WOLFVISION

Visualizer Portable Series

VZ-8 / VZ-7D / VZ-5F

Unique folding system / Set up in seconds

WolfVision's portable Visualizers can be set up in seconds. A gentle tug lifts the arm and light into working position, then turn the camera head to the desired viewing angle.

Just as easily, it folds back into its compact size with just one pull on the center ring, to be neatly stored during or after a presentation.

Easy to carry

case without projector

The Visualizer alone weighs only 4.5kg (10lbs). Together with its carrying case and power pack it is still only 7.3kg (16lbs).

WolfVision's portable Visualizers come in high quality carrying cases, with pockets for all the needed accessories. The Visualizer VZ-5F comes in a standard soft case. The soft cases of the VZ-8 and VZ-7D have an expandable side pocket for a small LCD-projector or Notebook.

case with projector

Easy to use - Only 5 buttons on the unit

It is very important for a smooth presentation that a Visualizer is extremely easy to use. A speaker does not want to deal with a lot of confusing and unnecessary functions during his presentation.

That is why there are **only 5 buttons** on the unit itself. **Anyone can work with it without instructions.**

Smart high speed autofocus

The smart autofocus of WolfVision's portable Visualizers recognizes all objects very quickly and precisely and determines where the focus should be set.

Close-up lens drawer

A special close-up lens must be removed when the Visualizer is used to capture an image in front of the unit. This can be done with just one pull. Since the close-up lens remains attached to the unit, it can be pushed back into place very quickly. Most importantly - it cannot get lost.

Special light system

The camera head can
be rotated 130 degrees.

No blinding the audience or the speaker
The light of WolfVision's portable Visualizers is focused directly onto the working surface. Due to the special lamp housing, neither the audience nor the speaker will be blinded in a darkened room.

Minimum stray light
WolfVision Visualizers are perfect for video projection. There is almost no disturbing stray light from the unit to a video projection screen.

Light swing (illumination in front of the unit)
The light of the portable Visualizers can be turned around at an angle of up to 250 degrees. Thus, objects in front of the unit can be illuminated as perfectly as items on the working surface.

Recordings in front of the unit

When objects are too big to be placed on the working surface or need to be shown from the side (like glasses of liquids etc.), the camera head and the light of the portable Visualizers can be turned to accommodate them.

In this way a Visualizer can be used like a video camera on a tripod, for recording people or large graphics, pictures and charts in a room.

Optimized for video conferencing

Special surface for transparencies

All WolfVision Visualizers have a special crystalline white working surface for perfect reproduction of transparencies. The quality of a transparency on this surface is even better than with a bottom light, because there is more contrast and the colors are not "washed out".

WolfVision's camera electronics produce a very strong and stable picture which is very important when a Visualizer is used as a document camera for videoconferencing systems. The even lighting, smooth autoiris and smart autofocus are very important features, enabling video conferencing systems to digitize and transfer the picture from a WolfVision Visualizer much faster than pictures from other document cameras. Furthermore there is no blinding stray light from a WolfVision Visualizer, which could disturb the autoiris of the room camera.
Of course these features are equally important for live image presentations with a video/data projector and for other Visualizer applications.

Additional features of VZ-7D and VZ-8

The Visualizer VZ-5F has all the features described on page 2 and 3 of this brochure. It can be considered the “base model”. The Visualizers VZ-8 and VZ-7D include the following additional features:

Infrared remote control

In addition to the **zoom** keys, the remote controls of the VZ-8 and VZ-7D have the following additional functions:

- **Manual focus**
- **Manual iris**
- **Image on/off switch** *(VZ-7D)*
  (no image disturbance when switching!)
- **User programmable Presets**
  (VZ-8: 3 Presets, VZ-7D: 2 Presets)

Additional features on the remote control of the VZ-8 are described on the next page.

RS-232 control input

Through the RS-232 control input, the VZ-8 and VZ-7D can be controlled by an external device (such as a remote control system for the whole room or a video conferencing system).

Slide drawer

Slides can be picked up in exceptional quality without an external bottom light by just putting them into the slide drawer on the camera head of the VZ-8 and VZ-7D.

User programmable setup

The typical user does not have to adjust anything when he uses the VZ-8 and VZ-7D. Nevertheless, experienced users have the opportunity to alter the standard settings of the unit according to their own requirements. This can be done in the on-screen menu of the VZ-8 or with 10 DIP-switches hidden on the back of the VZ-7D.

24 x zoom

All 3 portable WolfVision Visualizers have an optical 12 x zoom. In addition the VZ-8 and VZ-7D have a digital zoom extension (2 times) which increases the complete zoom range to a 24 times zoom.

All 3 units can pick up objects as large as an open book and as small as a coin on the working surface to fill the screen. However, the VZ-8 and VZ-7D can zoom 2 times further into an object.

