vetscan

Imagyst

User
Manual

For Veterinary Use Only

The information in this manual is relevant
to Vetscan Imagyst
Model Number Ocus 40, MGU-00002

zoetis

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CE SGS c US 800967 R-NZ UK CA

FC FCC ID: 2AQ5IOCUS1 ANATEL Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados

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For user safety and to avoid injury or damage, please read and follow all instructions, warnings, cautions, and notes marked in this manual and on the associated device before handling/operating the device. If the [Device] is used in any other way than described in this manual, there is risk for injury or damage to the device.

Table of Contents

General Information

Introduction

The Grundium Ocus®40 MGU-00002 is a professional imaging instrument for digitizing microscope slides with sharpest image quality in the business. Integration-ready and very easy to use, the Ocus®40 enables both local and remote use anywhere in the world. Its excellent quality-to-price ratio and small footprint makes the Ocus®40 attainable to practically any establishment.
Ocus® technology has been granted U.S. Patent No. 10.341.551, 10.564.408 and 10.628.698.
Ocus® design has been granted U.S. Patent No. D872789.

Important Notice: The scanner generates a sequence of flashing lights when capturing the overview (macro) image of the slide. Take this into account in case you are sensitive to blinking lights.

Intended Use

The Vetscan Imagyst platform is being launched with the Ocus®40 scanner made by Grundium. Vetscan Imagyst takes advantage of whole slide imaging (WSI) technology and bringing it to the animal health market globally with this scanner. WSI, also known as virtual microscopy, refers to scanning a complete microscope slide and creating a single high-resolution digital file. Whole slide imaging is changing the workflows of many laboratories. Specimens on glass slides can now be transformed into high-resolution digital files that can be efficiently stored, accessed, analyzed, and shared with across web.

Set Up, Overview, and Operating Instructions

Unpacking

1. Open the shipping box
2. Remove the white protective outer with the box for the power supply
3. Put out the black protective cover box that includes the Ocus40 scanner
4. Remove the tape and open the black protective box

Installation Guidelines

1. Remove the transportation support pin from the bottom of the scanner by turning the pin counterclockwise. Remember to handle the scanner carefully to avoid dropping or damaging it and avoid leaving fingerprints on the glass surfaces or lenses while removing the pin.
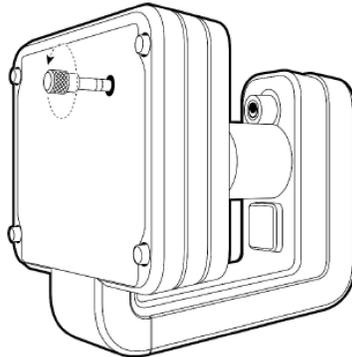
2. Place the scanner on a flat surface and make sure there is at least 10 centimeters (4 inches) of free space around it.

Tip: Store the transportation support pin for possible later use. To ensure safe transportation, screw the transportation support pin back in before moving the scanner to another location. Do not overtighten the pin, turning it until it stops is enough.

3. Connect the cables
   a. Connect the scanner to a power source using only power supply provided with scanner and make sure there is at least 10 cm (~4 in) free space around it; use UPS (uninterruptible power supply) if available.
   b. Connect network cable to the scanner and other end to the Ethernet connector for customer's network (which has connection to the Internet) and

press the power button on the scanner; Wait for solid green light to show on power button.

