

WÖHLER

Manual HD Service Camera

Wohler VIS 700



The Measure of Technology

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1 General Information

1.1 Operation Manual Information

This operation manual allows you to work safely with the Wohler VIS 700. Please keep this manual for your information.

The Wohler VIS 700 should be employed by professionals for its intended use only.

Liability is void for any damages caused by not following this manual.

1.2 Copyright

Without previous authorization of Wohler it is not allowed to reproduce, copy or translate this manual or part of this manual.

1.3 Notes



WARNING!

Not following this warning can cause injury or death.



CAUTION!

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



NOTE!

Highlights tips and other useful information.

1.4 Proper use

The Camera is designed to visually inspect and document the condition of pipes and shafts, for example in flue gas systems, ventilation systems as well as for inspecting underground pipes etc.

The Camera is designed to be used by trained specialists only.

Any other use is considered improper use.

1.5 Scope of supply

| Device | Scope of supply |
|----------------------------------|---|
| Wohler VIS 700 HD Service Camera | Monitor |
| | Ø 1.5 inch pan and tilt color camera head, pluggable |
| | SD card 32 GB |
| | Viper with 100 ft camera rod and monitor cable (5 ft) |
| | 3 replacement plastic domes |
| | 1 anti-slide mat |
| | 1 USB power supply with USN-C-cable |
| | Twinwall hard case |

- 1.6 Storage and transport** To avoid damage occurring during transport it is imperative that the complete system is transported in the original case designed for the purpose.

1.7 Information on disposal



Electronic equipment does not belong into domestic waste, but must be disposed in accordance with the applicable statutory provisions.

You may hand in any defective batteries taken out of the unit to our company as well as to recycling places of public disposal systems or to selling points of new batteries or storage batteries.



1.8 Manufacturer

2 Important information

Eye protection

**WARNING!**

Never point a connected camera head at your own or somebody else's eyes when the monitor is switched on. The LEDs are extremely bright and can dazzle.

**WARNING!**

Guide the rod with due care and attention. As the rod is made of flexible material, it can make whipping movements if it slips. Protect your eyes in particular.

Working environment

**WARNING!**

Only place the camera on firm level ground and ensure a secure position of camera and user, especially when working in high altitude, e.g. when working on the roof.

**WARNING!**

Make sure that the parts that you are going to inspect are no live parts.

**CAUTION!**

Protect the camera head against oil and acid. Never use the camera head and rod to push obstructions.

Operating Temperature

**CAUTION!**

Do not use the camera in temperatures above 40°C. High temperatures can damage the camera.

Important information

Resistance to water



CAUTION!

Only the camera head and the rod are waterproof. Keep the camera system dry and protect it from water!

Resistance to impacts



CAUTION!

The camera system is not impact resistant. Do not throw or allow the case to fall!

Accessories



CAUTION!

Use only original Wöhler accessories and spare parts!

Strong magnetic or electric fields



NOTE!

Do not use the camera near television towers, mobile radio equipment or other sources of magnetic or electric fields, as these may impair the quality of the displayed image.

Extraneous influences



NOTE!

Extraneous influences such as static discharges can cause the device to malfunction. If a malfunction occurs, switch the monitor off and on again.

3 Technical data

3.1 Monitor



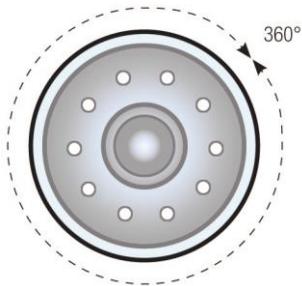
Fig. 1: Monitor

| Description | Data |
|------------------------|---|
| Dimensions housing | 0.3 x 0.2 x 0.1 inch |
| Weight | 1.9 lb |
| TFT display | 7" 16:9 format 1280 x 800 pixel |
| Charging cable | USB-C 5 V/3 A |
| Power supply | 3.7 V, 11400 mAh rechargeable Li-Ion battery |
| Battery operating time | Up to 4 h (battery status in display) |
| Operating Temperature | 32 - 104 °F |
| Storage Temperature | - 4 – 122°F |

