

u-LOCATE™

Pipe and Cable Locator Range

User Guide

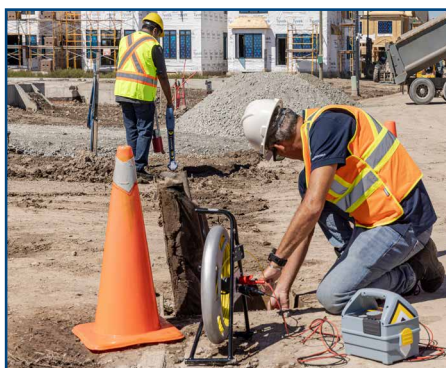


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Preface

Before you begin Table of contents

Thank you for your interest in the Schonstedt u-LOCATE range of Pipe & Cable Locators.

Please read this user manual in its entirety before operating the u-LOCATE system.

This manual covers the u-LOCATE and u-LOCATE+ locators, as well as the u-LOCATE Transmitter

Schonstedt products, including this manual, are under continuous development. The information contained within is accurate at time of publication; however the u-LOCATE range, this manual and all its contents are subject to change.

Schonstedt reserves the right to modify the product without notice and some product changes may have taken place after this user manual was published.

Contact your local Schonstedt dealer or visit www.schonstedt.com for the latest information about the u-LOCATE range, including this manual.

Important notices

General

The performance of any cable and pipe locator may be affected when used in close proximity to ferrous materials such as manhole covers, steel-toe boots and nearby vehicles. Keep a distance of 3 feet/1m or more from these objects when taking critical measurements such as depth and current readings.

Safety

 Risk of property damage, death, or serious injury may result if buried pipes, and cables are not properly located before digging.

 Read and follow all instructions and warnings in the owner's guide before using the u-LOCATE kit.

 Regularly check your u-LOCATE kit, in all modes, over a cable which gives a response you are familiar with.

 Reduce audio level before using headphones to avoid damaging your hearing.

 Some power cables do not radiate detectable power signals. For best results, use the u-LOCATE Transmitter whenever searching for pipes and cables.

 Do not use the depth estimation function to decide if mechanical digging over a buried conductor is appropriate.

 Keep mobile phones away from pipe and cable locators when in operation. Minimum distance 24"/ 60cm recommended.

 The u-LOCATE cannot indicate whether a signal comes from a single conductor or from several cables or pipes bundled or buried in close proximity to each other.

 The transmitter is capable of outputting potentially lethal voltages. Take care when applying signals to any pipe or cable and be sure to notify other technicians who may be working on the line.

 Ensure the transmitter is switched OFF before making a connection and before disconnection of the Direct connection lead to a service.

 Before replacing the transmitter batteries, switch off the unit and disconnect all cables

CAUTION: The battery and the headphone covers protect the locator's sockets from debris and water ingress. If they get damaged or lost, contact Radiodetection or your local service representative for replacements.

Call your local support number (available from: www.schonstedt.com) for questions regarding the proper use, maintenance, and repair of the u-LOCATE kit.

Schonstedt will accept no responsibility for repairs carried out by unauthorized repairers.

CAUTION: The battery and the headphone covers protect the locator's sockets from debris and water ingress. If they get damaged or lost, contact Radiodetection or your local service representative for replacements.

 Even if using a u-LOCATE kit, ALWAYS DIG WITH CAUTION.

Compliance

The Declaration of conformity is available to download from the u-LOCATE product section page in www.schonstedt.com

Intellectual property

Copyright © 2026 Radiodetection Ltd. All rights reserved. Radiodetection is a subsidiary of SPX Technologies, Inc. Schonstedt, u-LOCATE and FlexiTrace are either trademarks or registered trademarks of Radiodetection in the United States and / or other countries. Due to a policy of continued development, we reserve the right to alter or amend any published specification without notice.

Introduction

In general, pipe and cable locators can operate in a variety of modes and frequencies.

The following is a brief description of the basic operating modes supported by the u-LOCATE™ and u-LOCATE+ Pipe & Cable locators, which consist of both a receiver and a transmitter . In addition, u-LOCATE(+) offers advanced features to suit almost any type of locating challenge, while emphasizing portability, size, and convenience.

All Schonstedt products are manufactured following high standards of reliability, durability and performance.

For additional information on pipe and cable locating theory and techniques, check the training section of our website at **www.schonstedt.com/training/U-LOCATE**.

Passive 50/60 Hz

Power systems typically operate at either 50 Hz or 60 Hz. In North America, the standard line frequency is 60 Hz, while many other regions use 50 Hz.

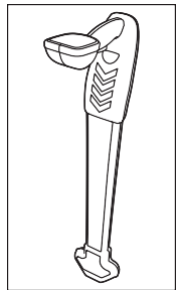
The receiver must be configured to match the local power frequency to detect AC power signals in Passive mode.

To change the passive frequency setting:

- 1 Press the trigger key to power on the unit.
- 2 Press the  and  buttons simultaneously to display the current frequency.
- 3 Use the  or  keys to select either 50 Hz or 60 Hz.
- 4 Press the  key to confirm the selection. The display briefly shows PRG to indicate the new setting has been saved.

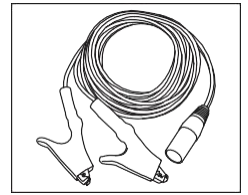
To verify the current passive frequency, press the Frequency key to cycle through the available modes. When Passive mode is displayed, the selected frequency (50 Hz or 60 Hz) is shown on screen.

In Passive mode, the transmitter is not used. The receiver instead detects naturally occurring signals—harmonics of the selected 50 Hz or 60 Hz power frequency—typically present on energized power cables. This allows power lines to be located without applying an active transmitted signal.



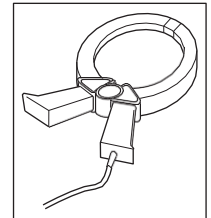
Direct connect

In Direct Connect mode, the transmitter imposes a signal of the selected frequency onto the pipe or cable to be traced. It does so by making direct contact with the pipe or cable at a point where the pipe/cable comes up to the surface of the ground (a transformer box, a water hydrant, a telephone switch box, a gas meter, etc.). The circuit is closed by providing a return path with a stake that is buried in the ground near the transmitter.



