



**PRODUCT GUIDE**  
SUBSURFACE INSTRUMENTS



**Advanced Underground Locating and Detection Equipment**

# MAGNETIC LOCATORS

*The Best Magnetic Locators in the Market*

## **ML-3** *Magnetic Locator Offering Durable, One-Handed Operation that's 100% Waterproof*

The ML-3 is 40" to meet utility and surveyor personal preferences, providing ergonomic, rugged, one-handed operation. The ML-3 offers unparalleled durability and is housed inside aircraft-grade aluminum mono-tube. The ML-3 is digitally tuned and 100 percent waterproof. It's rating is IP68 certified up to 250 feet - a first for the industry - so it can be used in inclement weather and submerged conditions. Plus, its auto-zero feature allows the user to "cancel" ambient magnetics or magnetic gradient in the environment.



Soft Carrying Case  
Included with every unit.

## **ML-3L** *Magnetic Locator Offering Durable, One-Handed Operation that's 100% Waterproof*

Featuring the same technological advances as the ML-3. At 55" long, the ML-3L is the longest magnetic locator on the market. It allows the operator to make the biggest sweeps possible without compromising accuracy or functionality. It is used worldwide by many UXO operations to identify minefield ordnances or other potential dangers. The ML-3 is digitally tuned and 100 percent waterproof, IP68 certified up to 250 feet.

## **ML-1** *Magnetic Locator with Simple, One-Handed Operation*

The ML-1 is one of SSI's most popular magnetic detection products. Whether you're seeking corner markers (iron or steel), well casings, steel drums or septic tank handles, this is the "go-to" magnetic locator. The ML series offers simple, one-handed operation with an easy-to-learn keypad and audio confirmation. Unlike most of our competitors the ML-1 features strong mono-tube construction, providing structural integrity from top to bottom.



Soft Carrying Case  
Included with every unit.

## **ML-1M** *Magnetic Locator Technology with Digital Meter*

In addition to the features of the original ML-1, the ML-1M is metered, offering you added features without added complexity. The digital meter provides for visual signal strength, polarity indication, gain setting plus battery life display.

## OPTIONAL ACCESSORIES

*All You Need to Continue Locating With Confidence*

### **ML-1 Hard Carrying Case**

Hard polymer case for ML-1 and ML-1M  
dimensions: 5.5" x 39"  
Color: Tan



### **9v Battery Holder**

Battery Holder for ML-3 Magnetic Locator  
and for AML All Materials Locator,  
(3) 9v batteries (included)



### **ML-3 Hard Carrying Case**

Aluminum Case with a shock proof inner  
shield for ML-3 Units  
Color: Black  
ML-3: 2" x 42.5"  
ML-3L: 2" x 57"



MAGNETIC LOCATORS



Proudly Made in the USA

# ALL MATERIALS LOCATORS

Patented Underground PVC/PE Pipe Detection

## AML+<sup>+</sup> SERIES



Includes impact resistant and IP68 rated case

### The Proven & Trusted Way To Find PVC Pipes, PE Pipes & Nearly Any Other SubSurface Object

The new and Improved AML+™ is based on a proven and patented scientific technology that utilizes a modulated, ultra-high radio frequency. It locates nearly any subsurface material with an edge including plastic, metal, wood, cable and concrete. The AML is the trusted and most reliable all material locator in the industry.

- New Microprocessor Intelligence
- Patented Radio Wave Technology
- Durable ABS Housing (2 lbs)
- 9 Sensitivity Settings
- Headphones
- USB Powered Port
- Rechargeable Lithium Battery
- 3 Year Limited Warranty

### Housing Color Options



Yellow



Black



Carbon Fiber

## AML<sup>PRO</sup> SERIES



Includes impact resistant and IP68 rated case

### Find Buried PVC/PE Pipes Using GPS & Advanced Digital Patented Technology

The all-new AML PRO™ is a feature-rich scientific instrument that utilizes a modulated, ultra-high radio frequency to find differences in subsurface densities. It offers the best method for locating PVC & PE pipes and nearly any other object that has an edge. Redesigned specifically for the utility, water, gas, cable and petroleum industries, the AML Pro allows professionals to locate objects faster, while maximizing job efficiencies.

