

WGD



Gel Documentation System

Operating Manual

written for
WGD-20

witeg Labortechnik GmbH

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1 Introduction

Thank you for purchasing our **WGD Gel Documentation System**. You did a good choice buying a **Wisd** product.

Before use, please read this manual and use it properly.

To cover the user's health and avoid the product's destruction you have to follow the safety instructions of the second chapter.

Please keep this operating manual in a save place for future reference and hand it out if you consign the device to a third person.

Witeg reserves to modify the capsule or make amendments for the improvement of quality and efficiency without prior notice.

2 Safety Instructions

2.1 Description of symbols

**WARNING**

Information for avoiding injuries or fatal accidents.

**ATTENTION**

Safety instruction to avoid a damage of the product.

**ATTENTION**

Information about technical parameters.

**Environment**

Information about the operating environment.

**WARNING of explosions**

Safety instruction to avoid explosions.

2.2 Instructions

For a safety and faultless using of the device it is indispensable that you read the following instructions purposely and follow them by the use.



- Connect the device only to the suitable power supply. Please have a look to the identification plate.
- Use the device only in electric circuits with ground fault circuit interrupter.
- Check the power supply cord before you stick it into the electrical outlet.
- Do not use power bars to extend the power supply cord.
- Only use extension cables with sufficient cable cross section.

- Do not touch the device with wet hands during the usage because this might cause an electrical shock.
- If unexpected sound, smell or smog is generated by the device, pull out the main plug and contact the manufacturer or your supplier immediately.
- Disconnect the power supply plug before cleaning or maintenance.
- If you use radiation or contaminated samples the responsibility is only up to you.



- It is important that the device stands up on a horizontal and firm subsurface to avoid vibrations.
- If you set the device in a site with vibrations, make sure that the device can not slip away.
- The device could get damaged if the vibrations are too strong.
- To avoid heat congestion or fires make sure that there is enough space for air circulations.
- Avoid direct solar radiation.
- Do not use the device near highly combustible materials.
- Do not set the device outdoors.
- It is superiorly to set the device in a good illuminated place to avoid accidents engendered by handling errors.
- To set the device in wet or dusty places could cause overheating, short circuits or fires.
- Make sure the device stands upright within the last 24 hours.
- Do not tilt the device.



- Do not use this device in area with potentially explosive atmosphere.



- Repairs and amendments should only be made by **witeg** authorized people. Contraventions exclude the warranty.



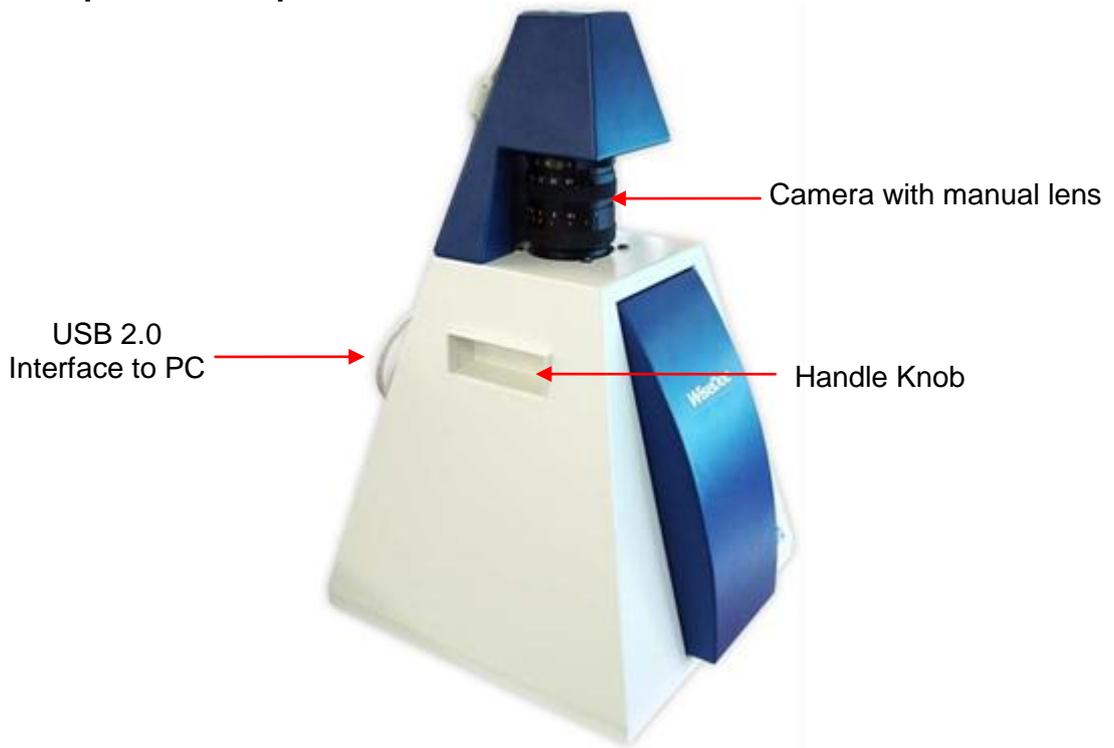
- Use this device only if you read the whole safety instructions.
- This device should only be used by persons who are familiarized with safety instructions made for laboratories.
- Pay attention that no liquid reaches the controller or inward of the capsule.
- You have to keep the device clean if you want to get a longer life of it.
- Wear corresponding protective work clothing during the usage.
- Pull out the power cable if you didn't want to use the device for a longer time.

