

Aqualocator

Plastic Pipe Locator

The **Aqualocator** is based on a proven and patented scientific technology that has changed the way the construction and utility industries locate PVC and PE Pipes. It also locates nearly any subsurface material with an edge including plastic, metal, wood, cable and concrete.

Unlike the deficiencies of GPR (Ground Penetrating Radar), the **Aqualocator** will work in clay, wet soil, snow or even standing water. Designed specifically for the utility, water, gas and cable industries, the **Aqualocator** allows professionals to locate objects faster, while maximizing job efficiency.

The **Aqualocator** is the trusted and most reliable all material locator in the industry.



How the Aqualocator Works

The unit contains an internal control circuit board, and an antenna board that controls the center transmitter and independent left and right signal receivers.

A powerful 2.45 GHz ground penetrating, ultra-high frequency radio signal locates density differences by transmitting inverted conical shaped UHF signals into the ground.

The unit locates objects by analyzing differences in subsurface material densities. Man-made objects or geometries with a straight edge create a change in conductivity, density and/or permeability from surrounding materials. This causes a distortion in the return signal detected by the UHF receivers on the sides of the **Aqualocator** and is interpreted by the advanced microprocessor circuit board technology.

Using the Aqualocator

Operation of the **Aqualocator** is technique sensitive. We advise that you practice on a known buried object like a culvert pipe or other partially exposed objects. Once the principals of operation are understood, acquiring a technique is relatively simple with a little practice.

The depth of the **Aqualocator** transmission signal varies with material substrates. The denser the material, the further the signal travels. This unit can be used in various substrates such as water, snow, clay.

The **Aqualocator** has nine sensitivity settings, with setting 9 being the strongest. However, the density of the material will influence the depth of the transmitted signal. The transmission signal will penetrate deeper through highly reflective materials such as concrete, clay, asphalt, or highly compacted soil; and, less deep in sand, granular soil, or recently backfilled soil that tends to absorb some of the return signal strength

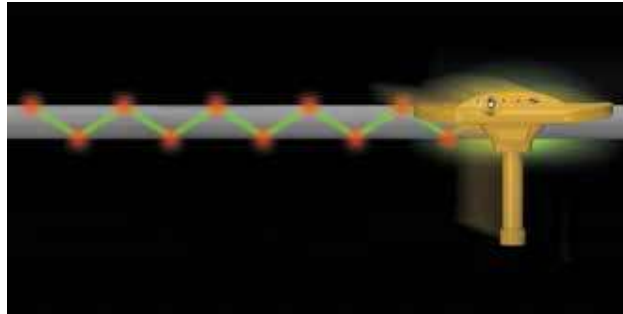
Locating an Object with the Aqualocator

Grip the **Aqualocator** by the handle with the fingers firmly placed along the finger knurls. Do not hold the unit above the knurls as it will produce false readings.

Hold the handle parallel to the ground at waist level and 500mm out in front of the body. The blade of the unit is designed with a 10° degree outward projection to help eliminate false readings from interference with the operator's feet.

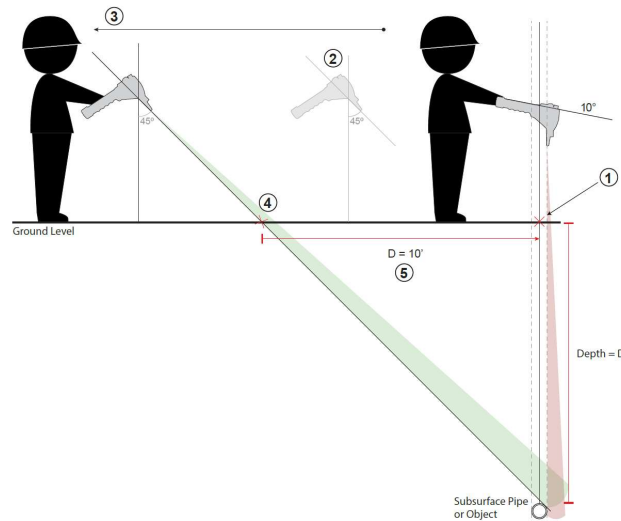
When an object is detected, the left and right LED target indicators will illuminate, an audio tone will sound and the laser indicator will activate marking your target. Lower the sensitivity level to the lowest setting that will still identify the object. This will prevent most irrelevant positives from being identified. Continue to scan the target using one of several methods:

- 1) Straight line scanning by following one edge of the pipe.
- 2) Holding the unit level and scanning the area with a slow and deliberate back and forth "W" motion.



Once the left or right target indicator is activated, keep that side still and rotate the **Aqualocator** in parallel with the subsurface object. Both the left and right LED target indicators will light simultaneously and an audio sound will emit when the unit is in parallel and in alignment with the object.

With the **Aqualocator** in parallel with the pipe or underground object, you can now scan the entire length of the object's edge. As an alternative, utilize the "W" method of scanning by sweeping the area in a back-and-forth "W" motion, marking the object's location and direction as it is tracked.



Marking the Exact Location of an Object with the **Aqualocator** Remember that the 10° forward projection of the blade will make the object appear closer than it actually is. Once the object is found, pivot the handle of the **Aqualocator** upward until the blade (or bottom of the **Aqualocator**) is perpendicular to the ground and directly above the area of the signal. You can now scan the ground in parallel for the entire length of the object, identifying its diameter or width, location and run direction as you track the object.