

LOOP PAD GL-SM8 TROUBLE SHOOTING AND INSTALATION TIPS.

Most problems are due to the cable and not the pad itself.

The cable can be lengthened by splicing more cable on. It is suggested to use the same type cable or a weatherproof, shielded single pair cable. The pair **MUST** be twisted at least once every 8 inches along the cord or whatever wires extend the cable all the way to the detector. All splices should be soldered and sealed against moisture. (See: Extending Cable in the Manual)

Extending Cable

The maximum cord length is 200 feet. If splicing has to be done it is recommended to solder the connections and seal them from moisture. Any added wire should be #18 or #16 AWG and the 2 sensor wires need to be twisted every 8 inches minimum. It is better to have tighter twists if possible. Consider this like a communications extension. The cable should be cut so that very little extra is in the run. **If extra is left for maintenance reasons it is best to ‘Zig Zag’ the extra cable in an accordion type bundle. Do Not Roll The Extra Cable Into a Ring.** This may create a 2nd loop and cause the GL-SM8-B to become unstable and send ghost signals. See the Manual on this illustration.

The correct installation of the GL-SM8-B is critical to the performance and life of the unit. We **do not** recommend mounting the pad on steel grating or, over any metal surfaces. This will cause the range of the field to be decreased; thus the pad loses its full-advertised range. We recommend replacing the steel grating that the pad would sit on with either a fiberglass grate or a piece of ¾” piece of pressure treated plywood reinforced with 2 X 4 pressure treated lumber. You do not have to replace the entire grating in the tunnel just the piece the pad will be sitting on.

Mounting

The GL-SM8-B **must** be mounted as securely as possible. Make sure to use all the predrilled holes for mounting whether it is mounted on concrete or over the pit on top of plastic grating or a wood deck. If there is any flex after mounting the pad could give false activation if stepped on or in the case of being close to a blower flexed by the air. We recommend that the pad be placed so the center of the vehicle passes over it, and that the tire doesn’t run over the pad. This may decrease the life of the pad from frictional wear. Do Not drill any extra mounting holes! You may hit the windings and ruin the pad!

If the pad is mounted over the pit there are a couple of things that need to be done. First, we do not recommend mounting over steel grating. It isn’t that it will not work but it affects the range of the pad. It will noticeably decrease the distance the pad can pick up. Secondly, **if you have steel channel running around the outside edge of the pit it is important to cut a 2” section out of it.** This does not allow the pad to make the entire conveyor pit into one big loop. If the section is not cut out false activation may occur. See the Manual on this illustration.

Testing:

The Pad if Ohm meter is used should read about 100ohms + or – 10% and none of the lead wires should read to the ground wire. Digital meters may just read 0.0 or no ohms. This does not mean the pad is 'bad'.

The fastest way to determine where to look if you are having a problem between the Sensor (loop) or a Detector (amplifier) is to replace the Sensor with a Home Made Loop (HML) or if available another Sensor/Detector.

To make a Home Made loop you will just need about 30' of #14 or #16 AWG Stranded wire. Wind this up in a ring about 12" in diameter. Leave about 1' of lead cable to hook into the control box (to the amplifier). You can use tape to hold the ring together and remember to Twist the lead wires going to the ring. This HML will work just like a regular loop sensor only will have limited range. The Detector should be able to use this HML to pick up a soda can or any metal at least 3" x 3" or bigger.

If this works correctly the problem is most likely with the Sensor (loop). If it does not then the problem would be in the Detector (commonly) or the Control Box (rarely). Most Detectors last at least up to 5 years. After that, they are prone to failures due to age, wear and surges. Loop Sensors normally last twice as long as the detectors. They have no moving parts or electronics in them to wear out. Most of these fail due to physical damage from impact, rubbing, or corrosion. 8 out of 10 times it is the cord itself that is damaged or worn.

A properly working system should see about 24" with a large steel panel 15" x 15". No skipping on trucks and should not activate when someone walks over it. Unless they are wearing steel toed shoes.

Some **High Pressure Hoses** have steel braiding in them that can disrupt the field and make the loop unstable. Avoid dragging such lines over the pad. This problem normally shows up in entrance applications. Be aware of what the employees are doing. Some problems are found to be generated by a board employee.

Issues with sticking on after the vehicle leave the pad

It is Very rare that ANY Loop will cause this problem. Most of the time when a Loop goes bad it will Fault the detector (shows as loop being bad) or will come on right away after reset with or without a vehicle in the loop. Most of these are due to something interfering with the Detector (amplifier). If you have more then one make sure the Detectors are on different frequencies. If they are set the same they can cross talk and become unstable. Something else in the area might do the same. Try changing the detector frequency.

Assuming the system checks out but still does it from time to time might be from high surge(s) on the supply line. Voltage spikes can cause this problem and a simple surge suppressor on the incoming 110vac line may be needed. Most of the Goodlin Systems have suppressors on the circuit board. As with any electrical units, make sure they have a proper ground to the ground terminal.