3 Product description

3.1 Key features

- The most cost-effective system in the market.
- Digital CCD camera (resolution 1.5 million pixel) with portable darkroom is offered.
- 1360X1024, 10-bit Black & White image is captured.
- Very compact portable darkroom system enables the existing transilluminators in the lab to be used together with. High flexibility in use is offered.
- High-quality & Precision Large Caliber optical lens with Zoom, Focus and Iris control (manual adjust) is used.
- USB 2.0 interface is available, through which real-time images are transferred directly to PC.
- Nonlinear TotalLab TM Quant, image analysis software is supplied together with the system - Optional

3.2 Description of components



3.3 System requirements

- Minimum Intel® Pentium® IV 1.7GHz
- Minimum 256 MB RAM
- USB 2.0
- Microsoft® Windows™ 2000 & XP
- Minimum 30 MB hard drive space
- Over 1024x768 resolution & Over 15inch monitor
- CD-ROM drive
- UV-trans illuminator (Option)
- Printer (Option)

4 Packing contents

Quantum	Name
1	WGD Gel Documentation System
1	Software CD
1	Operating manual

5 Positioning the device and commissioning



1. Follow especially the safety instructions marked with following symbol:
2. Remove the package and perhaps soiling carefully.
3. If there are any unexpected transport damages, please inform your forwarder and your costumer service.
4. Before you connect the device with the electrical outlet, please let some time laps until the device is acclimatized.
5. Make sure that the device can not slip away.
6. Make sure that you follow all safety instructions.
7. Connect the device with the power outlet.
8. Switch the device on and start the process (look at job description).

6 Installation

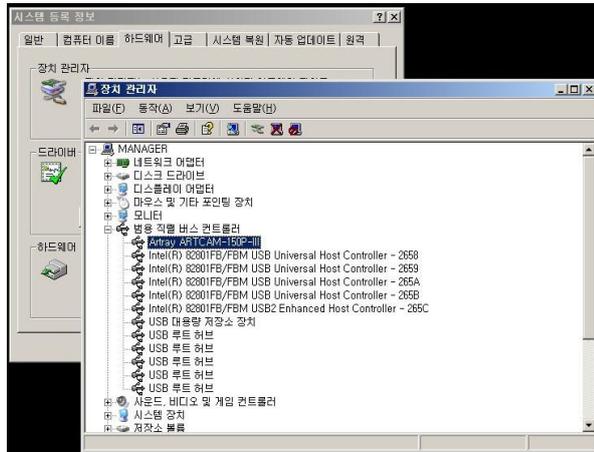
6.1 Connect Device

1. Turn on Personal Computer.
2. Insert Software CD into CD-ROM drive and copy all folders to hard disk.



3. Connect the PC with the device (USB 2.0) and install device driver.
4. Specify "ArtCam150PIIIDrv" in the CD
(Details of installation are explained in the following pages.)

5. To confirm installation, find “ARTCAM-150PIII” in USB controller in device manager (Start -> control Panel -> System -> Hardware -> Device manager -> USB Controller).
6. Check device.

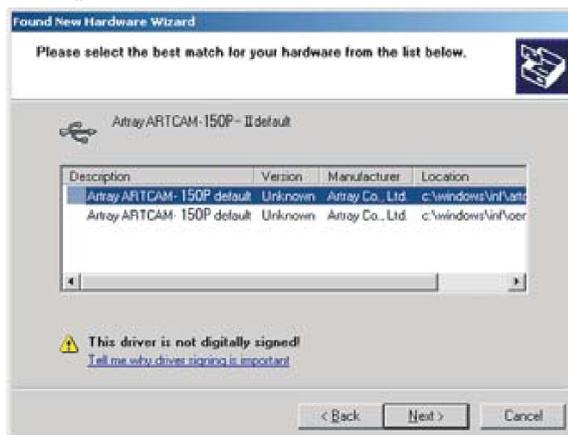


6.2 Driver Installation

When you connect your WGD-20 to PC. Following screen pops up. Place Installation CD into CD-ROM drive.



