

SeekTech[®]

SR[™] Locators

**SR-24LE****SR-20****⚠ 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.

SR-20 online support:
support.seesnake.com/sr-20



SR-24LE online support:
support.seesnake.com/sr-24le



Table of Contents

Introduction

Regulatory Statements..... 3
 Safety Symbols..... 3

General Safety Rules

Work Area Safety 4
 Electrical Safety..... 4
 Personal Safety 4
 Equipment Use and Care 5
 Pre-Operation Inspection..... 5

Specific Safety Information

SR-24LE/SR-20 Safety..... 6

System Overview

Description..... 7
 SR-24LE and SR-20 Specifications 8
 Standard Equipment..... 9
 Components 9

Operating Instructions

Powering the System..... 10
 Receiver Operation Modes..... 10
 Display Elements..... 12

Active Line Tracing

Tracing the Target Line 16
 Induction and Air-Coupling 16

Passive Line Tracing

Passive Power 16
 Passive Radio Frequency Broadband 17
 OmniSeek 17

Sonde Locating

Steps 17

Depth

Depth Verification Test 17
 Depth Average..... 18

Signal Accuracy

Checking for Accuracy..... 18

Maintenance and Support

Cleaning 19
 Transportation and Storage..... 19
 Service and Repair..... 19
 Disposal..... 19

Introduction

The warnings, cautions, and instructions discussed in this 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 that cannot be built into this product, but must be supplied by the operator.

Regulatory Statements

CE The EC Declaration of Conformity (999-995-232.10) will accompany this manual as a separate booklet when required.

FCC 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.

Contains Transmitter Module FCC ID: X8WBT840XEE IC: 4100A-BT840XEE.

**UK
CA** **UK Importer**
Ridge Tool UK (RIDGID)
44 Baker Street
London W1U 7AL, UK

Safety Symbols

In this 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 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.



This symbol indicates the risk of fire.

General Safety Rules

⚠ WARNING



Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electrical 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.
- **Keep all electrical connections dry and off the ground.** Touching equipment or plugs with wet hands can increase 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. Loose clothes, jewelry, and long hair can be caught in moving parts.
- **Avoid traffic.** Pay close attention to moving vehicles when using on or near roadways. Wear high-visibility clothing or reflector vests.

⚠ DANGER

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 switch 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 can 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.

Pre-Operation Inspection

⚠ WARNING



To reduce the risk of serious injury from electrical shock or other causes, and to prevent damage to your equipment, inspect all equipment and correct any problems before each use.

To inspect all equipment, follow these steps:

1. Power off your equipment.
2. Disconnect and inspect all cords, cables, and connectors for damage or modification.
3. Clean any dirt, oil, or other contamination from your equipment to ease inspection and to prevent it from slipping from your grip during transportation or use.
4. Inspect your equipment for any broken, worn, missing, misaligned or binding parts, or any other condition which might prevent safe, normal operation.
5. Check your work area for the following:
 - Adequate lighting.
 - The presence of flammable liquids, vapors, or dust that may ignite. If present, do not work in area until sources have been identified and corrected. The equipment is not explosion proof. Electrical connections can cause sparks.
 - A clear, level, stable, and dry place for the operator. Do not use the equipment while standing in water.
6. Examine the job to be done and determine the correct equipment for the task.
7. Observe the work area and erect barriers or cones as necessary to keep bystanders away and, if near traffic, alert drivers.

Specific Safety Information

⚠ WARNING



This section contains important safety information that is specific to the SeekTech SR-24LE/SR-20. Read these precautions carefully before using the SR-24LE/SR-20 to reduce the risk of electrical shock, fire, or other serious personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

SR-24LE/SR-20 Safety

- **Read and understand this operator's manual and the instructions for any other equipment in use including, but not limited to, transmitters, clamps, and sondes.** Failure to follow all instructions and warnings may result in property damage and/or serious personal injury.
- **Do not use this equipment if operator or SR-24LE/SR-20 is standing in water.** Operating the SR-24LE/SR-20 while in water increases the risk of electrical shock.
- **Do not use where a danger of high voltage contact is present.** The SR-24LE/SR-20 is not designed to provide high voltage protection and isolation.
- **Exposing the utility is the only way to be certain of its location.** Several utilities may be underground in the same area. Be sure to follow local guidelines and One Call service procedures.

