

WI-FI REELS

User manual

EU Version A



SCAN ME AND
FIND MANUAL
ONLINE



minicam
HATHORN

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This document is applicable to the Minicam Hathorn Wi-Fi Reels

A standard system and available options are covered by this document. Depending on your system configuration you may lack some of the features mentioned in this document.

Disclaimer

Hardware and software mentioned in this document are subject to continuous development and improvement. Consequently, there may be minor difference between the information in the document and the performance or design of the product. Specifications, dimensions and other statements in this document are subject to change without prior notice.

Minicam and its suppliers shall not be liable for any damages related to this software or hardware, or for any other damages whatsoever caused by the use of or inability to use any Minicam product. This is applicable even if Minicam has been advised of the damage risk. Under any circumstances, Minicam's entire liability shall be limited to replace such defective software or hardware that was originally purchased from Minicam.

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Company Registered in England & Wales • Company Registration No: 3728693

Limited Warranty

Congratulations on the purchase of your new Hathorn Inspection System. Our products are the result of many years experience and continuous developments. Conscientious manufacturing and checking are essential objectives in our company. Nevertheless failures cannot be excluded totally. If this occurs, you are covered by our generous warranty. Please consider that even the best products can only be durable and work properly with the correct handling and maintenance.

Extent of the Limited Warranty

Minicam warrants that your equipment will be in good working condition and free of defects in material and/or workmanship for a period of one year. If failure occurs, which is provable due to a defect in material and/or workmanship, we will remedy it free of charge during the warranty period. We reserve the right, at our option, to repair the equipment or to replace the whole unit or the faulty parts, or to refund the then current value of the equipment, if we are unable to repair or replace the unit. The warranty is a return to base warranty and we are not liable for any shipping costs.

Conditions of the Limited Warranty

Disassembling the camera, coiler, control unit or any part of the system, without approval of the manufacturer, is forbidden! Non-compliance of this direction will result in the loss of the warranty. The beginning of the warranty period is the date of delivery. This limited warranty does not cover damage due to improper treatment of the system, inadequate maintenance, alteration, repair, normal wear and tear or external causes like lightning, fire or frost. The warranty does not cover wear and tear parts like front camera lenses, O-rings, cable, push rod, rod rollers etc. If you require warranty service please return the system with the original invoice to your dealer or the nearest Minicam Service Centre. Equipment returned **must** be consigned carriage paid. We will **not** be liable for carriage costs.

Warranty Limitations

Our responsibility under this warranty is limited to repair, replacement or refund, as set forth above. Minicam is not responsible for direct, special, incidental or consequential damages resulting from any breach of warranty including lost profits, downtime, goodwill, damage to or replacement of equipment and/or property.

Danger, Caution and Note

In this user manual the following symbols are used:



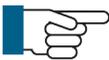
DANGER!

Danger means a potentially dangerous situation that can cause death or severe bodily injury. The icon identifies the type of risk.



CAUTION!

Caution means that the system or equipment can be damaged or data lost. The icon identifies the type of risk.



NOTE!

Notes are used to convey throughout this manual important information or guidance for system use.

Bold Font

Bold font is used for important words (For example: This **must not** be done in reverse order).

Lists

Lists are marked as follows:

- Item 1
- Item 2

Procedures that must be performed in a specific order appear in numbered lists like this:

- 1 Perform this step first.
- 2 Perform this step second.

Menu Selections

When describing control unit operation, sequential menu selections are described in the following format:

Tools > Power Saving > Automatic Shutdown > OK

This example describes pressing the Tools  key and selecting the Power Saving option, then Automatic Shutdown, and finally pressing the OK key.

CE Declaration

We Minicam Ltd, Raven Locks, Unit 33-35 Ravenscraig Road, Little hulton, United Kingdom, M38 9PU hereby declare that the product Minicam Hathorn Wi-Fi reels 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:

InPipe GmbH
Jägerwinkel 1a,
6991 Riezlern,
Austria

Authorised representative in the United States:

Minicam Inc
12600 Newburgh Road,
Livonia,
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.

Under the European Union (EU) Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, products of electrical and electronic equipment cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment are obligated to take back such products at the end of their useful life. Minicam will comply with the product take back requirements at the end of life of Minicam products that are sold into the EU.

