DC160
Digital Visualizer

User Manual

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Chapter 1 Precautions

Always follow these safety instructions when setting up and using the Digital Visualizer:

1. Please do not tilt the machine while using.
2. Do not place the Digital Visualizer on an unstable trolley, stand or table.
3. Do not use the Digital Visualizer near water or source of heat.
4. Use attachments only as recommended.
5. Use the type of power source indicated on the Digital Visualizer. If you are not sure of the type of power available, consult your dealer or local electricity company for advice.
6. Place the Digital Visualizer can be easily unplugged.
7. Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire.
   - Ensure the plug is free of dust before inserting it into a socket.
   - Ensure that the plug is inserted into the socket securely.
8. Do not overload wall sockets, extensions leads or multi-way plug boards as this may cause fire or electric shock.
9. Do not place the Digital Visualizer where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
10. Unplug the projector form the wall socket before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
11. Do not block the slots and openings in the projector case. They provide ventilation and prevent the Digital Visualizer from overheating. Do not place the Digital Visualizer on a sofa, rug or other soft surface or in a built-in installation unless proper ventilation is provided.
12. Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the Digital Visualizer.
13. Except as specifically instructed in this User's Manual, do not attempt to operate this product by yourself. Opening or removing covers may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
14. Unplug the Digital Visualizer during thunderstorms or if it is not going to be used for an extended period, do not place the Digital Visualizer or remote control on top of beat-emitting equipment or heated objects such as a car and etc.
15. In the following situations, unplug the Digital Visualizer from the wall outlet and refer servicing to licensed service personnel:
    - If the power cable or plug becomes damaged or frayed.

■ If liquid is spilled into it or the Digital Visualizer has been exposed to rain or water.

Safety Precautions

Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

This Digital Visualizer has a 2 wires AC line Plug. This is a safety feature to ensure that the plug will fit into the power outlet. Do not try to defeat this safety feature.
If the Digital Visualizer will not be used for an extended time, unplug it from the power outlet.

◦

<table>
<tr><td colspan="4"> CAUTION
RISK OF ELECTRIC SHOCK </td></tr>
<tr><td colspan="4">Caution: To reduce the risk of electric shock. Do not reUse cover (or back). No user-serviceable parts inside. Refer servicing to licensed service Personnel.</td></tr>
<tr><td> </td><td>This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.</td><td> </td><td>This symbol indicates that there are important operating and maintenance instructions in this User’s Manual with this unit.</td></tr>
</table>

FCC Warning

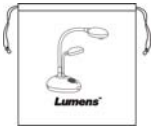
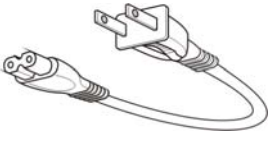
This Digital Visualizer has been certified to comply with the limits for a Class A computing device, pursuant to Subpart J of Part 15 of FCC Rules. These limits are designed to provide reasonable protection against a harmful interference when the equipment is operated in a commercial environment.

EN55022 (CE Radiation) Warning

This product is intended for use in a commercial, industrial, or educational environment. It is not intended for residential use.
This is a Class A product. In a domestic environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

