



2024 User Guide

SEWERCAM™ SR60-2WL WIFI DRAIN CAMERA

CCTV PIPE INSPECTION SYSTEM



Contents

General warnings & advice.....	Page 3
General safety information.....	Page 4
Product overview.....	Page 6
Operating the system.....	Page 12
Maintenance & cleaning.....	Page 21
Technical specifications.....	Page 23
Warranty details.....	Page 25

General Warnings & Advice

Never push the larger 9.2mm push cable through a PVC gully or square bottom gully. Doing so could result in the cable being damaged.

Please note that the reel is not waterproof. Keep the camera control system and reel out of the rain. Never hose near the controller. Water in the controller could result in expensive repairs.

Protect the control-unit from dirt and moisture.

Should there be any need of repair, please contact Enviroline or an authorized dealer.

Only ever use genuine SEWERCAM™ spare parts and an authorised SEWERCAM™ repair agent. Failure to do will lead to termination or your warranty.

This camera system is made for optical pipe inspection only and not made for medical inspection. Please use the camera system only for the predetermined functions.

Do not clean the camera with high pressure water.

Avoid extreme temperatures (hot/cold). Temperatures below the freezing point might harm the battery.



The camera cable(s) may brake if pushed beyond the normal working parameters. Cables are not covered by warranty if a cable is damaged.

Avoid extreme mechanical strain on the camera head and never use in conjunction with a water jetting machine when running.

Do not use the inspection system if the camera cable is broken.

To keep the camera cable clean, a damp cloth can be used to clean the cable while recoiling the cable.

Keep the lens clean (clean it with Q-tips), no alcoholic fluids are to be used.

General Safety Information

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

Work Area

Do not operate camera in explosive atmosphere (presence of flammable liquids, gases, or dust).



Do not let bystanders contact camera or power leads.

Always have open pits or pipes barricaded off to avoid injury.

Electrical Safety

Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if your body is grounded.

Do not operate camera in the presence of excessive moisture. Doing so could result in electric shock.

Do not abuse cord. Never use the cord to carry the tool or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electrical shock.

Always check the condition of the power cord before operation.

Properly dispose of the battery. Exposure to high temperatures can cause the battery to explode, so do not dispose of in a fire. Some countries have regulations concerning battery disposal. Please follow all applicable regulations.

Never fit a non-genuine SEWERCAM battery.



Only an Authorised SEWERCAM™ repair agent should ever remove the front control panel.

Personal Safety

Always wear appropriate clothes. Do not wear loose clothes or jewellery which could be caught in moving parts.

Gloves should always be worn for health and safety reasons. Sewer lines are unsanitary and may contain harmful bacteria.

Open cuts or wounds should always be covered up and kept away from the push cable and other contaminated areas.

The push cable should be washed down after each use. This can be done by running the cable through a damp rag with a disinfectant when the cable is stored back in the drum.

Extension cords are not recommended unless they are plugged into a Ground Fault Circuit Interrupter (GFCI) found in circuit boxes or receptacles. The GFCI on the camera control unit power cords will not prevent electrical shock from the extension cords.

Product Overview

Your SEWERCAM™ pipe inspection system is made up of three major components.

1. Reel frame & control panel.
2. Camera push cable.
3. Camera Head



Reel & Controller (1)

The SEWERCAM™ Push Reel & Controller is the main frame & control system for your inspection system.

The controller module in the reel, controls important functions like battery, camera head light brightness intensity, sonde transmitter and meter counter. The unit can be charged via 12v DC or 240v AC.

Your SEWERCAM™ Reel is constructed from Stainless Steel for superior corrosion resistance.

The reel is fitted with a reel brake which should be used to control the spooling of the reel. If the reel is allowed to unspool to quickly there is a risk of the push cable being Brocken. Adjust the brake so that the cable can be feed out easily but stops as soon as you are not removing cable. For transport the brake should be fully applied to prevent reel rotation.

The reel is fitted with a cable running idler. The push cable should always be passed over the idler before use.

Controller Functions

1.	Wifi module
2.	Metre counter control
3.	Camera head LED control
4.	Power on/off button
5.	Reel brake
6.	Battery indicator
7.	12v DC in
8.	240v AC in
9.	Aux video output
10.	Sonde on/off button



Warnings!

DO NOT use high pressure water to wash down the reel or controller centre. Doing so may cause water infiltration and damage to vital electrical components.

DO NOT use or store the camera system in heavy rain or damp environments.

DO NOT remove the control panel for any reason. Doing so will void your warranty. Any repair work is only to be carried out by an approved SEWERCAM™ repair agent.