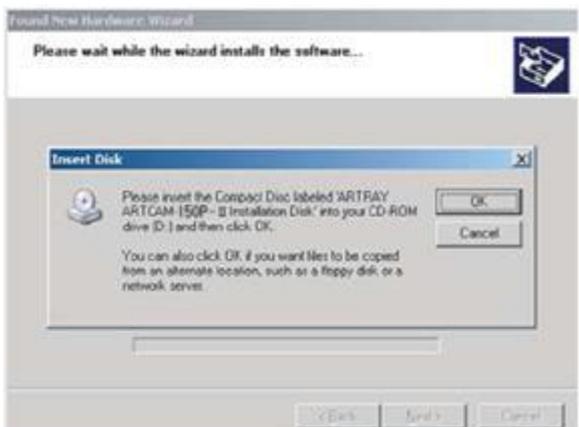
1. Click „Next“.



2. Click „Next“.



3. Click „Continue Anyway“.



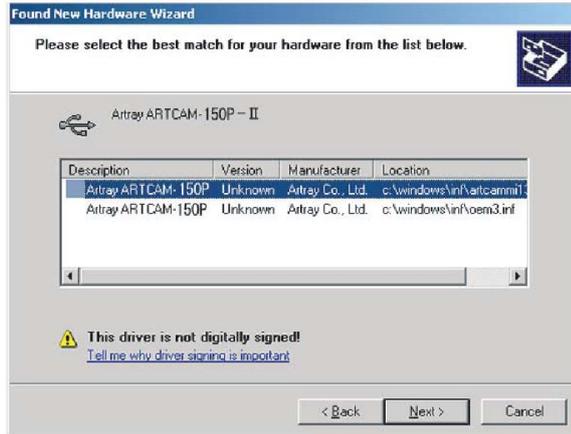
4. Click „OK“.



5. Click „Finish“. New window pops up:



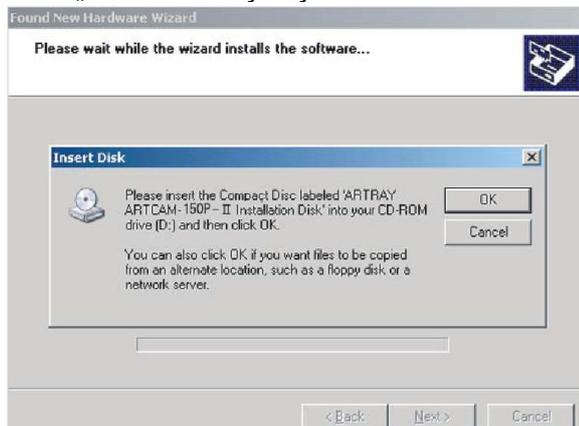
6. Click „Next“.



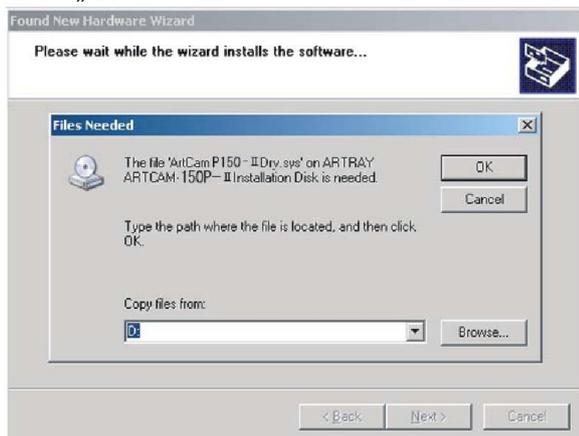
7. Click „Next“.



8. Click „Continue Anyway“.



9. Click „OK“.



10. Click „Browse...“ and open folder „Driver“ from CD-ROM drive.



11. Click “Open” and then click „OK“.



12. Click „Finish“.

6.3 WiseCapture

WiseCapture is a program which is used to make pictures of the gel matrix. These pictures are used for the analysis programs. You can find WiseCapture and the installation manual on the Software CD.

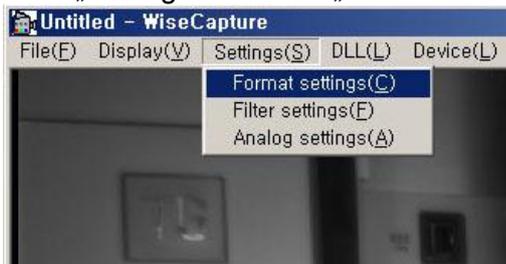
6.4 Analysis software

On the Software CD you can find several demo analysis programs. The installation manuals are also on the Software CD. Try to work with the different programs and order the full version from the software producer.

