RIDGID®

SeeSnake® CS6

⚠️ **WARNING!**

Read this Operator's Manual carefully before using this tool. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

SeeSnake® CS6	
Serial No.	

RIDGID

Table of Contents

Introduction

The warnings, cautions, and instructions discussed in this operator's manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Regulatory Statements

The EC Declaration of Conformity (890-011-320.10) will accompany this manual as a separate booklet when required.

This device complies with Part 15 of 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.

Safety Symbols

In this operator's manual and on the product, safety symbols and signal words are used to communicate important safety information. This section is provided to improve understanding of these signal words and symbols.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE   NOTICE indicates information that relates to the protection of property.

This symbol means read the operator's manual carefully before using the equipment. The operator's manual contains important information on the safe and proper operation of the equipment.

This symbol means always wear safety glasses with side shields or goggles when handling or using this equipment to reduce the risk of eye injury.

This symbol indicates the risk of electrical shock.

General Safety Rules

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS!

Work Area Safety

• **Keep your work area clean and well lit.** Cluttered or dark areas invite accidents.

• **Do not operate equipment in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Equipment can create sparks which may ignite the dust or fumes.

• **Keep children and bystanders away while operating equipment.** Distractions can cause you to lose control.

Electrical Safety

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

• **Do not expose equipment to rain or wet conditions.** Water entering equipment will increase the risk of electrical shock.

• **Do not abuse the cord.** Never use the cord for carrying, pulling, or unplugging the power tool. Keep cord away from heat, oil, sharp edges, and moving parts. Damaged or entangled cords increase the risk of electric shock.

• **If operating equipment in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

• **Keep all electrical connections dry and off the ground.** Do not touch equipment or plugs with wet hands to reduce the risk of electrical shock.

Personal Safety

• **Stay alert, watch what you are doing, and use common sense when operating equipment.** Do not use equipment while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating equipment may result in serious personal injury.

• **Use personal protective equipment.** Always wear eye protection. The appropriate use of protective equipment such as a dust mask, non-skid safety shoes, a hard hat, and hearing protection will reduce personal injuries.

• **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the equipment in unexpected situations.

• **Dress properly.** Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving

parts. Loose clothes, jewelry, and long hair can be caught in moving parts.

Equipment Use and Care

- **Do not force equipment.** Use the correct equipment for your application. The correct equipment will do the job better and safer at the rate for which it is designed.

- **Do not use equipment if the Power Key does not turn it on and off.** Any equipment that cannot be controlled with the power switch is dangerous and must be repaired.

- **Disconnect the plug from the power source and/or the battery pack from the equipment before making adjustments, changing accessories, or storing.** Preventive safety measures reduce the risk of injury.

- **Store idle equipment out of the reach of children and do not allow persons unfamiliar with the equipment or these instructions to operate the equipment.** Equipment can be dangerous in the hands of untrained users.

- **Maintain equipment.** Check for misalignment or binding of moving parts, missing parts, breakage of parts, and any other condition that may affect the equipment's operation. If damaged, have the equipment repaired before use. Many accidents are caused by poorly maintained equipment.

- **Use the equipment and accessories in accordance with these instructions; taking into account the working conditions and the work to be performed.** Use of the equipment for operations different from those intended could result in a hazardous situation.

- **Use only accessories that are recommended by the manufacturer for your equipment.** Accessories that may be suitable for one piece of equipment may become hazardous when used with other equipment.

- **Keep handles dry, clean, and free from oil and grease.** This allows for better control of the equipment.

Battery Use and Care

- **Use equipment only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

- **Recharge only with the charger specified by the manufacturer.** A charger suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- **Do not probe battery with conductive objects.** Shorting of battery terminals may cause sparks, burns, or electrical shock. When the battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or any other small metal object that can make a connection from one terminal to the other. Shorting the battery terminals may cause burns or a fire.

- **Under abusive conditions, liquid may eject from battery; avoid contact.** If contact occurs, flush with water. If liquid contacts eyes, seek medical help. Liquid ejected from the battery may cause irritation or burns.

- **Do not cover charger while in use.** Proper ventilation is required for correct operation. Covering charger in use could result in fire.