Push Cable (2)

The SEWERCAM™ push cable is a vital part of your system; without the cable your inspection system will not function. The push cable consists of a fibreglass core with imbedded conductors and hard plastic cover.

Always check the condition of the push cable before operation. Look for limp sections in the cable or damage (cuts or abrasions) to the outer sheathing. If the cable is found to be damaged, get the cable to a SEWERCAM™ repair agent as possible. Always check the connection points for tightness. If a connection point has been damaged and the camera head becomes detached down the drain, this will not be covered under warranty.

Always keep the end of your hand stroke as close the pipe entry point as possible when pushing the cable into the pipe. This will help prevent whipping the cable and potentially snapping it. Standing back with your hands too far from the pipe will cause the cable to whip and potentially break.

Folding the push cable over a sharp edge will cause the cable to snap. Extreme caution should be used when retrieving the cable from IO's etc.

Using a little water will help minimise friction and allow the cable to be pushed further with less effort and strain on the system.

When inspecting the pipes, it may be necessary to push a little harder to make the camera head negotiate bends. Bringing the camera head back 100mm from the bend and giving it a quick push will make the camera head pop through the bend with minimum strain. Be careful not to push too hard or put extra strain on the camera push cable.

You will almost always be able to push your camera cable further with rubber grip style gloves. This will give you much better grip on the camera push cable.

NOTE: A damaged cable will absorb water and allow the water to travel down the core. This will mean a larger section of cable will need to be cut off when a re termination is done. If

damage is found the cable should be repaired as soon as possible.

Warnings!

DO NOT push the cable beyond its minimum working bend radius. Doing so will cause the fibres to break internally, and the cable eventually fail.

DO NOT use the larger 9.2mm cable through a PVC Gully. Doing so will risk the cable breaking off in the gully throat upon retrieval.

DO NOT allow the push cable to be run over or walked on.

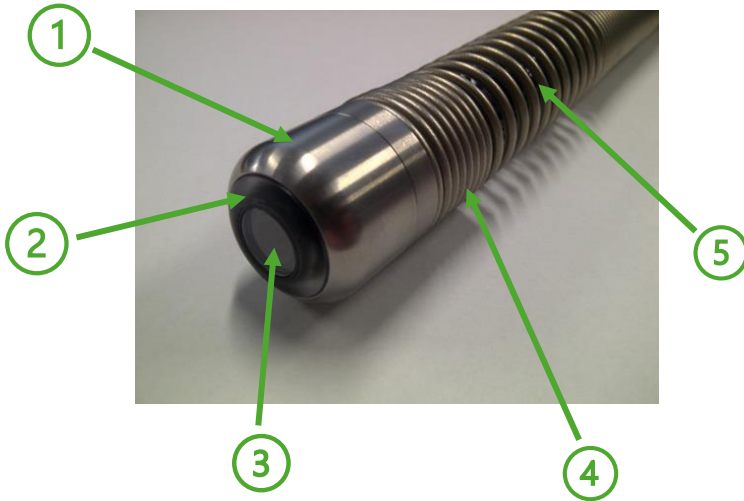
DO NOT twist the push cable.

DO NOT use the push cable if damage is found. Doing so could result in the camera head becoming detached/lost and a very expensive repair bill.

Camera Head (3)

The camera head is a stainless-steel housing that contains the camera eye and adjustable LED lighting elements. The front lens is Sapphire scratch & impact resistant to withstand impacts in Clay and Cast-Iron pipe.

SEWERCAM™ camera heads have a self-levelling feature. This is where the camera head module is always levelled in the upright position.



1.	Stainless camera housing
2.	LED window
3.	Sapphire camera lens cover
4.	Stainless spring
5.	In built sonde

Operating the camera system

Before starting up the camera system.

Make sure the monitor is connected to the reel via the connection lead.

Check for any visual damage to cables and camera head.

Ensure all connections are firmly fastened.

Make sure the camera control system is away from direct contact with water.

Press the on button and wait for the start-up checks to be completed.

If the camera system has low battery, please connect either the 12v or 240v power cable.

An external monitor or recording unit can be connected via the BNC video out port.

Camera Head Lighting

The light can be continuously regulated with the potentiometer. Start the camera with the light setting set halfway and adjust as needed.

In PVC or pipes made from reflective materials, not as much light power is needed. More light power will not result in a lighter or cleared picture but just waste battery power. In larger diameter concrete to earthenware pipe more light is required.