- New Microprocessor Intelligence
- Patented Radio Wave Technology
- Lightweight Construction (2.5 lbs.)
- Noise Isolating Headphones
- Rechargeable Lithium Battery
- Customizable User Preferences
- USB Powered Port

- Durable ABS Housing
- Back-lit Display
- GPS Plotting & Tracking
- 32 Sensitivity Settings
- Digital Leveling Meter
- Digital Targeting Indicator
- 3 Year Limited Warranty

### Housing Color Options



Yellow



Black



Carbon Fiber



Proudly Made in the USA

ALL MATERIALS LOCATORS



# OPTIONAL ACCESSORIES

Improve your productivity and take advantage of new technology



## Wireless Inductive Clamp

Self-contained, stand-alone transmitting inductive coupler. 3 frequencies, High & Low Power Outputs, rechargeable batteries. 4.2" & 6.5" Diameter options



## Inductive Coupler 4" I.D.

Apply signal to live cables. 4" I.D. - Operational Frequency Range 8kHz to 82 kHz.



## A-Frame (Ground Fault Locator)

Works Independent from the receiver. Detects both core-to-ground faults & sheath-to-ground faults.



## 512 Hz Sonde

3.5" long x 0.80" diameter sonde for PL-VF uses (1) AAA battery (included) Depth: 10 feet in cast iron.



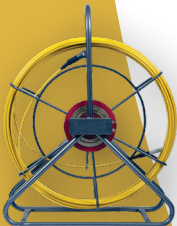
## Direct Connect Leads

9' long cable with DIN connector for Pipe and Cable Locators



## Ground Stakes

Metal conductive stake for Pipe and Cable Locators



## Tracker 250

Apply current to the copper wire. 250' and 6mm diameter rod, coated with polypropylene to provide low friction and high abrasion resistance.



## Inductive Clamp & Cable

4" opening Clamp with a 16' cable available in 2 types of connectors:



PL-G compatible



PL-2000 compatible



## Padded Carrying Case

Soft carrying case for PL-2000 and PL-G Locators, color black with yellow logo.



## Tracker 650

Apply current to the copper wire. 650' and 6mm diameter rod, coated with polypropylene to provide low friction and high abrasion resistance.



## PL-VF Clips, Direct Connect

Direct Connect Leads for PL-VF Series larger clips, sold as an accessory.



## PL-VF Clips, Direct Connect

Direct Connect Leads for PL-VF Series included with the unit.



# PIPE AND CABLE LOCATORS

*Durable Utility, Pipe and Cable Locators*



## **PL-TT** *The dependable, Affordable and Rugged solution for the Locating Professional*

The PL-TT offers SSI's most sophisticated technology in an economical package. It has several operating modes including Digital Depth and Magnetic Locator. Users can rest assured that the PL-TT dependability is not only driven by the internal technology, but also by its rugged construction that is built to last with a carbon fiber housing and sealed against weather. Basic setup comes with 6 "AA" and 8 "C" alkaline batteries.



## **PL-VF3** *Equipped with a wide variety of locating modes and a 3W power output*

Simple, accurate and affordable, the PL-VF3 Locating System will meet the demands of any locate task. This locator is designed for the locating professional, but it is simple enough to be used by anyone needing to find underground utilities. Our innovative technology creates a remote link between the transmitter and receiver. Users can control the transmitter's output power and frequency right from the hand-held receiver, eliminating the need to walk back and forth between devices.

*Standard setup comes with 6 "C" batteries for the Receiver and 8 "C" batteries for the Transmitter.*



## **PL-VF10 Alkaline Batt.** *Multi-Frequency Locator with a wide variety of locating modes and a 10W power output*

The PL-VF10 Locating System will meet the demands of any locate task. Frequencies and operational modes may be added or deleted on demand to suit the user's locating needs. It is equipped with a powerful 10W transmitter and optional 1/2 and 1/4 power outputs. Our advanced technology creates a remote link between the Transmitter and Receiver. This is the only tool you need in a variety of locate scenarios.