NOTICE

Ridge Tool Company, its affiliates and suppliers, will not be liable for any injury or any direct, indirect, incidental or consequential damages sustained or incurred by reason of the use of the SR-24LE/SR-20.

System Overview



NOTICE *SR-24LE is used to refer to both the SR-24LE and the SR-20 throughout this manual. The SR-24LE has integrated GPS and Bluetooth® Low Energy (BLE) technology. The SR-20 does not, but is otherwise functionally identical.*

Description

The RIDGID SeekTech SR-24LE receiver gives utility locating professionals the information they need to confidently determine the position of underground utilities.

The SR-24LE's Omnidirectional antenna system measures electromagnetic signals and calculates the signal's orientation strength, depth, and degree of distortion or interference. The display and the multidimensional audio cues give you a locating experience that is immediately intuitive.

For an added degree of confidence, the SR-24LE continuously monitors the electromagnetic field for interference from conflicting signals that could distort its shape. When the SR-24LE detects distortion, the SR-24LE emits audio cues and displays on-screen guidance so that appropriate action can be taken to avoid mismarking the utility's position.

Built on the trusted and time tested SR-20 platform, the SR-24LE has an integrated GNSS receiver and Bluetooth Low Energy (BLE) technology for connecting to Bluetooth-enabled devices.

SR-24LE and SR-20 Specifications	
Dimensions	
Length	316 mm [12.5 in]
Width	190 mm [7.5 in]
Height	785 mm [30.9 in]
Weight <i>without battery or adapter</i>	1.7 kg [3.8 lb] (SR-24LE) 1.4 kg [3 lb] (SR-20)
Power	
Power rating	6V, 370 mA (SR-24LE) 6V, 300 mA (SR-20)
Battery type without adapter	Four size C, 1.5 V alkaline (ANSI/NEDA 14 A, IEC LR14), or 1.2 V NiMH or Ni- Cad rechargeable batteries
Battery type with adapter	RIDGID or Makita rechargeable Li-Ion with max voltage 25 V
Power consumption	2.2 W (SR-24LE) 1.8 W (SR-20)
LCD	
Resolution	Monochrome 240 × 160 pixels
Display size	58 mm × 38 mm [2.3 in × 1.5 in]
Operating Environment	
Temperature	-10°C to 50°C [14°F to 122°F]
Storage temperature	-20°C to 60°C [-4°F to 140°F]

SR-24LE and SR-20 Specifications	
Ingress Protection	IPX4
Relative humidity	5 to 95 percent
Altitude	4,000 m [13,123 ft]
USB	
Cable	Mini-B, 1.8 m [6 ft]
Type	2.0
SD Card	Micro 16 GB
Bluetooth 5.0	
Module	BT840XE
Transmit power	19.55 dBm
Receiver sensitivity	-96 dBm at 1Mbps
Antenna gain	2 dBi
Operating range	Up to 4,500 m [14,764 ft]*
GPS	
Model	STA8090FG
Accuracy	1 m [3.3 ft]**
Tracking	-162 dBm
<i>*Effective distance may vary.</i>	
<i>**According to the manufacturer, the GPS accuracy is 4.6 cm [1.8 in]. Accuracy is affected by a number of factors including the presence of trees, buildings, and other large objects.</i>	

Standard Equipment

- Operator's manual
- Four size C alkaline batteries
- RIDGID SeekTech Li-Ion Battery Adapter (with SR-24LE)
- Marker chips
- Mini-B USB cable

Components



Folding Antenna Mast

Unfold the antenna mast and lock the folding joint into place. When the job is complete, press the red release latch to fold the antenna mast. Secure the folding mast into the clip for storage or transportation.



NOTICE You must unfold the antenna mast to use the SR-24LE. To prevent damage to the mast, do not snap or whip the SR-24LE to open or close it. Only open and close the SR-24LE manually.





Operating Instructions

⚠ DANGER

Exposing the utility prior to digging is the only way to verify its existence, location, and depth. If excavating a utility, periodically recheck the measured depth and position to avoid damaging the utility and to identify additional utility signals that may have been overlooked.

Powering the System

NOTICE Use batteries that are all the same type. Mixing alkaline and rechargeable batteries can cause over heating and battery leakage.

