

SeeSnake® MINIPak Manual

SeeSnake® MINIPak



A 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.

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SeeSnake® MINIPak

SeeSnake® MINIPak





SeeSnake® MINI <i>P</i>	'ak
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Record Serial Number below and retain product serial number which is located on nameplate.

Serial

No.



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.

A 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

A WARNING

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

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

Work Area

- Keep 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 by-standers 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 equipment.

Keep cord away from heat, oil, sharp edges or 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. This reduces 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. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions 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, or 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 switch does not turn it ON and OFF. Any equipment that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the equipment before making any adjustments, changing accessories, or storing. Such 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 and clean; free from oil and grease. Allows for better control of the equipment.

Battery Tool Use And Care

- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use equipment only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- Do not probe battery with conductive objects.
 When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to

- **another.** Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- 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. See charger manual for more information.
- Do not cover charger while in use. Proper ventilation is required for correct operation. Covering charger in use could result in fire.
- Properly dispose of batteries. Exposure to high temperatures can cause the batteries to explode, so do not dispose of in a fire. Some countries have regulations concerning battery disposal. Please 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.
- Remove the batteries and refer servicing to qualified service personnel under any of the following conditions:
 - If liquid has been spilled or objects have fallen into product;
 - If product does not operate normally by following the operating instructions;
 - If the product has been dropped or damaged in any way; or,
 - When the product exhibits a distinct change in performance.

Specific Safety Information

A WARNING

This section contains important safety information that is specific to this equipment.

Read these precautions carefully before using the MINIPak to reduce the risk of electrical shock or other serious personal injury.

SAVE THESE INSTRUCTIONS!

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



If you have any question concerning this Ridge Tool product:

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

MINIPak Safety

- An improperly grounded electrical outlet can cause electrical shock and or severely damage equipment. Always check work area for a properly grounded electrical outlet. Presence of a three prong or GFCI outlet does not insure that the outlet is properly grounded. If in doubt, have the outlet inspected by a licensed electrician.
- Power the MINIPak only with a specifically designated battery or a double insulated power supply.
- Do not operate this equipment if operator or machine is standing in water. Operating machine while in water increases the risk of electrical shock.
- The MINIPak is not waterproof. Only the camera and push cable are waterproof. Do not expose the equipment to water or rain. This increases the risk of electrical shock.
- Do not use where a danger of high voltage contact is present. The equipment is not designed to provide high voltage protection and isolation.
- Read and understand this operator's manual, the reel operators' manual, and the instructions for any other equipment in use and all warnings before operating the MINIPak. Failure to follow all instruction may result in property damage and/or serious personal injury.
- 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, infectious, cause burns or other issues. Appropriate personal protective equipment always includes safety glasses, and may include equipment such as drain cleaning gloves or mitts, latex or rubber gloves, face shields, goggles, protective clothing, respirators and steel toed footwear.
- If using drain cleaning equipment at the same time as using drain inspection equipment, only wear RIDGID Drain Cleaning Gloves. Never grasp the rotating drain cleaning cable with anything else, including other gloves or a rag. They can become wrapped around the cable, causing hand injuries. Only wear

latex or rubber gloves under RIDGID Drain Cleaner Gloves. Do not use damaged drain cleaning gloves.

 Practice good hygiene. Use hot, soapy water to wash hands and other exposed body parts exposed to drain contents after handling or using drain inspection equipment. Do not eat or smoke while operating or handling drain inspection equipment. This will help prevent contamination with toxic or infectious material.

Description, Specifications And Standard Equipment

Description

The SeeSnake® MINIPak is a modern, hand-portable monitor and camera control unit for use with a SeeSnake Pipe Inspection diagnostic system.

The MINIPak is designed to easily connect with a SeeSnake reel and camera and provide a clear image of the camera's field of view. It provides readily accessible controls for adjusting the camera and the display, and for controlling the 512 Hz in-line Sonde built in to most SeeSnake cameras, which allows the operator to locate the camera when it is underground. The MINIPak also enables the operator to connect an external transmitter to the SeeSnake cable and use a standard locator to line-trace the path of the SeeSnake cable in a pipe.

