

Vivax vLocPro Fault Finding Procedure

Before Proceeding: Targeted cable/conductor **MUST** be disconnected and isolated from either “end” before accurate fault-locating can occur.

Transmitter

1. Plug in your Red/Black direct connect leads.
 2. Connect **BLACK** lead to the ground stake, placed at a 90 degree right angle or angled slightly behind faulted cable.
 3. Connect **RED** lead to faulted cable (Be sure to ALWAYS follow company safety procedures when working around potential energized conductors).
 4. Turn transmitter ON.
 5. Select a locating frequency, e.g., 8kHz / 33kHz / 65kHz, etc...
- (NOTE: resistance measure mode cannot be accessed in FF mode)

WHEN ENTERING RESISTANCE MEASURING MODE (measuring fault Ω)

6. Press **i** button twice and then HOLD down to enter resistance measure mode (Volts-Resistance will be on the screen). While HOLDING down the **i** button the screen should indicate a dashed-line moving across the display. That is the internal DC circuit now measuring the resistance of the target conductor. Repeat this step to make additional measurements.
- (NOTE: Rule-Of-Thumb - The lower the resistance (~under 200k Ohms) the larger the fault). If cable is good, HI-RESISTANCE may be displayed.

(NOTE: To proceed with fault locating, your RED lead must be attached to the faulted cable/conductor.)

FOR CABLE LOCATING ONLY

7. Press **f** button to select the desired frequency (8kHz, 33kHz or 65kHz)
- NOTE: However proceed to next step for fault locating.**

FOR FAULT LOCATING

8. FF High must be selected for fault locating by pressing the **f** button until FF High is selected on the display. This mode interacts with the A-Frame.

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9. Before proceeding with cable or fault locate: pressing the **UP arrow** button after FF mode is selected will increase the mA (current) improving locate signal.

(NOTE: cable can simultaneously be located during fault locating.)

Receiver/A-Frame

10. Remove protective rubber covers from the bottom spikes of the A-Frame and place the A-Frame firmly into the soil approximately 1-2 feet in front of the ground stake (RED spike facing the ground stake and GREEN spike facing the fault or toward cable path).
11. (**NOTE:** ALWAYS make certain that the RED ● dot on the small connector is facing up when being inserted into the receiver) Plug the A-Frame cable into the A-Frame and carefully insert the other end into the receiver accessory socket.
12. With cable connected, turn Receiver ON and the display will automatically default to the Fault Locate Mode.
13. At this time (with A-Frame inserted in soil 1-2 feet in front of ground stake, Green spike facing away from the ground stake) note that the **GREEN ARROW** is displayed on the screen, facing away from the ground stake and in the direction of the fault.
14. Note the 3-digit dB NUMBER (DB Reading indicates overall intensity of fault.) This number is your "Reference".
15. Before walking the cable path, briefly reverse the direction of the A-Frame, re-insert spikes into the soil and verify that the **RED ARROW** now is being displayed. (this confirms that the fault is being seen and that you are ready to proceed)
16. At this time the user can walk the cable path placing the A-Frame spikes into the soil at regular intervals with the Green spike always facing toward the fault and the Red spike facing back toward the ground stake.
17. As you walk away from the ground stake the dB NUMBER will decrease, as you get closer to the fault, the db NUMBER increases.

(**NOTE:** When fault locating long cable lengths, it is sometimes common for the GREEN and RED arrow to appear confused and not lock in one direction or the other. When this occurs, it simply indicates that the A-Frame is no longer seeing the ground stake and is still not yet close enough to the fault. When this occurs, simply keep walking until the fault is indicated.)

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18. When the fault is indicated, the GREEN arrow on the display should be pointing away from the transmitter, toward the fault, and will reverse to indicate the RED arrow once the fault has been passed.
19. Once the RED arrow indicates that you have passed over the fault, move the A-Frame at small intervals either direction until you locate a position where you can make the arrows change back and forth by moving the A-Frame several inches either direction.
20. At this point the actual fault is located below ground at the center of the A-Frame or exactly between both spikes.
21. NOTE the dB NUMBER. If the number is near what was indicated at the ground stake (within 10dB), then you have successfully located the cable fault or the reason for the outage. IF the number is much lower than what what indicated (>20dB difference), then you should mark this fault and continue walking out the cable to its end. There may be other faults.
22. After the fault has been successfully located, depth of the cable can be determined by pressing the ENTER button (large yellow button on right)
23. While in fault locate mode, pressing the ENTER button converts the locator back to cable LOCATE mode, where the cable can be located and depth of cable can be displayed. Pressing ENTER button again simply returns the locator back to FAULT LOCATE mode.

CAUTION: After the fault has been successfully located, and depth of cable determined, the user should IMMEDIATELY turn OFF the transmitter to remove any voltage from the conductor.

END