The SR-24LE is powered by four C-cell batteries or a compatible 18 V Li-Ion battery when using the SeekTech battery adapter. Attach the adapter into the Battery Compartment and slide the battery into the battery shoe.

Receiver Operation Modes

The SR-24LE can operate using two modes: Line Trace Mode and Sonde Mode.

Line Trace Mode

In Line Trace Mode you can Active Line Trace by intentionally applying a signal onto the target line through metal-to-metal conduction or non metal-to-metal induction with a transmitter.

Also in Line Trace Mode, you can Passive Line Trace by detecting signal energy coupled onto metallic conductors from nearby energy sources such as power lines. Passive Line Trace Mode includes Passive Power, Radio Broadband, and OmniSeek Broadband Modes. Broadband frequencies target any signal in a range of frequencies.

Note: Active signals within a broadband range are also detected.

SR-24LE Keypad	
Key	Function
	Power Key/Right Arrow Key
	Frequency Key/Left Arrow Key
	Menu Key
	Up Arrow Key
	Down Arrow Key
	Volume Key
	Select Key

Line Trace Frequencies	
Active Frequencies	
Default	128 Hz 1 kHz 8 kHz 33 kHz
User Programmable	10 Hz – 35 kHz
Passive Frequencies	
Default North America	60 Hz ^{x9} < 4 kHz
Default Europe	50 Hz ^{x9} < 4 kHz
Default Japan	50 Hz ^{x9} 60 Hz ^{x9} < 4 kHz
Power Preprogrammed	50 Hz 50 Hz ^{x5} 50 Hz ^{x9} 60 Hz 60 Hz ^{x5} 60 Hz ^{x9} 100 Hz 120 Hz
User Programmable	10 Hz – 35 kHz
Radio Frequency Broadband	4 kHz – 15 kHz > 15 kHz
OmniSeek Broadband Modes (All three simultaneously)	< 4 kHz 4 kHz – 15 kHz > 15 kHz

Sonde Mode

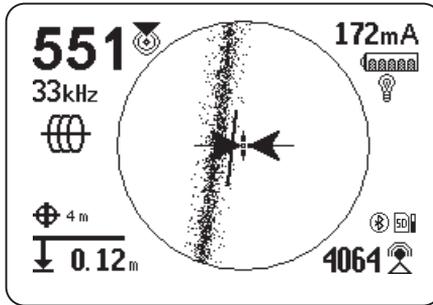
Use Sonde Mode to locate a sonde that is inside a pipe, conduit, or tunnel.

Sonde Mode Frequencies	
Default	512 Hz
Preprogrammed	16 Hz 640 Hz 850 Hz 8 kHz 16 kHz 33 kHz
User Programmable	10 Hz – 35 kHz

Display Elements

Line Trace Mode Display

The display elements shown below appear in Passive Line Trace Mode , Active Line Trace Mode , and Radio Broadband Mode .