Inductive clamp

In inductive clamp mode, the transmitter imposes a signal of the selected frequency onto the pipe or cable to be traced. It does so by energizing a clamp that is placed so that it is completely encircling the pipe or cable at a point where the pipe/cable comes up to the surface of the ground (a transformer box, telephone switch box, gas meter, etc.). The clamp then induces a current onto the pipe or cable. In this mode, it is not necessary to provide a return path for the induced current to the transmitter. The induced current will travel on the pipe or cable for a certain distance, making it possible to trace it.



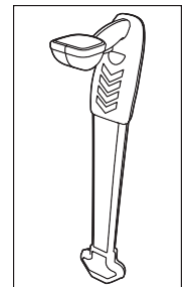
Signal induction

In the signal induction mode, the transmitter imposes a signal onto the pipe or cable to be traced. It does so by energizing an inductive antenna that is internal to the transmitter. The transmitter is placed on the ground where the chevron arrows on both ends of the transmitter are pointing inline with the direction of the pipe or cable being traced. The inductive antenna then induces a current onto the pipe or cable. In this mode, it is not necessary to provide a return path for the induced current to the transmitter. The induced current will travel on the pipe or cable for a certain distance, allowing the receiver to trace it.

Sonde (u-LOCATE+ only)

In sonde mode, the transmitter is not required. This mode is best used to trace non-metallic pipes, or metallic pipes where other modes are inapplicable or inefficient. A small beacon transmitter, or sonde, is pushed through the pipe, and the receiver searches for the signal emitted by the sonde.

Since the signal being traced by the receiver is produced by the sonde and not travelling along the pipes, there are some differences in the way the receiver is used. Due to the nature and strength of the sonde signal, it is necessary to have some knowledge of where the sonde is located (in order to narrow the search area to a radius of several feet centered on the sonde).



For additional information on sonde locating and techniques, check the training section of our website at www.schonstedt.com/training.

Operating recommendations

When using u-LOCATE(+), follow these tips and recommendations to improve and facilitate your locating experience:

1. Whenever possible, use the Direct Connect mode. It provides the strongest and best coupled signal.
2. When operating in Direct Connect mode:
 - Try to bury the ground stake on a line perpendicular to the utility to be traced.
 - Verify that a good circuit has been established by listening for a tone change when you connect the Clips to the utility.
3. When operating in the inductive mode, place the transmitter on the ground where the chevron arrows on both ends of the transmitter are pointing in-line with the direction of the pipe or cable being traced.
4. If using the inductive clamp mode, place the clamp so that it completely encircles the desired cable or pipe. Make sure the clamp can fully close so that both ends touch.
5. When operating in the passive mode, be aware of your surroundings and possible interference from overhead power lines, other buried cables, pipes or utilities carrying 50 or 60 Hz signals, and nearby transformers or substations.
6. The receiver will default to automatic gain mode when powered up.
If manual gain is selected for any operating mode, always start with the gain set to the maximum value, then reduce the gain until the signal strength reading is between 200 and 800 and shows a clear peak over the target. A steady reading of 995 or higher indicates that the signal is too strong, the receiver gain and/or transmitter power should be reduced.

u-LOCATE(+) functional test

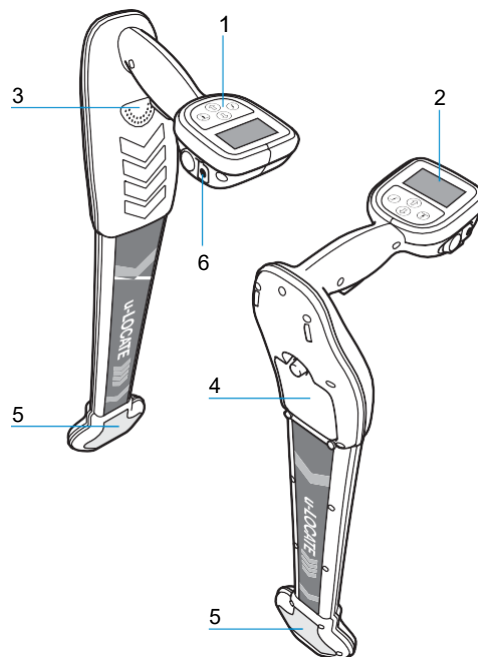
Schonstedt recommends that you perform a daily functional test on your u-LOCATE(+) receiver and transmitter before use.

- Place the transmitter on the ground, power on and check for an audible sound. If no sound is heard or the low battery warning light is flashing, replace the batteries before use.
- Power on the receiver by squeezing the trigger, checking for an audible tone. A low tone indicates low batteries. If no sound is heard, replace the batteries before use.
- Set the receiver to 82kHz mode at maximum sensitivity, hold the receiver at waist height pointing toward the transmitter with its chevrons facing you and check that the receiver can detect the transmitter up to 50 Feet (15m) away with a clearly audible sound.

u-LOCATE (+) receiver

Receiver features

- 1 Keypad
- 2 LCD
- 3 Speaker
- 4 Battery compartment
- 5 Highly reflective CLASS 2 safety labels
- 6 Headphone connector



Automatic and manual gain

When the user powers on the u-LOCATE(+) receiver, it starts in automatic gain mode by default. In this mode, the receiver continuously adjusts its own sensitivity according to the strength of the detected signal, keeping the signal level strong and stable for the user. To switch to manual gain mode, the user presses either the  or  key. In manual gain mode, the user can adjust the sensitivity up or down to suit different locating scenarios. To return to automatic gain, the user presses the  and  keys simultaneously.

Directional indication

The receiver is equipped with directional indicators (arrows). These visual indicators help the user locate the pipe or cable by showing which direction the user should move to be in proximity of the target. These indicators are not available in sonde mode.