- **Use and store batteries and chargers in dry, appropriate temperature areas.** Extreme temperatures and moisture can damage batteries and result in leakage, electrical shock, fire or burns.

- **Properly dispose of batteries.** Exposure to high temperatures can cause the batteries to explode; do not dispose of in a fire. Some countries have regulations concerning battery disposal. Follow all applicable regulations.

Service

Have your equipment serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.

Specific Safety Information

⚠ WARNING

This section contains important safety information that is specific to the CS6. Read these precautions carefully before using the CS6 to reduce the risk of electrical shock, fire, or other serious personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

Keep this manual with the CS6 for use by the operator.

SeeSnake CS6 Safety

- **Only power the CS6 with the specified battery or a double insulated power supply adapter.**

- **Do not operate this equipment if either operator or CS6 is standing in water.** Operating while in water increases the risk of electrical shock.

- **The CS6 has a rating of IP54 without a battery.** IP54 indicates the CS6 will continue to be safe and operate in the rain with a waterproof battery. Read your battery's safety information for water proofing.

- **Do not use where a danger of high voltage contact is present.** The CS6 is not designed to provide high voltage protection and isolation.

- **Read and understand this operator's manual, the SeeSnake Pipe Inspection reel operator's manual, and the instructions for any other equipment in use.** Failure to follow instructions may result in property damage and/or serious personal injury.

- **Practice good hygiene.** Use hot, soapy water to wash hands and other body parts exposed to drain contents

after handling or using drain inspection equipment. To prevent contamination from toxic or infectious material, do not eat or smoke while operating or handling drain inspection equipment.

- **Always use appropriate personal protective equipment while handling and using equipment in drains.** Drains may contain chemicals, bacteria, and other substances that may be toxic or infectious, or that may cause burns or other issues. Appropriate personal protective equipment always includes safety glasses, but may also include drain cleaning gloves or mitts, latex or rubber gloves, face shields, goggles, protective clothing, respirators, and steel-toed shoes.

- **The AC power supply adapter is intended for indoor use only.** When powered by battery, protect the CS6 from exposure to weather.

- **To prevent damage to the CS6 and to decrease the risk of injury, do not expose the CS6 to mechanical shocks.**

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The EC Declaration of Conformity (890-011-320.10) will accompany this manual as a separate booklet when required.

Description, Specifications, and Standard Equipment

Description

The CS6 is a compact, portable CCU, designed to connect to the SeeSnake Max rM200 reel. While it can connect to any SeeSnake camera reel, the CS6 conveniently docks onto the rM200 for ease of transport and storage.

The CS6 can capture audio, video, and still images to a USB flash drive and automatically generate a professional-looking report for customers to view in any standard web browser.

Included with your CS6 is the SeeSnake HQ reporting software. Edit your job recording in HQ and generate customized reports featuring videos and photos of your inspection. Print, e-mail, export, or create DVDs for your customers in HQ. Install from the included disk or download the latest version of HQ for free from hq.seesnake.com.

SeeSnake CS6 Specifications	
Weight without battery	1.6 kg [3.6 lb]
Dimensions:	
Length	361.7 mm [14.2 in]
Width	164.9 mm [6.5 in]
Height	127.7 mm [5.0 in]
Power source	Rechargeable 18 V Li-Ion
Display:	
Type	Color LCD
Display size (H × V)	144.8 mm [5.7 in]
Resolution	VGA 640 × 480 pixels
Brightness	500 Cd/m2
Media:	
Video Recording	MPEG4 (H.264) 30 FPS
Autolog	MPEG4 (H.264) 5 FPS with movement
	MPEG4 (H.264) 1 frame every 4 seconds when still
Still Images	JPG
Audio	Integrated microphone and speaker
Transfer method	USB drive
Operating environment:	
Temperature	0°C – 40°C [32°F – 104°F]
Storage temperature	–10°C – 70°C [14°F – 158°F]
Humidity	5% – 95% RH
Altitude	4,000 m [13,120 ft]
Ingress protection without battery	IP 54