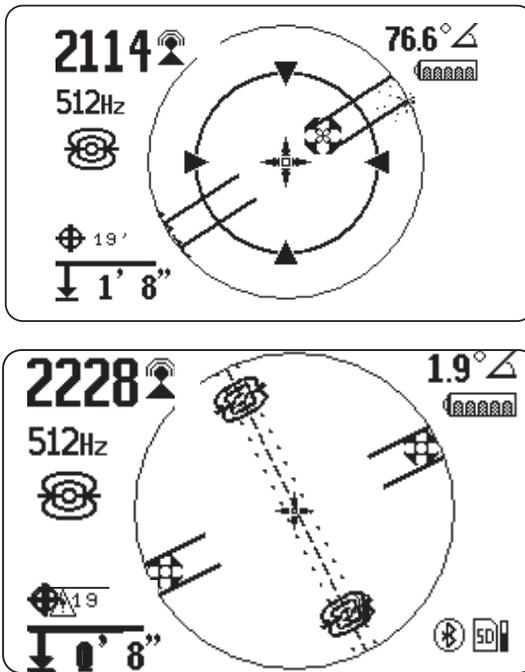
Line Trace Mode Display Elements

Icon	Name	Description
	Active Line Trace Mode	The Active Line Trace icon indicates the SR-24LE is set to an Active Line Trace frequency.
	Passive Power Line Trace Mode	The Passive Line Trace icon indicates the SR-24LE is set to a Passive Power Line Trace frequency.
	Passive Radio Frequency Broadband Line Trace Mode	The Passive Radio Frequency Broadband Line Trace icon indicates the SR-24LE is set to a Passive Radio Frequency Broadband Line Trace frequency.
	Passive OmniSeek Line Trace Mode	The Passive OmniSeek Line Trace icon indicates the SR-24LE is set to a Passive OmniSeek Line Trace frequency range.
	Proximity Number	The Proximity Number represents the nearness of the target line to the SR-24LE. The larger the number, the closer you are to the target line.
172mA	Current Measurement (mA)	Current Measurement (mA) appears in milliamps when the SR-24LE is directly over the line.
	Signal Strength	Strength of the signal detected by the Omnidirectional antennas. Observe the Signal Strength to determine the maximum signal strength. At the maximum signal strength, the receiver is over the target line.

Line Trace Mode Display Elements		
Icon	Name	Description
	Signal Angle	Signal Angle appears in place of Current Measurement (mA) when the detected signal is at an angle greater than 35°.
	Measured Depth	Measured Depth shows the approximate depth of the target line. The depth appears in either meters (m) or feet (ft). In addition to the measured depth reading, Depth Average displays a Depth Average Report on screen. <i>Refer to the Depth Average section for more information.</i>
	Tracing Line	The orientation and offset of the Tracing Line indicate the direction of the target line relative to the position of the receiver. The Tracing Line appears as a clear, single line when the signal is undistorted. As the distortion increases, the Tracing Line appears increasingly fuzzy and the audio cue increases static noise. The Tracing Line Distortion Response is enabled by default.
	Distortion Line	The Distortion Line represents the signal from the Upper Antenna node. Compare the Tracing Line and the Distortion Line to estimate the degree of distortion on the signal. The Distortion Line is disabled by default and only appears if the Tracing Line Distortion response is disabled.
	Guidance Arrows	When the Guidance Arrows are touching, they indicate the point where the strength of the field is equal on both sides of the receiver.
	Guidance Line	The Guidance Line shows the alignment of the Tracing Line and when the orientation of the SR-24LE is close to the orientation of the utility.
	Cross Hairs	The Cross Hairs are placed at the center of the Active View Area to represent the receiver's location.
	Rotation Arrows	When the receiver is out of alignment with the target line, two rotation arrows appear to indicate the direction you should turn the receiver to realign with the target line.

Sonde Mode Display

The display elements shown below appear in Sonde Mode .



Sonde Mode Display Elements		
Icon	Name	Description
	Sonde Mode	The sonde icon underneath the currently set frequency, indicates the SR-24 is set to a sonde frequency.
	Signal Strength	Strength of the signal detected by the omnidirectional antennas. Observe the signal strength to determine the maximum signal strength.
	Signal Angle	The signal angle displays the measured polar angle of the SR-24 to the sonde dipole field.
	Measured Depth	Measured depth shows the approximate depth of the target line. The depth appears in either meters (m) or feet (ft).
	Pole	The pole icon represents the location of a pole of the sonde's dipole field.

Sonde Mode Display Elements		
Icon	Name	Description
	Cross Hairs	The cross hairs are placed at the center of the active view area to represent the receivers location.
	Pipe Direction	The pipe direction represents the approximate orientation of the sonde's axis.
	Sonde Equator	Two sonde equator icons appear along the equator line once the first pole has been located.
	Equator Line	The equator line represents the equator of the sonde's field.
	Zoom Ring	The Zoom Ring appears when the receiver moves close to one of the Poles.

Universal Display Elements		
Icon	Name	Description
	SD Card and Usage Bar Graph	Indicates the SR-24LE is logging to the installed SD Card. The Usage Bar Graph shows disk space usage.
	GNSS	Indicates GNSS is enabled.
	GNSS Estimated Positional Error	GNSS Estimated Positional Error is the number next to the GNSS icon. It indicates the Estimated Positional Error of the internal GPS.
	No GNSS Signal Lock	Internal GNSS signal is not locked and is searching for satellites.
	Battery Status	Indicates the amount of charge remaining in the batteries.
	Backlight	Indicates the Backlight is on.
	Bluetooth	Indicates BLE is enabled and the SR-24LE is connected to a Bluetooth-enabled device.

Active Line Tracing

Note: For complete instructions on generating a locating signal with a transmitter, refer to the operator's manual that came with the transmitter you are using.

