

WÖHLER

Operating manual
Videoscope **EN**

Wöhler VE 400



Best.-Nr. 24575- 2024-04-19

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1 General

1.1 Scope of supply

Device	Scope of supply
Wöhler VE 400 Videoscope	HD videoscope
	Different probes depending on the set composition
	32 GB micro SD memory card with USB card adapter
	USB-C cable with power pack
	Transport case

1.2 Storage and transport

CAUTION!

The videoscope could be damaged if transported improperly!

To avoid damage occurring during transport it is imperative to transport the device in the original case envisaged for the purpose.

CAUTION!

When transporting, do not roll the flexible probe cable tighter than required to fit it in the padded foam insert.

1.3 Disposal



Do not dispose of electronic equipment along with household waste. Dispose of electronic equipment in accordance with applicable environmental regulations.

Batteries are considered hazardous waste. Dispose of batteries at the collection points provided.



1.4 Address

2 Technical data

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Monitor	Details
Display	5" LCD display, color
Resolution	1280 x 720 pixels
Menu languages	English, German, Spanish, French, Russian, Italian, Chinese, Japanese
Interfaces	USB-C charge connector, Micro SD card slot
Operating temperature	0-45 °C
Power supply	Rechargeable 3500 mAh Lithium battery
Battery charging time	Approx. 3 hours
Battery operating time	Approx. 4 hours
Additional lamp	6 LEDs
Recording format	Video: MOV
	Image: JPG



Probe with camera head	Details
Probe length	Different length available
Degree of protection–camera head	IP 67
Camera head	With 1 camera
Resolution	1920 x 1080 pixels
Viewing angle	0° straight ahead
Lighting	6-8 adjustable LEDs, depending on the item
Camera head	With 2 cameras
Resolution	1920 x 1080 pixels
Viewing angle	0° straight ahead and 90° side view
Lighting	6-8+1 adjustable LEDs, depending on the item
Camera head	With 3 cameras
Resolution	1920 x 1080 pixels
Viewing angle	0° straight ahead and 180° side view
Lighting	8+1+1 adjustable LEDs

3 Notes

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3.1 Symbols used in this operating manual

**CAUTION!**

Highlights risks that can lead to damage occurring to the device.

**NOTE!**

Highlights tips and other useful information.

3.2 Cautionary notes when operating

**CAUTION!**

Use the videoscope only when the ambient temperature is within the specified range.

**CAUTION!**

Keep the videoscope clean and dry at all times. In particular, make sure that the waterproof coating protecting the probe does not get scratched.

**CAUTION!**

Never open the device housing. Device parts and the rechargeable battery must only be replaced in the factory.

**CAUTION!**



Use a 5 V battery charger only to charge the rechargeable battery.

4 Design and functions



Fig. 12: Front view of Wöhler VE 400

Legend

- 1 On/Off key: Press and hold for 2 s
- 2  key (settings):
 - To access the settings menu
 - To delete an image or a video from the image gallery
- 3 M-key (mode): Toggle between image, video and playback modes
- 4 Arrow key: Up/down, rotate image
- 5 Arrow key: Up/down, rotate image
- 6 OK key: Confirm action, freeze image
- 7  key (record): Start / stop recording video
- 8 Lighting key: Adjust brightness of LEDs
- 9 Connector to connect camera cable and camera head

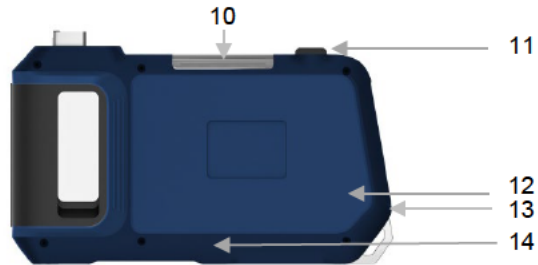


Fig. 13: Rear view of Wöhler VE 400

Legend

- 10 Supplementary lighting
- 11 On/Off key supplementary lighting
- 12 Loudspeaker
- 13 Microphone
(activated in settings menu)
- 14 Reset key