3.2 Wöhler pan & tilt camera head

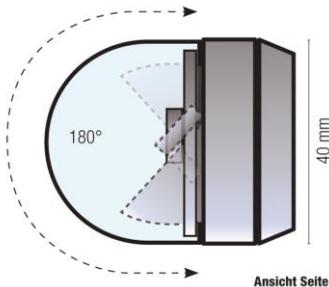


Fig. 2: Pan & tilt camera head



Ansicht Front

Fig. 3: Pans through 360°



Ansicht Seite

Fig. 4: Tilts 180°

| Description | Data |
|-------------------------------------|--|
| Classification Type | 1/2.7" COLOR CMOS |
| Focus distance | 1 inch ... ∞ |
| Light source | 10 white LEDs |
| Protection | Waterproof to IP 67 (up to 1 m depth for 30 mins.) |
| Dimensions | Ø 1,5 inch |
| Frequency of the integrated emitter | 8.9 kHz |
| Angle of detection | 75° |

3.3 Camera Rod

| Description | Data |
|---------------------------------|---------|
| Length | 100 ft. |
| Connection cable to the monitor | 4,92 ft |

3.4 Electronic meter counter

| Description | Data |
|----------------|----------------|
| Resolution | 1 inch |
| Max. deviation | 5 % of reading |

3.5 Storage

| Description | Data |
|-------------------------|---|
| Memory | If you are using a memory card other than the one included in the scope of supply, you must format it on a PC before using it with the camera. FAT 32 |
| Max. | 32 GB |
| Technology | SD or SDHC, maximum speed 10 |
| Record Capacity | Approx. 3 GB/h |
| Video Resolution | 1280 x 720 HD, max. 25 fps. |
| Video format | AVI (H264) |

3.6 Twinwall hard case

| Description | Data |
|--|-----------------|
| Dimensions | 7 x 17 x 20 in. |
| Total weight with monitor, camera head and rod | 22 lb |

4 Design and function

4.1 Video Inspection System



Fig. 5: Wöhler VIS 700 HD Service Camera

Legend:

- 1 Monitor
- 2 Anti-glare protection (stored in the case)
- 3 Space for accessories, charging cable, camera head etc.
- 4 Opening for the camera head
- 5 Camera head
- 6 Lower shell with viper and rod (inside)
- 7 Locks of the camera case
- 8 Locks of the lower shell
- 9 Monitor support

4.2 Monitor



Fig. 6: Monitor



Fig. 7: Bottom side of the monitor with USB and SD card slot

Legend:

- 1** Fixing holes for anti-glare protection
- 2** Handle, in the picture inserted in the slot of the housing
- 3** Bottom side of the monitor with terminal strip
- 4** Loudspeaker
- 5** Microphone
- 6** CTIA standard connection for headset with headphone and microphone
- 7** HDMI connection for external monitor
- 8** SD Card slot
- 9** USB port for stick
- 10** USB port for charging cable
- 11** Notch for placing the monitor on the connecting rail of the case

5 Starting to use your camera system

5.1 Attaching the camera head

- Open the cover of the camera head opening (Fig. 5, part 4)
- Carefully pull the rod out of the case.
- If it is not already connected to the rod, connect the camera head to the rod as follows: Inset the five-pin connector of the camera head into the socket of the camera head. Then screw together the threaded parts of the camera head and camera rod.



CAUTION!

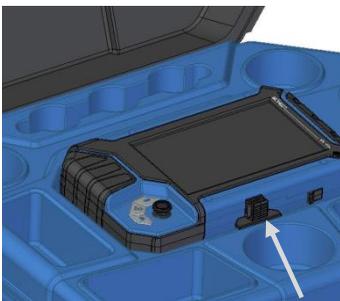
The connection is only waterproof when the connectors are joined together properly.

5.2 Using the monitor



NOTE!

When the monitor is stored in the case as envisaged the joystick is located at the bottom left. This position makes it possible to operate the joystick with the left hand and guide the camera rod with the right hand. If the monitor is removed from the case, it is recommended that right-handed users turn the monitor around so that they can operate the joystick with their right hand.



