



## **Dual Deactivator DD1**



**For Service or Support contact us at 1-877-537-4002 or e-mail at  
[info@detectag.com](mailto:info@detectag.com)**

## FCC NOTICES:

**Warning:** Changes or modifications not expressly approved by DetecTag Inc. could void the user's authority to operate the equipment.

### INFORMATION TO THE USER

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the Instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**NOTE:** This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interferences that may cause undesired operation.

### INDUSTRY CANADA NOTICE

IC: 9204A-DD1

*Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

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## Foreword & Notice

This product is intended to be installed by a licensed professional in a commercial environment. It is not intended for general public usage or installation. This is due to requirements of opening the unit to tune the deactivator to the specified antenna.

## Basic Installation.

The DD1 Dual Deactivator is a self contained unit requiring only power and deactivation pads to be connected.



The Dual Deactivator Electronics is housed in an easy to mount casing. At the front there is an LED indicating power. In the rear there is the power connection and two connections for deactivation pads.

- 1) Find the appropriate spot in which you want the deactivation pad to be located. If you are using a counter-top pad place it where it's easy to get to by employees but hard to access if a potential shoplifter wants to deactivate merchandise. If it is an under-mount pad used for non-metallic counters, then the pad can be placed under the table using tape or screws.



Table top deactivation pad on the left and two versions of an under-mount pad on the right.

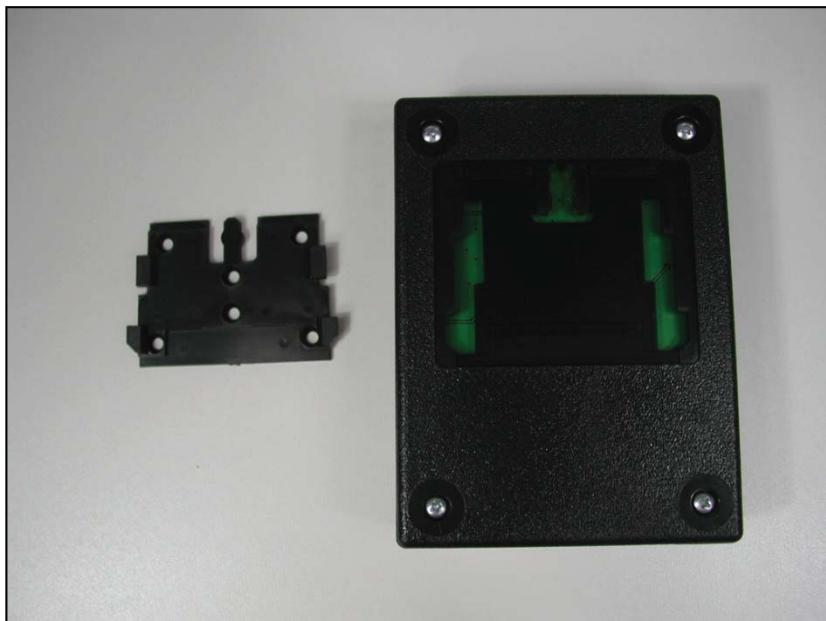
- 2) Once the pad is in place, run the wire down to where you want the Dual Deactivator DD1 to be located and make sure the wire to the pad reaches it.
- 3) Disconnect the plastic mounting bracket on the back of the deactivator by pressing downward on the clip until it releases. Mount the bracket to the wall using either the supplied screws or heavy duty double sided tape. Attach the deactivator back onto the bracket so it is secure.



