

Handy Inductance Loop Troubleshooting Guide

Loop Fault Conditions

Some loop detector modules continually check the integrity of the loops and will report and store certain types of loop faults such as: Open Loops, Shorted Loops, and 25% sudden changes in inductance.

If a fault is detected, the loop modules will provide visual indication of a problem such as indicators which continuously emit a sequence of flashes. Each type of fault is identified by a different flash sequence. Often times pressing a "RESET" button will reset the detector and clear the flash sequence. If power is lost, for any length of time, the detector will usually lose the loop condition status.



Troubleshooting

Symptom	Possible Causes	Solution
Detector detects even if no vehicle is present	Cross-talking with other loops	Measure the loop frequencies of all neighbored loops and spread accordingly
	Loop moves when heavy vehicle crosses the loop	Check the installation and, if necessary, redo it
	The loop might be damaged short	Check if loop detector indicates loop fault, measure the resistance and/or inductance of the loop
Intermittent loop errors during rain	Loop insulation is damaged	Measure the loop resistance
Certain vehicles are not detected	The loop sensitivity is too small	Increase the loop sensitivity Replace Dipole loop with Quadrupole Loop
	Cross-talking with other loops	Measure the loop frequencies of all neighbored loops and spread accordingly
Vehicles that shouldn't be detected are being detected	The loop detector sensitivity is adjusted too high	Measure the relative frequency change with different types of vehicles and adjust the sensitivity accordingly. Attention: Do not adjust the sensitivity too low, otherwise some vehicles will not be detected which should be detected
Loop detector does not detect loop	Cross-talking with other loops	Measure the loop frequencies of all neighbored loops and spread accordingly
	Loop is damaged, i.e. short or disconnected	Check if loop detector indicates loop fault, measure the resistance and/or inductivity of the loop
	Defective loop detector	Replace detector