

Re: Troubleshooting an open MicroTrack™ cable

Date: February 9, 2017

INTRODUCTION

This technical note will explain where to look for an open on the MicroTrack cable that is also possibly generating a cable fault alarm. The open cable would be validated by doing the resistance check on the cable. With a multi-meter test the cable(s) for proper connections by measuring the resistance at their TNC connector(s). They should be between 51 and 54 ohms.

DESCRIPTION

There are two (2) most likely points that would produce an open MicroTrack cable, the factory splice between the lead-in cable and the MicroTrack sensor cable and the MicroTrack termination at either a MicroTrack In-line Termination Unit (MTI) or MicroTrack Termination Unit (MTT). The cable itself could also be damaged from gophers chewing through the cable or from landscapers cutting through the cable.

With the cable in an open condition, look at the “Clutter” screen in the Installation Service Tool (IST) software. In Figure 1 all is shown is a bump at the very start with the blue line (sensor) outside the red line (fault thresholds) generating a cable fault alarm. This typically indicates an open at the factory splice. There will be no detection on the cable except maybe right near the factory splice.

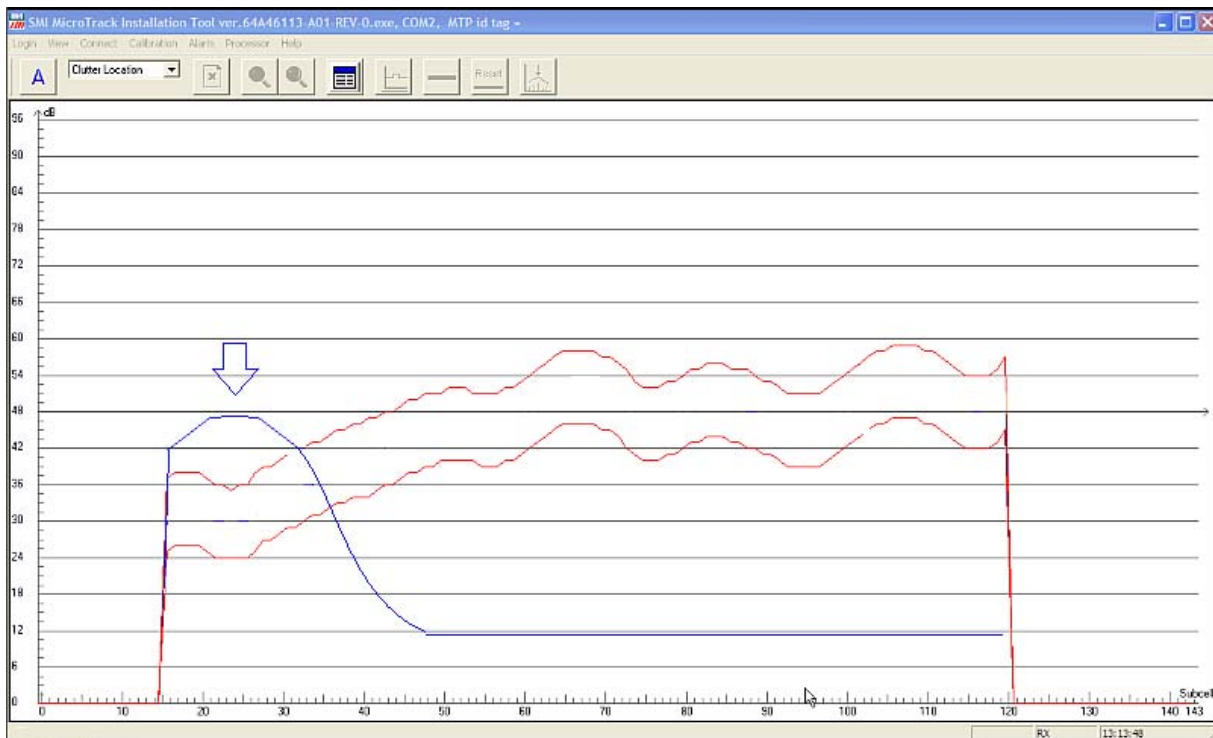


Figure 1

If there is a Clutter profile along the entire length of cable being used and a large bump at the far end of the cable as shown in Figure 2, then the problem is with the termination.