- To release the monitor from its secured position in the case, press the catch from the front.

Fig. 8: Press the catch from the front to release the monitor from its secured position in the case

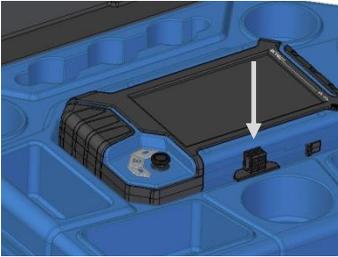


Fig. 9: Press down on the catch from above to lower the monitor into the case.



Fig. 10: You can turn and tilt the monitor



Fig. 11: Monitor removed from the case

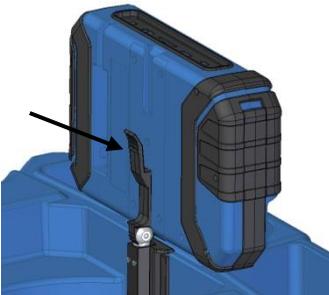


Fig. 12: Press the lever to release the monitor from the holder

- To return the monitor to its transport position, press on all four corners of the monitor or press down vertically on the catch.

! CAUTION!

If there is any resistance when pushing down on the monitor, check the connection cable has been placed under the monitor properly rolled up without any kinks

When released from the case you can tilt the monitor up and down as you wish and turn it around its longitudinal axis. Locking points ensure the camera is held in a stable position.

It is also possible to release the raised monitor from the holder and hold it in your hands.

Proceed as follows to release the monitor from the holder:

- Position the monitor upright in the holder.
- Press against the lever on the rear of the monitor.
- At the same time pull the monitor out of the holder.

Handle



Fig. 13: With the handle pulled out it is possible to hold and operate the monitor with one hand.



Fig. 14: The pushbutton to release and pull out the handle is indicated by an arrow

Anti-glare visor

It is possible to pull out a handle to allow you to hold the monitor in your right hand and operate the joystick with your right hand at the same time.

- To pull out the handle press the black pushbutton on the top of the monitor and slide the handle to the right at the same time.

- Remove the anti-glare visor from of the case lid. It is located in the compartment behind the lower part of the Short Guide.
- Insert both pins of the anti-glare visor into the corresponding fixing holes immediately above or below the display to suit your working position. Magnets on the ends of the pins ensure the visor is securely fixed in position.

5.3 Charging the rechargeable battery



Fig. 15: Battery charge icon 60%



Fig. 16: USB port indicated by an arrow

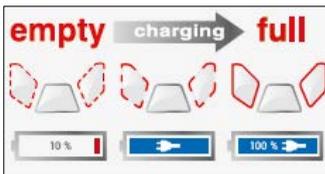


Fig. 17: Keys and charge level indicated when charging



WARNING!

Danger of death by electrocution!

Never touch a mains plug with wet hands!

Do not expose the power pack to moisture!

Never pull the cable to remove the power pack from the socket outlet - it could rip out the cable!

Operate the power pack only when the mains power supply is the same as the voltage stated on the rating plate!

A battery charge icon is on the right of the icon ribbon. The charge level is displayed in either blue or orange ($\leq 20\%$).

Recharge the rechargeable battery if the charge level is displayed in red ($\leq 10\%$).

- To charge the battery, connect the monitor to the mains using the USB power pack included in the scope of supply.
- To do so, insert the USB C connector into the USB port on the bottom of the monitor.

When the camera system is switched off the image and video keys flash red during the charging process.

The image and video keys light up red when the battery is fully charged.

The camera system remains fully functional during the battery charging process.



NOTE!

If possible, recharge the battery when the camera system is switched off. This increases the operational lifetime of the rechargeable battery.

The keys do not flash if the battery is recharged with the camera system switched on. A connector symbol is displayed in the rechargeable battery display.