Chapter 2 Package Content

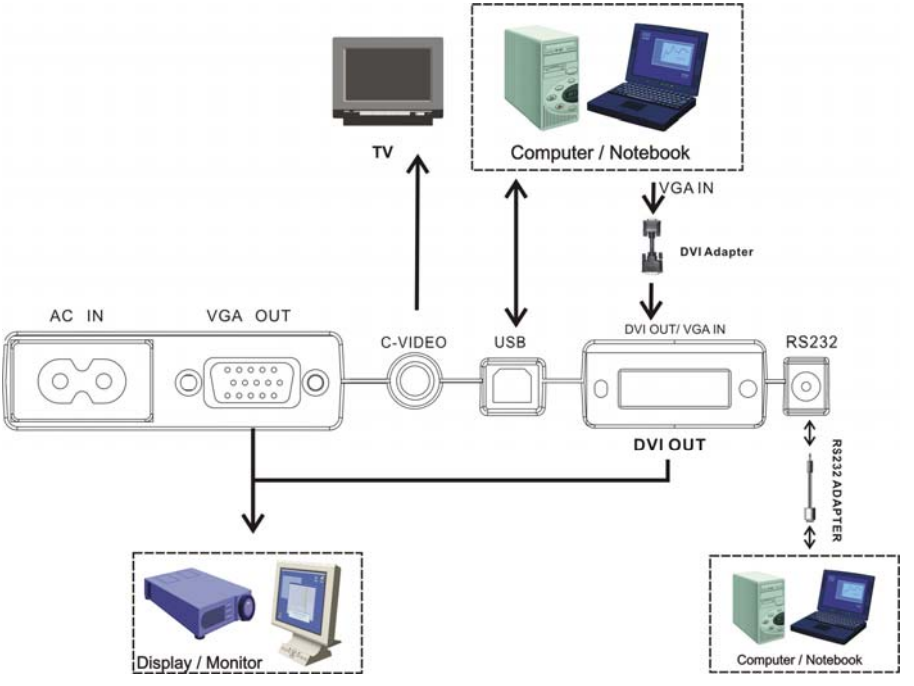
Please make sure the package comes with the following items when you unpack:
(Total 11 items)

DC160& Remote	Quick Start Guide	CD & User Manual
Soft Bag (Big)	**Soft Bag (Small)**	**Power Cord**
		
VGA Cable	**C-Video Cable**	**USB Cable**

Chapter 3 Product Overview

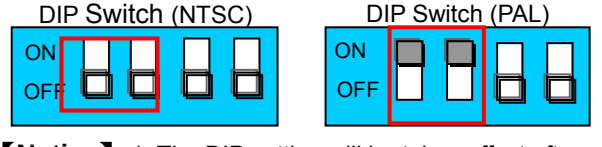
3.1 Product Introduction

3.2 I/O Connection



3.3 DIP Switch Setting

Factory default settings are as the following:



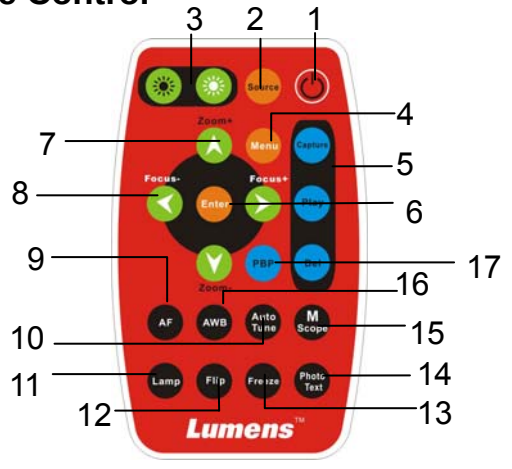
【Notice】 1. The DIP setting will be taken effect after restarting the device.

2. No VGA output once C-Video output is turn on.

3. NTSC：USA、Taiwan、 Panama、Philippine、Canadian、Chile、 Japan、Korea、Mexico

4. PAL: Besides above listed countries.

3.4 Remote Control



1. **Power:**
   Power on or off.
2. **Source:**
   Switch between different signal sources.
3. **BRT+/-:**
   Make the image brighter or darker
4. **Menu:**
   Show the Control Menu (OSD Menu)
5. **Capture:**
   Capture the image
   Play:
   Recall the saved images in the flash memory of your Digital Visualizer.
   Del:
   Delete the saved images in the flash memory of your Digital Visualizer.
6. **◀▶▲▼ / Enter:**
   ◀ ▶ ▲ ▼ Select function
   Enter Enable the selected function
7. **Zoom +/-:**
   Make the image larger & smaller
8. **Focus”**
   Manual Focus for fine tune
9. **AF:**
   Auto Focus
10. **Auto Tune:**
    Auto-adjust the optimum image
11. **Lamp:**
    Turn on/ off Lamp
12. **Flip:**
    Rotate the image by 180 degrees
13. **Freeze:**
    Freeze the image
14. **Photo/ Text:**
    Select the text or photo mode
15. **Microscope:**
    Set as microscope mode.
16. **AWB:**
    Auto white balance.
17. **PBP:** Compare real-time image and captured image.