Slide the mounting bracket down

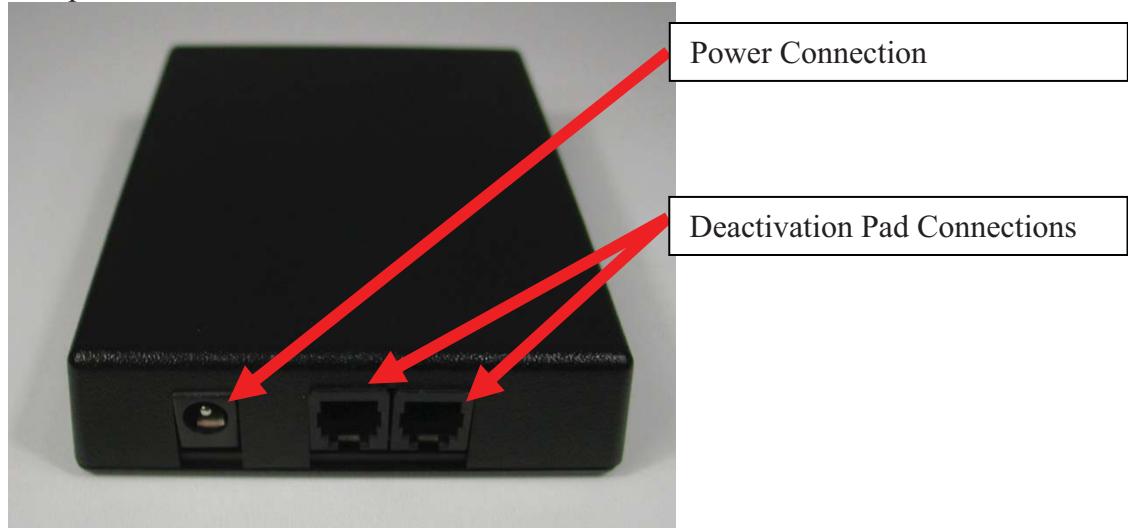


Until it clicks away from the cabinet.



You can now mount the bracket using screws or double sided tape and slide the deactivator cabinet back on the bracket.

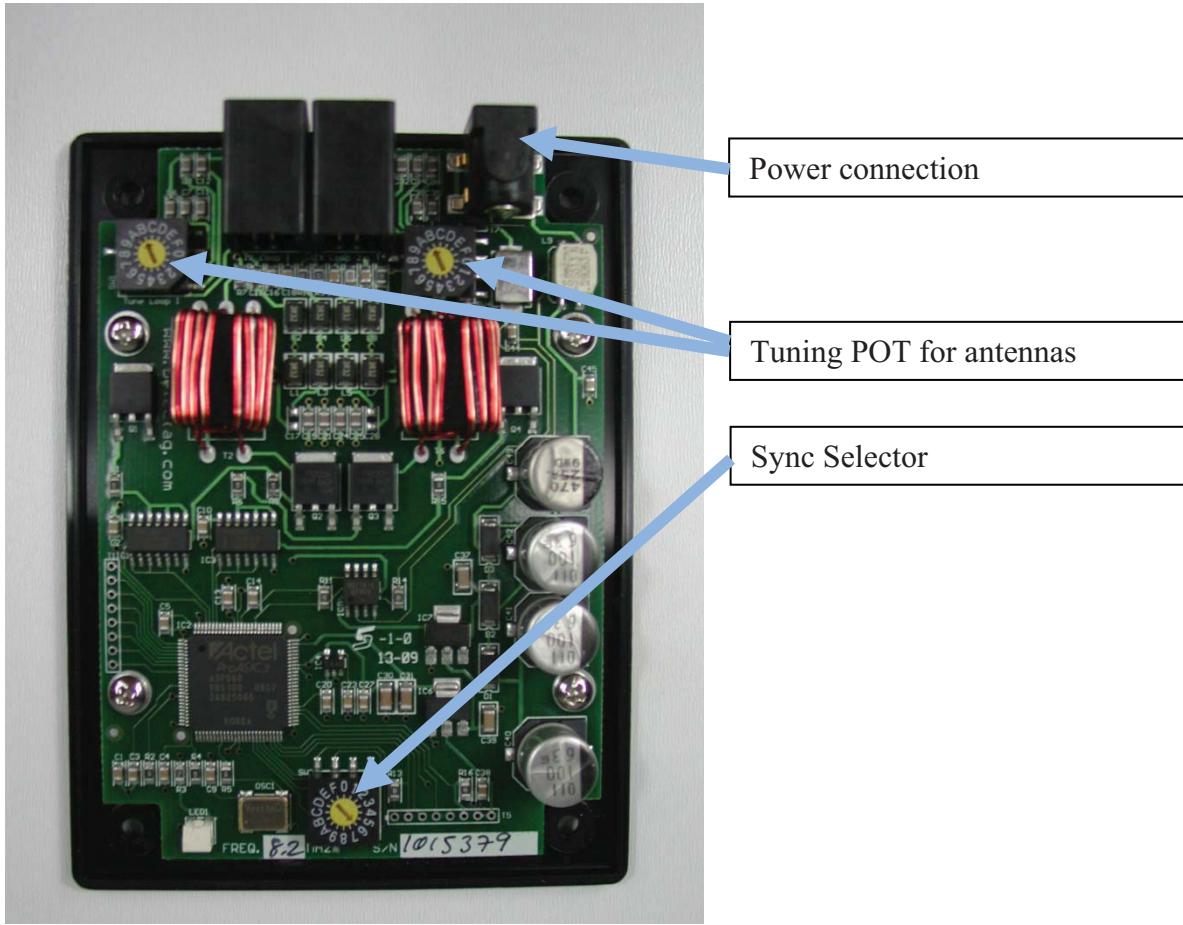
- 4) Plug in the pad into either port on the back of the deactivator. You can connect two pads this way. It doesn't matter which port the pad is connected to as they both provide the same function.



