

# H2 CAMERA SYSTEM

## User manual

1.0.0-NA-EN-20250410



SCAN ME AND  
FIND MANUAL  
ONLINE



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## Warranty Terms and Conditions

By purchasing a Hathorn push camera (Product) from Minicam Inc, you accept the terms of this limited warranty. You also agree that Minicam Inc shall have no liability to you or any end user for any damages resulting from delay or loss of use of the Product due to failure of the Product within the warranty period, or otherwise, or in service or repair. Minicam Inc shall have no liability for general, special, incidental, or consequential damages arising out of the use or misuse of Minicam Inc Product.

You also agree that the application and use of a Minicam Inc Product is beyond our control and is the sole responsibility of the user. By receiving and using one of Minicam Inc Products, you hereby acknowledge and agree that: you have selected the correct product for your intended use and will examine the product you are purchasing when it arrives to ensure that it meets your needs, you will properly test the product prior to its actual use, you and/or your organization have proper practices in place for the safe use of this equipment and that end users have been trained on its safe operation.

Minicam Inc Products are not intrinsically safe, not explosion proof, and misuse of the product may cause physical or psychological injury, pain, suffering, illness, disfigurement, temporary or permanent disability, economic or emotional loss or death; and Minicam Inc shall not be held liable for any damages, including but not limited to direct, indirect, special, or consequential damages arising out of, resulting from, or in any way connected to the improper or incorrect use of the

Product and assumes no responsibility for other's use of the Product.

## Not covered by Warranty

This one (1) year Limited Warranty does not cover damage or malfunctions stemming from other than normal and proper usage or from Products not meeting the requirements of end users. This Limited Warranty also does not cover the following: (a) intentional or accidental misuse or abuse (including, but not limited to, damage to push rod from excessive force), (b) failure to follow operating or maintenance instructions, (c) repairs by any individual or entity other than an authorized Minicam Inc repair center, (d) use of Product components, accessories or consumables not manufactured by Minicam Inc (e) product tampering, (f) droppage, (g) battery leakage if equipped, (h) media cards, (i) excessive light damage to the camera element or (j) damage resulting from being used in extreme environments or due to weather events. Wear and tear are not covered.

Minicam Inc responsibility under this Limited Warranty is limited to the repair, adjustment or replacement of defective parts as determined by Minicam Inc in its sole discretion. Minicam Inc shall not be held liable for any damages, including, but not limited to direct, indirect, special, or consequential damages arising out of, resulting from, or in any way connected to the use of Minicam Inc Products. Minicam Inc assumes no responsibility for other's use or misuse of its Products. Minicam Inc assumes no responsibility for warranties either expressed or implied.

## Service

If the product requires service, please contact a Minicam Inc authorized service center. Some service locations are listed in this document (Pages 18 & 19). The remainder can be found on our website.

After requesting a Return Merchandise Authorization (RMA), ship the item PREPAID and INSURED to the appropriate service center. Minicam Inc is not responsible for damages or loss incurred in connection with mailing and/or transportation of products.

## Return Freight

**Warranty:** Pre-Paid by customer as above, returned by Minicam Inc on our account.

**Non-Warranty:** Freight paid by customer both directions.

## Non-Warranty Charges

Repairs centers will charge direct for non-warranty repairs and may require payment prior to repair.

## CE Declaration

We Minicam Ltd, Raven Locks, Unit 33-35 Ravenscraig Road, Little hulton, United Kingdom, M38 9PU hereby declare that the product Hathorn H7 to which this declaration refers is in compliance with the following standards or standardizing documents:

EN61326-1: 2021 Electrical equipment for measurement, control and laboratory use – EMC requirements - Part 1: General requirements  
ETSI EN 300 328

The following are the stipulated operating and environmental conditions for said compliance:  
Residential, business, commercial, small-company and light industrial environments.  
This declaration is based on test report(s) of the relevant EMC testing laboratory.

### **Authorised representative in the EU: Authorised representative in the United States:**

InPipe GmbH Minicam Inc  
Jägerwinkel 1a, 12600 Newburgh Road,  
6991 Riezlern, Livonia,  
Austria MI 48150  
United States

## FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## ISED

This digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## ACMA

This multimedia equipment complies with AS/NZS CISPR 32:2015 AMD1:2020. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## Health and Safety

This equipment is primarily used for inspecting sewer pipes by professionals operating in the sewer and plumbing industry and maintained by professionals familiar with the health risks of maintaining equipment in a sewer. Such professionals should be protected by their company's recommendations and work practices.