4. Access the Imagyst Platform **app.vetscanimagyst.com** with the credentials provided to you

5. Verify the latest firmware version of the scanner is installed (MENU>Scanners)
    a. Update firmware if necessary

Main Components

- Ocus®40 scanner (MGU-00002)
- Transportation pin
- Protective cover
- Power supply and mains cable
- Quick Guide
- Delivery Package
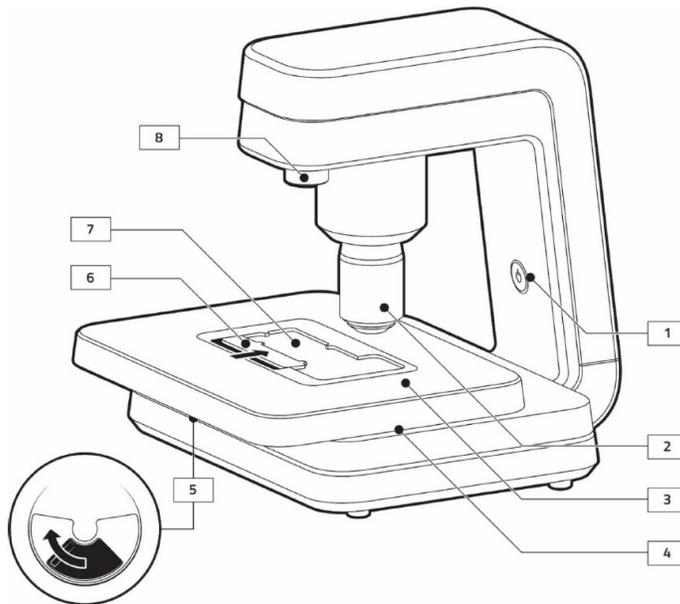
1. Power button
2. Objective
3. Cover plate
4. X-Y-stage
5. Lever
6. Slide retainer
7. Slide support glass
8. Overview camera
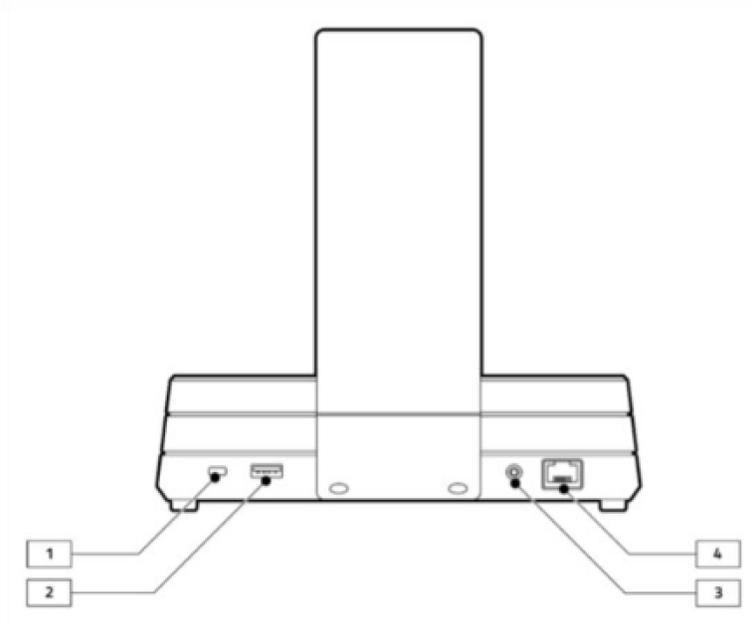
1. Kensington Security Slot
2. USB connector (reinforced insulation)
3. Power supply connector. Use only the power supply delivered with the scanner.
   IMPORTANT: If there is any damage in the power cable or the power supply, do not use the device.
4. Network cable connector (reinforced insulation)

Power States

The power button indicates the different states of the scanner. This is the diagram for Software version 7.0.125 and above.

Light colour	Light Description	Status
	Green Blinking	Scanner Switched off (Power still connected)
	Green Steady	Scanner Switched on, scanner in idle mode
	Green Rapid Blinking	Scanner is in live view mode, scanning or exporting
	Yellow Blinking	Scanner Startup/ Shutdown
	Yellow Steady	Scanner in idles mode connected to network, remote user disabled
	Yellow Rapid Blinking	Scanner performing file system check
	Red Steady	Scanner in error state
	Red Blinking	Scanner switched in, no connection to the internet
	Blue Steady	Scanner WLAN access point is on
	Purple Steady	Scanner unregistered, has internet access
	Purple Blinking	Scanner unregistered, no internet access

Basic Operating Instructions

Turning on the scanner

To turn on the **scanner**, press the **power button** located on the **neck of the scanner**. The **power button** blinks red. Once the **scanner** is turned on and ready to use, the **power button's** status is a **steady green light**.
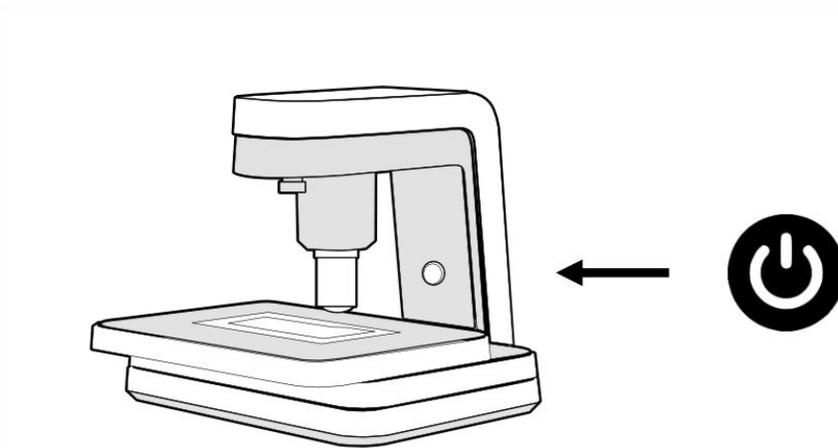
Turning off the scanner

To turn off the **scanner**, press the **power button** located on the **neck of the scanner**. The **power button** blinks red. Once the **scanner** is turned off completely, the **power button's status** is a **breathing green light**.