Depth measurement and units

The receiver has the ability to measure the approximate depth of the target pipe or cable being traced. When a depth measurement is made, the bottom tip of the receiver must be touching the ground. Depth measurements should only be made when the directional indication shows both arrows. Special considerations are required for sonde mode.

To measure depth, simply place the tip of the unit on the ground and press the  button when the signal strength is at a peak. The achievable depth depends on a number of factors, but typically it is possible to read depth up to 5 to 15 feet (1.5 to 4.2 m).

The displayed depth can be shown in either Imperial (feet and inches) or Metric (meters) units. The default setting is Imperial.

To change the depth units:

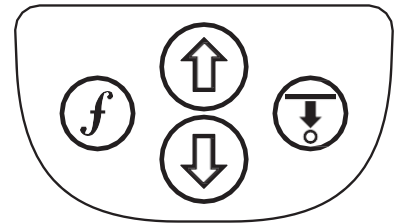
- 1 Press the trigger key to power on the unit.
- 2 Press the  and  buttons simultaneously to display the current depth units.
- 3 Use the  or  keys to select the desired unit — inches or meters.
- 4 Press the  to confirm your selection. The display briefly shows **PRG**, indicating the new setting has been saved.

If the receiver cannot determine depth—due to a weak or distorted signal, or interference from nearby utilities—the LCD will display three dashes (---) instead of a numeric reading.

Controls

The receiver controls are designed to be intuitive and require a minimum of training for effective use. The receiver can easily be operated with one hand.

ON/OFF - The trigger switch is located under the display head. Press to power on and release for power off.

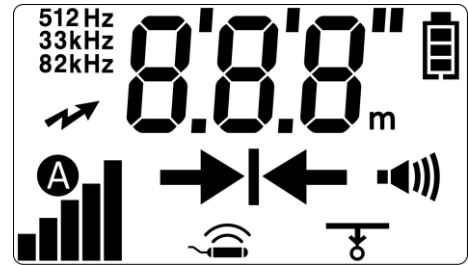


KEY	DESCRIPTION										
	Frequency key Cycles through the receiver's modes as follows: <table><tr><td>u-LOCATE</td><td>Passive</td><td>82kHz</td><td></td><td></td></tr><tr><td>u-LOCATE+</td><td>Passive</td><td>82kHz</td><td>82kHz</td><td>Sonde 512Hz</td></tr></table> The receiver will switch back on to its last selected mode if powered down.	u-LOCATE	Passive	82kHz			u-LOCATE+	Passive	82kHz	82kHz	Sonde 512Hz
u-LOCATE	Passive	82kHz									
u-LOCATE+	Passive	82kHz	82kHz	Sonde 512Hz							
 & 	When the receiver is operating in manual gain mode, pressing the  or  arrows will increase or decrease the gain from its current setting. When the receiver is operating in the automatic gain mode, the first press of the  or  arrows will switch the receiver to the manual gain mode. AUTO – When the receiver is operating in the manual gain mode, pressing the  and  arrows simultaneously will switch the receiver to operate in the Automatic gain mode. In this mode the receiver adjusts its sensitivity as a function of the strength of the detected signal.										

	Depth Measurement When suitable conditions exist, pressing the  button briefly displays the estimated depth of the target on the LCD after a short delay (approximately two seconds). The depth value, together with the depth symbol, remains visible for as long as the button is held down. If the button is pressed and quickly released, the depth reading is displayed momentarily before returning to normal operation.
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Visual and audible indicators

The information display areas for the receiver are easy to understand. In addition, the receiver has visual indicators to facilitate operation in heavy traffic or noisy areas. All visual indicators for the receiver are on the LCD display, which has six general areas to display information to the user: a Battery Indicator, a Gain Indicator, a Frequency/ Mode Indicator, a Direction Indicator, an Alphanumeric Display and a Volume Indicator. When taking a depth measurement, the selected unit of measurement is also shown on the display.



KEY	DESCRIPTION
	Battery Indicator – The battery symbol indicates the receiver's battery status. When all 3 segments inside the battery symbol are present, the battery is fully charged. When only the 2 bottom segments are present, the battery has a medium charge. When only the bottom segment is present, the battery has a low charge and should be replaced. If there are no segments present, the battery is extremely low and you should replace it immediately.
	Gain Indicator – The icons shown depend on the mode in use. The  indicates that the gain is in the automatic gain mode. In this mode, the receiver adjusts its sensitivity as a function of the strength of the detected signal. No bar graph is shown in this mode. In manual gain mode the bar graph indicates the relative strength of the gain. The  is not shown in this mode Each time the  or the  arrow is pressed, the gain is adjusted by 1/30th of the full scale range and the gain level. The bar graph will change with approximately 6 to 9 presses of the  or  arrow. The user may press and hold the  or  button to change the gain rapidly.

Frequency/Mode Indicator – The icons shown depend on the model in use.

For u-LOCATE+, five icons are available: 512 Hz, 33 kHz, 82 kHz, and  (passive) in the upper left of the display and  (sonde) in the lower center.

For u-LOCATE, three icons are available: 512 Hz, 33 kHz, and , all located in the upper left of the display.

These icons are used by themselves, or in various combinations to indicate different operating modes, as shown in the following table, where (C) is Direct Connect mode, (IC) is inductive clamp mode, and (I) is inductive mode. See u-LOCATE Operating Modes for a description of these modes.

u-LOCATE

OPERATING MODE		82 kHz	
C, IC, I at 82 kHz	Off	On	Off
Passive 50/60 (**)	Off	Off	On

(**) The number 50 or 60 shows briefly on the numeric display upon entering this mode, indicating which line frequency the unit is used to locate in passive mode.

u-LOCATE+

OPERATING MODE		33 kHz	82 kHz	512 Hz	
C at 33 kHz	Off	On	Off	Off	Off
C, IC, I at 82 kHz	Off	Off	On	Off	Off
Sonde (*)	On	Off	Off	On	Off
Passive 50/60 (**)	Off	Off	Off	Off	On

*The sonde frequency is 512Hz.

