

June 29, 2005

Re: Operational description for

**Alert Metalguard ElectroMet 3.3-1**

**FCC ID: S8OMDET3380**

**IC ID: 5849A-MDET3380**

This system is a metal detection system used in retail shops detecting foil-lined bags known as "Booster Bags"

3 antennas (1-2-3) are installed next to each other with a distance of 160cm in between.  
This represents 2 gates.

These gates can be installed at the entrance, at the exits or inside the shop.  
Each antenna consist worst case of a coil of one winding with the size of 150cm x 30cm.  
All antenna coils are positioned in parallel.

Antenna 1 is a transmitter antenna and is connected to TX1

Antenna 2 is a receiver antenna and is connected to RX1

Antenna 3 is a transmitter antenna and is connected to TX2

When a booster bag, (a foil-lined bag), is passing through the gates, the results is that the receiving signal is reduced a little bit. This is detected in the Metal adj. module and the alarm module is activated, and two pairs of dry relay contacts closes.

When a trolley is passing through the gates, the results is that the receiving signal is reduced a lot. This is detected in the Trolley adj. module and the alarm is blocked.

When people are bumping into the antennas, the results is that the receiving signal vary a little bit. This is detected in the Move adj. module and the alarm is blocked.

An additional electronic box can be connected as a slave box and is synchronized by TX sync signals.

A trolley passing through the slave gates can create false alarms in the master system.  
The trolley sync signal from the slave box then blocks the alarm in the master electronic box.