IMPORTANT: Before you turn off the **scanner**, remove the **slide** from the **stage** before starting the **shutdown process**.

IMPORTANT: To prevent damaging the **scanner**, always turn off the **scanner** by pressing the **power button** as described above.

IMPORTANT: Do not disconnect the **power cable** without first shutting down the **scanner**. A sudden **power loss** can corrupt the **scanner's internal data storage** and potentially lead to data loss or a **scanner** becoming unusable.

Account Set-Up
1. Create Account within Imagyst Application (**app.vetscanimagyst.com)**
    a. Completed by Zoetis technical support team
    b. Notified by Imagyst Sales Agreement and identifies SAP Ship-To ID
2. Add Clinic Admin within Imagyst Application
    a. Completed by Zoetis technical support team.
    b. Information from Pre-Installation Checklist
3. Add Scanner(s) within Imagyst Application
    a. Completed by Zoetis Onboarding Team (DX CS)
    b. Identify Scanner SN that was shipped to customer.

Technical Specifications

Grundium Ocus®40 Specifications	
Dimensions (W x D x H)	18 x 18 x 19 cm (7.09 x 7.09 x 7.48 in)
Weight	3.5 kg (7.72 lb)
Power	Use only power supply provided with scanner (100-240 VAC 50-60 Hz); use UPS if available
Connectivity	1 GigE wired connection; 802.11 ac WLAN*
Operating Temperature	15-40° C (59-104° F)
Operating humidity	0-95% RH, non-condensing
Operating altitude	Max. 2000 m
Storage temperature	1-70° C (34-158° F)
Slide capacity	1
Slide format	75x25 mm
Scan speed (15mm x 15mm)	~3 mins
Numerical aperture	0.75
Resolution, microscope	40X 0.25 µm/pix
Resolution, overview	10 µm/pix
Depth of focus	1 µm
Focusing	Fully electronic
Image formats	TIFF, SVS, SZI
Image sensor	15 Mpix
Illumination	Koehler LED
Internal Storage	500 GB, net capacity may vary
Input voltage (scanner)	12VDC (max. 4 A)
Input voltage (power supply)	100-240 VAC 50-60 Hz
Ingress protection	IP20
Impact protection	IK06

Language Support

VETSCAN IMAGYST supports English, Spanish, Simplified Chinese, French, Italian, Portuguese, Greek, German and Japanese.

The **language setting** can be different for each **user**. You can change your **language setting** from within your **profile**.

How to change your language setting

To change your **language setting**:

1. Click on the **Main Menu** ( ).
2. Click on the **Profile** link.
3. When the **Edit Profile dialogue window** opens, click on the existing **language**. A drop-down menu will appear with all the available **language options**.
4. Select the **preferred language**.
5. Click the **SAVE** button.

Maintenance and Cleaning

Basic Cleaning

1. Power down the scanner by pressing the button
2. Remove the power cable and the network cable from the scanner
3. Slide the topmost plate to the front

4. Wipe all surfaces with a soft, damp, lint-free cloth and distilled water
5. Use cotton swab with distilled water for cleaning the edges
6. Dry all surfaces with a soft, damp, lint-free cloth or Kimwipes™
7. Slide the topmost plate back to its normal position
8. Place a protective cloth on the glass beneath the objective
9. You can first try to clean the objective in place, using a microfiber cloth. If necessary, try adding warm distilled water to the cloth or using a cotton swab
    a. **IMPORTANT:** Never pour or spray any liquids directly on the scanner
10. Connect the cables and switch the scanner on
11. Verify by completing the scan again and validating the images
12. If the scans are still blurry follow the In-Depth Cleaning procedure

In-Depth Cleaning

1. Power down the scanner by pressing the button
2. Remove the power cable and the network cable from the scanner
3. Slide the topmost plate to the front

4. Wipe all surfaces with a soft, damp, lint-free cloth. You can use a microscope cleaner like Reagena™ microscope detergent, or a solution of 70% isopropyl alcohol and 30% distilled water.