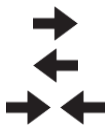
(**) The number 50 or 60 shows briefly on the numeric display upon entering this mode, indicating which line frequency the unit is programmed to locate in passive mode.

Direction Indicator – The arrows in this indicator tell the operator in which direction to move the receiver in order to be directly over the target. The direction indicator does NOT work in the Sonde operating mode. The direction arrows indicate to the user in which direction to move the receiver to be directly over the target. The direction is not available in the sonde operating mode.

- **Right arrow** - the receiver should be moved to the right to get closer to the target. Displayed on the left, pointing to the right indicates that the receiver should be moved to the right to be closer to the target.
- **Left arrow** – the receiver should be moved to the left to get closer to the target. Displayed on the right, pointing to the left indicates that the receiver should be moved to the left to be closer to the target.
- **Both arrows** - Receiver is placed close to or directly over the target. This is also accompanied by a beeping sound.

When both elements of this indicator are OFF, the signal strength is not adequate to make

512 Hz
33kHz
82kHz



	a directional determination or you are not close to the pipe or cable being traced. Keep searching based on the signal strength indication and the audio feedback, until one of the arrows comes ON.
  " m	Alphanumeric Display – The alphanumeric display is used to display signal strength and depth. The numeric display is also used for temporary indications of certain operating modes, frequencies, and other brief information messages, as noted throughout this manual. • Signal Strength – This is an indication of the relative signal level detected by the receiver and is a function of the gain setting. Good signal strength will typically be between 200 and 800. The display range for signal strength is 0 to 999; however, very high signal strength is not necessarily better. If readings of 995 or higher are consistent, the signal is too strong and steps should be taken to reduce it. If a reading of "OL" is observed, a signal is present which interferes with the signal the receiver is set to detect. Steps should be taken to identify the source of interference or to change the locating mode. • Depth Reading – When measuring depth, the "depth" icon lights up in the lower right of the display, and the depth of the target is displayed (in feet and inches, or meters - depending on the factory setting). The display range for depth in feet and inches is 0" to 19' 9" and in meters is 0.00 m to 5.99 m.
	Volume Indicator - The volume indicator consists of a speaker symbol with 3 sound wave bars. If the volume is off, the speaker symbol with NO bars is shown, for medium volume the speaker symbol with 2 bars is shown and for maximum volume the speaker symbol with 3 bars is shown. The speaker produces an audible indication of signal strength. The pitch of the sound will increase with increasing signal strength. However, the volume is determined only by the volume control, as explained above. The speaker volume is adjusted by pressing and holding the  button. This is a long press.

Connectors and accessories

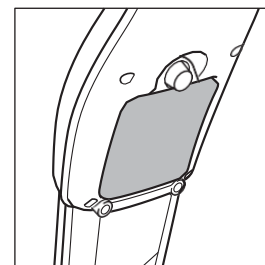
The receiver has a standard 3.5mm headphone jack that accepts any mono or stereo earphones or headphones. Schonstedt also supplies headphones as an optional accessory. The receiver automatically detects the insertion of the headphones or earphones and routes the audio signals to them, silencing the internal speaker.

The receiver comes fitted with a spring loaded plastic cap to protect the headphone socket from water and dust ingress when not in use.

The u-LOCATE+ receiver is capable of detecting sondes or other devices, such as inspection cameras, that transmit at 512 Hz; however, the sondes themselves are optional accessories also available through Schonstedt.

Battery replacement

The u-LOCATE receiver is powered by 6 x AA alkaline cells in a cassette. The battery compartment is located on the underside of the receiver and is opened by turning the screw counterclockwise. To remove the battery cassette, simply tilt the unit so that the handle is pointing down, and the battery will slide out. When replacing the battery cassette, refer to the outside of the battery door for the proper battery orientation. As a safety measure the unit will not turn on if the battery is not inserted correctly. You should never have to force the battery door closed. If the battery cassette does not fully seat into the battery compartment, remove it, reverse its orientation and then reinsert it.



Specifications

	u-LOCATE	u-LOCATE+
Operating frequencies	82kHz	33kHz, 82kHz
Sonde	-	512Hz
Passive mode	50/60Hz	50/60Hz
Max Depth Active mode	19' (5.8m)	19' (5.8m)
Max Depth Sonde mode	-	5' to 15' (1.5m to 4.5m)
Positional Accuracy	5%	5%
Battery requirements	6 x AA Receiver	
Usage hours	20 hours	
Audio output	10-1500Hz (determined by signal strength) 0-70 dB SPL (volume controlled)	
Ingress Protection rating	Weatherproof to NEMA3S and IP65	
Construction	High Impact ABS Plastic	
Operating temperature	-10 to + 50°C (14 to 122°F)	
Weight including Batteries	2.4 lbs (1.1 Kg)	
Warranty	1 year (with an option to extend to 3 years)	
Overall Dimensions	25.6" x 3.9" x 8.7" (65.1cm x 9.9cm x 22.1cm)	

Regulatory compliance and Declaration of Conformity

FCC:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada:

CAN ICES-3 (B)/NMB-3(B)

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

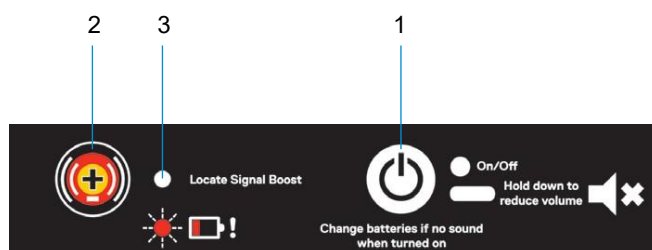
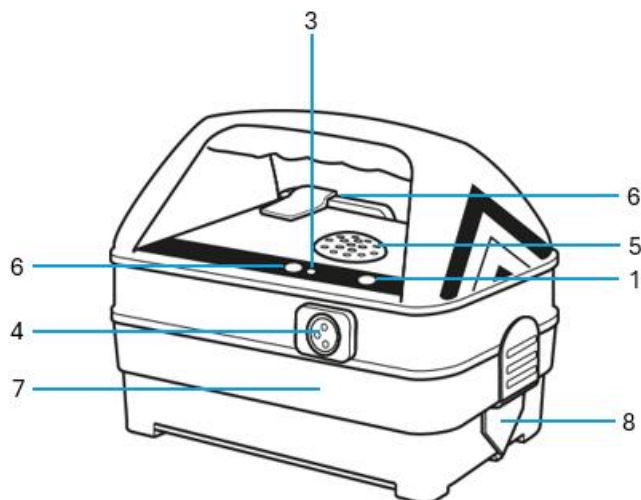
Declaration of Conformity:

Schonstedt Declaration of Conformity is available to download. Visit www.schonstedt.com/products/u-locate/

u-LOCATE transmitter

Transmitter features

- 1 On/Off button
Press to power On and Off. Hold down when powering on to reduce volume
- 2 Signal Boost Button
Press to boost the signal strength of the transmitter; press again to return to the default signal strength setting. Transmitter powers up in the default setting
- 3 Signal Boost LED
LED lit when high signal strength power level selected. Flashing LED indicates low battery level
- 4 Accessory socket.
For connection of Direct Connect Leads , Clamp and Live plug Connector FlexiTrace is connected using the Direct Connection Leads
- 5 Loudspeaker
- 6 Battery compartment
- 7 Accessory storage compartment. To store Direct Connect Leads, extension cable, magnet and Ground Stake
- 8 Highly reflective CLASS 2 safety labels.



Batteries replacement

To replace the batteries, turn the transmitter off, open the access cover using a screwdriver or coin. Use four LR20 (D-cell) alkaline or NIMH rechargeable batteries.

Do not mix new and old batteries or different types of batteries, as this may cause them to overheat.

Specifications

Operating Frequencies:	33 kHz and 82 kHz
Operating Modes:	Direct Connect, Inductive frequencies – Direct Connect 33 kHz and 82 kHz – Inductive, 82 kHz only – Accessory Connection, 33 kHz and 82 kHz

Max. Output Power: (Direct Connect mode, @ 1000 Ω load)	1W (boost)
Max. Output Voltage:	23v RMS into Open Circuit
Max. Output Current:	66mA into Short Circuit
Battery Type:	4 x D (LR20) cell or equivalent
Battery Life:	DC mode 15/40 hours (Boost v standard) Induction mode 9/28 hours (Boost v standard)
Accessory connection	3 Pin XLR Jack Output: – Inductive clamp – Direct Connect Leads
Dimensions:	10.8" (17cm) x 6.7" (27.5cm) x 7.8" (20cm)
Weight:	5.95 lbs. (2.75 kg)
Operating Temp.:	-4°F to 122°F (-10°C to 50°C)
Water and Dust Resistance	Rated IP54

Regulatory compliance and Declaration of Conformity

FCC:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada:

CAN ICES-3 (B)/NMB-3(B)

Declaration of Conformity:

Schonstedt Declaration of Conformity is available to download. Visit [Wwww.schonstedt.com/products/u-locate/](http://www.schonstedt.com/products/u-locate/)

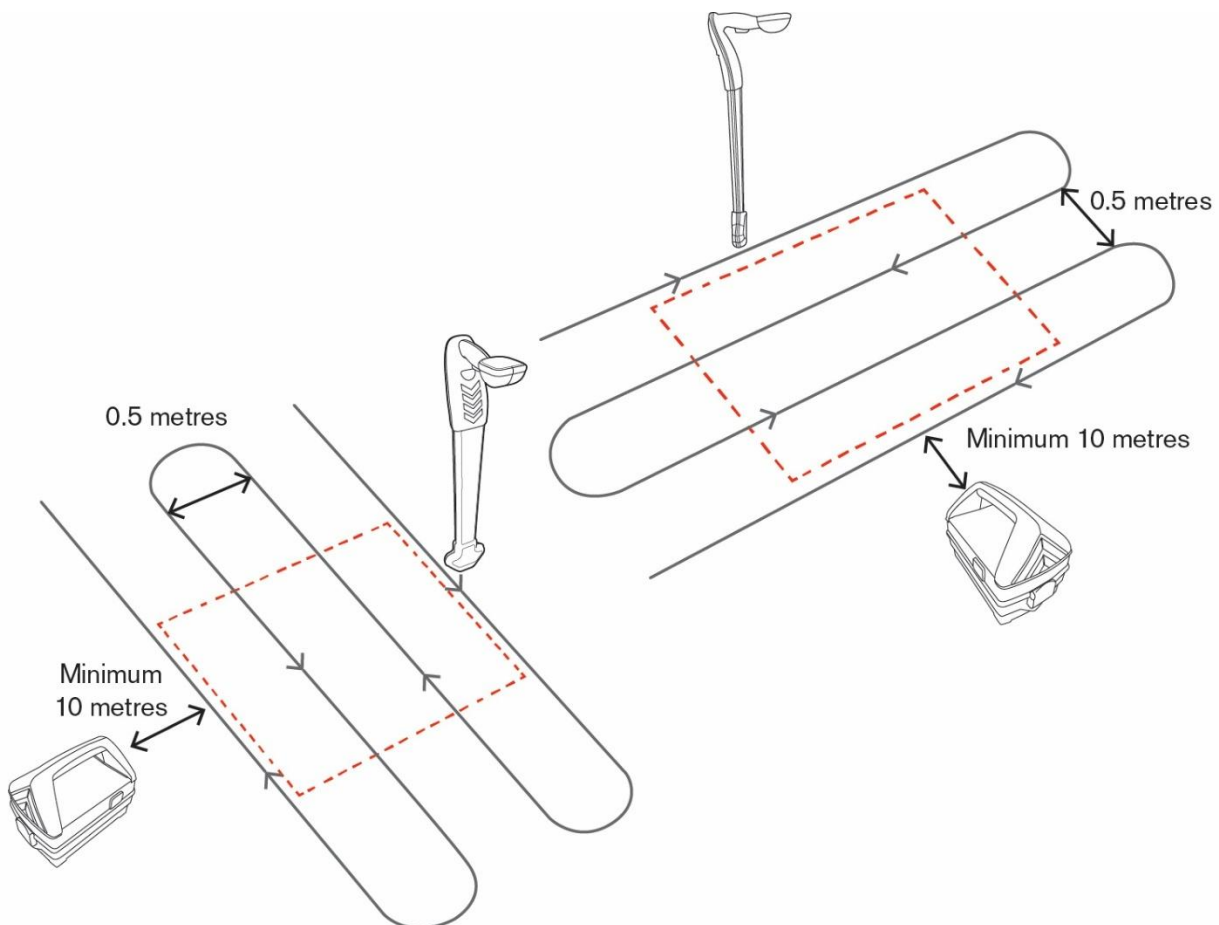
How to use your receiver and transmitter