*Standard setup comes with 6 "C" batteries for the Receiver and 12 "D" batteries for the Transmitter.*



## **PL-VF10R Li-Ion Batt.** *Multi-Frequency Locator with a wide variety of locating modes and a 10W power output*

The PL-VF10R Locating System will meet the demands of any locate task. Frequencies and operational modes may be added or deleted on demand to suit the user's locating needs. It is equipped with a powerful 10W transmitter and optional 1/2 and 1/4 power outputs. Our advanced technology creates a remote link between the Transmitter and Receiver. This is the only tool you need in a variety of locate scenarios with the advantage of lower weight due to a *\*convenient set of Li-Ion Battery packs for the receiver and transmitter this will allow you to work for over 40 hours (depending on load, frequency and power settings) without having to replace batteries.*



PIPE & CABLE LOCATORS



Proudly Made in the USA

# WATER LEAK DETECTORS

*Easy-To-Use Water Leak Detectors Effectively Screen Outside Noise.*



## **LD-7 Economical Water Leak Detection**

Designed for all water leak detection applications, including leak surveys and leak pinpointing. Use the magnetic base or contact rod for leak surveys at hydrants, valves or meters.

- Compact amplifier with mute switch, fits inside the user's hand.
- Designed for all water leak detection applications, including leak surveys and leak pinpointing.
- Extremely compact and lightweight. Easily fits inside the cab of a truck.



Water/ shock proof Carrying Case included with every unit.



## **LD-8 Simple, yet Sensitive Water Leak Detection**

Designed specifically for "water leak surveys" done by water departments, districts, local governments and private agencies concerned about "Non-revenue water losses."

- Amplifier with push button ON/OFF switch, volume control, two digit display of loudness, and three-range sensitivity switch.
- Notch filters reduce A/C hum from transformers, power lines, etc.
- Simple and compact, great for leak surveys.

## **LD-12**

*The Professionals Water Leak Detector*

An industry standard for the Water Utility industry. The LD-12 water leak detector is easy-to-use, featuring six filters that screen outside noise and zero in on water leaks.

- Considered a top choice leak detection locator.
- Large meter display, allows the user to pinpoint the exact location.
- Six selectable filters, split into three "low side" filters and three "high side" filters.
- High-sensitivity ground microphone and low "electronic noise" amplifier combine to offer the best quality sound leak detection.
- Ground plate, magnetic base and contact rods as accessories for pinpointing leaks.
- David Clark headphones, rated #1 in the industry.



# WATER LEAK DETECTORS

Easy-To-Use Water Leak Detectors Effectively Screen Outside Noise.



## LD-15 Highly Sensitive Leak Survey Technology

The LD-15 Professionals Leak Survey Instrument offers the highest sensitivity and the best audio quality ever offered in an acoustic listening device by SSI.

- Simple and quick way of surveying for water leaks.
- High-sensitivity sensor, extra strong and water proof (submersible).
- Survey for leaks at hydrants, valves and meters.
- Use the high filter range for water leak surveying. Use the low filter range for water leak pinpointing.
- David Clark headphones, rated #1 in the industry.



Water/ shock proof Carrying Case included with every unit.



## LD-18 Advanced Digital Leak Survey Technology

The new LD-18 Digital Water Leak Detector is the first water leak detecting instrument to offer automatic noise reduction from intermittent interfering noises, such as passing vehicles, people talking, and pedestrian footsteps.

- All-digital amplifier with automatic noise reduction of environmental sounds, high and low filters, storage and graphing of leak noises at different locations on pipe.
- Uses bar graph and numeric display of sound loudness, USB connection, and back light.
- Five high frequency filters, three low frequency filters (plus low filter OFF), and 2 notch filters (plus notch filter OFF) to remove continuous interfering noises.
- David Clark headphones, rated #1 in the industry.



# WATER LEAK DETECTOR

## Advanced Acoustic Technology for Detecting Water Leaks in Underground Pipes

The AquaTrac™ is specially designed to detect water leaks on buried pipes & conducts. This device will detect water leaks through its highly sensitive microphone and the advanced technology of its control board. AquaTrac™ is designed for years of field use without the need for annual or periodic calibration and service.

The basic principle of the Water Leak Detector's operation is as follows:

The microphone/sensor is placed over the ground surface or directly over the pipe, the sound created by the water leak frequency is detected and interpreted by the Control Board and displayed on the screen for the operator to determine the course of action.