The MINIPak is used in conjunction with any SeeSnake reel configuration (see Figure 8). Other auxiliary equipment used with the SeeSnake MINIPak includes:

- Rechargeable batteries (Ridge CAT # 32743).
- A RIDGID locator/receiver (such as the SR-20, the SR-60, the Scout[™] or the NaviTrack[®] II).
- A RIDGID transmitter (such as the ST-510, the ST-305, the ST-33Q, the NaviTrack® Brick or the NaviTrack® 10watt transmitter).
- The CountPlus Cable Counter cable-measurement system, normally built into SeeSnake pipe inspection systems.

Specifications

Weight	4.25 lbs (1.93kg) w/o Battery
Dimensions:	
Depth	14" (35.5 cm)
Width	7.6" (19.2 cm)
Height	10" (26.8 cm)
Power Source	100-240VAC/50-60Hz, AC or 18 VDC Rechargeable Battery
Battery Type	18 V Li-Ion, 2.2 Ah
Power Rating	14-16 VDC 25W

Operating Environment:

Temperature......32°F to 104°F (0°C to 40°C)

Humidity5% to 95% RH

Storage Temperature....14°F to 158°F (-10°C to 70°C)

Altitude13120 feet (4000 meters)

LCD Display:

Resolution320 x 240

Size of LCD Panel5.7" (144.8 mm)

Dot Pitch...............0.36 mm H x 0.12mm x 3

(R,G,B) W

Display Size (H x V).....4.6" x 3.47"

(117.8 mm x 88.2 mm)

Contrast Ratio350:1

Brightness500 cd/m2

Standard Equipment

- MINIPak
- 100-220VAC to 15VDC Power Converter and Supply
- Operator's Manual
- Instructional DVD

Optional Equipment

	Cat # (US)	Cat # (EU)
18 V Li-Ion Rechargeable Battery	32743	28218
Battery Charger	32068	32073
Dual Battery Kit with Charger	32648	32693
Single Battery Kit with Charger	32708	32713

The MINIPak is protected under U.S. and international patents.

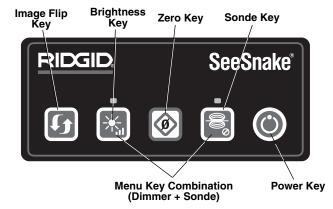


Figure 2 – MINIPak Keypad



Figure 3 - Rear View

MINIPak Components



Figure 1 - MINIPak Components



Figure 4 - Tilt-Stand



Icon Legend



Power Key



Dimmer Key



Sonde Key

Zero Key



Image Flip Key

Pre-Operation Inspection

A WARNING





Before each use, inspect your SeeSnake MINIPak and correct any problems to reduce the risk of serious injury from electrical shock or other causes and prevent machine damage.

- Confirm that the power is off, any external power and cords are disconnected, and the battery is removed. Inspect the cords, cables and connectors for damage or modification.
- Clean any dirt, oil or other contamination from the SeeSnake MINIPak to aid in inspection and to prevent the unit from slipping from your grip while transporting or using.
- 3. Inspect the MINI*Pak* for any broken, worn, missing, misaligned or binding parts, or any other condition which might prevent safe, normal operation.
- 4. Inspect any other equipment being used per its instructions to make sure it is in good usable condition.
- 5. If any problems are found, do not use the unit until the problems are corrected.

WARNING

Work Area and Equipment Set Up

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Set up the MINIPak and work area according to these procedures to reduce the risk of injury from

electrical shock, fire, and other causes, and to prevent damage to the MINIPak.