Tracing the Target Line

1. Set the transmitter to Direct Connect Mode, Inductive Clamp Mode, or Inductive Mode.
2. Set the transmitter's frequency and press the Frequency Key  to set the receiver to the same frequency.

Note: Make sure you have selected an Active Line Trace frequency  and not a Sonde frequency .

3. Make sure the SR-24LE is detecting the transmitter's signal. Position the receiver approximately 1 m [3 ft] from one of the transmitter's leads and observe the Signal Strength reading. If the locating circuit is good, the Signal Strength reading will be strong and steady, with minimal fluctuation.
4. Center the Tracing Line to get an initial location of the utility. Orient the Tracing Line and the SR-24LE to correctly utilize the Guidance Arrows.
5. In the absence of signal distortion, balance the Guidance Arrows, orient the Guidance Line, and maximize the Proximity Number and Signal Strength to pinpoint the location of the target line.

Induction and Air-Coupling

WARNING

Air-coupling can lead to false locates.

With Induction, the transmitter broadcasts a signal in all directions. If the receiver is too near to the transmitter, the signal broadcast through the air will be stronger than the signal from the target line underground.

Testing for Air-Coupling

There are two ways you can test for air-coupling: the 45° tilt test and the depth verification test.

To perform the 45° tilt test, follow these steps:

1. With the SR-24LE aligned with the target line, touch the Lower Antenna to the ground and tilt the SR-24LE at a 45° angle toward the transmitter.
2. Note the depth.
3. With the Lower Antenna still touching the ground, tilt the SR-24LE away from the transmitter at a 45° angle.
4. Note the depth.

If the tilted depth reading changes significantly comparing the two cases, air-coupling is occurring.

Note: The depth reading will not be an accurate reading of the target line's depth.

To perform the depth verification test, view the instructions on page 17.

Passive Line Tracing

CAUTION

Due to the nature of Passive Line Tracing, measured depth may not be accurate. Whenever possible, perform an Active Line Trace to confirm your Passive Line Trace results.

The SR-24LE has two types of Passive Line Tracing frequencies: Power Frequencies and Radio Frequencies.

Passive Power

Power Frequencies  are used to locate signals from AC power lines.

Passive Radio Frequency Broadband

The SR-24LE has two Radio Frequency  ranges (Low and High) as well as OmniSeek , which searches three passive frequency bandwidths simultaneously.

- Low   4k-15k 4 kHz – 15 kHz
- High   >15k 15 kHz – 35 kHz
- OmniSeek  
 - < 4 kHz
 - 4 kHz – 15 kHz
 - > 15 kHz

With a broadband signal type, the SR-24LE displays positional information for the strongest source in the given frequency range.

OmniSeek

OmniSeek passively traces the line by simultaneously searching through the following three frequency bands:

- Less than 4 kHz
- From 4 kHz to 15 kHz
- Greater than 15 kHz

When OmniSeek is enabled, the SR-24LE displays a Tracing Line for each range that has a usable signal.

If the SR-24LE detects signals in the other two frequency ranges, it displays dashed Tracing Lines to indicate the estimated position of these signals. Focus automatically shifts to the closest signal.



Secondary Tracing Lines

Sonde Locating

Steps

1. Activate the Sonde and press the Frequency Key  to set it to the matching Sonde frequency.

Note: Make sure you have selected a Sonde frequency  and not a Line Trace frequency .

2. Push the sonde into the pipe.
3. Point the SR-24LE's mast in the suspected direction of the Sonde and sweep the horizon in a slow arc. The Signal Strength is highest when the Lower Antenna is closest to the Sonde and drops off when pointed away.
4. Lower the SR-24LE to its vertical operating position and walk toward the Sonde. Continue searching for the highest signal by moving the receiver left, right, forward and backward until you have located the point where the signal is strongest and mark the Sonde's position at this point.

Depth

 **CAUTION**

For the depth to display correctly, make sure you are in the mode you intend to locate with (line or sonde tracing).

The SR-24LE calculates measured depth by comparing the difference in Signal Strength between the Upper Antenna and the Lower Antenna. The measured depth indicator is displayed in the lower left corner of the screen in either meters or feet.

Depth Verification Test

To verify the SR-24LE is correctly measuring the target line's depth, follow these steps:

1. Touch the Lower Antenna to the ground directly above the Sonde or the target line.
2. Vertically orient the antenna mast and note the depth.