For disposal contact Minicam or the Minicam Partner in your country.



Information on Disposal for Business Users

Your Hathorn CCU is marked with the symbol shown above. It means that used electrical and electronic products should not be disposed of in with general household waste. Contact your Local Council who will advise on the correct recycling procedure to follow.

In the European Union

Please contact Minicam or your nearest Minicam Service Centre who will inform you about the take-back of the product. You may be charged for the cost arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain:

Please contact the established collection system of your local authority for take-back of your used product.

Countries outside the EU:

If you wish to dispose of your Hathorn CCU, please contact your local authorities and ask for the correct method of disposal.

CAMERA SYSTEM

Product Specifications

Power

Battery (not incl.)	Only Milwaukee® M18 18V or equivalent*
Battery Life	~ 12Hrs. using 3.0Ah
AC/DC Adapter	12V - 4.1A (included)

Display

Size & Display	Dependent upon Apple/Android device
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Recording, Storage & Features

Video Recording	MPEG4
Screenshot	JPEG
File Storage	Mobile device, cloud or USB
Footage Counter	Meters or feet - resettable
Sonde Frequency	512 Hz or 640 Hz High Power Sonde
Push Rod	HDPE - 30.4 m (100 ft.) of 1/4"
Start Up Time	~15 seconds

Environmental

Water Resistance - Camera and Rod	IP68 to 60psi
Water Resistance - Reel Hub	IP65
Operating Temperature	-10°C to 50°C (-14°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Wi-Fi Frequency	IEEE802.11b/g/n

* Battery: Milwaukee 18V is default, other brand 18V batteries can be used with adaptors.

PRODUCT FEATURES

- Compatible with 18V Milwaukee or compatible batteries (not included)
- Stream video directly to you mobile device using Wi-Fi transmission -supports Apple and Android
- Monitor free reel, NO cords, NO heavy monitor cases
- Powerful 512 Hz or 640 Hz SONDE transmitter
- Auto-iris camera element that automatically adjusts picture lighting, no LED light dimming required
- On screen resettable footage counter
- Easy wireless video transfer from reel to any mobile device or tablet, connects up to four Wi-Fi devices
- Record in compressed video saved to your phone, easily manage video files and snapshot pictures, files can be air-dropped, texted, or emailed
- No option to pause during recording is available.
- Voice recording overlay to keep you hands free without the need to add text
- Free downloadable Wi-Fi app from Minicam Hathorn
- Transmission distance with no obstacles is around 50ft.

Wi-fi User Instructions*

Download the Wi-Fi App

- Turn on the mobile device and enter App Store for either Apple or Android
- Search for the Minicam Viewer app latest version Install the app software
- Note: You must be running iOS 13 or later for Apple

Setting Up the System

Connect DC power plug to the jack on the reel hub using AC/DC adapter or 18V external battery. At this point, you should have lights on the camera.

Access Wi-Fi connections on your device and select the one named "Hathorn #####". Enter password 12345678. Exit then open the "Minicam Viewer" app and click "**CONNECT**". At this point you should have video on your screen.

NOTE:

That this network connection will block all data to the device until the connection is forgotten or another network selected.



*For Wi-Fi Versions only

Open the app and click "CONNECT". If the connection between the camera and the mobile device was successful, the video will begin playing automatically. If it does not, then repeat the Wi-Fi pairing steps. No option exists to pause during recording. If you wish to pause simply stop the recording and start a new one.

All pictures and videos are stored in the photos folder of your device.

NOTE:

You must allow the app to access to your photos folder when installing the app. If you do not then videos will not be saved

Audio Recording

Upon pressing "RECORD" for the first time the app will ask you if you wish to record audio. If you do, then push "YES". The app will then ask to have access to your microphone, click "YES". You are now recording audio for the entire duration of the video recording.

Note: You cannot turn audio recording off and on during inspection. You will need to start a new recording to change.



Saving a Recording

To save a recording simply press the "STOP" button. You MUST wait until the application has successfully saved the file to your device. The app will prompt you when this has been completed. Failure to wait until the app has saved the file will result in the recording being lost. Similarly, selecting another app or maximizing a phone call during recording will close the app down and cease recording prior to being saved.



