

Knogo North America  
8MHz Wrap Desk Deactivator  
Installation Procedure

### **1.0 System Description.**

The 8MHz Wrap Desk Deactivator is an accessory normally used with the P and T series RF detection systems. The P and T series detection systems provide the ability to detect small parallel LC resonant circuit tags in a zone of up to 6 feet between the receiver and transmitter antenna. The system is normally installed at the exit doorway to the store. The Wrap Desk is normally installed at the point of sale register and detects the same tags on the merchandise at a much smaller range. Sales personnel can then be made aware of concealed tags on merchandise that is being rung-up at the register. This prevents embarrassing alarms on paying customers if they were to exit the store with tagged merchandise. It also has the capability to deactivate small disposable tags. Deactivation is accomplished by inducing enough voltage into the tag so as to exceed the breakdown voltage of the tuning capacitor resulting in a short circuit that turns the tag off.

The transmit signal from the system is a sequence of RF bursts between 7.5MHz, and 8.9MHz. This signal is amplified and low pass filtered before it is fed to the transceiver antenna loop. During the transmit burst, if a tag is placed close to the antenna it will absorb energy from the field. After each burst, there is a delay which allows the transmitter output to decay.

The receiver processes the remaining signal on the antenna which is the energy released by the tag. The signal is detected and is fed to a sample and hold circuit. If the tag has the correct signature, the alarm is sounded.

## 2.0 System Installation.

### **2.1 Unpacking and Inspection.**

The unit is shipped in a single box containing the following items:

Main Chassis

16.5VAC wall plug-in transformer

Antenna pad

Installation Manual

### **2.2 Power Connection.**

The supplied 16.5VAC wall plug-in transformer has a low voltage line cord terminated with a power plug and the antenna pad with a pluggable terminal block. Simply plug the line cord and antenna pad into the chassis and the transformer into a nearby 120VAC outlet. For best performance, route the power cable directly away from the unit. Do not coil or bundle the power cable near the unit. If excess cable length is available it may be coiled or tied near the power transformer.

### **2.3 System Placement**

Proper placement of the system is important due to the effect that nearby tags and metallic objects may have on performance. Two important points govern installation:

- 1: Try to eliminate metallic objects under and in the immediate area surrounding the unit.
- 2: Tag detection below the system is equal to that above. As a general rule try to maintain at least 4" of clearance below the unit to metallic objects and approximately 5" horizontally. Small objects such as nails, screws and fittings that might be found in non-metallic counter surfaces do not present a problem and need not be considered

Proximity of tags to the system is critical. Normal detection range is 12" to 18" vertically. The bin used to hold removed tags should be as far as practical from the system. A metallic container will provide a good degree of sheilding. A foil lining on a non-metallic container is also very useful.

If any difficulty is encountered move the unit to a location well free of tags and metallic objects and retest. Be sure to hold the tag by the ends with the tips of your fingers, well away from the palm.

### **2.4 Adjustments**

There are no system adjustments.

If 2 or more units interfere with each other, the user must select a different phase for each unit via the switch located on the front panel. There are 16 phases to choose from.

## 3.0 Specifications.

Agency Approvals: FCC ID#: J3Q8/2MWDD

Industry Canada:

ETL:

CETL:

Power Requirements: 115VAC 60Hz 0.5A max

Physical Size: Main Chassis: 8" L X 5.25" W X 2" H

Power Supply: 16.5VAC, 650mA max.

Weight: Complete System: 2 lbs.

Operating Temperature Range: 0 to 50 degrees C

Indicators: Audible Piezo beeper on Tag detect, Power LED

Antenna: 9.75" L X 8.25" W X 0.375" H