Standard Equipment

- SeeSnake CS6
- Operator's Manual
- Instructional DVD
- SeeSnake HQ
- USB drive

Components

Figure 1 – Side View

Keypad

Transmitter Clip-on Terminal

Serial Number Label

SeeSnake System Connector

Kick Stand

Figure 2 – Front View

Front Cover

LCD Screen

USB Port Cover

USB Port   Speaker   Microphone

Figure 3 – Connections

Photo Key

Video Key

Text Key

LED Brightness Key

Main Menu Key

Arrow Keys

Microphone Key

Image Flip Key

Autolog Key

Job Manager Key

Job Review Key

Zero Key

Select Key

Sonde Key

Power Key
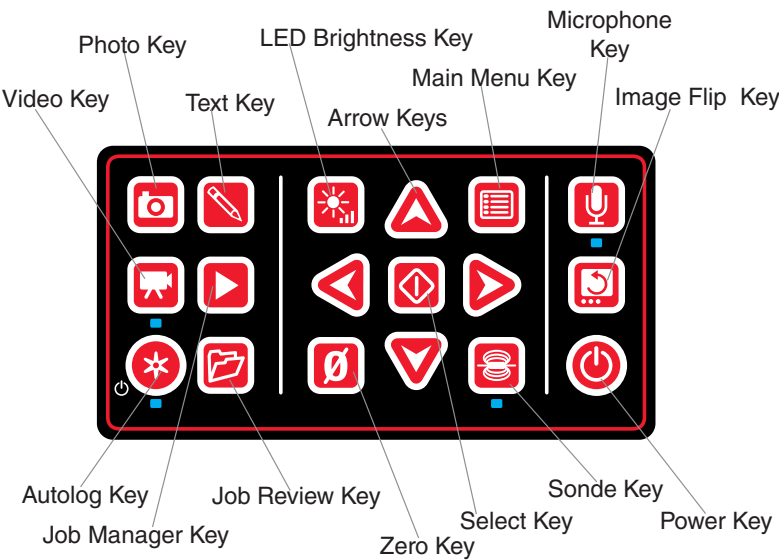
Figure 4 – CS6 keypad

Connection Icons	
Icon	**Definition**
	Transmitter Clip-on Terminal
	USB Port

Keypad Overview

CS6 Keys and Functions		
Icon	**Name**	**Function**
	Power Key	Power on or off.
	Select Key	Select menu items, pause and resume video, Autolog, and audio recording.
	Arrow Keys	Navigate menus and screens.
	Menu/Back Key	Settings, display, language, and Media Menu. Press to exit out of menus and screens.
	Photo Key	Take a photo.
	Video Key	Start and stop video recording. When recording, the LED below the key is lit.
	Autolog Key	Start and stop Autolog video recording. When recording, the LED below the key is lit. The CS6 can be powered on by pressing the Autolog Key. Powering on with the Autolog Key, automatically starts Autolog video recording, if USB is present. Press the Power Key to power off.
	Text Key	Open a dialog box for on-screen text and report notes. Use on-screen keyboard to create overlay text. Overlay text appears on captured media until deleted.
	Job Review Key	Open the Job Review Menu. View captured media, playback videos, and add report notes.
	Job Manager Key	Open the Job Manager Menu and create a new job, select a job for preview, or format USB drive.
	Microphone Mute Key	Toggle the microphone on and off. Audio records by default. When on, the LED below the key is lit.

Icon	Name	Function
	LED Brightness Key	Control the brightness of the LEDs in the camera. Press to step up or down through various brightness levels or press once and use the Arrow Keys to adjust brightness.
	Image Flip Key	During live feed, the Image Flip Key flips image upside down.
	Sonde Key	Toggle the Sonde on or off. When on, the LED below the key is lit.
	Zero Key	Press and hold the Zero Key for 3 seconds to set the system zero point at the beginning of an inspection. Measure a temporary segment of the overall inspection by briefly pressing the Zero Key again. The segment measurement appears in brackets on-screen. Press the Zero Key again to stop temporary measurement and return to system measurement.

Pre-Operation Inspection

<div style="text-align:center">⚠ **WARNING**</div>
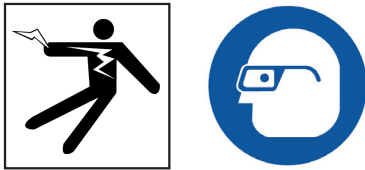
Before each use, inspect all equipment and correct any problems to reduce the risk of serious injury from electrical shock or other causes and to prevent damage to your equipment.

