

A-frame User Guide V1.1

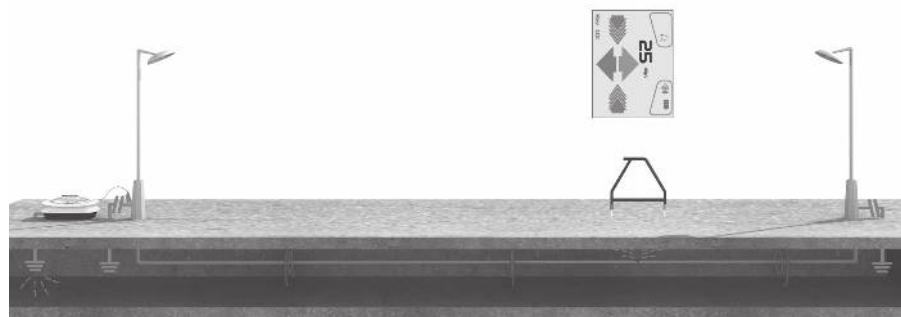
A-frame Introduction



The A-frame accessory is used to detect ground faults on pipes and cables. In the case of pipes, the faults consist of coating defects. In the case of cables, faults are usually caused by insulation damage allowing the metallic sheath (or internal conductor) to become in contact with the ground.

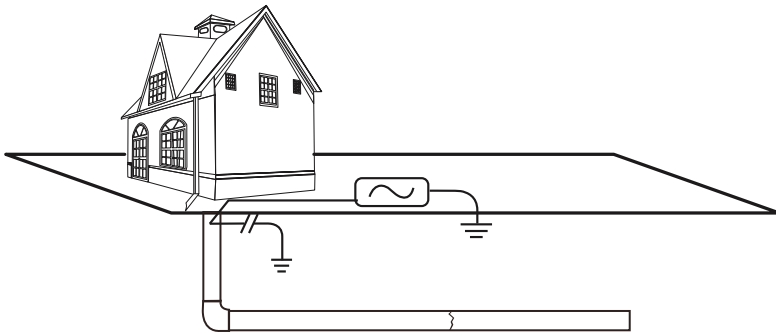
Using the A-frame

To detect a damaged section, the line should be isolated and have all ground bonding removed. This will ensure that the ground fault is not masked by deliberate bonding to ground. The A-frame cannot distinguish between these two situations.



After isolating the line, use the vLocPro2 transmitter resistance measuring function, or a dedicated resistance measuring device to confirm that there is a fault to ground. The A-frame will typically detect faults up to 2 mega ohm and above (depending on the distance from transmitter, soil conditions etc).

1. Connect the transmitter to the target line using the red lead.
 2. A ground stake needs to be pushed into the ground and the black cable clipped to it. Try to place the ground stake as far as possible from the line to be evaluated. This ensures return currents do NOT distort the results.
- Switch on the transmitter and select either FF low or FF high. Use FF high if the line to be surveyed is long or the fault resistance is high.



4. Plug in the A-frame to the receiver accessory socket.
5. When the receiver is switched on, it will automatically default to the A-frame screen.

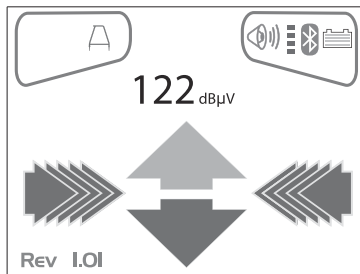
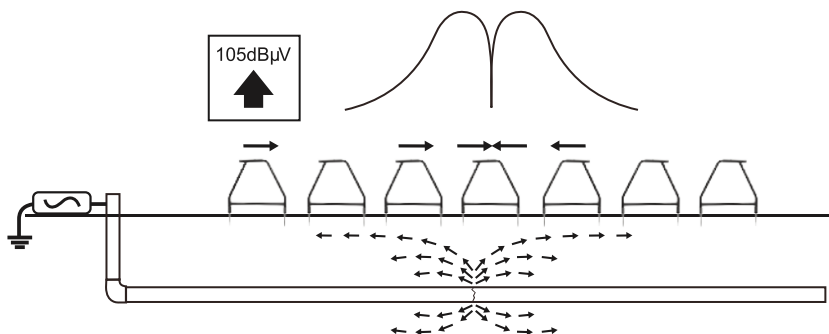


Image for reference only and may differ from actual image

6. Image for reference only and may differ from actual image
7. Remove the plastic spike covers from the A-frame.

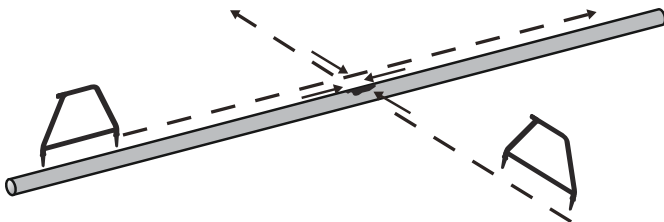
8. Walk along the route of the line placing the spikes of the A-frame in the ground (with the green leg pointing away from the transmitter connection point) every two or three paces.
9. If starting near the transmitter, the Arrow on the display will point away from the ground point. As the distance from the transmitter increases, the dBuV reading will reduce and eventually the arrow will fluctuate or disappear altogether. This is because the fault location is further along the line. If the left/right arrows are activated, use them to ensure the A-frame is positioned over the line and continue placing the A-frame in the ground every two or three paces. If the left/right arrows are not activated use the "M" pushbutton to enter the locate screen allowing the user to confirm the position of the target line.
10. Press the "M" pushbutton again to reenter the A-frame mode.



Eventually the A-frame will detect the fault signal and the "Fault Find" arrow will point forwards. Continue moving forwards, it may be worth reducing the distance between measurements points as the fault is neared.

The dBuV reading will increase as the fault is neared. Maximum reading will be just before and just after the fault. When over the fault, the dBuV reading will drop and the arrow will flip backwards indicating that the position of the fault has been passed.

Carefully place the A-frame before and after the fault to pinpoint the position. Repeating this across the line direction will pinpoint the fault laterally. The fault will be at the point where the lateral fault is identified.



WARNING

Always disconnect or isolate cables before making connections to conductors. Never attach the transmitter to live cables unless authorised. Use the appropriate accessories.



TIP

If it is suspected that there is just one fault. Insert the A-frame approximately one meter from the earth stake. Note the dBuV, this is approximately the maximum dBuV reading that will be measured over the fault.

Disclaimer: Product and accessory specification and availability information is subject to change without prior notice.

Vivax-Metrotech Corp. (Headquarters)
3251 Olcott Street, Santa Clara, CA 95054, USA
Tel: +1-408-734-1400
Fax: +1-408-734-1415
Email: SalesUSA@vxmt.com

Visit us at www.vivax-metrotech to view our full product line and worldwide locations.



Your Local Distributor:

indepth™
UTILITY SOLUTIONS

4310 FM 2218 Rd.
Richmond, TX 77469

Corp: (281) 969-8530

info@indepthUS.com

www.indepthUS.com