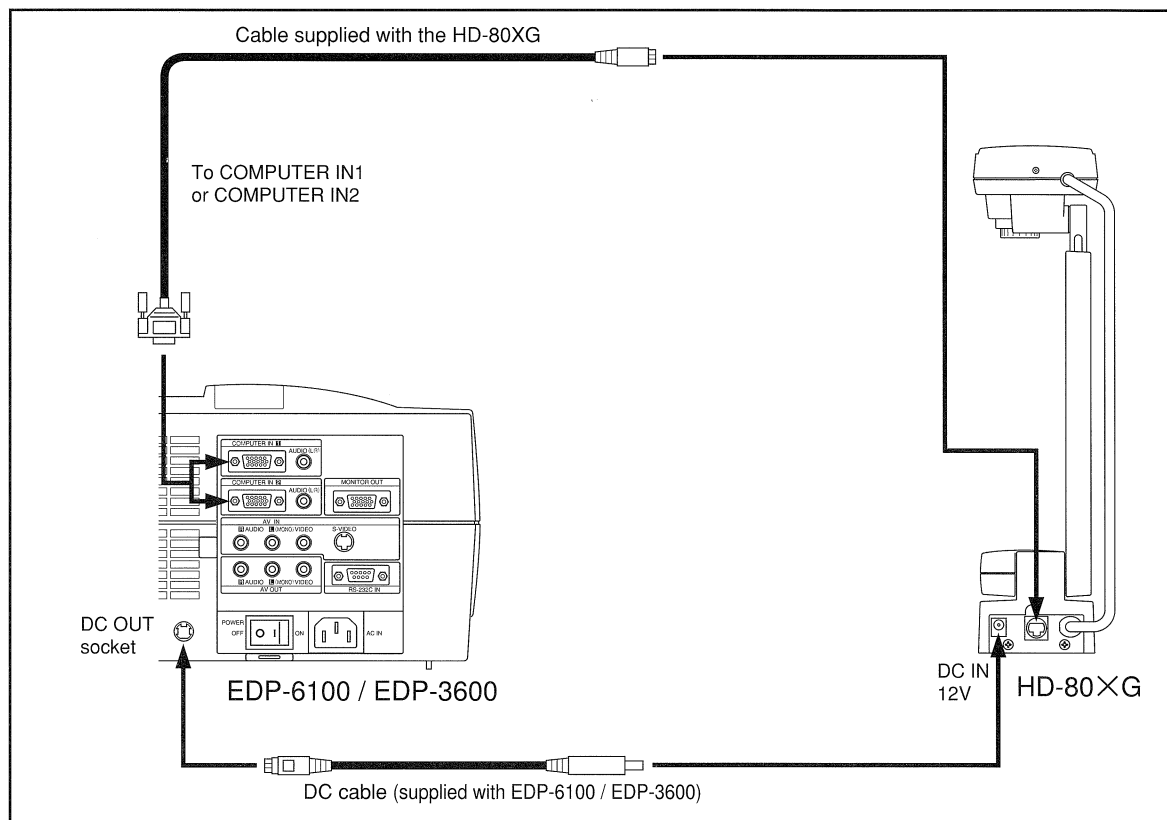
CAUTION:

- When carrying the unit, do not hold by the cord or apply shock.
- For more details, please contact your dealer. Please also see the instruction manual for ELMO EDP-6100 / EDP3600 data projector.



4-2 Connecting to ELMO LCD data projector (EDP-6100 / EDP-3600)

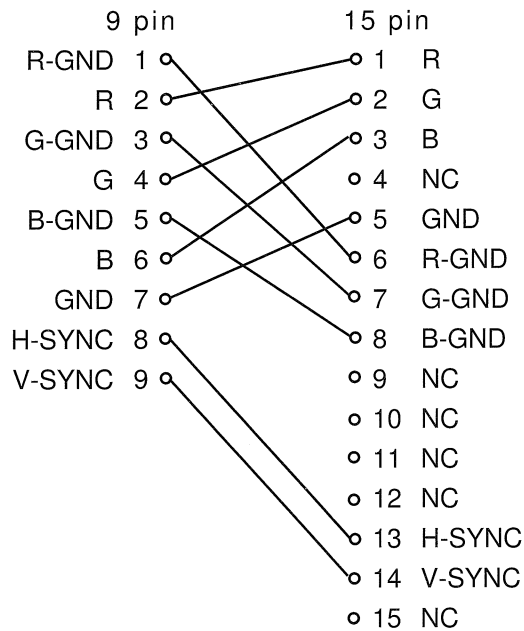
ELMO LCD data projector models EDP-6100 / EDP-3600 have the built-in power supply for the HD-80XG. Simply connect with the supplied cables as illustrated.