**The AquaTrac™ PL:** Leak detector system with standard headphones.

**The AquaTrac™ MU:** Leak detector system with high quality David Clark headphones.

- Standard predetermined Filters
- Customizable filters
- Piezzo professional microphone
- Li-Ion Rechargeable Battery
- Bright and Clear LCD Screen
- High Quality Headphones
- 5 Year Warranty



Includes impact resistant and waterproof carrying case



WATER LEAK DETECTORS

# PIPE INSPECTION CAMERA SYSTEMS

*Fast Setup and High-Quality Output Inspection Camera Systems*



## **IC-6** *Excellent Solution for Small Spaces Inspections*

The IC-6 Pipe Inspection Camera System features a 0.24" (6 mm) camera, mounted in a rugged stainless steel IP66 certified enclosure. 4 LED lights mounted on the front of a camera with a viewing angle of 60°, the IC-6 Inspection Camera System is perfect for small pipes, ducts, tanks, etc. It is used in a variety of professional fields, municipalities, electricity, communications, as well as in disaster assessments and recovery rescues. The camera is permanently attached to a fiberglass rod with 131' (40m) of length and 0.2" (5mm) of diameter.



## **IC-12** *Lightweight, High-Quality Video, Pipe Inspection Camera System*

The IC-12 Pipe Inspection Camera System features a 0.47" (12mm) camera, mounted on a rugged stainless steel IP68 certified enclosure and displays a 65° viewing angle with excellent quality video and sharp images. Six LED lights mounted on the front of the camera provide great illumination for inspection or for creating the perfect conditions to snap a photo or create a video to show the results to your clients. Designed to follow the corners of pipes and conduits, the camera head enclosure has a coil that bends accordingly, giving it the flexibility to move smoothly inside of the pipe. Install the skid on the head of the camera to improve visibility as well as to protect the camera from sharp corners and other objects inside of the pipes you are inspecting.



## **IC-23** *Quick and Easy Camera Inspection System*

The IC-23 Pipe Inspection Camera System features a 0.90" (23 mm) camera, mounted in a rugged stainless steel IP68 certified enclosure. With 12 LED lights mounted on the front of the camera and equipped with a 512 Hz sonde, it can be easily picked up with a Pipe and Cable Receiver (not included). Its 9" monitor displays a very crisp and clear video image. All the settings are accessible through the control box and you can store data by inserting an SD Card in the memory card slot. The system runs with a rechargeable battery installed in the control box. A water and shock resistant case is included that allows you to store a fiberglass rod wheel of 164' (50m) or less.

## OPTIONAL ACCESSORIES

*Variety of Accessories and Replacement Parts*

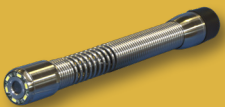
### **6 mm Camera (0.24")**

Video resolution of 720 x 480 dpi with 4 LED lights mounted on the camera head with 60° viewing angle, inside of a rugged stainless steel enclosure.



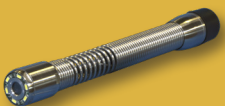
### **12 mm Camera (0.47")**

Video resolution of 720 x 480 dpi with a 512 Hz sonde and 6 LED lights mounted on the camera head with 65° viewing angle, inside of a stainless steel enclosure.



### **17 mm Camera (0.67")**

Video resolution of 720 x 480 dpi with a 512 Hz sonde and 6 LED lights mounted on the camera head with 120° viewing angle, inside of a stainless steel enclosure.



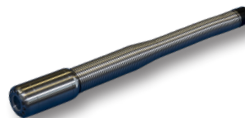
### **23 mm Camera (0.90")**

Video resolution of 720 x 480 dpi with a 512 Hz sonde and 12 LED lights mounted on the camera head with 120° viewing angle, inside of a stainless steel enclosure.



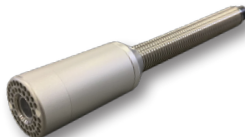
### **28 mm Camera \*Self-Leveling (1.1")**

Video resolution of 720 x 480 dpi with a 512 Hz sonde and 12 LED lights mounted on the self-leveling camera head with 120° viewing angle, inside of a rugged stainless steel enclosure.



### **40 mm Camera \*Self-Leveling (1.57")**

Video resolution of 720 x 480 dpi with a 512 Hz sonde and 12 LED lights mounted on the self-leveling camera head with 105° viewing angle, inside of a rugged stainless steel enclosure.