Always be aware of your surroundings and keep all electrical connections dry and off the ground. Do not work near open pits or traffic. Hathorn recommends that users wear personal protection such as eyewear, rubber gloves, and non-skid safety shoes.

## Worksite Safety

Use your company's or other applicable safety codes and rules when using this equipment. Do not use this equipment in any area with the presence of flammable liquids, gases, and heavy dust. Minicam Inc Hathorn's inspection cameras are not explosion proof nor are they intrinsically safe.

## Equipment Safety and Durability

- Do not open the enclosures (housings) of the control module or camera heads. Opening the housings, control module, or camera head will void any warranty.
- Use only the leads supplied with the control module for AC or DC operation.
- Minicam Inc Hathorn tools accept only Milwaukee® M18 18V batteries or equivalent. Batteries must be removed from the equipment when not in operation. Failure to do so can result in damage to your camera or the battery.
- Do not use pressure washers to clean the reel or other camera system parts. Pressure washing any part of your Hathorn camera will cause internal damage which is not covered by your warranty.
- Do not soak the spring termination parts or the camera heads in bleach or other chemicals.
- This product is not designed for and should not be used to inspect oil or other petrochemical pipes.

## CAMERA SYSTEM

## Product Specifications

Weight	45 lbs (20 kg)
Length × Width × Depth	133" × 19" × 16" (48 cm × 35 cm × 75 cm)

## Power

AC/DC Adapter	12V - 4.1A
Battery	Only Milwaukee® M18 18V or equivalent*
Battery Life	~5hrs using 3.0Ah (not recording & sonde off)
Battery Extender	Yes with on-screen battery display

## Display

Type	Impact-resistant LCD
Size	7" (17.8 cm)
Resolution	1024 × 600 pixels
Brightness	500 cd/m <sup>2</sup>

## Footage Counter

Feet or Meters with reset function

## Sonde Frequencies

High power 512 Hz or 640 Hz

## Environmental

Operating Temperature	14°F to 122°F (-10°C to 50°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)



BATTERY MOUNT ON BACK

18V BATTERY CRADLE  
AND AC/DC ADAPTER  
POWER INPUT



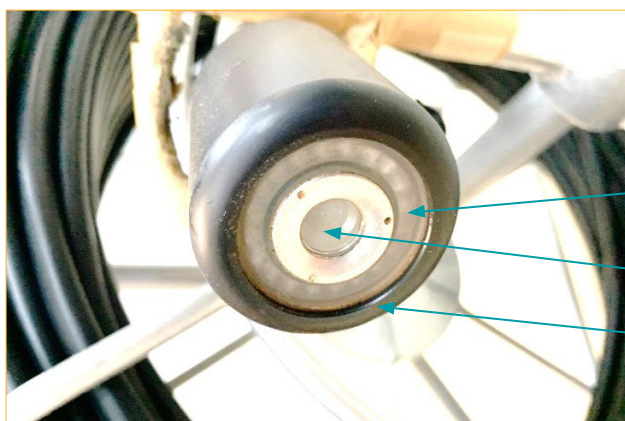




MULTI-FUNCTION BUTTON  
ON THE SIDE:

- ✓ resets footage counter
- ✓ turns Sonde on/off

7" LCD SCREEN



LED LIGHTS

SAPPHIRE CAMERA WINDOW

PLASTIC SKID/SLEEVE

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## CAMERA SYSTEM

### User Instructions

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#### Turning Your Monitor On

Insert the battery to turn on the controller and initiate the display. System will turn on automatically.

#### **NOTE:**

**It is good practice to remove batteries from electronic equipment after use. Failure to do so may result in the batteries being drained over extended periods.**

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#### Turning the Sonde On /Off

On the main screen, push and hold the Multi-Function button until the footage counter stops flashing to turn the sonde on or off. Sondes are locatable up to ~15ft depth, dependent upon the type of pipe (concrete/steel/cast iron) and the presence of thick concrete, sand, or other utilities.

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#### Footage Counter Reset

Press and hold the Multi-Function button until the counter starts flashing. Once the counter is flashing, release the button to reset the counter to zero.

Skids or sleeves should ALWAYS be used to protect the camera head. Depending on the size of the pipe you are inspecting, you may need to use a skid, so the camera is centered or off the floor of the line. Care should be taken so the skids do not snag in the line.