## **Warranty:**

The DD1 Comes with a standard 3 year warranty from manufacture defects. If the unit should malfunction please contact us for repair / replacement options.

# Technical Manual for Dual Deactivator DD1:



## Power supply:

The power supply for the deactivate is a 12V AC transformer. The current consumption is less than 200mA

When the power supply is connected to the deactivate the green power LED will light up

## Synchronizing using Sync Selector

The 50Hz or 60Hz from the power supply is used to synchronize deactivate and EAS antennas. The 50Hz signal is divided into 12 time windows. With the 16position switch marked SYNC it can be selected which one of the time windows that should be used. EAS antennas needs to be synchronized to different time windows, but deactivate can all use the same time window as there are no receivers in the deactivate. Setting the sync selector switch to the same number on all the deactivate gives more time windows to EAS antennas. As a default it is set to position 6.

The switch position 0 to B can be used.

The switch positions D, E and F are for tuning the antenna. In position D, the deactivate works at the lowest frequency of the sweep range, for 8.2MHz deactivate that means

7.7MHz, switch position E is the center frequency (8.2MHz) and switch position F is the highest frequency (8.7MHz)

When tuning the antenna set the switch to position E for the center frequency and tune to max antenna voltage, after the tuning the switch must be set to one of the 0 to B positions to sweep over the frequency range. To tune the antenna use the 16 pos switch next to the appropriate antenna connection.

### **Antenna connection:**

The antenna is connected with a standard 4 conductor telephone cable; a standard 4 pole RJ-11 modular plug is crimped to the cable. The 2 first conductors are connected in parallel to one side of the antenna and the last 2 conductors to the other side of the antenna.

The antenna can be a simple wire loop based antenna or an antenna PC board with a broad trace on the board forms the antenna loop. If using your own wire-loop it's important that the deactivator is tuned for this antenna.

### **Antenna Tuning.**

Different values of tuning capacitors can be selected with the 16 position switch SW3. With the SYNC switch set to the center frequency, turn the switch through its different positions and stop where you have the highest antenna voltage. The voltage can be measured with an oscilloscope where a small loop is formed with the probe and placed on top of the antenna. The oscilloscope is not connected directly to the PC board.

Another method is acquiring a tuning coil from us with an LED which lights up when receiving a deactivation signal. This allows you to see which position gives the best range.

With a transmitter frequency sweeping over a 1MHz wide frequency range it is impossible to have a perfectly tuned antenna to all frequencies, if after tuning the antenna for the center frequency you switch the SYNC switch to the highest or lowest frequency, you will notice that the antenna is not perfectly tuned for these frequencies, tuning to the center frequency gives the best deactivation overall.

**NOTE:** This device is a Carrier Hopped Anti-Pilferage Swept System and its Carrier doesn't hope on discrete frequencies of FCC/IC Restricted Bands as per Sec 15.205