

Locating Tips: Magnetic

Magnetic Locators and Circuits

Magnetic locators such as the GA-52Cx and GA-72Cd can be used to determine if a circuit is active, such as an automobile rear window defogger grid, or a radiant heat panel. Set the sensitivity of the locator on high, and place the instrument sensor (the tip) near the window grid, ceiling panel, etc. Listen for a change in the output tone when the circuit is activated by its on/off control.

Searching Near a Fence

Searching in the vicinity of a chain link fence requires a reduced sensitivity setting and also some control over the orientation of the locator. As illustrated in Figure 13, position the locator horizontally, with its long axis perpendicular to the fence. This ensures that the upper sensor is kept away from the fence.

Perform the search by slowly moving the locator forward along the fence while also moving it in to the right and to the left. This technique allows you to search an area several feet wide as you move forward. Listen for an abrupt drop in the signal, (as shown by the null in Figure 14.) that will occur when the lower sensor, located 1-5/8 inches from the end of the locator, is directly over the stake. Any variation in the position of the locator will produce an abrupt rise in the frequency of the signal.

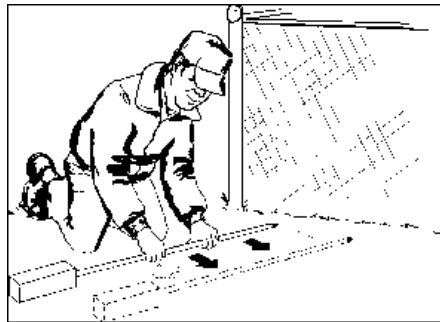


Figure 13

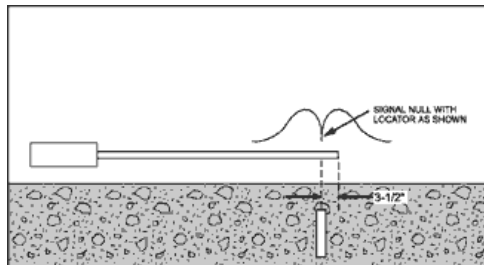


Figure 14

Energized Power Lines

A burbling sound on the GA-52Cx or GA-72Cd indicates the presence of an energized power line.

Determining Target Depth by Triangulation with the MAC-51Bx

The receiver can be used for the traditional triangulation method to determine the approximate depth of a target as illustrated in below. However, when using this method it is necessary to take into account the fact that the center of the cable-sensor is located 11 inches up the receiver tube from the black tip. When the position of the target has been determined by the null, mark the spot (#1) on the ground. Hold the receiver tip on the ground at this spot, slant the instrument at a 45° angle and slowly move directly back, to one side, from the target until a second null is obtained. Now mark a spot (#2) on the ground that is directly below a point 11 inches up the receiver tube from the black tip. Measure the distance between spot #1 and spot #2. This measurement indicates the approximate depth of the target.

NOTE

You should always take a depth reading on both sides of the line. If the measured distances between spots #1 and #2 on both sides of the line are not the same, there is a good chance that a nearby line is causing the two measurements to be different. Move further along the line and repeat the depth reading procedure until the measurements are the same on both sides of the line. Once two very similar measurements are obtained, the calculated depth of the cable will always be within 4 to 6 inches of its actual depth.