6 Keys and their functions

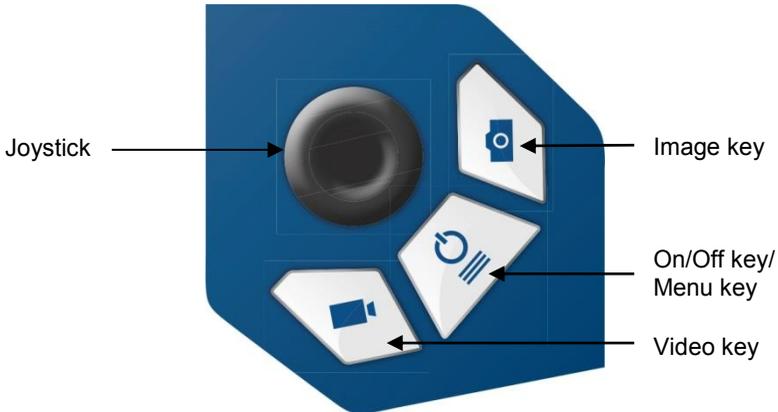


Fig. 18: Monitor keys

6.1 On/Off key



NOTE!

The ventilation fan is audible at irregular intervals when the camera is in operation.

Switching on the system

- When the system is switched off, press and hold the ON/Off key for approx. one second. The ON/Off key then lights up green, the image and video keys light up blue.

After approx. five seconds the LEDs light up on the camera. The Home screen is displayed followed by the camera image.



NOTE!

It is possible to turn the monitor through 180°. The icon and information ribbons in the monitor are automatically aligned according to the monitor position. It is also possible to turn the viewing position of the screen by slightly turning the monitor.

Switching the system off

- Press and hold the On/Off key for approx. two seconds until the system switches off.

Calling up the menu

- When the system is switched on briefly press the ON/Off key to display the menu.
- Briefly press the ON/Off key again to hide the menu.

6.2 Video key



CAUTION!

After 30 minutes the camera will automatically stop recording a video. If the video has to be recorded over a longer period of time, the user has to start recording again by pressing the video key after 30 minutes.

- To begin recording a video, briefly press the video key.
- To stop recording the video, briefly press the video key again.

A red dot is displayed in the information ribbon of the display when a video is being recorded. In addition, the video recording time is also displayed in the information ribbon.



NOTE!

The camera will only record a video when a memory card is installed.



NOTE!

It is not possible to save information such as the date, position indicator, meter counter and so forth when recording a video.

If you require this information, it is recommended that you capture an image while recording the video, see chapter 6.3. All information is superimposed on the image in the form of graphic elements.

6.3 Image key

- Press the image key briefly to capture an image.

It is possible to capture an image while recording a video.



NOTE!

The camera will only capture an image when a memory card is installed.

6.4 Joystick

Tilts through 180°

- To tilt the camera head move the joystick back and forth.

Pans through 360°

- To pan the camera head move the joystick left or right.

7 Display elements



Legend:

- 1 Brightness control
- 2 Focus control
- 3 Comment function
- 4 System menu
- 5 "Horizon" with tilt and pan angle display / Home function
- 6 "Focus" slider (the "Brightness" slider can also be displayed here)
- 7 Video recording time
- 8 Rest meter counter
- 9 Meter counter
- 10 Microphone on/off
- 11 Wi-Fi active
- 12 Locate
- 13 Number of possible images remaining
- 14 Remaining video recording time
- 15 Date
- 16 Time
- 17 Remaining battery charge

8 Displayed position of the camera head

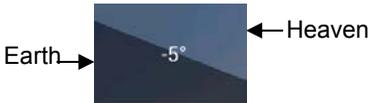


Fig. 19: Horizon icon including degree display

The horizon icon indicates the downward gradient of the pipe.

Example graphic:

- 5° corresponds to a downward gradient of 5°
 (+ 5° corresponds to an upward gradient of 5°)

9 Home function

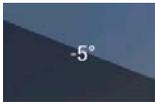


Fig. 20: Tap the horizon icon to level the camera head

The Home function makes it possible to align the camera head in a straight position, so that the camera faces “straight ahead” and the tilt and pan angle display is depicted parallel to the ground below.

- To activate the Home function tap the horizon symbol in the display.