Scanning an area before digging

An initial sweep using Passive mode is recommended, followed by detailed scans using the other modes. Use the Active mode for Depth estimation once a pipe or cable has been detected. Leave the gain in automatic mode.

If in manual mode increase the gain to its maximum before starting. If the signal strength reading does not move from maximum, reduce the gain so that the signal strength is below 200.

Sweep the area to be excavated with a steady and deliberate motion. Begin by walking the perimeter of the proposed excavation site. Then walk the length of the of the excavation site, moving across the width in parallel sweeps around 18" (0.5 m) apart. If using a transmitter in induction mode, position it on the ground as shown so that the chevrons on the u-LOCATE(+) receiver are in line with the chevrons of the transmitter. Then sweep across the width of the excavation site, moving up the length. If a cable or pipe is located, first establish the direction of the cable or pipe, then trace it across the area to be excavated, marking if required. Then resume sweeping over the excavation site.



Direct connection

⚠ WARNING: Connection to a power cable sheath should only be undertaken by qualified personnel.

Direct Connection is an effective way to apply the Transmitter locate signal to a specific cable or pipe network so

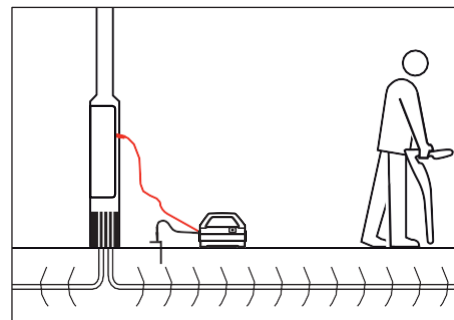
that it can be traced from above ground. Connections can be made to any metallic part of the pipe or cable such as valves, meters, junction boxes, street lights, pipeline markers or other access points.

With the transmitter switched off, plug the Direct Connect lead into the accessory socket. Attach the red lead to the pipe or cable (if necessary, clean the connection point to ensure a good electrical contact). If the jaws of the clip do not open far enough, and if the connection point is a suitable material, use the supplied magnet.

Connect the black lead to the earth stake which should be secured in the ground 3 – 4 m away from, and at right angles to the target line. Alternatively, the black lead may be clipped to a valve box, manhole cover or another earthed point. Use the earth spool lead to extend the earth connection if necessary.

Switch the transmitter on. A good connection is indicated by a drop in loudspeaker tone. If there is no tone or if the power boost LED flashes, replace the batteries.

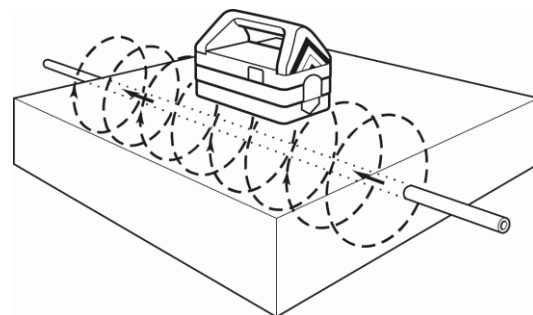
Use the receiver to scan the area for the target pipes or cables.



Signal induction

Induction is a convenient and quick way of applying the Transmitter locate signal to a pipe or cable where limited access does not permit the use of Direct Connection or Signal Clamping.

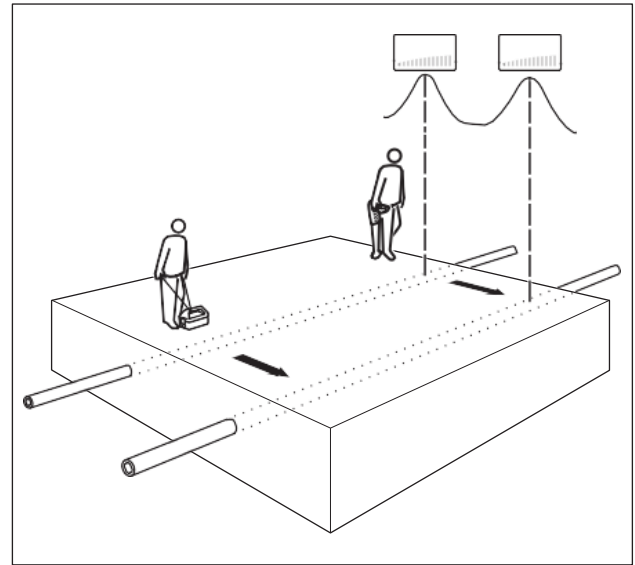
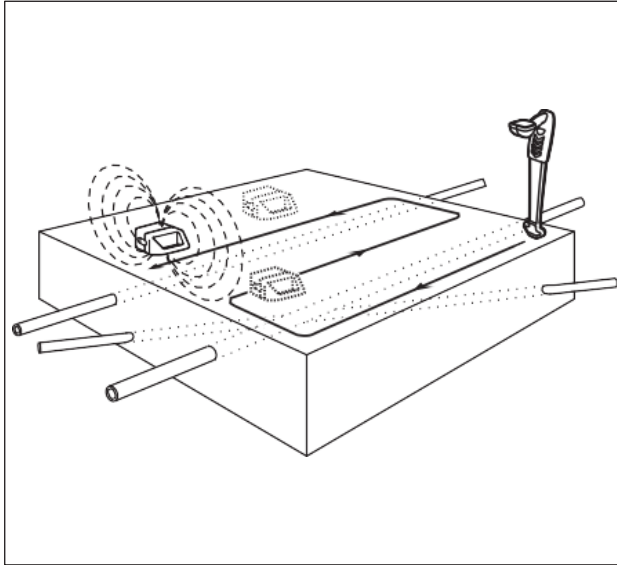
Place the transmitter on the ground over the assumed position with the chevron arrows on both ends of the transmitter pointing in-line with the direction of the conductor. Move at least 33' (10 m) away and use the u-LOCATE receiver to scan for pipes and cables.