# PIPE INSPECTION CAMERA SYSTEMS

*Fast Setup and High-Quality Output Inspection Camera Systems*



## **IC-28 Self-Leveling Camera Inspection System**

The IC-28 Pipe Inspection Camera System features a 1.1" (28 mm) self-leveling camera, mounted on a rugged stainless steel IP68 certified enclosure, with 12 LED lights mounted on the front of the camera and equipped with a 512 Hz sonde giving the user the capability of finding the location of the camera with a Pipe and Cable Receiver (not included). Its 9" monitor displays a very crisp and clear video image. All the settings are accessible through the control box and you can store data by inserting an SD Card in the memory card slot. The system runs with a rechargeable battery installed in the control box. A water and shock resistant carrying case is included with it. You can use the included keyboard to record notes along your videos for farther review.



## **IC-40 Self-Leveling Camera Inspection System**

The IC-40 Pipe Inspection Camera System features a 1.57 (40 mm) self-leveling camera, mounted on a rugged stainless steel IP68 certified enclosure, including 30 LED lights mounted on the front of the camera enclosure. Equipped with a 512 Hz sonde it gives the user the capability of finding the location of the camera with a Pipe and Cable Receiver (not included). Its 9" monitor displays a very crisp and clear video image. All the settings are accessible through the control box and you can store data by inserting an SD Card in the memory card slot. The system runs with a rechargeable battery installed in the control box. A water and shock resistant carrying case is included with the system. A variety of skids are available to protect the camera head and to allow it to navigate easily inside of the pipe giving you a better viewing angle as well.

## OPTIONAL ACCESSORIES

*Variety of Accessories and Replacement Parts*

### **512 Hz Sondes**

Standard sewer sondes attach to any SSI cable wheel. Require (2) A76 batteries (included).  
Regular: 2.125" x 0.875"  
Mini: 1.875" x 0.625"



### **Camera Skids**

Variety of sizes for the different camera heads. Attach to the camera for added protection and to center the video image on the screen.



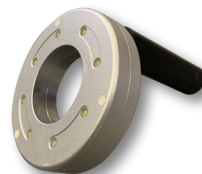
### **Universal Skid**

Spring loaded, adjustable legs for different pipe sizes from 5.5" to 15.7". Rolling wheels provide easier mobility inside of the inspected pipes.



### **LED light**

Convenient LED rim powered with a rechargeable waterproof battery, to be used with the Universal Skid. It provides an extra illumination option for increased visibility.



### **30m - 40m - 50m Wheels**

98.3'-131'-164' wheels. Metal frame enclosure with a fiberglass rod of 0.19" (5 mm) diameter.



### **60m - 80m Wheels**

197'-263' wheels. Metal frame enclosure with carrying handle. Fiberglass rod of 0.27" (7 mm) diameter. Meter counter and handle brake.

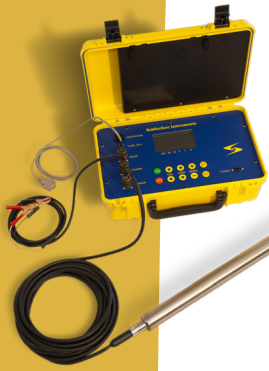


### **60m Wheel**

197' wheel. Metal frame enclosure with carrying handle, big rolling wheels for extra mobility and easy transport. Featuring a 0.35" (9 mm) diameter fiberglass rod.

# SPECIALTY LOCATORS

*Advanced Technology for Specific Needs*



## **MUL** (*Magnetic Underwater Locator*)

*Durable Magnetic Detector Finds Ferrous Metal Immersed in over a 1,000' of Water*

Find ferrous metal immersed in depths as shallow as 10' of water to depths over 1,000'. The 2 sensor core system is housed inside a corrosion proof, machined titanium tube for superior durability and strength.

No other underwater locator can go deeper, and its longer sensor length allows for convenient boat towing, when it is mounted into a custom made carrying sled (not included).



## **BHG** (*Bore Hole Gradiometer*)

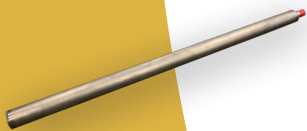
*Locates Large Ferrous Metal Objects by being Lowered into Drilled Boring Holes*

The Bore Hole Gradiometer (BHG) finds the presence of any ferrous metal in a radius of 10 feet in the ground.