10 Digital meter counter



Fig. 21: Reset icon (left) and position of the camera head (right)

The meter counter display information tells you how far the camera head has been pulled out of the case. To precisely determine the position of the camera head in the pipe, proceed as follows:

- Insert the camera head into the beginning of the pipe and tap the reset icon.

The position indicator is now set to 0.

11 Voice recording



Fig. 22: Microphone icon

The Wöhler VIS 700 can also record spoken descriptions together with each video. To do so, you must activate the microphone prior to recording.

- To activate the microphone simply tap the microphone icon.

The microphone is located on the left and below the monitor, see Fig. 6, part 5.

- If you do not wish to record sound together with the video, tap the microphone icon again to deactivate the microphone.

12 Live menu



It is possible to configure the settings for the camera system in this menu.

- To display the menu, briefly tap the On/Off/Menu key when the system switched on
- To hide the menu, briefly tap the On/Off/Menu key again

All menu settings are made using the touchscreen. As soon as a slider appears in the display it is possible to configure the settings via the touchscreen or using the joystick. That is the case for the Focus menu and the Brightness menu.

12.1 Brightness menu



Fig. 23: Brightness menu icon



Fig. 24: Brightness slider

In the Brightness menu it is possible to regulate the light intensity of the camera head LEDs.

- Tap the menu icon "Brightness".
- To increase or decrease the brightness
 - slide the dot on the slider using the joystick in desired direction
 - or
 - tap the sun symbol on the corresponding side next to the slider or slide the dot on the slider in the desired direction.
- To exit the Brightness menu press the joystick or tap another menu in the display.

12.2 Focus menu



Fig. 25: Focus menu icon

In the Focus menu it is possible to set specifically which area of the screen is to be displayed in sharp focus. You can adjust the focus setting via the touchscreen or using the joystick.

Adjusting the focus via the touchscreen



Fig. 26: Focus slider

Adjusting the focus per joystick

12.3 Comment function

- Tap the menu icon “Focus” in the display to call up the slider.

- To adjust the focus slide the dot on the slider or tap the flower or mountain icon.
- To activate the focus function, briefly press the joystick.
- Move the joystick left or right to adjust the focus setting.

Using the comment function it is possible to add a written comment to an image. Images can then be saved together with the comments. It is not possible to add a comment to an image after it has been saved.

NOTE!

It is not possible to add a written comment directly to a video. However, it is possible to capture an image while recording a video. It is then possible to add a comment to the image before saving it.

Add a comment



Fig. 27: Comment menu icon

Add a comment to the list of comments

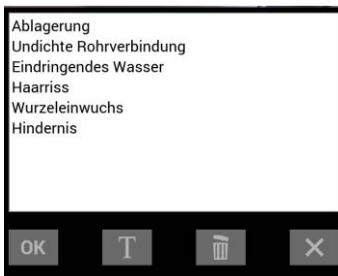


Fig. 28. List of comments

- Tap the menu icon “Comment” in the display. A list of comments comprising pre-composed comments is displayed.

- To create a new comment tap the text icon **T**.
- Enter the new comment using the keypad.
- Tap **OK** to add the new comment to the list of comments. The new comment is displayed when the list of comments is called up again.

Live menu

Add a comment to an image



Delete a comment



Exit the Comment menu



- To add a comment to the image, simply highlight the comment in the list and tap OK.
- To delete a comment from the list of comments, tap the comment to be deleted in the list of comments and then tap the Recycle Bin symbol. The comment is no longer displayed when the comment function is called up again.
- To delete a comment previously added to an image, tap the comment to be deleted and then tap the Recycle Bin symbol in the Comment menu.
- Tap the **X** icon to exit the Comment menu.

12.4 System menu

You can access the System menu via the following submenus:

Wi-Fi, Location detection, Image and video gallery, Settings.

The active functions are highlighted blue, inactive functions are gray.