- 1. Check work area for:
 - · 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 MINIPak is not
 explosion proof. Electrical connections can cause
 sparks.
 - Clear, level, stable dry place for operator. Do not use the machine while standing in water.
 - Clear path to electrical outlet, that does not contain any potential sources of damage for the power cord, when using external power.
- Inspect the work to be done if possible, determine the drain access point(s), size(s) and length(s), presence of drain cleaning chemicals or other chemicals, etc. If chemicals are present, it is important to understand the specific safety measures required to work around those chemicals. Contact the chemical manufacturer for required information.
- Determine the correct equipment for the application.
 The SeeSnake MINIPak is made to view inspections done with an inspection camera. Inspection equipment for other applications can be found by consulting the Ridge Tool Catalog, online at www.RIDGID.com or www.RIDGID.eu.
- 4. Make sure all equipment has been properly inspected.
- Evaluate the work area and determine if any barriers are needed to keep bystanders away. Bystanders can distract the operator during use. If working near traffic, erect cones or other barriers to alert drivers.
- If needed, remove fixture (water closet, sink, etc.) to allow access.

MINIPak Placement

Place the MINIPak to allow easy access and viewing while manipulating the camera and pushrod for an inspection. Make sure that the location is not wet and will not let the MINIPak and other equipment get wet during use. The MINIPak is not waterproof and exposure to wet conditions can cause electrical shock or equipment damage.

Place camera and reel as instructed in their Operator's Manual. Ensure the MINI*Pak* and cable reel are stable.

Front Cover/Tilt Stand

The MINIPak front cover protects the unit during transportation and storage. When operating in its horizontal position (not tilted), the front cover helps to reduce glare.

If desired, the front cover and its handle can be used as a tilt stand for easier viewing.

- 1. Tilt the unit back slightly and then pull forward on the front cover latch to free the rotating front cover.
- 2. Rotate the front cover and front cover handle toward the bottom of the unit until it latches in place.



Figure 5 - MINIPak with Tilt Stand Deployed

 To return the front cover to its horizontal position, squeeze the front cover handle and latch together to release, and rotate upward until it latches in position

Connecting the MINIPak



Figure 6 - DVDPak Connections

SeeSnake System Cable

Unwrap the SeeSnake System Cable from its holder and match the System Cable plug to the matching SeeSnake System Connector on the MINI*Pak*. To join

the connectors, align the guide pin to the guide socket, push the connector straight in and tighten the outer locking sleeve.

NOTE! A guide ridge molded into the top of the cable connector will point up when the plug is correctly aligned.

Connection Icons

VII SeeSnake System Connector

Video In Plug

Transmitter Clip-on Terminal

SeeSnake System Connector

WINIPak Power Jack



Figure 7 - Connecting System Plug To CCU

NOTICE When connecting/disconnecting the SeeSnake system cable, turn only the locking sleeve. To prevent damage, do not bend or twist the connector or cable.

External Monitor

4. The MINIPak may be used with an external SeeSnake monitor by connecting an RCA cable from the Video Out port on the external monitor. Connect the other end of the cable to the yellow MINIPak video input port on the back of the MINIPak, marked with





Figure 8 - MINIPak with SeeSnake

Powering The SeeSnake MINIPak

The SeeSnake MINIPak can either be powered with RIDGID Li-lon rechargeable battery or plugged in to an outlet using a supplied AC/DC power converter. Battery power is the preferred powering method to reduce the risk of electrical shock. Additionally, the power converter is not rated for outdoor use and should only be used indoors.

Battery Power

With dry hands, slide a fully charged battery onto the battery dock on the back of the MINIPak. Make sure that the battery locks onto the dock. See the Battery Charger operator's manual for more information.

Batteries supplied for the MINIPak are rated at 2.2 amphours. When fully charged, depending on use (recording time, etc.) the MINIPak will run for approximately 5 hours (actual time may vary). Battery Status on screen indicator indicates battery charge level (Figure 9).

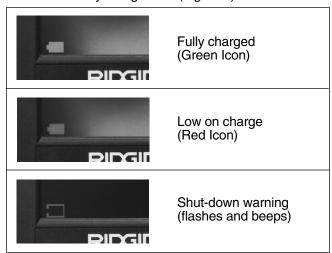


Figure 9 - Battery Charge Level

Outlet Power

For plug in operation, a double insulated AC/DC power supply is supplied to reduce wall outlet voltage to the correct voltage for the MINI*Pak*.

