## WÖHLER



# CLEAR VIEW, WHEN SPACE IS TIGHT

## Wohler VIS 250 Visual Inspection System

Video inspection, position indicator and locator





















POWER UP TO 4h

## Wohler VIS 250 Visual Inspection System

### Intelligent camera head guides and tracks

Wohler's innovative VIS 250 service camera enables you to easily analyze damage in pipes of 1 1/2" dia and larger – and no power outlet required. Compact by design and powered by a rechargeable battery, this complete camera set is supplied in a plastic case. The camera head features a powerful, integrated light to allow you to precisely analyze damage in waste water pipes (at least 1 1/2" dia) and inspect downpipes as well as flue gas lines. Absolutely essential to analyze damage quickly!

In addition to competently analyzing hidden defects in all types of buildings, the Wohler VIS 250 provides you with transparent on-the-spot damage diagnostics.

Thanks to its user-friendly handling and instant startup characteristics, you not only ensure your customers are satisfied but you can also feel relaxed about meeting the challenges ahead. The integrated video memory allows you to fully document your inspection work.

The camera saves a video of the voyage of the camera head through the pipe. It passes even several 90° bends without problem. With a simple touch of

a button a photo of a damaged spot can be made and stored.

We have brought the localization of the damage to perfection so that it is easy to estimate the cost for the repair. The distance to the camera head is indicated in the display as well as the position. This helps very much in run of ducts. The display always shows where the top and the bottom of the duct are. The user also sees the exact angular momentum in which the camera head is pushed upwards or downwards. With the new Wohler L 200 Locator it is even possible and economic to locate the camera head via radio.

## **ADVANTAGES**

- Ideal for analyzing household waste water pipes of 1 1/2" dia and larger
- Flexible the camera easily takes even several bends in stride
- Position of waterproof camera head indicated in the display
- Integrated locator transmitter precisely locates damage
- Up to 4 hours flexibility storage space for 2 NiMH rechargeable batteries
- 100 ft. FRP push rod
- Compact and safely stored for transport and mobility in a plastic case



The robust color camera head is waterproof to 100 ft. With a diameter of just 1" it easily negotiates  $90^\circ$  bends in pipes of 1 1/2" dia and larger.



The actual meter count and the position of the head are displayed in the monitor. The Wohler L 200 Locator makes it possible to locate the camera.



The service camera is an essential partner in a wide range of applications including the analysis of flue gas installations.



Wohler's new camera system is both compact and safely stored in a plastic case for transport and mobility.



Space to store 2 rechargeable NiMH batteries (12 V) - each with a rechargeable, operating battery life of up to 2 hours – the main battery is charged in the case

#### **TECHNICAL DATA**

Resolution .....

#### Monitor

7" x 4.5" x 1.3"
7" / 16:9 format
FBAS signal
1 lbs
Space for 2 rechargeable batteries, each 12 V or via power
pack
Max. 2 rechargeable batteries, each 120 mins. = 4 h
(battery status in display)

#### Miniature color camera head, 1" diameter .....1/3" COLOR CMOS

110001011011	420 11103
Pixels	768 x 576 (PAL), 656 x 492 (NTSC)
Light sensitivity	0.5 Lux
Lens	f = 0.09", F = 2.5
Viewing angle	115°
Light source	12 white LEDs
Degree of protection	Waterproof to IP 68
Dimensions	Ø 1" x 1.5"
Weight	0.5 lbs
Operation temperature	32104 °F, RH 95 % MAX
Storage temperature	4122 °F, RH 95 % MAX
	Adjustable 8.9 kHz or 9.2 kHz

.....420 lines

Pusn roa	
Length	100 ft.
Diameter	0.24"
Distance measurement	electronic meter counter
Plastic case	

Dimensions	. 20	X	17	Х	1	(1	Χ	W	Х	I
Weight	.15	lbs								

#### Locator receiver

Display	. Graphic	visualization	of	transmitted	positio
Output impedance					
Headphones	.32 Ohm	I			

Output impedance
Headphones
Douger aupply

Power supply1	2 V NiMH battery (rechargeable)
Operating temperature3	32104 °F
Storage temperature1	4104 °F

.....1.3 lbs 

#### Memory

......4 GB SD card (2.5 h recording capacity) Recording... Interface.....Mini USB port

#### X Applications

Analyze damage and inspect:

- · Waste water pipes of 1 1/2" dia and larger
- · Ventilation lines of 1 1/2" dia and larger
- · Inspect hollow spaces, e.g. in front-wall installations
- · Flue gas lines up to approx. 6" dia