1. Turn the power off, disconnect external power cords, remove the battery and inspect all cords, cables, and connectors for damage or modification.

2. Clean any dirt, oil, or other contamination from the CS6 and other equipment to ease inspection and prevent the unit from slipping from your grip during transportation or use.

3. Inspect the CS6 for any broken, worn, missing, misaligned or binding parts, or any other condition which might prevent safe, normal operation.

4. Inspect all other equipment being used per its instructions to make sure it is in good, usable condition.

5. Correct any problems before use.

Work Area and Equipment Set Up

<div style="text-align:center">⚠ **WARNING**</div>

Set up the CS6 and work area as described below to reduce the risk of injury from electrical shock, fire, and other causes and to prevent damage to the CS6.

1. Check work area for the following:

    • Adequate lighting.

    • Flammable liquids, vapors, or dust that may ignite. If present, do not work in area until sources have been identified and corrected. The CS6 is not explosion proof. Electrical connections can cause sparks.

    • Clear a level, stable dry place for operator. Do not use the machine while standing in water.

2. Inspect the work and determine the correct equipment for the task.

3. Ensure the equipment has been inspected as specified by the operator's manual.

4. Evaluate the work area and erect barriers as necessary to keep bystanders away. Bystanders can distract the operator during use. If working near traffic, erect cones or other barriers to alert drivers.

Placement

Place the CS6 so the keypad is easy to reach and the display is facing away from direct sunlight. Position the SeeSnake reel to easily access and manipulate the push cable during the inspection. Ensure the CS6 and camera reel are stable.

NOTICE The CS6 can be used in wet conditions. The CS6 is not intended to be hosed down. Check your battery's safety information for water proofing.

Front Cover

The CS6 front cover reduces glare when propped open and protects the screen during transportation and storage.

USB Port Cover

Close the USB port cover to protect the USB drive and port during an inspection and transportation.

Kick Stand

Use the kick stand to adjust the angle of your display for visibility and to stabilize the CS6. During transportation, flip the kick stand up.

Docking Handle

Included with the Seesnake Max rM200 is a docking handle for the CS6 for use during an inspection or transportation.

Figure 5 – CS6 mounted onto the rM200

Connecting to your SeeSnake Reel

1. Unwrap the SeeSnake System Cable, pull back the locking sleeve, and match the System Cable plug to the SeeSnake System Connector on the CS6.

2. Join the connectors by aligning the cable ridge (Item 1) and guide pins (Item 2) to the guide socket and pushing the connector straight in (Figure 6).

3. Twist the outer locking sleeve to tighten.

NOTICE **Only twist the outer locking sleeve! To prevent damage to pins, never bend or twist the connector or cable.**

Figure 6 – SeeSnake System Connector

Powering the CS6

⚠ **WARNING**

The AC adapter is not waterproof. To prevent electrical shock do not use outdoors.

The CS6 can either be powered with a compatible 18 V Li-ion rechargeable battery or an optional AC adapter. The AC adapter slides into the battery connector. Ensure the battery or AC adapter is locked into the battery connection.

The CS6 has low and critical battery indicators. Replace battery or connect AC adapter when the low battery indicator appears. When the battery reaches critical level, the CS6 stops in-progress video recording, saves the job onto the USB drive, and initiates shut down.

Operating Instructions

⚠ **WARNING**

Always wear eye protection to protect your eyes against dirt and other foreign objects.

When inspecting drains that might contain hazardous chemicals or bacteria, wear appropriate protective equipment, such as latex gloves, goggles, face shields, and respirators to prevent burns and infection.

Do not operate equipment if operator or equipment is standing in water. Operating the CS6 in water increases the risk of electrical shock. Rubber soled, non-slip shoes can help prevent slipping and electric shock, especially on wet surfaces.

Performing an Inspection

1. Set up all equipment and connect the CS6 to the SeeSnake reel. Press the Power Key ⏻ to power on the CS6 and camera. The CS6 can be powered on and automatically start Autolog recording by pressing the Autolog Key ✳.