3. Raise the SR-24LE off the ground approximately 150 mm [6 in].
4. Observe the change in measured depth. The measured depth should increase by approximately the same amount (in this example, approximately 150 mm [6 in]).

Note: An unchanging or drastically changing measured depth may indicate the presence of a distorted field or a line with very low current.

NOTICE Use measured depths as estimates only. Independently verify actual depths before excavating.

Depth Average

In addition to real-time depth measurement, the Depth Average feature is useful when the SR-24LE has variable depth readings.

The Depth Average is a report that averages real-time depth readings from the past 2 to 6 seconds and displays the average on screen inside the Active View Area when prompted.

To create a Depth Average Report, follow these steps:

1. Press and hold the Select Key .
2. Wait for the countdown screen to go out of view and for the SR-24LE to beep once.
3. The Depth Average Report shows the measured depth, angle, and current of the target line.
4. Press the Select Key  to exit and return to the real-time depth reading.

Signal Accuracy

⚠ DANGER

Exposing the utility is the only way to be certain of its location. If excavating a utility, periodically recheck the measured depth and position to avoid damaging the utility and to identify additional utility signals that may have been overlooked.

Checking for Accuracy

To confirm the accuracy of the detected signal, check that all of the following are true:

- The Guidance Arrows and Guidance Line are aligned with the Tracing Line.
- The Tracing Line shows little or no distortion.
- The Proximity Number and Signal Strength maximize when the Tracing Line crosses the map center.
- The measured depth increases appropriately and the Tracing Line remains aligned when the Depth Verification Test is performed.

Discrepancies may indicate a problem with the signal and must be resolved before the location of the target line should be determined.

Factors Affecting Accuracy

There are many factors that affect accuracy, including distortion due to local interference; bleed-over from other utilities; environmental conditions; tees, turns, or splits in the line; soil conditions; and utility conditions.

Maintenance and Support

Cleaning

WARNING

Remove batteries prior to cleaning the SR-24LE to reduce the risk of electrical shock.

Do not use liquid or abrasive cleaners, solvents, or scraping tools to clean the SR-24LE. Do not immerse in water or allow any liquid to enter the unit.

Clean with damp cloth and mild detergent. Only clean screen with cleaners approved for use on LCD screens.

Transportation and Storage

Store and transport your equipment with the following in mind:

- Keep in a locked area out of the reach of children and people unfamiliar with its operation.
- Put 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.
- Storage temperature should be -20°C to 60°C [-4°F to 140°F].
- Do not expose to heavy shocks or impacts during transportation.
- Remove the batteries before shipping and before storing for extended periods of time.

Service and Repair

WARNING

Improper service or repair can make the SR-24LE unsafe to operate.

Service and repair of the camera reel must be performed at a RIDGID Independent Authorized Service Center.

To find your nearest service center or for any service or repair questions:

- Contact your local RIDGID distributor.
- Visit RIDGID.com.
- Contact Ridge Tool Company Technical Service Department at rttechservices@emerson.com or, in the USA and Canada, call 1-800-519-3456.

Disposal

Parts of the SR-24LE 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 2012/19/EU 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.

WWW.RIDGID.COM

Ridge Tool Company
400 Clark Street
Elyria, Ohio 44035-6001
USA
1-800-474-3443

Ridge Tool Europe NV (RIDGID)
Ondernemerslaan 5428
3800 Sint-Truiden
Belgium
+32 (0)11 598 620

© 2023 Ridge Tool Company. All rights reserved.

Every effort has been made to ensure that the information in this manual is accurate. Ridge Tool Company and its affiliates reserve the right to change the specifications of the hardware, software, or both as described in this manual without notice. Visit www.RIDGID.com for current updates and supplemental information pertaining to this product. Due to product development, the photos and other presentations specified in this manual may differ from the actual product.

RIDGID and the RIDGID logo are trademarks of Ridge Tool Company, registered in the USA and other countries. All other registered and unregistered trademarks and logos mentioned herein are the property of their respective owners. Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation.

iPad, iPhone, iPod touch, and App Store are trademarks of Apple Inc., registered in the USA and other countries. "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc.

Printed in USA
999-995-431.10

2023/04/03
748-024-0080-00-0A

RIDGID


EMERSON