#### ☆ Functionality

- · Waterproof, light-sensitive camera head with a diameter of just 1" easily takes bends in stride
- · Store video footage on a 4 GB SD card (Wohler VIS 250)
- · Digital Indication of the camera head
- · Electronic metering displayed on monitor
- · Fully equipped mobile solution in a robust, plastic case
- · Does not require main power supply
- · Bright TFT color monitor for razor-sharp images
- · Tiltable and removable monitor
- · Integrated video output for documentation purposes
- · Battery operating time: 2 x 120 min. with 2 rechargeable batteries (optional)
- · Data exchange via mini USB cable (Wohler VIS 250)

#### 

- · Transmitter integrated in camera head makes it possible to precisely locate the camera head
- · Facilitates targeted repairs to damaged pipelines
- · Telescopic holder makes it possible to locate damage under floors or in ceilings
- · Chalk holder with lithographic chalk ensures it is possible to mark located damage immediately
- · Powerful rechargeable battery

#### Data management

Simply record and store photos and videos on a 4 GB SD card for documentation and archiving purposes for you and your customers

#### **Documentation / Position Indicator**



The "Save function" makes it possible to save and view what you see at the push of a button. The integrated position indicator ensures you keep your sense of orientation in the pipe.

#### **Bright illumination**



Thanks to the excellent lighting system of the color camera head, the camera supplies razor sharp images of even the darkest corners of the section under inspection.

#### Flexible



The tiltable and removable TFT wide-screen color monitor provides brilliant images, which it is possible to document via video memory on the SD card, a laptop or video recorder.

#### Integrated locator transmitter



The camera head of the Wohler VIS 250 / 200 is equipped with a transmitter as standard – that means the camera head can easily be located by the new Wohler L 200 Locator.

## Wohler L 200 Locator

#### Penetrating views through concrete and asphalt

Inspecting pipes under the ground, in ceilings and walls is daily routine for specialist tradesmen and women. And after the inspection, the next task is to locate the position of the damage accurately to be able to offer and carry out the necessary repair or cleaning work with precision. With the Wohler L 200 Locator that is now all just child's play. It precisely detects radio signals transmitted by the flexibly positionable camera head.

Skilled tradesmen and women and their customers are able to save considerable time and cost savings by utilizing video inspections to visualize leaks and document damaged or soiled sections of pipework. The Wohler L 200 Locator also locates the radio signals transmitted by the camera head of the Wohler VIS 250 / 200 systems. Damage is displayed precisely in a clear-cut graphic on the display of the Locator to ensure it is discovered rapidly and marked.

#### Insights keeping you in the picture

This is how the Wohler L 200 makes locating simple: The Locator attaches to a telescopic pole. Guided close to the ground,

along walls or below the ceiling, it locates the very long radio waves transmitted by the camera head. Particularly ideal: The user is guided by the bright color display throughout the locating process - crosshairs are displayed on a horizontal grid system. In addition, an acoustic signal is emitted and made audible via a loudspeaker or headphones. The cross-hairs and the strength of the signal indicate the direction and distance to the located point. Once the section of pipe to be repaired or cleaned has been found, it can be marked easily. For this purpose, a holder is provided to affix a piece of chalk to the end of the Locator.



## **ADVANTAGES**

- Locates radio signals transmitted by the camera head rapidly pinpoints damage
- Easy to handle user guided via display throughout the locating process
- · Bright, easy-to-read color display
- Telescopic pole easily track down damage anywhere
- Chalk holder for chalk to mark the position where damage is found