5. Use cotton swab with distilled water for cleaning the edges

6. Replace the cover plate

7. Slide the topmost plate back to its normal position

8. Connect the cables and switch the scanner on. Verify by completing the scan again and validating the images:

   a. The overview camera produces good quality

   b. Live view from microscope camera produces good quality

   c. Scanning of a known sample slide produces good quality

9. If the quality is still poor, redo all steps and use Isopropyl Alcohol for the cleaning and follow the In-Depth Cleaning procedure for the objective

In-Depth Cleaning the Objective

1. Power down the scanner by pressing the button

2. Remove the power cable and the network cable from the scanner

3. Place a protective cloth on the glass beneath the objective

4. You can first try to clean the objective in place, using a microfiber cloth. If necessary, try adding warm distilled water to the cloth or using a cotton swab

   a. **IMPORTANT**: Never pour or spray any liquids directly on the scanner

5. If the objective does not come clean, carefully unscrew it

6. Use the microfiber cloth and warm distilled water to clean the lens

   a. **IMPORTANT**: To clean immersion oil from the lens, use warm distilled water, isopropyl alcohol, or microscopic cleaning fluid. Use isopropyl alcohol or wipes sparingly. For further help, contact Diagnostic Technical Support

   b. **IMPORTANT**: Using acetone or xylene to clean the lens may damage it; however, if the lens is covered with glue/adhesive, cleaning the lens may require using stronger cleaners**

   **If you are unsure about what cleaner to use, please reach out to your local Diagnostic Technical Support team to clarify

7. Use a bulb syringe to remove any dust from the lens and scanner

8. Replace the objective by gently screwing it back in place

   a. **IMPORTANT**: Do not forcefully screw the objective back onto the scanner

9. Remove the cloth covering the glass, replace the power cable, replace the network cable, and turn the scanner on

10. Check the scanner by running a test scan

Product and Safety Information

- Keep the scanner dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals which may damage the scanner.

- Use only dry and clean slides. Drying liquid substances can jam the slide retainer mechanism. Spill of liquid on slide support glass may cause the liquid to leak to internal parts and lead to malfunction.

- Do not use or store the scanner in dusty or dirty areas. Use the protective cover when the scanner is not in use.

- Use the scanner in temperatures between 15 and 40 degrees Celsius (59 to 104 Fahrenheit).

- Long term storage of the scanner should take place in conditions similar to usage temperature, i.e., between 15 and 40 degrees Celsius (59 to 104 Fahrenheit).

- For periods no longer than 72 hours: The scanner can be stored in temperatures between +1 and +70 degrees of Celsius (34 to 158 Fahrenheit) without special measures, provided that condensing humidity conditions are not present and relative humidity < 90%.

- For periods no longer than 24 hours: The scanner can be stored in temperatures between -20 and +70 degrees of Celsius (-4 to 158 Fahrenheit) in an airtight container to prevent the moisture forming inside the device. The container must be opened only after it has warmed up to normal room temperature (+15 to +25 degrees of Celsius or 59 to 77 Fahrenheit). An airtight carrying case is available for purchase at Grundium or your distributor.

- Do not open the scanner or try to change the objective. Only persons authorized by Grundium may repair the product. Unauthorized modifications may damage the scanner. **Note:** Warranty is void if scanner's seals are broken.

- Do not drop, knock, or shake the scanner. Rough handling can break it or deteriorate its performance.

- Only use a soft, clean, dry, lint-free cloth to clean the surface of the scanner. Microfiber cloth works best.

- Use only a detergent that suits microscopes.

- Keep the scanner away from magnets or magnetic fields, as they may affect the scanner's operation. Do not use this device near sources of strong electromagnetic radiation (e.g., unshielded intentional RF sources), as these can interfere with proper operation.

- Keep the scanner away from strong light sources, as they may interfere with the scanner operation.

- Radio frequency bands and maximum transmitting power: Wi-Fi 2.4G 2412-2472 MHz (19.7 dBm), Wi-Fi 5G 5180-5320 MHz (22.7 dBm).