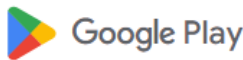
Recording Videos & Pictures

Download and install the minCam Viewer V3 app from the playstore on your Android device

minCam Viewer V3

minCam GmbH

100+ Downloads |  Rated for 3+ 



Connecting Your Device

Turn on Wi-Fi on your android device and start searching for available networks.

You will find your Wi-Fi network name and password located on the back of the Wi-Fi module. (see page 8)

Example:

WIFI_00:DF:E3

Password: 12345678

Once connected a message will appear advising that you do not have access to the internet. Disregard this message as the Wi-Fi connection does not require your device to have a connection to the internet to operate.

Open your minCam app and the following homepage will appear. Vision from you camera can take up to 30 seconds to appear on first connection.



Videos will be stored as MPEG-4 file with the AVI extension.
Photos will be stored as BMP files.

Storage resolution of Video and photos can be adjusted through the set-up menu.

Standard resolution is as below. This can be adjusted through the setting menu.

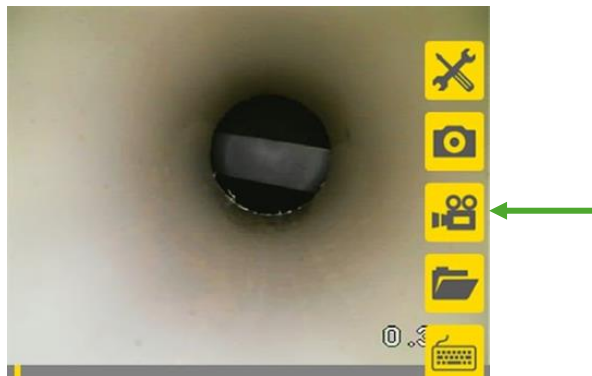
Photo: 640 x 800 Pixel

Video: 800 x 600 Pixel

Recording Video

Your videos will be stored in the image / video gallery in the device you are connected to.

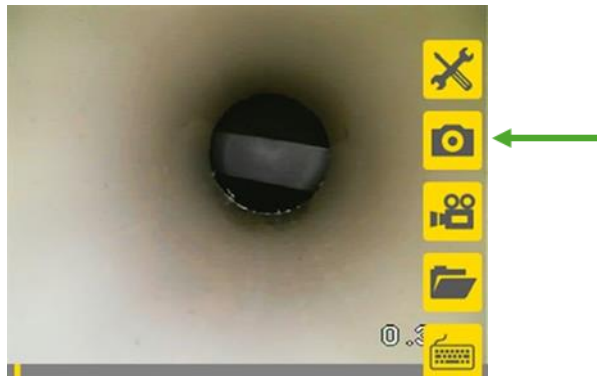
Once connected to the camera your screen will appear and be ready for taking videos and photos.



To take a video press the video button this will start the video; to stop the video press the video button again this will stop the video and store it in the gallery.

Taking Photos

To take photos simply press the camera symbol within your app screen.

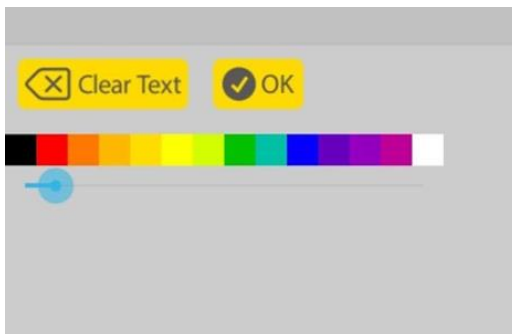
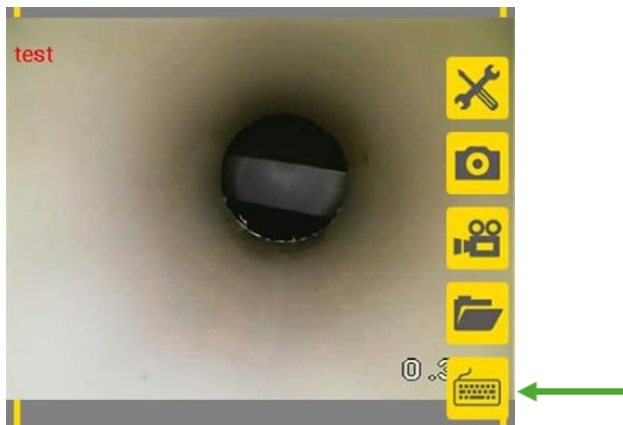


Taking Photos While Recording Video

Taking photos while recording can be done by simply pressing the photo button whilst recording a video at the same time.