Note: Only use CR2025 as replacement battery. Dispose used battery properly please.

Chapter 4 How to Use It

4.1 Getting Start

4.1.1 Turn on the Digital Visualizer

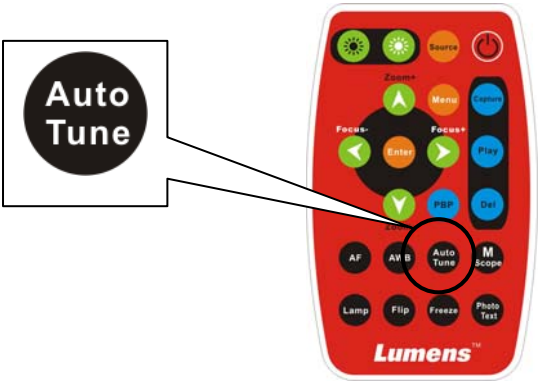
When plug on the power cord, the LED indicator will be "Red".
When turn on DC160, the LED indicator will be "Blue".

Keypad Remote

4.1.2 Optimum

Auto-adjust the optimum image that will take some times to process.

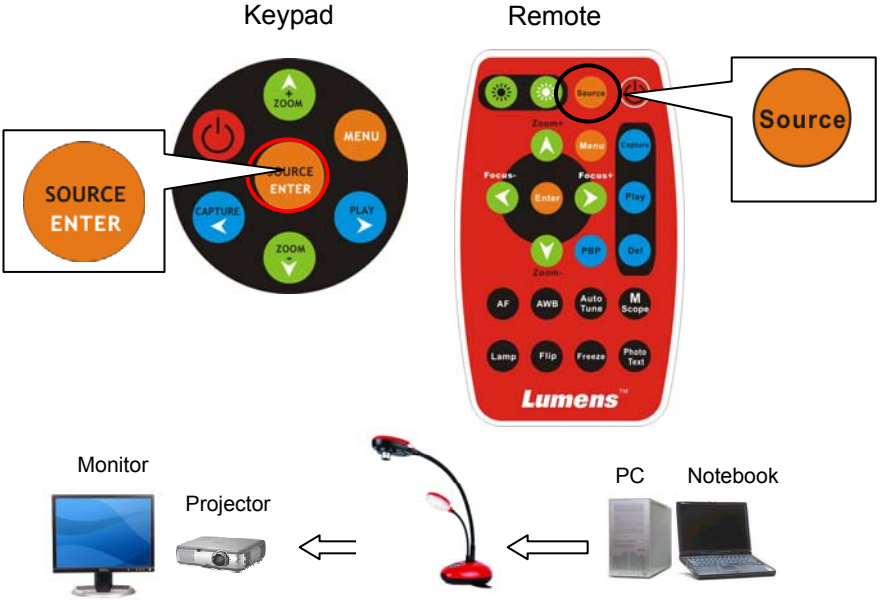
Remote



4.2 Major Functions

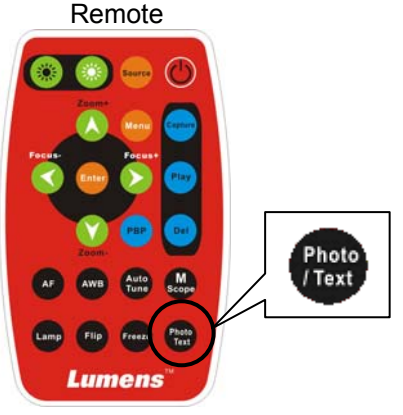
4.2.1 Select Input Source

The default input source is set as "Digital Visualizer", press 『Source』 to switch.