Footage Counter

The yellow multi-function button on the hub controls the footage counter position on the screen as well as resets the footage counter. Press the yellow multi-function button once and the screen position moves. Press the yellow multi-function button for 3 seconds and the footage counter will be reset to 0ft/0m.



FEATURE IDENTIFICATION

MULTIFUNCTION
BUTTON

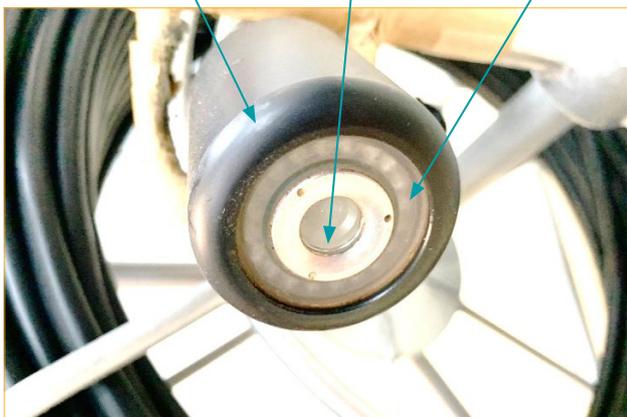
WI FI HUB



PLASTIC SKID/SLEEVE

SAPPHIRE CAMERA WINDOW

LED LIGHTS



MULTIFUNCTION
BUTTON

SERIAL # LOCATION

12V DC JACK

18V BATTERY CRADLE



CAMERA SYSTEM

User Instructions

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.

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.

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.

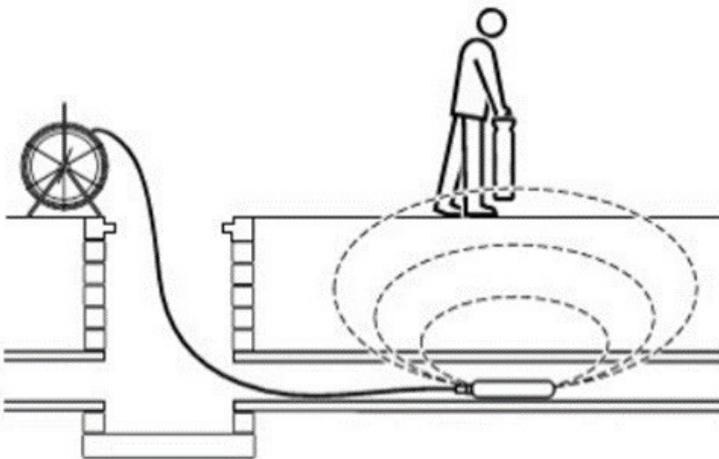
Under normal operating situations, the camera is used with a smaller protective sleeve in lines under 100 mm (4") in diameter, or a larger grooved skid in 100 mm (4") lines or larger.

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 (512 Hz or 640 Hz)

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 1-2 meters (4-6 ft) 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