NOTICE The external power supply is intended for indoor use only.

To power the system up with the power cord, locate the power supply. The power supply cord has two sections, one of which plugs into a standard 110-120V two-bladed outlet (US) at one end and plugs into a power supply at the other end. The second section runs from the power supply to the back of the MINIPak and plugs into the jack marked 25 Watts—14-16V at the left side of the back of the unit (Figure 6).

With dry hands, connect the two sections together and insert the jack plug into the jack on the back of the MINI*Pak*. Route the cord along a clear path and with dry hands plug the power supply into a matching outlet. If using an extension cord ensure it is of adequate wire gauge. For cords of 25 feet, a minimum gauge of 18AWG is required. For cords greater than 25 feet, a minimum gauge of 16 AWG is required.

To remove all power to the unit, unplug the power plug and remove the battery.

Operating Instructions

A 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 or respirators, to prevent burns and infections.

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

Follow operating instructions to reduce the risk of injury from electrical shock and other causes.



Starting Up

- 1. Check that the unit is properly set up.
- 2. Place the camera head into the reel's guide hoop and turn the MINIPak's power on by pressing the Power Key . After booting, you should see the words "CountPlus" (if your unit includes a CountPlus distance counter) and a version number on the monitor screen. If you do not see an image on the monitor after boot-up (about 5 seconds), check to make sure its power is turned on and the system cable is correctly connected and secured.
- The MINIPak screen will remain blue if the MINIPak does not detect any video data from the camera. If screen remains blue check the connections.

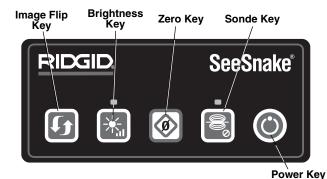


Figure 10 - MINIPak Controls

Image Flip Key: Flips the camera image on the display

screen 180° each time it is pressed.

Dimmer Key: Adjusts camera LED brightness.

Zero Key: Sets a temporary zero-point for measuring intermediate distances. Long press (> 2 sec) resets both the system counter and any temporary counter to zero (CountPlus Only).

Sonde Key: Powers the built-in 512 Hz Sonde ON or OFF.

Power Key: Powers the camera, camera control unit and display ON or OFF.

Once the start-up instructions above are complete, the display should be showing a view from the camera head. Monitoring the camera is simply a matter of watching the screen as you push the camera through the pipe.

Inspecting The Line

- 1. Power up the MINIPak if it is OFF.
- 2. Put the camera head in the line.
- 3. Proceed with pipe inspection as described in your SeeSnake manual.

Brightness Adjustment

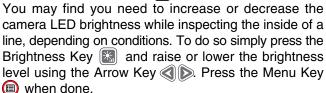


Image Rotation 🗊

While doing an inspection the camera may become rotated in the line and present an inverted image. The Flip Key will rotate the image on the screen (flip it vertically) for easier viewing.

CountPlus Control

If you are using a SeeSnake reel equipped with the Count *Plus* distance counter, the measured distance will appear on the display. If you want to set an interim zeropoint to measure distance from some location (such as a junction or pipe-head) pressing the Zero Key will start a temporary distance count, with the number displayed in square brackets [0.0]. A second short press will return to the main count. A long press (3 seconds) will re-zero the main distance counter.

For details on using the Count*Plus* see the Count*Plus* manual. Count*Plus* parameters such as date and time are set using the Count*Plus* menu key and going to the Count*Plus* Tools menu. Count*Plus* text overlays are managed with the Count*Plus* keypad as described in the Count*Plus* Operator's Manual.

Locating The Camera Using The Sonde

Many SeeSnake pipe inspection systems have a built-in Sonde which transmits a locatable 512 Hz signal. When the Sonde is turned on, a locator such as the RIDGID SR-20, SR-60, Scout[™] or NaviTrack® II set to 512 Hz will be able to detect it, allowing you to detect the camera's location underground.