2. Place the camera head at the inspection start point and zero the counter by pressing and holding the Zero Key Ø for 3 seconds.

3. Insert a USB drive. The CS6 does not have internal storage so a USB drive must be inserted to save recordings and create reports. Without a USB drive, the CS6 can display live camera feed, as well as control the sonde and integrated counter, but it cannot record.

4. Close the USB port cover over the USB drive during use or when operating outdoors. Maximum USB length is 50 mm [2 in].

5. Push the camera head through the line and watch the screen. Proceed with the pipe inspection as detailed in the SeeSnake reel operator's manual.

NOTICE **To avoid malfunctions with the USB drive, insert the USB drive directly into the USB port. Do not use USB drive extension hubs or other portable USB ports.**

Recording Video

Press the Video Key 🎦 to start and stop video recording. When recording is stopped the system briefly processes the recording that has been captured. Pause the recording at anytime with the Select Key. When the video is paused, audio recording is also paused. Resume recording by

pressing the Select Key.

Video and Autolog video can be recorded simultaneously and independently of each other. Both recording types can be started and stopped without affecting the other.

Recording Autolog Video

Autolog videos are made up of continuous audio recording and variable frame rate compressed video. The video compression rate of Autolog is approximately one tenth the size of traditional video recording.

When the camera detects motion, Autolog records standard frame rate capture at five frames per second. When the camera does not detect motion, Autolog records one frame every four seconds. The substantial decrease in file size compared to traditional video recording, makes storage and transfer of files easier and less expensive.

While recording an Autolog video, the audio is recorded continuously, so your narrations are intact and uninterrupted.

Press the Autolog Key to start and stop recording. Press the Photo Key or the Video Key to capture additional photos or video while recording an Autolog video. Press the Select Key to pause and resume Autolog video recording.

Use the Autolog Key to power on and automatically begin Autolog video recording. Starting the CS6 with the Autolog Key gives you full documentation of your pipe inspection.

Recording Audio

By default the CS6 records audio continuously during both Autolog and video recording. Press the Microphone Mute Key to toggle audio recording on and off. During playback, press the Up or Down Arrow Keys to increase and decrease the volume of the recorded audio.

When recording is paused, audio is also paused. To resume recording, press the Select Key.

Taking Photos

Press the Photo Key to take a photo. The photo icon appears on the screen briefly and the photo is automatically saved onto the USB drive in the Active Job.

Measuring the Inspection

The Zero Key can be used in two ways. Press and hold to set the system zero point at the beginning of an inspection. A quick press will set a temporary zero point that can be used to measure a segment of the pipe during an inspection.

When a temporary zero point is set the measurement appears in brackets. Press the Zero Key again to clear the temporary measurement and return to the system count.

Locating the Camera Using the Sonde

Press the Sonde Key to toggle the Sonde on and off. You may see interference lines on the screen caused by the 512 Hz signal when the Sonde is on. The lines disappear when the Sonde is off and are not visible in captured media.
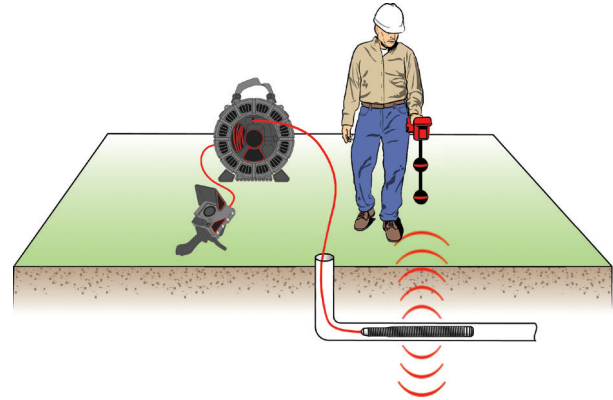

Figure 7 – Locating the Sonde

For detailed instructions on Sonde locating, consult the operator's manual for the receiver model you are using.