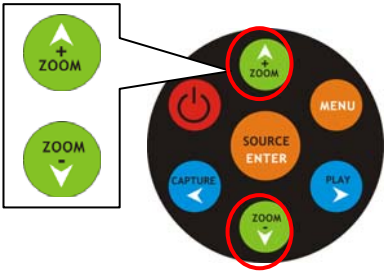
4.2.2 Select『Photo/Text』

The default setting is "Text". Users can switch mode by pressing "Photo/Text" button.

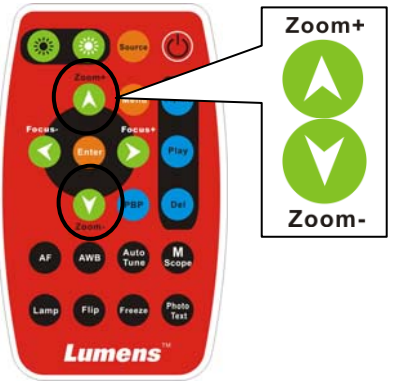


4.2.3 Zoom in / out

Keypad



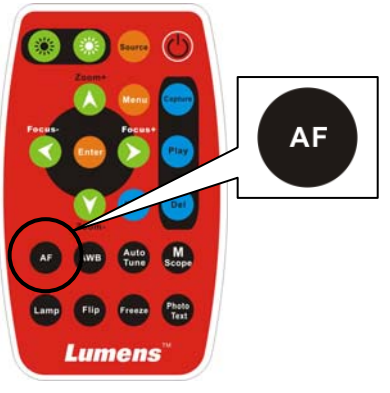
Remote



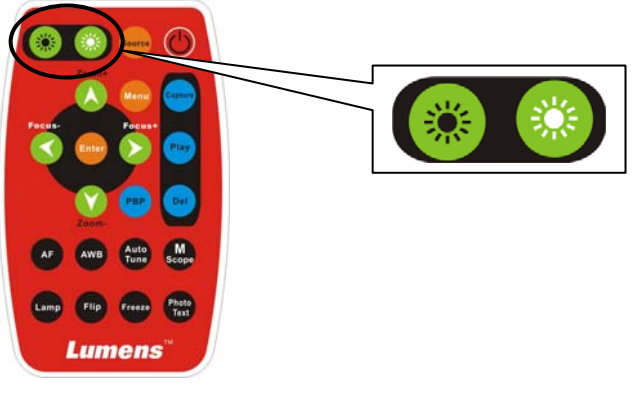
4.2.4 Auto Focus

Goosehead

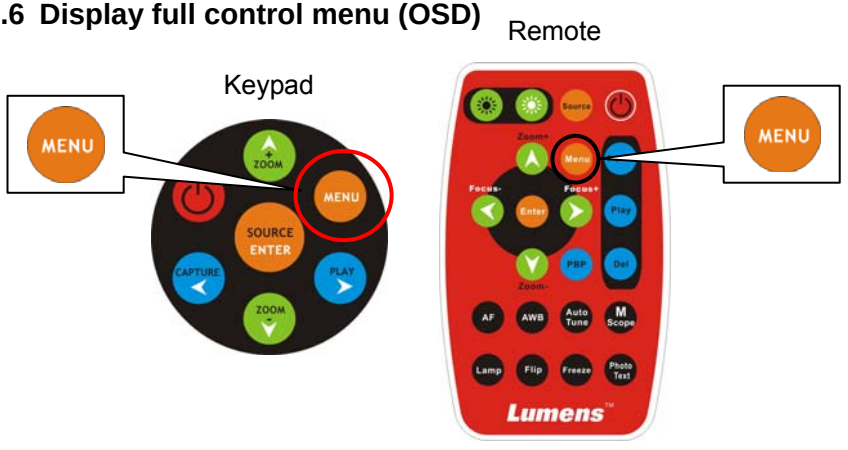
Remote



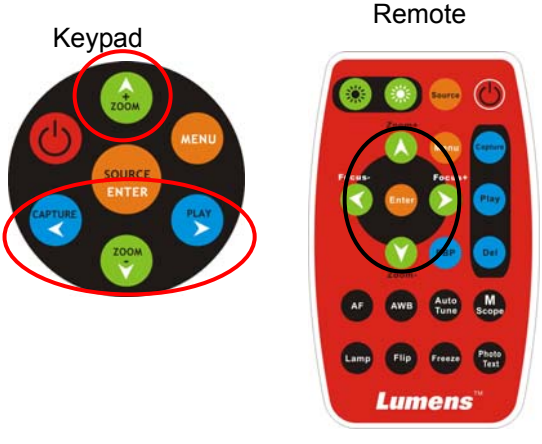
4.2.5 Brightness Adjustment



4.2.6 Display full control menu (OSD)



4.2.7 OSD Function Select and Execute



1. Press 『^ v< >』 navigate menu.
2. Press 『Enter』 to select.

4.3 Advanced Functions

4.3.1 Capture Function

Remote or Keypad：Press『Capture』button from remote control.

4.3.2 Play back captured Images

Remote or Keypad:

1. Press『Play』to show thumbnail images in memory.
2. Use『▼ ▲◄►』to select thumbnail.
3. Press『Enter』to display on full screen.
4. Use『◄►』to view next image.
5. Press『Play』to go back.
6. Press『Menu』to Exit.

4.3.3 Delete Captured Images

Remote:

1. Press『Play』to show all thumbnail images in memory.
2. Use『▼ ▲◄►』to select thumbnail.
3. Press『Del』to delete.
4. Press『Menu』to Exit.

Keypad:

1. Press『Play』to show all thumbnail images in memory.