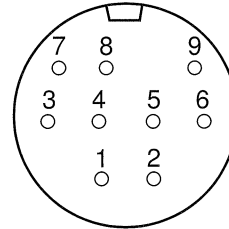
The supplied AC adapter is not used when using the DC cable (supplied with EDP-6100 / EDP-3600).

5 Connection Cable

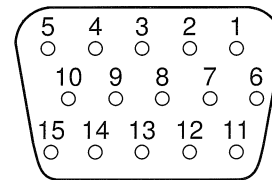
■ Connection Specifications of the Connector Cable



Cable seen from the soldering side



Mini DIN 9 pin (HD-80XG)



D-sub 15 pin shrink terminal

6 Troubleshooting

Problem	Check item
Image does not appear.	<ul style="list-style-type: none"> Is the analog RGB cable connected correctly? Is the AC adapter connected correctly? Are the AC adapter output plug and the DC jack firmly inserted? Is the DC cable firmly inserted? (when using EDP-6100 / EDP-3600). Isn't only the white portion (or black portion) of the material being viewed? Isn't the iris volume fully closed? Is camera switch turned on?
Striped pattern appears on image of printed material.	<ul style="list-style-type: none"> Is this due to interference between resolution of material and scanning lines? This problem may be solved by changing viewing range.
Image flickers.	<ul style="list-style-type: none"> Is the light from a 50 Hz discharge lamp in the image of monitor TV? Setting the flicker correction switch to [50] may decrease the level of flickering.
Luminance shade does not match.	<ul style="list-style-type: none"> Changing the gamma settings may reduce this problem.

If any problem still persists even after checking the above items, consult your nearest dealer or an authorized ELMO service center.

7 Specifications

■ General

Power supply:	12 VDC
Power consumption:	When lamp is ON: 6W
External dimensions:	71.5 mm (W) x 243 mm (D) x 73 mm (H) (2.8 x 9.6 x 2.9 in.) - When folded, without cable.
Mass/weight:	1.1 kg (2.4 lbs)

■ Optics

Lens:	F1.9, f = 4 mm
Scanning area:	Max. 360mm x 270mm (14.2 x 10.6 in.) (Scan 100%)
Limit of focus adjustment:	∞ ~ 50mm from front surface of lens
Iris:	Auto (with fine adjustment volume)

■ Camera

Image pick-up element:	Progressive square picture element 1/3" CCD
Pick-up speed:	15 frames/sec. 3.75 frames/sec at sens-up mode
Picture elements:	1077 (H) x 788 (V) (approx. 850,000 pixels)
Effective picture elements:	1024 (H) x 768 (V)
Resolution:	Horizontal: Over 600 lines (H), Vertical: Over 600 lines (V)
Sync. signal frequency:	Horizontal: 60.023kHz Vertical: 75.029Hz
Output signal:	Analog RGB 1024 x 768@75Hz VESA-compliant
White balance:	Fully automatic
Flicker correction:	Built-in (50/60 switch selection)
Sens-up:	Built-in (interlocked with the lamp switch)
Gamma selection:	Built-in (ON/OFF switch selection)
Output terminal:	Mini DIN 9 pin (analog RGB signal)
Lighting unit:	Built-in (white LED x 9)

■ Accessories

AC adapter 5Z0414 (rated input AC100-250V 50/60Hz)	x1
Analog RGB cable	x1
Power cord	x1
Instruction manual	x1

Design and specifications are subject to change without prior notice. Dimensions and weight are approximate.

Trademark Acknowledgements

VEGA is a registered trademark of Video Electronics Standards Association.

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