Fig. 14: Bottom of device with connections

- 15 Charger cable port
- 16 Card slot for memory card

4.1 Display



Fig. 15: Display

M-key to select mode:

- 1 Image
- 2 Video
- 3 Video playback

Set via  key:

- 4 Microphone
- 5 Time and date

Status indicator

- 6 Memory card inserted
- 7 Battery charge status

5 Prior to inspection

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5.1 Replacing the probe

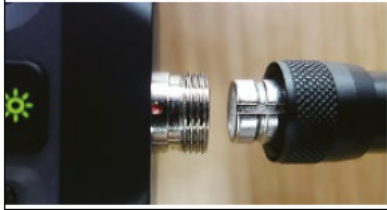


Fig. 16: Connecting the probe

- To remove the probe undo the gland nut, then disconnect the probe from the monitor.
- To connect the probe to the monitor, insert the probe into the female connector ensuring the notch on the male connector is precisely aligned with the red dot on the female connector.
- Then tighten the gland nut finger-tight.
- Remove the black protective cap from the probe before use.



NOTE!

Connect the camera probe before switching on the Wöhler VE 400. If you connect the probe when the device is switched on, you will need to restart the Wöhler VE 400.

5.2 Inserting the memory card

- Switch off the Wöhler VE 400.
The memory card slot is located on the bottom of the device below the black cover
- To remove the memory card: Press the card in lightly until it is ejected, then pull out the memory card.
- Always insert the memory card so that the label faces upward (towards the display).



CAUTION!

Never use force when inserting or removing the memory card.

5.3 Charging the rechargeable battery

The battery symbol on the top right of the display indicates the charge status of the rechargeable battery.

- To charge the videoscope connect the power pack, included in the scope of supply, to the USB port on the bottom of the device. Connect the power pack to the mains.

The On/Off key flashes red (Fig. 1, position 1) while the battery is being charged.

The Wöhler VE 400 remains ready for operation throughout the charging process.

6 Operating

6.1 Power on/off

- To power the device on/off press and hold the On/Off key (1) for approx. 2 seconds.

The start screen is displayed after 3 seconds, followed immediately by the live camera image.

6.2 Freezing the image

- To freeze an image, press the OK key.
- To return to the normal image mode, press the OK key again.

6.3 Rotating an image

- To rotate an image 90° in the display, press the arrow down key.

6.4 Probe viewing angle of probes with 2 or 3 cameras

- Press the black switch on the probe connection to change the viewing angle of the probe from 0° to 90° side view.



Fig. 17: Ø 5.5 mm probe Wöhler VE 400; the arrow indicates the switch to change the viewing angle.



NOTE!

If the battery voltage is very low, the message "no camera" appears on the screen after switching the viewing angle. In this case the camera must be restarted.

6.5 Recording



Fig. 18: Image and video mode

- Press the M-key to select the image or video mode.
- Press the • key to capture an image or to start recording a video.
- Press the • key again to stop recording a video.

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NOTE!

After 10 minutes the Wöhler VE 400 stops recording automatically. If you want to continue the video, you have to start it again.



NOTE!

To record audio along with the video you must switch on the microphone in the Settings menu, see chapter 7.

6.6 Playback




Fig. 19: Playback mode

- Press the M-key to select the playback mode.
- It is now possible to scroll through the image and video files using the arrow keys.



NOTE!

The image/video number as well as the total number of recorded files are displayed on the top right of the display.
The length of the current video is displayed on the bottom left of the display.

- Press the OK key to start/stop the video playback.
- Press the M-key to exit the playback mode.
- Press the M-key to select the playback mode.
- Use the arrow keys to select the image or video to be deleted.
- To delete the file press the  key, then press the OK key to confirm your intention. You have the option to delete the selected image/video file or all of the images/videos.