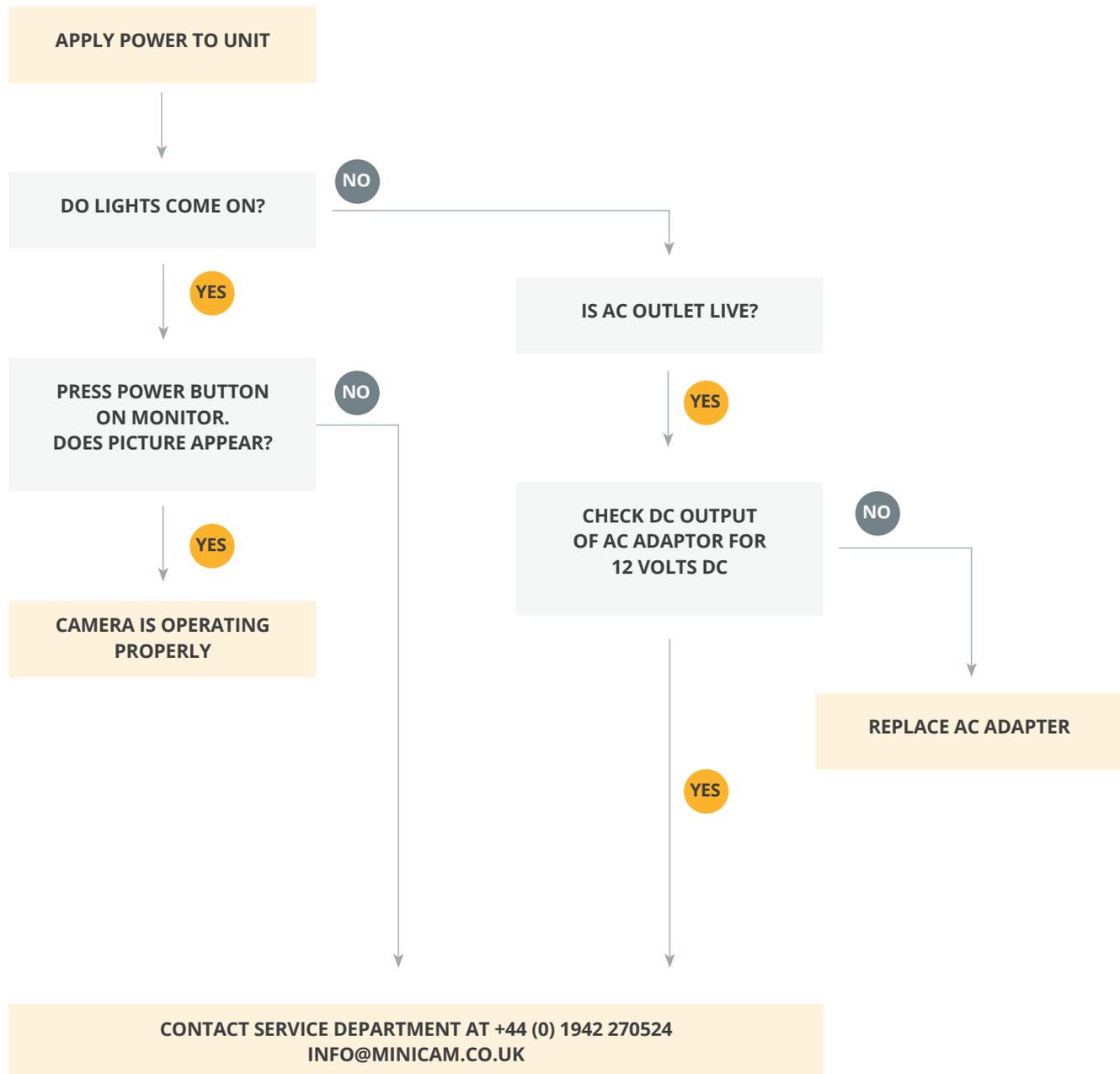
The camera heads use LED lighting and cannot be replaced by the operator. These lights use very little power and unless physically damaged or extreme voltage is applied to them, should last indefinitely. If replacement is necessary, the camera should be returned to the factory.

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. Pressurised 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.



If a problem not shown on this chart is found, please contact a Minicam service center.

North Service Centre

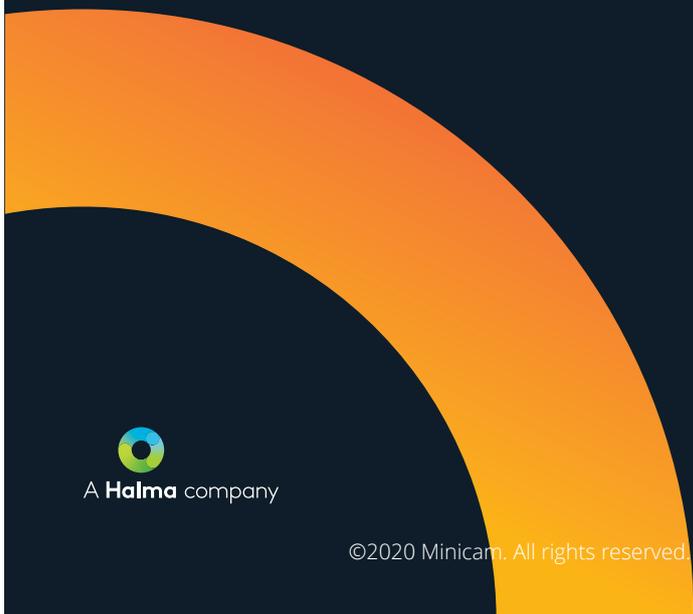
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