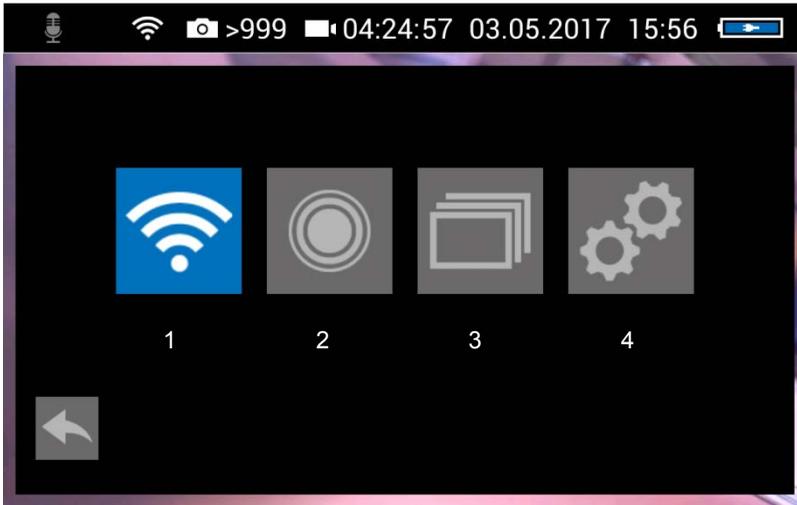


Fig. 29: System menu with submenus Wi-Fi (1) (activated), Location detection (2), Image and video gallery (3) and settings (4)

12.4.1 Activate Wi-Fi and transmit image data to a mobile terminal device



Fig. 30: Wi-Fi icon



Fig. 31: Wi-Fi icon in the icon ribbon

Establishing a connection to a mobile terminal device

- Tap the Wi-Fi icon to activate the Wi-Fi function of the camera system.

The Wöhler VIS 700 then establishes a Wi-Fi network, via which it is possible to transmit image data directly to a mobile terminal device.

This makes it possible to view the images on the monitor Wöhler VIS 700 and also allows a colleague to follow the same images live on his or her mobile terminal device in a different location.

The Wi-Fi icon is displayed in the icon ribbon of the display until the Wi-Fi function is again deactivated.

- To deactivate the Wi-Fi function, tap the Wi-Fi icon again in the System menu.

To establish a connection between the camera and the terminal device, you need the serial number of the camera. You will find the serial number of the camera on the backside of the monitor or in

the settings menu under “hostname”, see fig. **Fehler! Verweisquelle konnte nicht gefunden werden..**

- Proceed as follows:
- Access the Wi-Fi settings of your terminal device.
- Select the network **VIS700_***[serial number, 4 digit]*.
- Enter the password. The password is **woehlerVIS700**. The password is case sensitive.
- Wait until the Wöhler VIS 700 establishes contact with your terminal device.
- Open your browser of choice on your mobile terminal device (Chrome, Internet Explorer, Firefox etc.).
- In the address bar of your browser enter: **http://VIS700_***[serial number, 4 digits]*

The camera image will now be shown on the display of your mobile terminal device. Changes made to the focus and brightness settings in the camera menu will also change the image shown on your mobile terminal device.

12.4.2 Settings



Fig. 32: Settings menu

Enter time and date

The **wlan0-IP** is shown in the Settings menu; this is required to display images in a browser, see previous chapter.

In addition, the language version, the serial number and the software and hardware versions are detailed for service purposes.

The tool icon on the bottom right is a service button.

It is possible to alter the time and date in the Settings menu. These are displayed in the icon ribbon of the display and as the file name of saved images and videos.

- Tap the T-icon next to the displayed time and date. A virtual keyboard is displayed.
- Select the numeric keyboard.
- Fill out the fields in sequence with digits and select the corresponding check box to confirm your input.
- Tap the Locator icon to activate the locator transmitter.

It is now possible to detect the location of the camera head with the Wöhler Locator 200.

12.4.3 Locate



Fig. 33: Locator icon



NOTE!

The camera consumes less power when the transmitter is switched off. However, it is then not possible to locate the camera head.

12.4.4 Saving and deleting images and videos



Fig. 34: Image and video gallery icon

All stored images and videos are displayed in the Image and video gallery. Each name is made up of the time and date of the recorded image or video.