Disposal

Always return your used electronic products and packaging materials to dedicated collection points. This way you help prevent uncontrolled waste disposal and promote the recycling of materials. This product should not be disposed with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

Software Updates

From time to time, Grundium provides software updates. When a new update is available, you will get a notification and instructions on how to update the software. Scanner intended usage flow must be verified after each software update. This involves testing at least that the connectivity, scanning and exporting function properly

Service

Prepare for shipment instructions:

You will need: Shipping box, 2-piece foam protective outer (white) in the shipping box. This encases the protective foam case (black) for the Imagyst:

- Shipping box
- White protective outer
- Black protective cover
- Imagyst scanner device
- Transportation pin
- Power supply and power cable that came with the scanner

1. Turn Scanner off by pressing power button until green 'breathing' light is visible.
2. Disconnect Cat 5 Cable and Power Cable/Supply
3. If any obvious debris on stage or lens, follow cleaning instructions.
4. Screw in the transportation support pin from the bottom of the scanner by turning the pin clockwise.
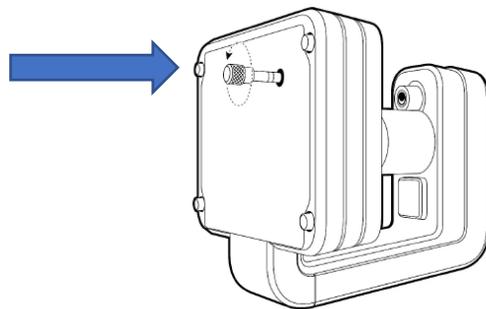
5. Set scanner into black protective foam layer and cover with other side of foam to encase the scanner.
6. Use white protective layer of foam around the black layer and box the scanner up carefully.

Technical Support and Troubleshooting

If you have a technical inquiry and for additional detailed information on Technical Support and Troubleshooting, please contact:

- International:
  - Email: int.dxsupport@zoetis.com
  - Telephone: Please visit https://www.zoetis.com/ and click on the list of counties to find additional support information.
- US:
  - Email: dxsupport@zoetis.com
  - Telephone: Please contact us at 1-888-963-8471.

Please see the **User Guide** area in the Help Section on the Imagyst Platform for additional information. https://vetscanimagyst.helpdocs.io

Warranty

The Vetscan Imagyst Device is covered by the standard Zoetis warranty. Please contact your local Zoetis Sales Representative for the details of the warranty.

Certifications

Countries of Compliance

MARKET	AUTHORISATION/CERTIFICATION
Mexico	IFT : ZOGRMG23-27754 NOM-ANCE : CertificadoNo.:ANC2201C00014708
Australia New Zealand	Certificate No: RCM-001666
Indonesia	TELECOMMUNICATION EQUIPMENT AND/OR DEVICE CERTIFICATION 88435/SDPPI/2023
Israel	51-91421
Serbia	KVALITET certificate No: P1622044800
Saudi Arabia	22026960
Japan	Type Certification No. (NVIDIA Module): 007- AG0141
South Africa	iCASA Radio Equipment Type Approval Certificate, Equipment type approval number: TA-2022/1250 NRCS Certificate number: 000000177469/001
United Arab Emirates (UAE)	TDRA, Authorization number: ER10925/22
Chile	OFICIO No 13071
Brazil	Anatel Certificate No. TÜV 22.0090
USA	FCC ID: 2AQ5IOCUS1
Canada	IC ID:24290-OCUS1
Japan Power Supply Adaptor	PSE Certificate from Delta Electronics for Adaptor Model Number MEA-065A12C (JD 50502112)
Japan Power Supply Adaptor	Test reports from Delta Electronics for Adaptor Model Number MEA-065A12C (JD 50502112)
Japan Power Supply Adaptor	Batch Inspection records / CoC for Model MEA-065A12C

Contact Information

Manufacturer

GRUNDIUM Ltd.

Saavutustenkatu 3, 33720 Tampere, Finland

contact@grundium.com
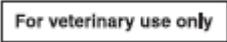
www.grundium.com

US Distributor

Zoetis Inc.

333 Portage Street

Kalamazoo, MI 49007

International Distributor

Zoetis Belgium SA

Rue Laid Burniat 1

1348 Louvain-La-Neuve

Belgium

Symbols

Symbol	Name / Description
▟▙	Manufacturer of the device
REF	Catalogue number
#	Model number
[i]	Consult instructions for use or consult electronic instructions for use
[i]	Electronic manual *Indicates the location at which the electronic manual may be retrieved*
— — —	Direct current
For veterinary use only	For veterinary use only
▟▙ FI	Date of manufacturing and country of origin Finland
SN	Serial number
⚠	Caution
⌂	Indoor use
🏭➔	Distributor Indicates the identity and address of the Distributor
⌧	WEEE *Indicates that separate collection for waste of electric and electronic equipment (WEEE) is required*
CE	CE Mark European Conformity
SKU	SKU

Symbol	Name / Description
70 ℃ / 1 ℃	Temperature Limit