Line Tracing the SeeSnake Push Cable

Line trace to locate the pipe and sonde by inducing current onto the push cable. To line trace the push cable, clip one of the transmitter's leads to the grounding stake and the other to the Transmitter Clip-on Terminal on the back of the CS6.
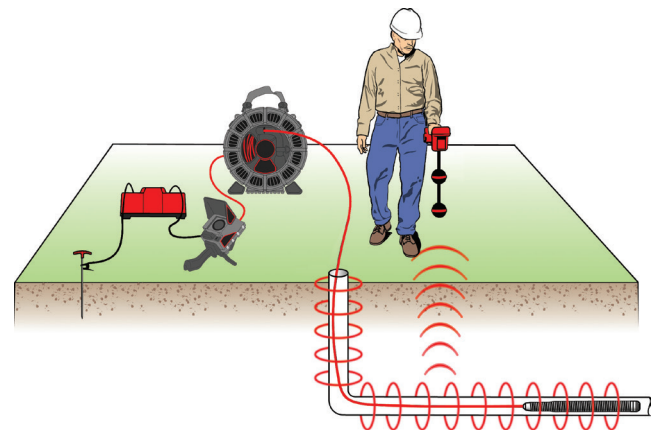

Figure 8 – Line Tracing the Push Cable

For detailed instructions on line tracing, consult the operator's manual for the transmitter and receiver models you are using.

Settings

Press the Main Menu Key 🔳 to access the submenus described in Table 4.

Use the Arrow Keys to navigate through the submenus and the various options within each submenu. Use the Select Key 🔘 to make selections and to apply changes. Use the Main Menu Key to exit.

Custom Settings Menu		
Icon	Name	Purpose
⚙	CS6 Settings	Adjust speaker volume and tone, keyboard settings, and font size.
⚖	Reel Options	Adjust measurement units.
▦	LCD	Adjust brightness and contrast.
📅	Date / Time	Adjust formatting for date and time as they are displayed on the CS6 and in reports.
🔋	Battery	Contains battery type and voltage sense.
🌐	Region	Change language and other locale specific settings.
ℹ	About	Contains information specific to your individual CS6 and software versions.

Reports

Job Manager Menu

Press the Job Manager Key 📄 to create a new job or select the Active Job to preview in the Job Review Menu. All new captured media is saved to the Active Job.

Erase jobs from the USB drive in the Job Manager Menu.

Previewing Reports

Preview the report by pressing the Job Review Key ▶ and playback videos from the Job Review Menu by pressing the Select Key.

Add job information notes to reports, video notes, and view report media statistics and report header information in the Job Review Menu.

On-screen Text on Media and Reports

Display notes using the on-screen keyboard during an inspection and after the job is complete.

Burn text into the video layer while video recording. Press the Text Key 🔲 on the unit to open a text box and insert text using the Arrow Keys and the Select Key.

On-screen Text Icons		
Icon	Name	Purpose
✛	Move	Position text box in live feed.
✔	Check Mark	Prints to screen and will appear in all media.
✖	Cancel	Discards changes.

Use the Check Mark Icon to insert text onto the image. This text will be burned on to all captured media. To edit or delete the text, press the Text Key .

Add notes to captured media in the Job Review Menu. Press the Job Review Key to view the Active Job and navigate to desired media. The text entered into text fields is saved in the report.
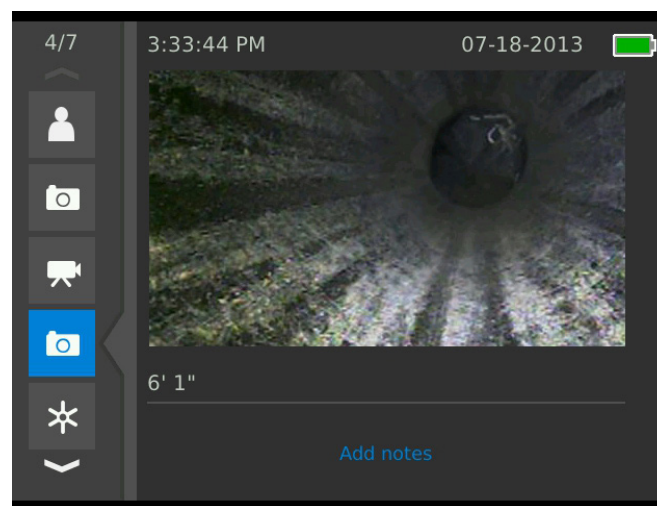

Figure 9 – Report Preview

Delivering Reports

Press the Job Manager Key and navigate to select Active Job. The job is saved and annotated by the date the job was made. Once the Active Job is selected, press the Job Manager Key to exit out of the Job Manager Menu and select the Job Review Key to preview job.