Featuring two sensors, it works similarly to the magnetic locator and can also be used in water, making it ideal for construction, utility companies and bridge builders.

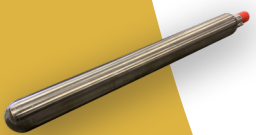
# OPTIONAL ACCESSORIES

*High quality materials and precision built accessories*



## **MUL Titanium Sensor**

Tapered nose titanium sensor, longer dimension (1.625"d x 34.875"L (4.13cm x 88.58cm)) for diving or boat towing.



## **BHG Titanium Sensor**

Durable and strong, Bull-nosed titanium sensor, dimension: 1.625"d x 17.5"L (4.13cm x 44.45cm).



## **30', 50', 100' Sensor Cable**

High quality, water resistant Carolprene® 4 conductor, 18 AWG, 600 volt coated cable. With Amphenol® circular mil spec connectors. Custom lengths available.



SPECIALTY LOCATORS



Proudly Made in the USA

# SUBSURFACE INSTRUMENTS, INC.

Leader manufacturer of quality underground locators



## SubSurface Instruments Inc.

Founded in 1996, SSI has continually grown to become one of the premier manufacturer and distributor of locating equipment with sales to over 83 countries and 6 continents worldwide.

SSI's website ( [www.ssilocators.com](http://www.ssilocators.com) ) is also an excellent resource. Both the Product Showroom heading on our website has numerous product demonstration videos in addition to specs sheets and features of each and every product listed in this guide.

Please contact us if you are interested in any of our products. We will give you all the information you need and put you in contact with one of our Authorized Dealers, where you can purchase our products or a new accessory to add to your equipment's toolbox.

## SSI PROFESSIONALS

A team of professionals dedicated to serve you


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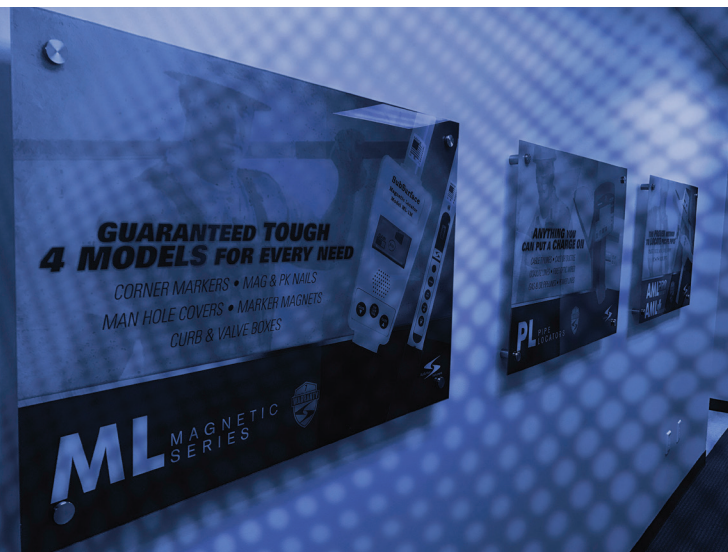
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CONTACT US





## AN INNOVATIVE DESIGN FORCE IN SUBSURFACE DETECTION & LOCATION

SubSurface Instruments, Inc. is an innovating force that engineers, manufactures and distributes high-frequency and magnetic locators, pipe and cable locators, leak detectors, leak correlators, bore hole gradiometers, pipe inspection camera systems and specialty locators.

SSI's most recent innovation, the AML or All Materials Locator, locates buried PVC pipes, PE Pipes, plastic or nearly any other subsurface object more efficiently than ever before. Using patent-protected technology re-engineered by SSI, the AML detects buried PVC pipes and almost every object that other locators can't find.

SSI features a vast line of professional underground and underwater locator products for every need including surveying, construction, ordnance removal, excavation and exploration. Our customers from the petroleum, water, sewer, power, telecom, cable and gas industries trust on SSI's reliability and dependability to make crucial measurements in the world's most challenging conditions. SubSurface Instruments, Inc's products are proudly made in the U.S.A. and offer an industry-leading warranty.



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