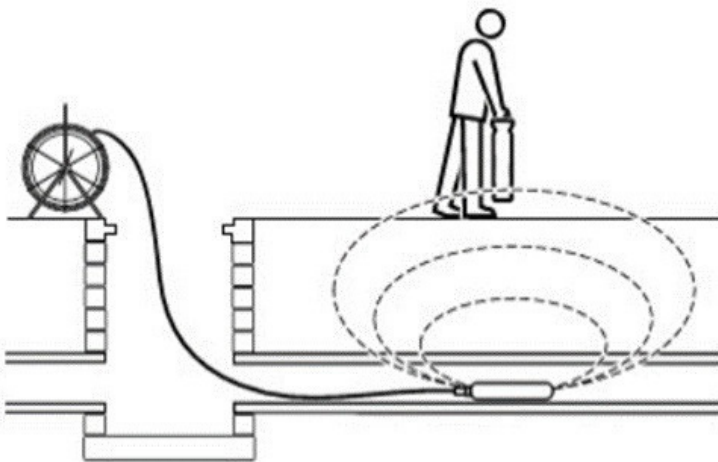
Under normal operating situations, the camera is used with a smaller protective sleeve in lines under 4" (100 mm) in diameter, or a larger grooved skid in 4" (100 mm) lines or larger.

1. Slowly push the camera into the pipe and maneuver the camera into position to feed down the pipe, making sure the flex neck does not kink or double back on itself.
2. Push the camera slowly and carefully during the inspection, taking note of the conditions of the pipe for possible hazards that may entangle or damage the camera on entry or retrieval.
3. When maneuvering a corner, care should be taken not to butt the nose of the camera against the sidewall with any force. It would be better to let the camera "work" its way around the corner. If resistance is encountered when turning the corner and there are no visible signs of blockage, turning the push rod or pulling the camera back and forth sometimes helps.
4. Should resistance become extreme, or the camera gets entangled or stuck, slowly push it back and forth to free it. Sometimes, turning the push rod may also help. If the camera is visible, you may be able to free it with your hand or by some other means.
5. Upon completion of the inspection and retrieval of the camera, it may be necessary to 'manipulate' the camera around the initial bend (clean out) in the pipe with a pole or other device if required.
6. **NEVER** use the camera to unclog a drain or clear debris in the pipe. Doing so can cause damage to the camera head or lens.
7. **NEVER** force the camera down a pipe as this may cause a kinked cable, which will require expensive repairs.
8. **NEVER** use a pressure washer to clean any part of the system. High pressure water can cause degradation of the electronic parts, causing damage.
9. **NEVER** unspool all of the rod from a reel. Always leave a few turns of rod on the reel to aid with respooling.

## Locating the sonde signal (512Hz or 640Hz)

Insert the sonde into the drain and locate it while it is still just in view at the drain or duct entrance. Hold the locator vertically - directly over the sonde with the antenna in line with the sonde. Adjust the locator sensitivity so the bar graph reads between 60% and 80%. Push the sonde along the pipe to the desired area.

1. Approach the peak of the signal, working perpendicular to the pipe. Move the locator backwards and forwards and stop when the bar graph indicates a Peak.
2. Push the camera 4-6 ft (1-2 meters) further, pinpoint, and mark the position. Repeat this pinpointing procedure at similar intervals along the line of the drain or duct until the survey is completed.
3. Most locators will automatically display the depth of a located sonde, provided the locator is correctly oriented and positioned above the sonde



## Inspection Camera

After every use, the camera should be cleaned and checked for possible damage. External scuffing of the camera case is normal and should be of no concern. The camera view port is made of sapphire and should be cleaned with a soft, damp cloth. Grease, dirt or scratches will affect the quality of the video and if the lens is badly scratched it should be replaced.

## LED Light Replacement

The camera heads use LED lighting and cannot be replaced by the operator. These lights use very little power and unless physically damaged or extreme voltage is applied to them, should last indefinitely. If replacement is necessary, the camera should be returned to the factory.

## Reel and Cable Assembly Maintenance

The reel and cable assembly should be kept clean from dirt, slime, grit, etc. When winding the cable back onto the reel after an inspection, it is good practice to use a cloth to wipe off any debris.

### **WARNING:**

**Never use a power washer to clean your inspection equipment. Pressurized water may get into unsealed areas such as the usb block, reel hub assembly and slip ring housing causing damage. Water damage to electronic equipment is not covered by your warranty.**

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