Working too close to the transmitter may give false readings as the receiver will detect airborne signals directly from the transmitter rather than the target line. For best results, repeat the scan with the transmitter facing at 90° to the first scan position.

Active search using induction – *(finding parallel pipes and cables)*

Placing the transmitter on the ground swamps an area with transmitter signal. Note that signal is not transmitted directly below the transmitter in this orientation, so repeat the exercise with the transmitter moved to the side by at least 3' 3" (1 m). Alternatively, use a two man technique to search an area for buried utilities as shown.



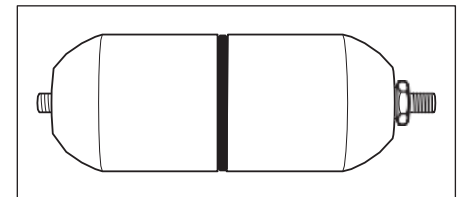
Switch the Transmitter on then open and close the Clamp. If the jaws are closing correctly there will be a change in tone as the jaws are closed.

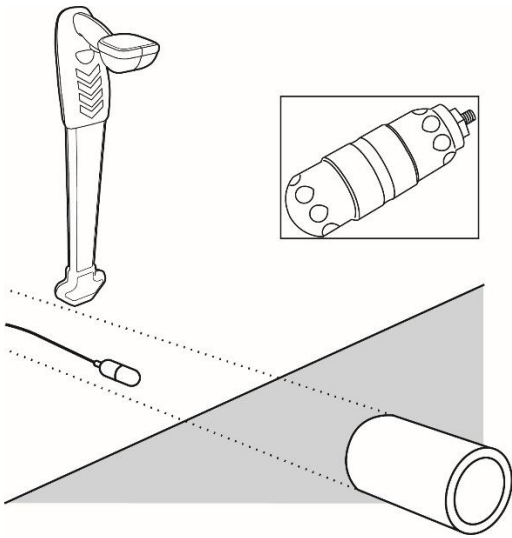
An earth connection from the Transmitter is not necessary but optimal signal transfer is only generally achieved if the target line is grounded at both ends. This is usually the case with power cables.

Use the u-LOCATE(+) receiver to scan the area for the target pipes or cables.

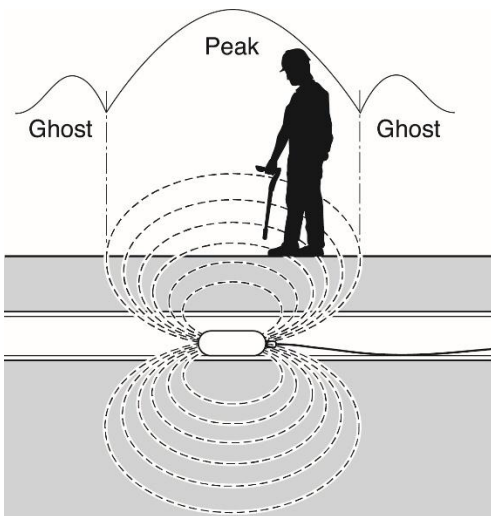
Sondes- for non-metallic utilities

Sonde Signal Transmitter –The sonde is a small self-contained watertight signal transmitter which can only be located by the u-LOCATE+. Unscrew the sonde housing and insert batteries in the orientation shown by the diagram in the battery compartment. To check for correct operation, place the sonde on the ground, set the receiver to sonde mode and, whilst holding it in line with the sonde, check that the signal is being received. Insert the sonde into the duct or drain and adjust the receiver sensitivity to receive the signal.





Smaller ghost signals appear before and behind the main signal position.

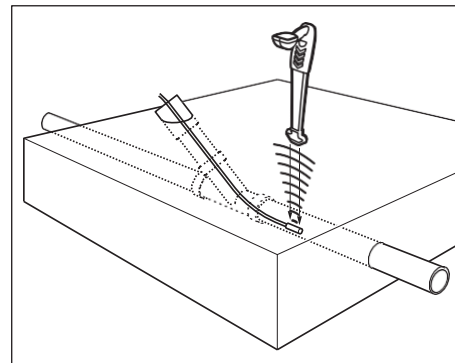


Locate all three peaks to be sure the largest middle one is identified as the sonde position. Rotating the receiver about its axis to obtain the largest signal puts the receiver in line with

the Sonde and is a good way of identifying the direction of the duct or pipe. Searching for a Sonde

Once in the surroundings of a sonde, it is important to differentiate whether you are positioned along the axis of the sonde (the direction of the pipe) or off to either side. In the sonde mode, the directional indication is not functional; the signal strength is the only indication available.

Rotate the receiver back and forth and move in the direction that produces the maximum (peak) signal strength. As the receiver gets closer to the sonde, the signal strength increases and it will hit a peak when the receiver is directly over the sonde. Slowly rotate the receiver to fine tune the peak signal strength, which will occur when the plane of the sensors is parallel to the axis of the sonde. For verification, rotate the receiver 90 degrees and see that it produces a "null" (signal strength very close to zero), and then counter-rotate 90 degrees to go back to the original position.



Estimating Sonde depth

Locate the sonde signal as described above. Touch the ground with the receiver vertical and perpendicular to the sonde.