Creating Text

You can type text over the top of the screen by pressing the keyboard button and selecting the colour you want and type text. Press ok and this will imbed the text over the image/video.



Maintenance and Cleaning

Camera Head

The camera head requires very little maintenance apart from keeping the camera LED light ring and Sapphire window clean for optimal performance.

The Camera head can be cleaned with warm soapy water and soft fibre whips. Do not use alcohol or Solvents.

Scratches on the light ring and camera housing are normal after use. DO NOT sand the light ring or camera head housing as this could affect their water tightness.

DO NOT use sharp/hard tools or wire brush to clean camera head.

Camera Reel

The camera reel can be sponged down with warm soapy water. DO NOT use pressurised water to clean the reel.

Check that the Reel brake piston is in good working order. If the brake piston is worn it should be replaced to avoid the Reel over spooling and possible cable damage.

Push Cable

The push cable can be cleaned by running it through a damp/soapy rag when retrieving the cable or by running warm soapy water down the pipe while the cable is still inside the pipe.

Always check the cable for visible wear & tear or damage. If you find a defect with the push cable it is normally best to have it repaired as soon as possible to avoid further damage to your system.

NOTE: A damaged cable will absorb water and allow the water to travel down the core. This will mean a larger section of cable will need to be cut off when a re termination is done. If damage is found the cable should be repaired as soon as possible.

Safety hints

This operation manual shall help you to get acquainted with this camera system.

This camera system is made for optical pipe inspection. It is not made for medical inspection. Please use the camera system only for the predetermined functions.

Do not alter or reconstruct this camera system.

Do not open the camera system control panel.

Do not try to repair the camera system on your own.

Take care of the product. It can be harmed by mechanical impact.

Beware of moisture and extreme heat, especially for the monitor and control-unit.

If the operation time of the battery is a lot lower than it was at the beginning, the battery's lifetime has probably expired.

Damage, forced by inappropriate use or handling, may suspend the guarantee.

Technical enhancements and errors excluded.

Technical Details

29mm Head

Camera head housing is made from stainless steel.

Fixed or Continuous self-leveling camera module.

Inbuilt 33kHz transmitting Sonde.

4mm Sapphire scratch resistance glass protected lens.



Fix focus from 4cm to infinite.

High resolution colour camera module 0.2Lux / F1.2; 480 TV-lines

12pc LED Chip light ring.

Outer diameter 29mm.

Adapter with gold plated collector ring and spring-pins to enable fast changes of camera-heads.

10 bar (100m) Pressure rating

Temperature: -10° to +40°C

Camera cable

60m x 9.2mm SEWERCAM™ EASYPUSH glass fibre push rod cable with inner conductors. (max 80m)

LIMITED WARRANTY

Congratulations on the purchase of your Sewercam CCTV. Sewercam CCTV systems are the result of extensive research development, experience and continual product development.

Product testing during manufacture is an essential part of the manufacture of Sewercam CCTV's. If failure occurs due to defects in materials or workmanship, you will be covered by the following warranty.

Please consider that even the best products can only continue to work properly with the right handling, correct operation and maintenance.

1. WARRANTY CONDITIONS

1.1 The warranties stated in these Warranty Conditions are given by Sewerquip Pty Ltd to the original purchaser of the Sewerquip Product and apply in addition to any statutory warranties, which cannot be lawfully excluded.

1.2 The warranties stated in these Warranty Conditions commence on the date of delivery of the Sewerquip Product to the original purchaser for the period specified in the Warranty Schedule.

2. WHAT IS WARRANTED

2.1 The Sewerquip equipment listed in the Warranty Schedule as well as the equipment listed below in clauses 2.1(A) carry a warranty for defects in materials or workmanship for the specified periods in the Warranty Schedule (other than the exclusions stated in clause 3 or elsewhere in these Warranty Conditions):

a) Sewercam parts replaced under warranty by a Sewerquip Authorised Dealer will be covered for the remainder of the initial warranty period or 90 days whichever is the greater.

2.2 Sewerquip P/L will at its discretion repair or replace at Sewerquip's premises, any part covered under these Warranty Conditions which is defective in material or workmanship, or which makes the Sewerquip equipment unsafe.

2.3 If failure occurs, which is provable due to defect in material and/or workmanship, we will remedy it during the warranty period free of charge. Sewerquip (AUS) reserves the right to repair the equipment or replace the whole unit or replace the faulty parts or to refund the then-current value of the equipment, if unable to repair or replace the unit.