A USB drive must be inserted into the CS6 to save the job. Insert the USB drive into a USB drive port on a computer and open the file named "report.html" to view the report in a web browser.

An internet connection is not necessary to view the report. Click on the preview of each media item in the web browser to view full size photos and to playback video and Autolog video.
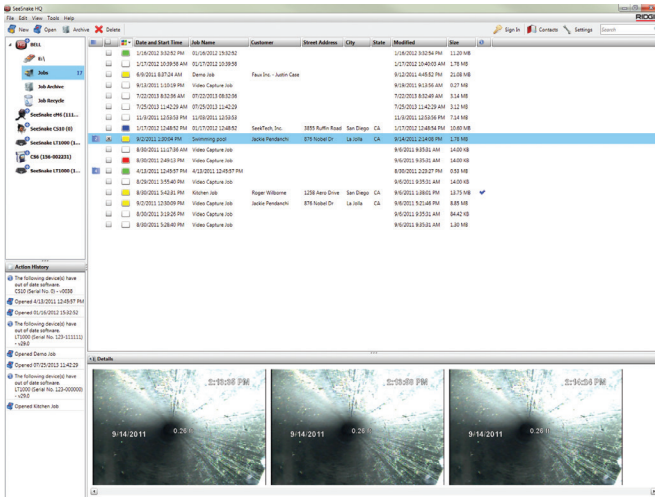
SeeSnake HQ Software

With SeeSnake HQ, organize jobs, customize reports, generate CD/DVD versions of jobs, and create multiple file formats for various distribution methods. Use HQ on PCs running Windows XP, Windows Vista, or Windows 8.

Use the included CD to install HQ or download the latest version of HQ for free from hq.seesnake.com.

Figure 10 – SeeSnake HQ

HQ offers an array of tools to edit a job's information and to modify the report using a pre-built report style.

Figure 11 – Review and Edit Media in SeeSnake HQ

The printable version of the report can be printed or e-mailed as a PDF. Alternatively, a multimedia report can be viewed in a web browser or on a DVD.
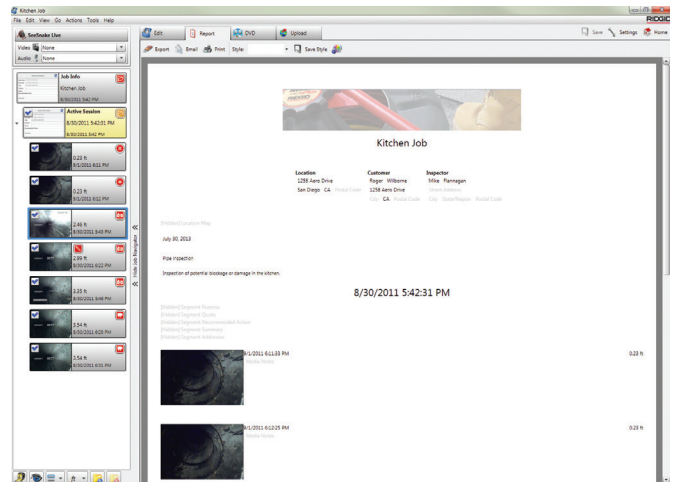
Figure 12 – Report Preview in SeeSnake HQ

Content in HQ can be uploaded to RIDGIDConnect, an online service for storing and sharing inspection media and reports. To learn more about RIDGIDConnect, visit ridgidconnect.com.

Maintenance Instructions

Software Updates

If Auto-launcher is enabled on the SeeSnake HQ and if software updates for the CS6 are available, an update notification will automatically appear on the computer. If Auto-launcher is not enabled, manually check for software updates by selecting "Check for Update" in the Help Menu.

Insert a USB drive into the computer and download the software update. Safely eject the USB drive from the computer and insert it into the CS6. Use the Select Key to initiate the update. The CS6 will verify, reboot and install the update, and reboot again to complete the process.