6.7 Deleting files

6.8 Transferring image and video files to a PC Power off the videoscope.

Option 1:

- Power off the videoscope.
- Remove the micro SD memory card and insert it into a PC with the aid of suitable card adapter, then read out the data.

Option 2:

- Power on the videoscope.
- Connect the monitor with the PC using a USB cable, then save the image and video files to the PC.




7 Settings



NOTE!

Settings confirmed by pressing the OK key are saved when the device is switched off and on again.

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- Use the M-key to select the image or video mode, depending on if the settings are to be applied to the images or videos.
- After selecting the desired mode, press the  key followed by the M-key to access the corresponding settings menu.
- Use the arrow keys to scroll to the desired parameter, then press the OK key to open the corresponding settings menu.
- Press the OK key to confirm your selection.
- To exit the settings menu, press the  key.
- Press the M-key to select the image mode.
- Press the  key



The settings menu to configure the date display appears.

7.1 Image settings



Fig. 20: Image mode

Date display

- Press the OK key to select if you wish the date is to be displayed in saved image files or not.
- Press the  key to exit the settings menu.
- Press the M-key to select the video mode.
- Press the  key

7.2 Video settings



Fig. 21: Video mode

Resolution

720 pixels (HD)

Date display

- Select if the date is to be displayed in a saved video file or not.

Settings

Recording

Off: The microphone is deactivated. Videos are recorded without sound.


On: The microphone is activated. Videos are recorded with sound.

7.3 General settings



Fig. 22: Image and video mode

- Press the M-key to select the image mode or the video mode.

- Press the  key

The corresponding settings menu for images or videos is displayed.

- Press the M-key.

The general camera settings are displayed.

Auto power off

- Select when the videoscope will automatically power off if no keys are pressed for a specified period of time.

Frequency

- 50 Hz or 60 Hz

Language

- Chinese, German, Japanese, English, Spanish, French, Italian, Russian.

Time and date

- Use the arrow keys to select the respective digit, then press the OK key to move to the next respective digit.

Format

- This option allows you to delete all of the image files and video files saved on the videoscope.

Standard settings

- This option resets all settings on the device to factory settings.

Version

- Firmware version

8 Warranty and Service

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8.1 Warranty

Each Wöhler VE 400 Videoscope will be tested in all functions and will leave our factory only after extensive quality control testing.

If used properly, the warranty period for the Wöhler VE 400 will be twelve month from the date of sale. Batteries are not covered by this warranty.

This warranty does not cover the freight and packing costs when the device is sent to the factory for repair.

Service by non authorized personnel or making modifications to the Video Endoscope voids any warranty.

8.2 Service

Wöhler has built our reputation on excellence in customer service. Therefore, of course, we are readily available to assist you after the warranty period ends.

- Send us the device and we will repair it and return it to you with our package service.
- Immediate help is provided by our technical staff over the telephone.

9 Declaration of conformity

The product

Product name: Wöhler VE 400 Videoscope

complies with the key safety requirements set down in the guidelines of the Council for the Harmonization of the Legal Requirements of the Member States in relation to the electromagnetic compatibility (2014/30/EU).

The following standards were availed of to evaluate the product in respect of the electromagnetic compatibility:

EN 55032: 2015

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 55024: 2010+A1: 2015

Bad Wünnenberg, 19.04.2024



Dr. Michael Poeplau, Geschäftsführer/Managing Director

10 UKCA Declaration of Conformity

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The manufacturer:

Wöhler Technik GmbH
Wöhler-Platz 1, D-33181 Bad Wünnenberg

hereby declares that the following product:

Product: Videoscope
Model: Wöhler VE 400

is in conformity with the requirements of the following legislation:
Electromagnetic Compatibility Regulations 2016

The following standards were used to assess the products in terms of electromagnetic compatibility:

BS EN 55032: 2015
BS EN 61000-3-2: 2014
BS EN 61000-3-3: 2013
BS EN 55024: 2010+A1: 2015

Bad Wünnenberg, 19.04.2024



Dr. Michael Poeplau, Geschäftsführer/Managing Director