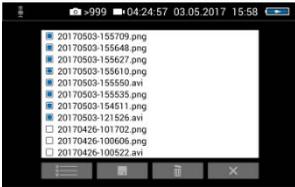


Fig. 35: Image and video gallery

Mark all files



Fig. 36: Lists icon

- Tap the Lists icon to highlight or deselect all of the files.

Save files to USB drive

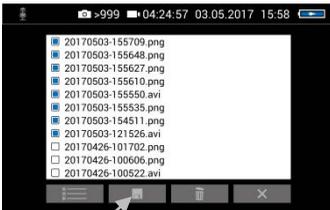


Fig. 37: Image gallery with highlighted files; the Save icon is indicated by an arrow.

- Insert the USB drive into the monitor.
- Select the check boxes next to the files to be saved. The check boxes next to the selected files are highlighted blue.
- Then tap the Save icon.

A dialog box opens to save the files to the USB drive.

Delete files



Fig. 38: Recycle Bin icon

- Select the check boxes next to the files to be deleted. The check box next to a selected file is highlighted blue.
- Then tap the Recycle Bin icon.

12.4.5 Display images and videos

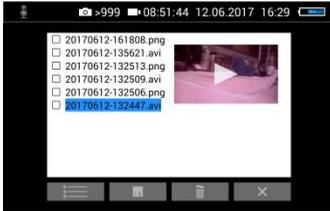


Fig. 39: Preview selected video

How to playback videos on a PC

- Tap a file name in the image and video gallery. An image or video preview is displayed next to the list of files.
- Tap Preview. The image or video is displayed.



NOTE!

Depending on the size of the video file it can take several seconds for the video to load before it is ready to play.

To return to the gallery, tap the image icon again or tap the Close icon in the video.

There are two options to transmit images and videos from the camera to a PC.

- Save the image and video files to a USB drive (see Fig. 37) and then load them onto the PC.
- Remove the SD memory card from the monitor (see Fig. 7: Bottom side of the monitor with USB and SD card slot). Insert the memory card into the card slot of the PC and copy the image and video files onto the PC.

You can playback a video on the PC using the VLC Player once you have saved the respective video file to the PC (see chapter xxx).



NOTE!

Depending on the size of the video file it can take several seconds for the video to load before it is ready to play.

Exit the Image and video gallery

Tap the **X** icon to exit the Image and video gallery.

13 Faults

13.1 Reset



Fig. 40: Reset hole indicated by an arrow

It is possible to rectify certain malfunctions by initiating a reset operation. The reset hole is located on the rear of the monitor next to the camera connection port, see Figure opposite.

- Reset 1: Insert a thin object, for example a straightened paper clip, into the reset hole and press for 2-3 seconds. All of the LEDs should then light up.
- Reset 2: If all of the LEDs do not light up after 2-3 seconds, insert a thin object into the reset hole and press for approx. 15 seconds. All of the LEDs should then light up.



NOTE!

Depending on the type of reset operation carried out the reset time (until all keys light up) is between 2 and 15 seconds. The reset operation is successful when all of the LEDs light up.

13.2 Possible malfunctions

| Fault description | Possible cause | Remedy |
|---|-------------------------------|--|
| Image and video keys flash rapidly when the device is turned on. | Rechargeable battery is flat. | Recharge the battery |
| Monitor and camera head switched on. No or stuttering image replay. | Rod is broken. | Return the device for repair. |
| Blurred images | Plastic dome scratched. | Replace the plastic dome; glass dome optional. |
| Camera system dead | Rechargeable battery is flat. | Recharge the battery. |
| | Device is faulty. | Return the device for repair. |

14 Maintenance

14.1 Information on maintenance

Proper operation of the Service Camera requires regular maintenance. The following maintenance works can be done by the user himself.

14.2 Replacing the dome of the camera head



Fig. 41: Fitting the camera dome



NOTE!

The camera head is supplied protected by a plastic dome, which can be replaced if necessary, for example, if it becomes scratched. It is optional to fit this camera head with a glass dome for use in dry working environments.