3. ITEMS NOT COVERED BY THIS WARRANTY

3.1 This warranty covers only defective and unsafe materials and workmanship, and the Purchaser shall undertake to pay for any standard manufacturer's recommendations, including the cost of maintenance and wear items. The cost of any freight and insurance of any Sewerquip equipment returned to Sewerquip P/L will be paid by Sewerquip only if returned at Sewerquip's written request.

3.2 The following are not covered by warranty except to the extent required by law or specifically covered by a separate warranty certificate;

a) wearing parts including but not limited to, push cables, camera leans, camera housing, camera spring, retaining cables, O-ring seals;

b) depreciation, damage, malfunction or failure caused by normal wear and tear, lack of reasonable and/or proper maintenance, improper servicing, failure to follow operating instructions, misuse or lack of proper protection during storage;

c) depreciation, damage, malfunction or failure caused by accident;

d) unauthorised alterations, disassembly, modifications or changes to the Sewerquip Product in ways not approved by

Sewerquip P/L, including but not limited to, pressure setting on unloader/safety valve(s).

e) any Sewerquip equipment which has passed the warranty period as stated in the Warranty Schedule;

f) depreciation, damage, malfunction or failure caused by failure to use the proper fuel, lubricants or other maintenance items as described in the Operator's Manual;

g) depreciation, damage, malfunction or failure caused by water ingress, water damage to internal parts of camera system;

h) physical damage, paint scratches and/or cleaning;

i) depreciation, damage, malfunction or failure caused by fire, collision, accident, theft, riot, vandalism, explosion, chemicals, salt, rust and corrosion casualty of the environment being (wind, water, lightening, heat, cold, hail, earthquake and the like);

j) repair or parts which are not repaired or installed by a Sewerquip or a Sewerquip Authorised Dealer;

k) replacement of normal maintenance items including, but not limited to; lenses, modules, pcb's, batteries;

l) property damage or personal liability (including personal injury) arising out of any failure or malfunction of the Sewerquip Product;

m) depreciation, damage caused by continued operation after a malfunction was noticed and or reported by the operator;

n) depreciation, damage, malfunction or failures occurring while the machine is being used for any illegal purpose; and;

3.3 The Purchaser will be responsible for any service call and/or any premium charged for overtime labour requested by the Purchaser and for any service and/or maintenance not directly related to any defect in material or workmanship as covered in the warranties set out within these warranty terms and conditions.

4. WARRANTY SERVICE

4.1 Warranty service must be performed by Sewerquip or a Sewerquip Authorised Dealer who is authorised to service the type of Sewerquip equipment involved.

5. TO SECURE WARRANTY SERVICE

5.1 In order to secure warranty service, the Purchaser must:

a) report the defect to Sewerquip P/L immediately and request repair within the applicable warranty period;

b) present evidence of an invoice for the Sewerquip Product with model and serial numbers recorded;

c) make the Sewerquip Product available to Sewerquip or the suggested Sewerquip Authorised Dealer immediately after notification of a service problem; and

d) return the Sewerquip product to an Authorised Sewerquip Dealer at the Purchaser's expense. Equipment returned **MUST BE CARRIGE PAID. SEWERQUIP WILL NOT BE LIABLE FOR CARRIGE COST**

6. LIMITATION OF LIABILITY

6.1 To the fullest extent permitted by law, Sewerquip P/L shall not be liable (in contract, tort or otherwise and whether or not the result of negligence) in any event for consequential loss, damage or injury, including loss of profits, downtime, goodwill, rental or acquisition of substitute equipment, or other commercial loss or personal injury or death however caused.

7. MAINTAINING THE WARRANTY COVERAGE

7.1 In order to maintain the warranty coverage under these Warranty Conditions, the Purchaser must:

a) operate the Sewerquip Product as described in the Operator's Manual;

- b) maintain the Sewerquip Product in accordance with the servicing details contained in the Operator's Manual;
- c) maintain the Sewerquip Product using Sewerquip genuine parts.

8. REPRESENTATION

8.1 Sewerquip Authorised Dealers have no authority to make any representation, promise or admission on behalf of Sewerquip P/L or to modify the terms or limitations of these Warranty Conditions in any way. Nothing in these Warranty Conditions constitutes a partnership between Sewerquip P/L and any Sewerquip Authorised Dealer, or constitutes any Sewerquip Authorised Dealer as an agent or employee of Sewerquip P/L for any purpose at all, and Sewerquip Authorised Dealers have no authority or power to bind Sewerquip P/L, to contract in the name of Sewerquip P/L or to create a liability against Sewerquip P/L in any way or for any purpose at all.

Warranty Schedule

Sewercam CCTV Camera System = 12 Months



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