2. Use『▼ ▲◄►』to select thumbnail.
3. Press『Enter』to show all thumbnail images.
4. Press『Menu』to invoke the full Control Menu (OSD Menu).
5. Use『◄►』to (Storage).
6. Use『▼ ▲』to『Delete』or『Delete All』.
7. Press『Enter』to execute.

8. Press『Menu』to Exit.

4.3.4 Auto Erase

With Auto Erase function turned on, all captured images will be erased automatically once power down the Digital Visualizer.

1. Press『Menu』to invoke the full Control Menu (OSD Menu).
2. Use『◄►』to (Storage).
3. Use『▼ ▲』to select『Auto Erase』.
4. Use『◄►』to『On』.
5. Use『▼ ▲』to『Yes』.
6. Press『Enter』to execute.

4.3.5 PBP

This function can do the comparison between real-time image and captured images with left and right side.

Remote:

1. Press『PBP』. Select the saved image that you want to compare with the real-time image.
2. Press『Enter』to do the comparison between real-time image and saved image.

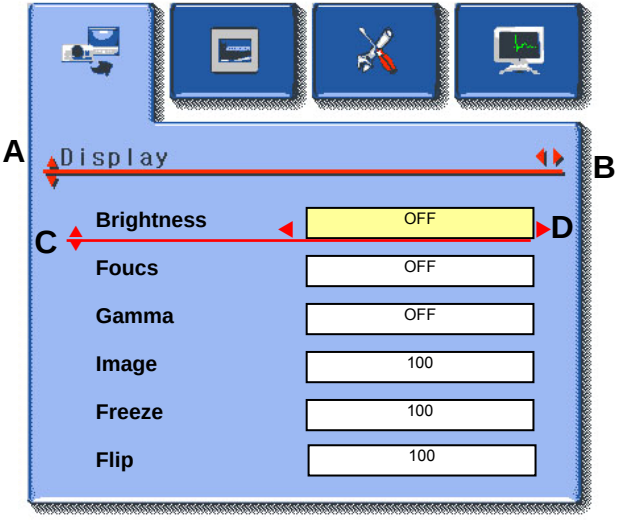
Keypad:

1. Press『Menu』to invoke the full Control Menu (OSD Menu).
2. Use『◄►』to『Advance』.
3. Use『▼』to select PBP and use『◄►』to select『On』.
4. Use『◄►』to choose the image.
5. Press『Enter』to display the image.
6. Use『►』to switch to another side of the image.
7. Double click『Menu』to exit.