Smear the thread with silicone grease before fitting the new dome. When fitting the replacement dome, make sure you engage all of the thread to ensure it is properly tightened. Otherwise, it cannot be guaranteed that the camera head is properly sealed, and malfunctions can occur as a result of water and dirt ingress.

14.3 Camera head

- Only use soft, damp cloth to clean the lens. Never use any cleanser.

14.4 Monitor

- Clean the monitor using a soft cloth.

14.5 Cleaning the viper and the rod

The viper with the rod is placed in the lower shell of the case. It is possible to take it out and clean it with water. In this case the camera head can remain fixed to the camera rod. If you remove the camera head from the rod, you must seal the rod end with a plug before cleaning.

- To do so proceed as follows:



Fig. 42: Press lever and pull the monitor from the support at the same time.

- First open the upper shell of the case.
- Place the monitor in an upright position and pull it from the support.
- Unscrew the union nut of the monitor cable and remove the monitor cable from the monitor.
- Store the monitor so that it cannot become wet when you are cleaning the viper.



Fig. 43: Upper shell of the case with connection cable (monitor) and without monitor

- Push the monitor support back into the case.



Fig. 44: Case in the correct position for removing the viper

- Open the black locks of the lower shell.
- Place the case in an upright position on the narrow edge.



Fig. 45: Grasping the end of the rod and the viper

- Grasp the rod guide and the viper, so that they cannot twist against each other any more.
- Turn the viper 90° counterclockwise.

The rod can easily be removed from the case now.



Fig. 46: Removing the viper with the connection cable from the case.

- Remove the viper from the case.
- Cautiously pull the monitor cable from the case.
- Close the upper shell of the case.

Cleaning the viper and the rod



Fig. 47: Viper removed from the case, monitor plug covered by a lid



CAUTION!

Take care that no water comes into the plug connections of the rod.

- Secure the monitor plug against water, e.g. with a foil.
- If the camera head is not connected to the rod during cleaning, secure the rod end against the ingress of water, e.g. with a foil.



NOTE!

The waterproof camera head can remain attached to the camera rod while cleaning. In this case take care that the connection is tight.

- Clean the viper and the rod with water.

Cleaning the lower shell of the case.



Fig. 48: Sealing plug placed in the lower shell of the case.

In the upper right corner of the lower shell of the case there is a sealing plug.

- Remove the sealing plug.



Fig. 49: Hole for the connection of the viper, sealed with the sealing plug.

Assembly of the case



Abb. 50: Rod guide in the end position



Fig. 51: Rod with camera head.

- Plug the sealing plug into the hole for the connection of the viper. Fix the sealing plug by turning it clockwise. Fix it carefully so that no water can come into the upper shell of the case.
- Flush the lower shell of the case with water.
- Dry the case with a cloth.
- Allow the viper and the rod to dry, to avoid humidity in the case.

- After that mount the case in reverse order.
- Turn the sealing plug counter clockwise, remove it and plug it in its place in the upper right corner of the lower shell of the case.
- Guide the monitor cable through the hole in the middle of the case.
- Place the viper on the hole, so that the rod guide is vertically down.
- Press the viper slightly and turn it 90° clockwise.

- Guide the end of the rod with the camera head through the opening and push the camera head into the case.

- Close the lower shell of the case.
- Connect the monitor with the monitor cable.
- Replace the monitor into the case again..
- Return the monitor to its transport position by pressing down (see chapter 5.2) and close the case.

15 Guaranty and Service

15.1 Guaranty

Each Wöhler VE 700 HD Service Camera 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 VIS 700 will be 12 month from the date of sale. Not covered by the warranty is the plastic dome and SD card.

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

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

15.2 Service

Excellent SERVICE is very important to us. Therefore, of course, we are readily available to assist you after the warranty period ends.

- Send us the Camera 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.

16 Declaration of conformity

The manufacturer:

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

declares that the product

product name: HD Service Camera
model number: Wohler VIS 700

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/EG).

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

EN 61000-6-3:2007 + A1:2011
EN 61326-1 2013
EN 61000-3-2: 2014
EN 61000-3-3; 2013



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