Figure 2

If there is a break in the MicroTrack™ cable itself, as shown in Figure 3, the best way to narrow down where the break resides is to open the IST to the “Target Location” screen, clear the Max Hold, and start walking down the middle of the cables starting at the MTP II. The “Target” will be seen on the screen (blue line) as the walking person moves down the cables. When the break is passed there will no longer be detection. This will put the break to within 16.4 feet (5m) of this location. *Note: Detection will start dropping rapidly at the break and be zero after about 10 to 16.4 feet (3 to 5m) so the break is where the sudden drop in signal starts.*

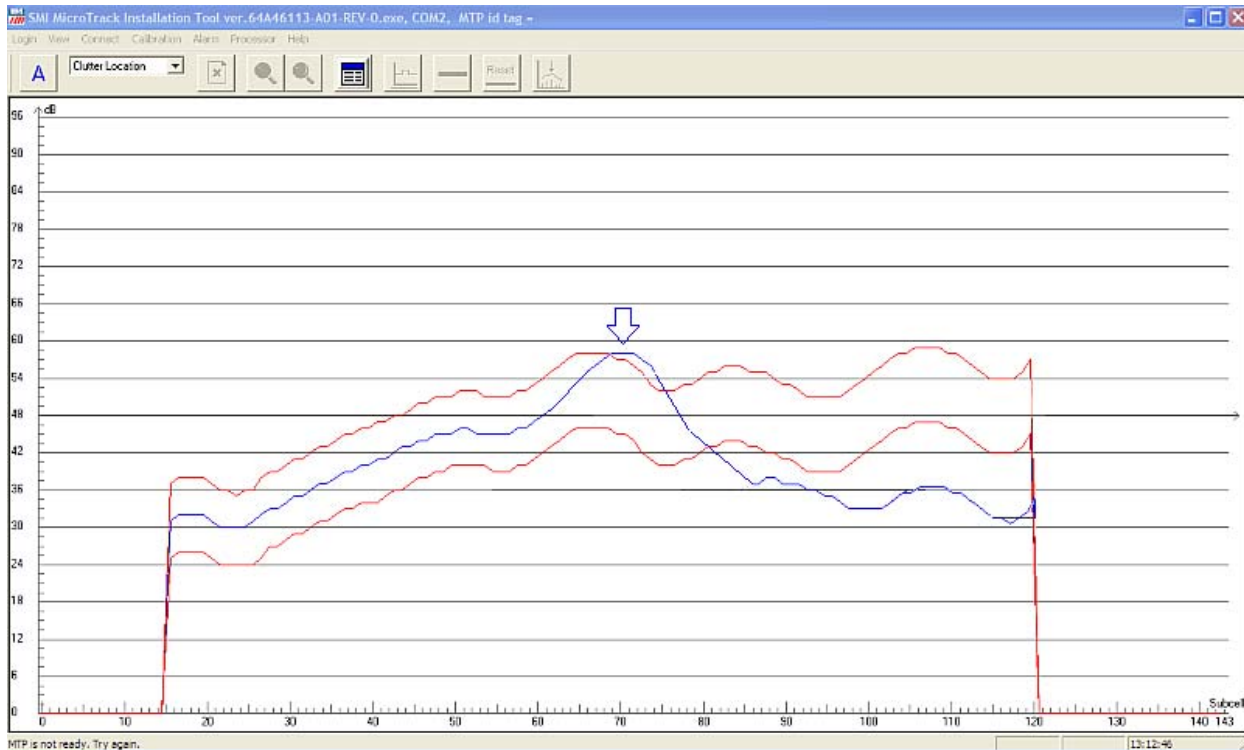


Figure 3