To turn the SeeSnake Sonde ON while using the MINI*Pak*, press the Sonde Key . A Sonde icon will appear on the display while the Sonde is ON. The display may also show some lines of interference from the Sonde's transmission.

These will vanish when the Sonde is turned OFF by again pressing the Sonde Key .

The most workable approach to tracking the Sonde is to run the pushrod into the pipe about five or ten feet (1.5 to 3 meters) and use the locator to find the Sonde's position. If desired, you can then extend the pushrod a similar distance further down-pipe and locate the Sonde again starting from the previous located position. To

locate the Sonde, turn the locator on and set it to Sonde mode. Scan in the direction of the Sonde's probable location until the locator detects the Sonde. Once you have detected the Sonde, use the locator indications to zero in on its location precisely. For detailed instructions on Sonde locating, consult the Operator's Manual for the locator model you are using.

Line Tracing The SeeSnake Pushrod

In addition to being able to trace a Sonde built into the system camera, the MINIPak also enables you to trace the line of the SeeSnake push cable underground, using a standard RIDGID locator such as the NaviTrack® II, the Scout™, the SR-20 or the SR-60. To line-trace the SeeSnake push cable, simply connect a line transmitter with one connector well-grounded using the grounding stake, and the other connector clipped to the MINIPak's Transmitter Clip-on Terminal. The Transmitter Clip-on Terminal is a metal lug located just to the right of the battery. (See Figure 11.)

Set the line transmitter and the locator to the same frequency, such as 33 kHz and use the locator to trace the line (Figure 12). The camera's built-in Sonde may be on at the same time, and if your locator is equipped with SimulTrace™ capability, you can follow the pushrod all the way to the camera's location and then detect the Sonde in the camera as you approach it above ground.



Figure 11 - MINIPak Transmitter Clip-on Terminal

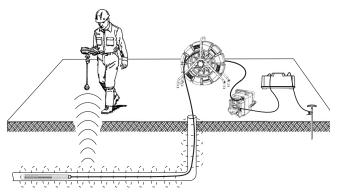


Figure 12 - Line Tracing the Pushrod

If you don't have the SimulTraceTM feature, use a line transmitter and a locator to line-trace the pushrod. When the signal fades, switch the locator to Sonde mode at the frequency of the in-line Sonde, usually 512 Hz. Pick the signal up from where the line-trace frequency started to weaken and zero in on the in-line Sonde. Because locating frequencies from transmitters can cause distortion of the image on the monitor, it is best to turn Sonde and line transmitters off while inspecting the interior of a line and turn them on only when ready to do a locate.

Monitor Settings

For more detailed control of the monitor display, press the Dimmer Key and the Sonde Key simultaneously. A menu of display control options will appear:

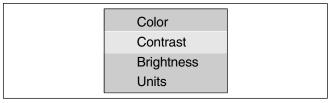


Figure 13 - Display Control Menu

A count-down display will appear and count from 10 to 1 while a menu item is displayed. The count will reset to 10 each time a key is pressed to change a menu item or setting.

Scroll through the options by pressing the Zero Key until the desired option is highlighted. To increase the setting of the highlighted option, press the Sonde Key. To decrease the value of the highlighted option, press the Dimmer Key. When all three options are set to your satisfaction, press the Dimmer Key and the Sonde Key simultaneously to return to the normal display.



The Color, Contrast, and Brightness choices increase and decrease the value of the appropriate display characteristic on a sliding scale.

The Units option toggles between Auto-detection, Feet, and Meters for the unit of measurement used in displaying distance counts. Auto-detection (Compact reel only) detects the type of camera (NTSC or PAL) and automatically sets the units to feet (NTSC) or meters (PAL).

Maintenance Instructions Cleaning

▲ WARNING

Make sure all cords and cables are disconnected and the battery removed prior to cleaning the MINIPak to reduce the risk of electrical shock.