## **Kit and Accessories**

Sets Wohler VIS 200	Qty	Accessories	Q
Wohler VIS 200 Video Inspection Camera		Wohler L 200 Locator (Receiver)	
Video inspection for sewer and water pipes, drain and flue lines,		P/N 7430	
ductwork, etc.  Comes with: Wohler TFT monitor 7" with 6 ft. connection cable		Wohler VIS Cleaning Set	
(removable monitor), digital meter counter, Wohler camera head 1"		with plastic case, for approx. 50 applications	
dia V2, 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery		1 liter desinfection spray, 50 cleaning tissues, 100 disposable gloves	
and charger, complete system in a plastic case, guidance sleeve, quidance ball		size XL (powder free), 6.76 ounce lubricant, plastic case	
P/N 6261		P/N 4725	
		Wohler VIS Cleaning Set Refill	
Wohler VIS 200 Video Inspection Camera with Wohler L 200 Locator		for approx. 50 applications  1 liter desinfection spray, 50 cleaning tissues, 100 disposable gloves	
Video inspection for sewer and water pipes, drain and flue lines,		size XL (powder free), 6.76 ounce lubricant, in plastic bag	
ductwork, etc.		P/N 4726	
Comes with: Wohler VIS 200 NTSC Service Camera with digital meter counter in heavy duty carrying case, miniature color camera		Guidance Sleeve with protection cage	
neter counter in heavy duty carrying case, miniature color carnera nead Ø 1" V2 NTSC, 7" TFT color monitor, 6 ft. connection cable (re-		for miniature camera head 1" dia	
movable monitor), 100 ft. push rod Ø 0.24", anti-slide mat, 1 NiMH		improves ability to navigate through pipe bends, protects the camera	
battery with charger, Wohler L 200 Locator (Receiver), 1 guidance sleeve for mini camera head, 1 guidance ball for flex part of camera		head and the objective	
bush rod		P/N 3847	
P/N 8937		Wohler Camera Roller Guide suitable for camera heads and rods	
		P/N 3681	
Sets Wohler VIS 250	Qty	Guidance Ball	
Wohler VIS 250 Video Inspection Camera	Qty	for flex part of camera push rod improves ability to navigate through	
Video inspection for sewer and water pipes, drain and flue lines,		pipe bends	
ductwork, etc.		P/N 3634	
Comes with: Wohler VIS 250 NTSC Service Camera with digital			
•		Sunshade for Wohler VIS 2xx / 3xx	
meter counter in heavy duty carrying case, miniature color camera		Sunshade for Wohler VIS 2xx / 3xx for 7" TFT monitor	
neter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT			
meter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push od 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance		for 7" TFT monitor	
meter counter in heavy duty carrying case, miniature color camera head 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push od 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball		for 7" TFT monitor P/N 6814	
meter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253		for 7" TFT monitor P/N 6814 Guidance Sleeve	
neter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push od 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star	
neter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push od 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera with Wohler L 200 Locator		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx	
neter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push od 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera with Wohler L 200 Locator  //deo inspection for sewer and water pipes, drain and flue lines,		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx 8" dia with 6 brushes, with thread, centers the GRP camera rod,	
meter counter in heavy duty carrying case, miniature color camera nead 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera with Wohler L 200 Locator Video inspection for sewer and water pipes, drain and flue lines, ductwork, etc.  Comes with: Wohler VIS 250 NTSC Service Camera with digital		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx 8" dia with 6 brushes, with thread, centers the GRP camera rod, to guide the camera head	
meter counter in heavy duty carrying case, miniature color camera head 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera with Wohler L 200 Locator Video inspection for sewer and water pipes, drain and flue lines, ductwork, etc.  Comes with: Wohler VIS 250 NTSC Service Camera with digital meter counter in heavy duty carrying case, miniature color camera		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx 8" dia with 6 brushes, with thread, centers the GRP camera rod, to guide the camera head  P/N 3854	
meter counter in heavy duty carrying case, miniature color camera head 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx 8" dia with 6 brushes, with thread, centers the GRP camera rod, to guide the camera head  P/N 3854  Wohler VIS Centering Brush	
meter counter in heavy duty carrying case, miniature color camera head 1" dia V2 NTSC, 4 GB SD card and mini USB cable 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, guidance sleeve, guidance ball  P/N 6253  Wohler VIS 250 Video Inspection Camera with Wohler L 200 Locator Video inspection for sewer and water pipes, drain and flue lines, ductwork, etc.  Comes with: Wohler VIS 250 NTSC Service Camera with digital meter counter in heavy duty carrying case, miniature color camera head 1" dia V2 NTSC, 4 GB SD card and mini USB cable, 7" TFT color monitor, 6 ft. connection cable (removable monitor) 100 ft. push rod 0.24" dia, anti-slide mat, 1 NiMH battery with charger, Wohler L		for 7" TFT monitor  P/N 6814  Guidance Sleeve for mini camera head  P/N 3827  Wohler VIS Centering Star for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx 8" dia with 6 brushes, with thread, centers the GRP camera rod, to guide the camera head  P/N 3854  Wohler VIS Centering Brush for Wohler VIS 2000 PRO / VIS 400 / VIS 2xx / VIS 3xx	
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P/N 4715

P/N 3789

P/N 3169

operation time: 120 min, warranty: 12 months

charge time 3 hours for all countries

Car charger Wohler VIS 2xx / 3xx

18V, 1,5A, 100-240V, 50 Hz, 2.1 mm female plug, center plus,

Power Supply for Wohler VIS 3xx / VIS 2xx

18 V