Smallest pickup area:

VZ-5F: 32 x 24mm (1.2" x 0.9")
VZ-8 and VZ-7D: 16 x 12mm (0.6" x 0.5")

Largest pickup area:

VZ-8, VZ-7D and VZ-5F: 360 x 270mm (14.4" x 10.8")
(outside of working surface the pickup area is unlimited)

Additional features of VZ-8 - *The Progressive Scan Visualizer*

Modern **data projectors** provide the ability to display higher resolution images using its "data" input instead of its "video" input. This is where "Progressive scan" cameras come in. They output a "data" signal with more resolution than PAL/NTSC "video" could provide. Especially the vertical resolution is no longer limited by the PAL/NTSC standard at 350-420 lines.

WolfVision's Progressive Scan Visualizer VZ-8 can output the image in either **SVGA, XGA** or **SXGA** mode on **RGBHV** and **DVI** outputs.

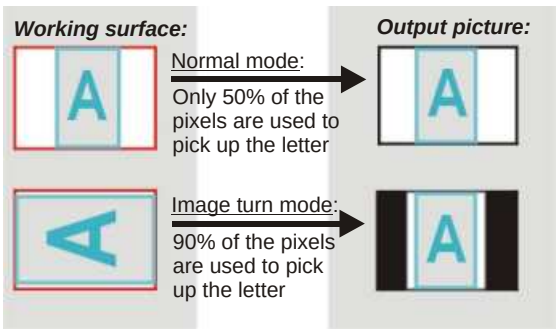
The image is output with **75Hz**, which is important for flicker free viewing, even with CRT monitors or CRT projectors. The image can also be switched to 60Hz for special applications.

"Motion" used to be the weakness of Progressive Scan cameras. Until recently they could only pick up 7.5 (or less) pictures per second. This resulted in a disturbing strobe effect on the screen, whenever something was moved in the picture or when adjusting zoom or iris.

As it is very important for a professional presentation that **motion** can be shown in good quality and without any image disturbance. WolfVision uses newly developed Progressive Scan CCDs which can pick up **20 pictures per second**. As a result motion looks almost as good as with PAL/NTSC "video" cameras. But the resolution is much higher!

In addition to its Progressive Scan outputs the VZ-8 also outputs converted **PAL** and **NTSC** video signals.

"Image turn" mode for higher resolution



Picking up a complete vertical (portrait) letter or A4 page has always been a critical issue for a video camera based system, because the image is always picked up in a horizontal (landscape) format. **Progressive Scan** cameras handle this task much better, because of the improved resolution.

But the ultimate tool to pick up a full page is WolfVision's new "**Image turn**" mode. A user can place a letter on the working surface horizontally and zoom in on it completely, so that about 90% of the pixels of the built-in camera are used to pick up the letter. The picture is then turned electronically 90º and output the right way up with **40% higher resolution** than in normal mode. The left and right margins are black.

Split image of 9 picture memory

Nine Picture memory

With the VZ-8 a user can store 9 images and recall them by just pressing one of the numerical keys on the infrared remote control.

By pressing the "All" key a split image with all 9 pictures of the memory can be displayed, for easy selection

Input switch

A Computer can be connected to the **RGBHV input** (with VGA-plug) of the Visualizer. With the **Ext/Int switch** a user can switch between the Visualizer and computer image to be displayed to the audience.

USB output

The **USB** output of the VZ-8 can be used to transfer Visualizer images onto a computer. No additional computer hardware (like a grabber card) is required.
In this way the VZ-8 can be used as a 3-D scanner for your computer.

Text enhancement (in color)

By pressing the "TEXT" button, the contrast of the picture is improved dramatically, resulting in much better readability of text, sketches and x-rays.
This contrast enhancement is utilized without losing the color of the picture.

Technical data:

	VZ-8	VZ-7D	VZ-5F
Camera	1/3" 1-CCD Progressive Scan	1/3" 1-CCD Video	1/3" 1-CCD Video
Output signals	SXGA / XGA / SVGA, PAL / NTSC, DVI, USB	PAL or NTSC	PAL or NTSC
Pictures per second *(as picked up by the camera)*	20	PAL: 50 half-pictures / NTSC: 60 half-pictures	PAL: 50 half-pictures / NTSC: 60 half-pictures
Horizontal resolution	640 lines *(center)*	470 lines	470 lines
Vertical resolution	490 lines *(center)* - 640 lines in Image Turn mode	400 lines (PAL) / 350 lines (NTSC)	400 lines (PAL) / 350 lines (NTSC)
Image Turn mode	yes (40% increased resolution of full pages)	-	-
Effective Pixel *(=pixels which are actually used for the image information)*	810,000	752 x 582 (PAL) / 768 x 494 (NTSC)	752 x 582 (PAL) / 768 x 494 (NTSC)
Vertical image-frequency	Prog.Scan: 75 Hz and 60 Hz, PAL: 50 Hz, NTSC: 60 Hz	PAL: 50 Hz / NTSC: 60 Hz	PAL: 50 Hz / NTSC: 60 Hz
Horizontal image-frequency	15.7 and 37.3 - 80.2 kHz	15.7 kHz	15.7 kHz
Signal format	non-interlaced and interlaced	interlaced	interlaced
Iris	automatic and manual	automatic and manual	automatic
White balance adjustment	automatic and manual	automatic and manual	automatic
Autofocus	yes (one-push)	yes (continuously working)	yes (continuously working)
Manual focus	yes	yes	-
Text enhancement function	yes (in color)	-	-
User programmable basic setup	yes (with on-screen menu)	yes (with DIP switches)	-
Lens / Zoom	24 x zoom (12 x optical + 2 x digital)		12 x optical zoom
Max. pick-up area:	On working surface: 360 x 270 mm (14.4" x 10.8"), Outside of working surface: unlimited		
Min. pick-up area *(in full resolution)*	32 x 24 mm (1.2" x 0.9")		
Min. pick-up area *(with digital zoom)*	16 x 12 mm (0.6" x 0.5")		-
Max object height on working surface	110mm (4.4") in tele position / 370mm (15") in wide position		
Depth of focus	18mm (0.7") on small object (42 x 33 mm) / 200 mm (8") on large object (360 x 270 mm)		
Light source	high frequency fluorescent lamp		
Reflection free area on working surface	360 x 230mm (17.3"x 9.2")		
Recording outside working surface	yes		
User programmable presets	3 (plus 8 trough RS232)	2 (plus 8 trough RS232)	-
Slide drawer	yes	yes	-
Image on/off switch	-	yes	-
Image memory	9 pictures	-	-
Split-image of all 9 images in memory	yes	-	-
Positive/Negative and Black-White switch	yes (in menu)	-	-
Outputs	RGBHV *(15-pin VGA plug)*, DVI, USB, composite video *(RCA-plug)* , s-video *(4-pin plug)* , 12V	s-video *(4-pin plug)*, composite video *(RCA-plug)*, 12V for lightbox	s-video *(4-pin plug)*, composite video *(RCA-plug)*, 12V for lightbox
Inputs	RGBHV *(15-pin VGA plug) for PCs*, serial control input	serial control input *(RS232)*,	-
Professional RS232 protocol with position setting and status report	yes	yes	-
Weight / Portability	5 kg (11 lbs), portable		
Supplied accessories	infrared remote control, power pack, 15-pin RGBHV cable, USB cable, USB software, carry case	infrared remote control, power pack, s-video cable, carry case	power pack, s-video cable, carry case

Specifications and availability subject to change !

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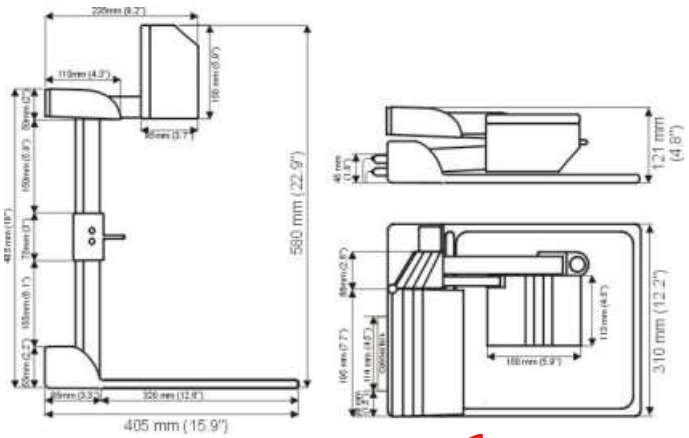
Optional Accessory:

Lightbox LB-7 (for x-rays)

The Lightbox LB-7 is designed to fit exactly onto the working surface of WolfVision's portable Visualizers. The illuminated area is very large: 300 x 210mm (11.8" x 8.3"). 12V power is provided from the Visualizers.

Please note that an external lightbox is NOT necessary for transparencies as they can be picked up in much better quality on the special working surface of the WolfVision Visualizers. However, it is recommended for very dark transparent objects like x-rays.



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Visualizer

More information on our Internet homepage:
www.wolfvision.com

WolfVision GmbH - Vlbg. Wirtschaftspark, A-6840 Götzis / AUSTRIA, Tel. ++43/(0)5523/52250, Fax ++43/(0)5523/52249, E-mail: wolfvision@wolfvision.com

American-distribution: WolfVision Inc., 655 Sky Way, Suite 119, San Carlos, CA 94070 / USA, Tel.(650)802-0786 and Tollfree 1-800-356WOLF, Fax: (650)802-0788, wolfvision.usa@wolfvision.com
Asian representation: WolfVision R.O., 27 Woodlands Ind. Park E 1 #01-04, Hiang Kie Ind. Bldg. IV, Singapore 757718, Tel.++65-366 9288, Fax: ++65-366 9280, wolfasia@mbox2.singnet.com.sg
Australian distribution: WolfVision Pty Ltd., P.O.Box 59, West Lindfield (near Sydney), NSW 2070, Australia, Tel. (02) 9410 3388, Fax: (02) 9410 3388, E-mail: wolfvision.australia@wolfvision.com
Canadian distribution: WolfVision Canada Inc., 140 Route 202, Noyan QC JOJ 1B0, Tel. (450)294-9999, Tollfree 1-877-513-2002, Fax:(450)294-2228, E-Mail: wolfvision.canada@wolfvision.com