Do not use liquid or abrasive cleaners on the MINI*Pak*. Clean the MINI*Pak* with damp cloth. Only use cleaners approved for use on LCD screens to clean the screens. Do not allow any liquid to enter the MINI*Pak*.

Accessories

WARNING

The following accessories have been designed to function with the MINIPak. Other accessories suitable for use with other equipment may become hazardous when used with the MINIPak. To reduce the risk of serious injury, only use accessories specifically designed and recommended for use with the MINIPak, such as those listed below.

Catalog #		Description	
US	EU	Description	
32743	28218	18 V Li-Ion rechargeable battery	
32068	32073	Battery charger	
32648	32693	Dual battery kit with charger	
32708	32713	Single battery kit with charger	
Var	ous	RIDGID SeekTech® or NaviTrack® Locator	
Var	ous	RIDGID SeekTech® or NaviTrack® Transmitters	

Transport And Storage

Remove batteries before shipping. Do not expose to heavy shocks or impacts during transport. If storing for an extended period, remove batteries. Store within temperature range of 14°F to 158°F (-10°C to. 70°C).

Store electrical devices in a dry place to reduce the risk of electrical shock.

Protect against excessive heat. The unit should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

Service And Repair

A WARNING

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

Service and repair of the MINI*Pak* 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 www.RIDGID.com or www.RIDGID.eu to find your local Ridge Tool contact point.
- Contact Ridge Tool Technical Services Department at rtctechservices@emerson.com, or in the U.S. and Canada call (800) 519-3456.

Disposal

Parts of the unit contain valuable materials and 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 implemen-

tation into national legislation, electrical equipment that is no longer usable must be collected separately and disposed of in an environmentally correct manner.

Battery Disposal



For USA and Canada: The RBRC™ (Rechargeable Battery Recycling Corporation) Seal on the battery packs means that RIDGID has already paid the cost of recycling the lithium-ion battery packs once they have reached the end of their useful life.

RBRC™, RIDGID®, and other battery suppliers have developed programs in the USA and Canada to collect and



recycle rechargeable batteries. Normal and rechargeable batteries contain materials that should not be directly disposed of in nature, and contain valuable materials that can be recycled. Help to protect the environment and conserve natural resources by returning your used batteries to your local retailer or an authorized RIDGID service center for recycling. Your local recycling center can also provide you with additional drop off locations.

RBRC™ is a registered trademark of the Rechargeable Battery Recycling Corporation.

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

Chart 1 Troubleshooting

PROBLEM	PROBABLE FAULT LOCATION	SOLUTION
Camera video image not	No power to SeeSnake.	Check power is correctly plugged in.
seen.		Check Power Key on MINIPak by pressing.
	Connections faulty.	Check alignment and pins of connection to MINIPak unit from SeeSnake.
		Check orientation, seating, and pin condition in the SeeSnake System connection. Clean if needed.
	Batteries Low.	Recharge batteries; use power supply until batteries are charged.
MINI <i>Pak</i> screen is a steady blue with no image.	No video signal.	Re-seat SeeSnake system cable connection.
Screen display indicates MINI <i>Pak</i> battery is low.	MINI <i>Pak</i> 18 V batteries low.	Recharge or replace MINIPak batteries. Switch to external power.
Count accuracy seems unreliable. (CountPlus)	Settings incorrect for reel or cable being used.	Verify the CountPlus settings are correct for the SeeSnake cable length, cable diameter and reel type you are using.
	Counting from a zero point other than the one intended.	Confirm you are measuring from the intended zero-point. Reset zero-point using Zero Key (See page 9).
The symbol "+" appears after the on-screen distance measurement. (CountPlus)	Physical cable measurement has exceeded the cable parameter in settings.	Verify the actual length of your installed cable; re-set the reel and cable settings for the correct reel type and actual cable size as described in the CountPlus manual.
Low Battery warning appears on screen. (CountPlus)	CountPlus Battery dead or near-dead.	Replace 3-volt battery in the CountPlus (CR2450).

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