Cleaning

⚠ WARNING

Disconnect all cords and cables and remove battery prior to cleaning the CS6 to reduce the risk of electrical shock.

Close USB port cover before cleaning. Clean the CS6 with a damp cloth. Do not allow any liquid to enter the CS6.

Do not use liquid or abrasive cleaners on the CS6. Only clean the screen with cleaners approved for use on LCD screens.

Accessories

⚠ WARNING

The following accessories have been designed for use with the CS6. Other accessories may become hazardous when used with the CS6. To reduce the risk of serious injury, only use accessories specifically designed and recommended for use with the CS6.

- SeeSnake Max Pipe Inspection Camera Reels
- Original SeeSnake Pipe Inspection Camera Reels
- RIDGID-SeekTech or NaviTrack Receivers
- RIDGID-SeekTech or NaviTrack Transmitters
- 18 V Li-Ion Battery
- Battery charger
- Dual battery kit with charger
- Single battery kit with charger
- RIDGID AC adapter
- SeeSnake Docking Handle

Transportation and Storage

Store and transport equipment with the following in mind:

- Store in a locked area out of the reach of children and people unfamiliar with its operation.
- Store in a dry place to reduce risk of electrical shock.
- Store away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.
- Store temperature should be –10°C – 70°C [14°F – 158°F].
- Do not expose to heavy shocks or impacts during transportation.
- Remove the battery before shipping and before storing for extended periods of time.

Service and Repair

⚠ WARNING

Improper service or repair can make the CS6 unsafe to operate.

Service and repair of the SeeSnake CS6 must be performed by a RIDGID Independent Authorized Service Center. For information on your nearest RIDGID Independent Service Center or any service or repair questions:

- Contact your local RIDGID distributor.
- Visit RIDGID.com or RIDGID.eu to find your local Ridge Tool contact point.
- Contact Ridge Tool Technical Service Department at rtctechservices@emerson.com or, in the U.S. and Canada, call 800-519-3456.

Disposal

Parts of the unit contain valuable materials that can be recycled. There are companies that specialize in recycling that may be found locally. Dispose of the components in compliance with all applicable regulations. Contact your local waste management authority for more information.

For EC countries: Do not dispose of electrical equipment with household waste!

According to the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national legislation, electrical equipment that is no longer usable must be collected separately and disposed of in an environmentally-correct manner.

Battery Disposal

RIDGID is licensed with the Call2Recycle® program, operated by the Rechargeable Battery Recycling Corporation (RBRC™). As a licensee, RIDGID pays the cost of recycling RIDGID rechargeable batteries.

In the U.S. and Canada, RIDGID and other battery suppliers use the Call2Recycle® program network of over 30,000 collection locations to collect and recycle rechargeable batteries. Return used batteries to a collection location for recycling. Call 800-822-8837 or visit call2recycle.org to find a collection location.

For EC countries: Defective or used battery packs/batteries must be recycled according to the guideline 2006/66/EC.

Troubleshooting		
Problem	**Probable Fault**	**Solution**
No live feed coming from camera	No power to SeeSnake	Check power is correctly plugged in.
	Connection faulty	Check alignment and pins of connection from CS6 to the SeeSnake Reel.
	18 V Li-Ion battery low	Recharge battery. Switch to AC power.
Battery warning appears	18 V Li-Ion battery low	Recharge battery. Switch to AC power.
Count accuracy unreliable	Integrated counter settings incorrect for reel or cable	Verify the settings are correct for the SeeSnake cable length, cable diameter, and SeeSnake reel.
	Counting from the wrong zero-point	Confirm measurement from the intended zero-point. Reset zero-point using the Zero key [Ø].
Integrated counter low battery warning appears on screen	Integrated counter battery dead or near-dead	Replace 3 V battery in the integrated counter.
The "+" symbol appears after the on-screen distance measurement	Physical cable measurement has exceeded the cable parameter in settings.	Verify the actual length of installed cable and reset the SeeSnake reel and cable settings according to the reel's operator's manual.
SOS blinking on Power Key LED	No video signal	Check SeeSnake system cable connection.

Notes

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