Press and release the depth button. The display will show the estimated depth to the detected conductor.

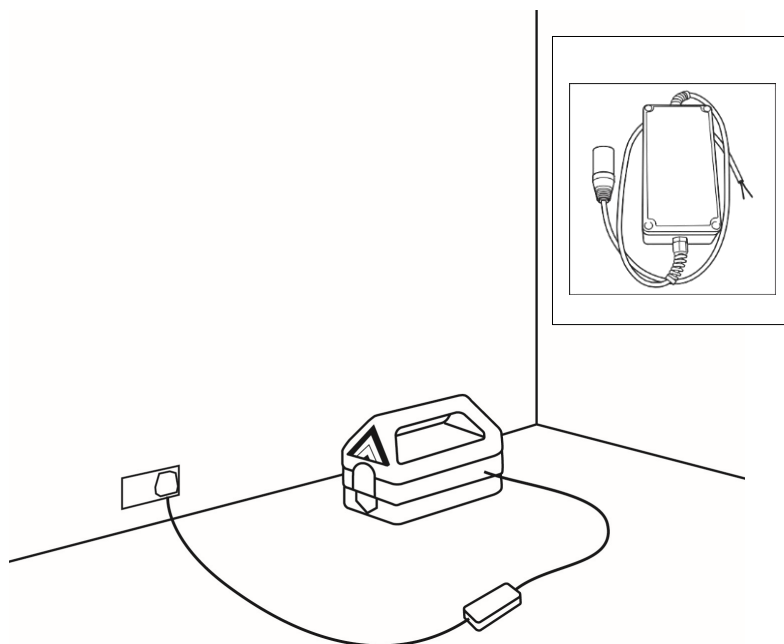
Do not use the receiver depth estimation to decide if mechanical digging is appropriate.

Live plug connector- to trace domestic power wiring circuits

Do not use the supplied Direct Connect leads to connect to live cables, use the Live Plug Connector. Failure to do so may result in injury or equipment damage. Connection to live power cables should only be undertaken by qualified personnel. The Live Plug Connector applies the transmitter signal to a live domestic power socket and, via the domestic wiring system, to the utility and supply cable in the street.

Connect the Live Cable Connector to the transmitter accessory socket and the mains power socket, then switch the Transmitter and the power socket on.

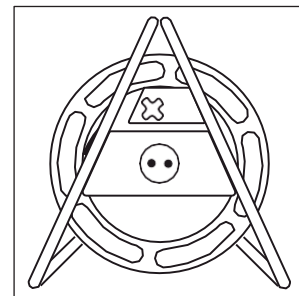
The Live Plug Connector is supplied without a power plug; fit one that matches your local requirement.



NOTE: The Live Plug Connector provides protection to 250V AC.

FlexiTrace – to locate non-metallic utilities

FlexiTrace is a 164' (50 m) or 260' (80 m) flexible conductive rod with a built-in Sonde that can be inserted into non-metallic pipes and ducts to allow them to be located at depths of up to 10' (3 m). FlexiTrace can be inserted into a pipe or duct as small as ½" (12 mm) internal diameter, and with bends as tight as 10" (250 mm). To use as the Sonde, connect both transmitter leads to the FlexiTrace lugs. In this mode, only the tip of the FlexiTrace will be locatable. To trace the whole length, connect the red transmitter lead to a FlexiTrace terminal and ground the black lead, either to the earth stake or to an appropriate earthing point.



Maintenance, Service, and Support

Care and Maintenance

The u-LOCATE(+) receiver and transmitter are robust, durable and weatherproof. However you can extend your equipment's life by following these care and maintenance guidelines.

General

Store the equipment in a clean and dry environment.

Ensure all terminals and connection sockets are clean, free of debris and corrosion and are undamaged.

Do not use this equipment when damaged or faulty.

Batteries

Use only good quality Alkaline or NiMH batteries.

Cleaning



WARNING! Do not attempt to clean this equipment when it is powered.

Ensure the equipment is clean and dry whenever possible.

Clean with a soft, moistened cloth.

Do not use abrasive materials or chemicals as they may damage the casing, including the reflective labels.

Do not use high pressure hoses.

Disassembly

Do not attempt to disassemble this equipment under any circumstances. The locator and transmitter contain no user serviceable parts.

Disassembly may damage the equipment and or reduce its performance and may void the manufacturer's warranty.

Technical Support

Schonstedt offers technical support and sales support. For any reason regarding usage and application, please contact our technical support team at 888-32-TRACE (888-328-7223).

Service and repairs:

NOTE: Service by non-approved service centers or operators may void the manufacturer's warranty.

For service or repair please ship unit to:

Schonstedt Instrument Company 100 Edmond Road
Kearneysville, WV 25430 Attn: Customer Service Dept.

Return instructions and return form are located online at: <https://www.schonstedt.com/support/repair-department/>.

Warranty

Schonstedt Instrument Company (Schonstedt) warrants each product of its manufacture to be free from defects in material and workmanship subject to the following terms and conditions. The warranty is effective for 1 year after the shipment by Schonstedt to the original purchaser. Please complete the warranty registration card online at www.schonstedt.com/welcome.

Schonstedt's obligation under the warranty is limited to servicing or adjusting any product returned to the factory for this purpose and to replacing any defective part thereof. Such product must be returned by the original purchaser, transportation charges prepaid, with a description of the defect in writing. If the fault has been caused by misuse or abnormal conditions of operation, repairs will be billed. Specifically, this warranty does not cover product that has been subject to inundation by fire, water or other liquid intrusion, or units that have been damaged or compromised due to repair, alteration or modification by anyone other than an authorized repair representative. Prior to a repair being performed by Schonstedt, a cost estimate will be submitted and no work will be completed until authorized by the customer. Batteries are specifically excluded under the warranty and should be addressed to the manufacturer of batteries in question.

Schonstedt shall not be liable for any injury to persons or property or for any other special or consequential damages sustained or expenses incurred by reason of the use of any Schonstedt product.

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**Provide best in class equipment and solutions, to prevent damage
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