Chapter 5 Control Menu (OSD Menu) Introduction

5.1 Operation

1. Use 『►◄』 to select main function (display, storage, settings and advance) .
2. Use 『▼▲』 to select sub-item.
3. The activated item with red line and yellow block. User『▼ ▲』to select items.
4. 『►◄』: More items, you can press 『►◄』 to execute.
5. 『↵』:Only one item, you can press 『**Enter**』 to execute.
6. Press 『Menu』 to Exit.



5.2 Control Menu (OSD Menu)

- There are Display, Storage, Setting, Advance function pages in the Control Menu (OSD Menu).
- The menu will be automatically turned off when not being activated for a while.

➢ **VGA Mode**

Layer 1	Layer 2	Layer 3	Description
Display	**Brightness**	◁ ▭ ▷	Adjust brightness
	Focus	◁ ▭ ▷	Adjust image focus, 0 ~ max
	Gamma	Image/Text	Choose Image or Text mode
	Image	Normal/Gray/Slide/ Microscope/Film	Select Normal/Gray/Slide/ Microscope/Film image mode
	Freeze	ON/OFF	Use Freeze to retain the image on the screen.
	Flip	ON/OFF	Flip image by 180°
Storage	**Delete**	Execute	Delete captured images
	Delete All	Yes/No	Delete all captured images
	Format	Yes/No	Format internal storage memory
	Auto Erase	ON/OFF	Delete all captured images when user turns off the power.
Setting	**Lamp**	ON/OFF	Select Lamp On or Off
	AE	ON/OFF	Auto Exposure
	Night vision	ON/OFF	Select Night view function On or Off.
	Digital Zoom	ON/OFF	Set the digital zoom on or off.
	Language	English / Traditional Chinese / Simplified Chinese /Deutsch/ Francais/Italiano/ Espanol/ Русский	Select a preferred language
	Factory Reset	Yes/No	Restore unit back to factory setting
Advance	**PBP**	ON/OFF	Mode switch for image comparison
	AWB	Execute	Auto white balance.
	Preset Load	Yes/No	Invoke the customized user setting values (e.g., brightness, lamp and zoom)
	Preset Save	Yes/No	Save a set of customized user setting values (e.g., brightness, lamp and zoom)

➢ **C-Video Mode**

Layer 1	Layer 2	Layer 3	Description
Display	**Brightness**	◁ ▭ ▷	Adjust brightness
	Focus	◁ ▭ ▷	Adjust image focus
	Image	Normal/Gray/Film	Select image mode
	Freeze	ON/OFF	Use Freeze to retain the image on the screen.
	AE	ON/OFF	Auto Exposure
Setting	**Lamp**	ON/OFF	Turn on/off lamp
	Full Range	ON/OFF	Adjust On or Off of Full screen
	Night vision	ON/OFF	Adjust On or Off of Night view function
	Language	English, Traditional Chinese, Simplified Chinese	Select a preferred language on the menu.
	Factory Reset	Enter / Exit	Select a fitting output format.

Chapter 6 Troubleshooting

This chapter describes the problems you might have encountered when you use this Digital Visualizer. If you have any problem, please refer to the appropriate section and follow the suggestions. If none of the suggested solutions solve your problem, please call your dealer or your service center.

Problem 1: No picture from the Digital Visualizer.

Solution -

- Wait for several seconds, then press desired source again.
- Press a different source, then press desired source again.
- Check if the power of the Digital Visualizer is turned on.
- Make sure the document or object is positioned under the camera.

Problem 2: Cannot focus correctly.

Solution - The correct focus is to aim the lens at documents or objects. Then, zoom in the focal distance and focus the camera. Later, zoom out the focal distance to the length that you desire.

Problem 3: Cannot see the desired image because it is too bright or dark.

Solution - Adjust the Brightness +/- Button on the Digital Visualizer to get the desired image.

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