7 Job description

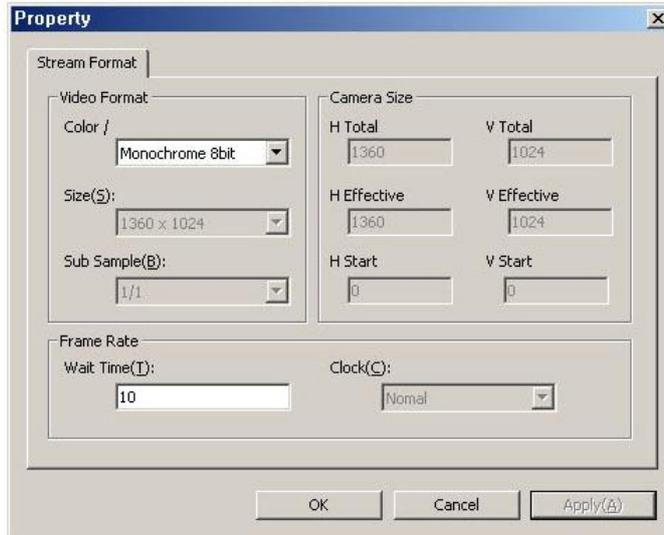
7.1 WiseCapture settings

1. Open WiseCapture.
2. Click „Settings“ and then „Format Settings“.

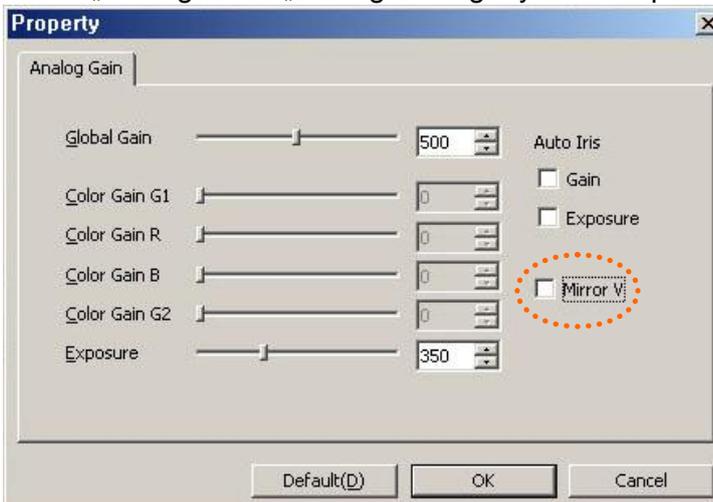


3. Choose „Monochrome 8bit“ for colour and click „OK“. This setting is needed for all the

pictures you will make with WiseCapture.



4. Under „Settings“ and „Filter Settings“ you can adjust brightness, contrast and gamma value.
5. Under „Settings“ and „Analog Settings“ you can flip images by marking „Mirror V“.



7.2 To photograph gel matrix

1. Switch on the PC.
2. Connect device with PC via USB 2.0.
3. Open WiseCapture.
4. Click „Display“ and mark „Preview“ with a check mark.
5. Pull the gel matrix on the UV emitter.
6. Switch on the UV emitter.
7. Adjust with manual iris the brightness. Focus image with manual zoom and manual focus.
8. Click „Display“ and „Snapshot“.
9. Save the picture. Click therefore „File“ and „Save“.
10. Specify a memory location.
11. Specify file format.
12. Specify file name.
13. Click „Save“.

7.3 Analysis

1. Switch the PC on.
2. Open analysis software.
3. Import the gel matrix image.
4. Analyse the gel matrix image according to software specification.

8 Maintenance and Cleaning

- Please read the whole safety instructions before you start to maintain or clean the device.
- Pull the power plug out of the electrical outlet.
- Only use care cleaning agents and soft cleaning rags.
- Organic lotions, strong chemicals and rough cleaning rags can damage the device.
- If you not want to use the device for a long time, pull of the power plug and keep it dry in the package.
- Only use original spare parts.
- Please oil the sliding parts from time to time. Cycle depends on, how often you use the device and how clean the operating area is.

9 Technical data

		WGD-20
Camera	Resolution	1,5 Mio. Pixel CCD Video Sensor, 1360 x 1024 Pixel
	Power supply.	USB
	Data interface	USB 2.0
	Image color	Black and white
Lens		Manual iris (F1.0-closed), manual zoom (6 x), manual focus
Capsule	Dimensions	W 400 mm x D 350 x H 510 (mm)
	Material	Powder coated steel
Weight		18 kg
Power supply		USB only

10 Certificate

Certificate

for



The quality and all features were checked by the manufacturer before the shipment.

We grant from date of purchase

two years guaranty.

This certificate excludes damages by natural disasters or incorrect usages by the costumer.

Please look on your account and complete following table:

Article	WGD Del Documentation System
Typ	
Serialno.	
Date	

witeg Labortechnik GmbH

Am Bildacker 16
D-97877 Wertheim
TEL: +49-9342-9301-0
FAX: +49-9342-9301-77
Email: info@witeg.de
www.witeg.de

